

FEDCO TREES 2025

Welcome to Fedco Trees's 41st annual tree order!

Our goal is to provide the hardiest and healthiest plants available for cold climates, while supporting plant diversity, small-scale local agriculture, and a fair, cooperative and responsible workplace. We are a division of Fedco Seeds Inc, a small consumer/worker-owned cooperative founded in 1978. Consider joining our co-op (see page 35) or applying for employment with us!

Order by March 7 for best selection and priority shipping. All orders are shipped in spring. Orders totaling \$1,200 or more qualify for 10% off across all Fedco product lines. If you are member, you receive an additional 5% off. Get together with friends or neighbors to place one big order for more savings.

Every year, we vary our plant selections. We contract with dozens of growers, and the bulk of our supply is grown locally on small diversified farms in Maine and the Northeast. Nearly all of our fruit trees and many of our shrubs are grown by organic standards and tended by hand, and many of our crops are cultivated with horses. Look for the organic label on perennials that are certified organic.

If you haven't already, check out our Seeds & Supplies and Bulbs for Fall Planting catalogs.

fedcoseeds.com/trees

What's so great about Fedco?

- Our mission is to repopulate the world with plants and to foster a resilient food system!
- Our workspace is no-frills; we value fair pricing and livable wages.
- Our wage ratio is 3:1, with no CEO at the top.
- We distribute any profits among all co-op members and to kindred community efforts.
- We don't sell genetically engineered seeds or plants.
- Our Seeds division works hard to keep veggie seeds in the Commons and away from corporate control.
- We don't use grody marketing gimmicks or foundationless superlatives to sell our products.
- No part of our catalog is written by A.I. We are humans!

• We welcome YOU as you ARE.



Tidy rows and groupings of plants look good on paper, but life happens in the landscape—lots of life if you tend the soil and ditch the chemicals. And as we all know, life can be messy! The plants begin to roam and mingle. Wind and birds deposit seeds where we wouldn't have thought to plant them. Trees and shrubs bend and torque in response to light and wind. Insects chew on leaves, birds eat your cherries, milkweed pops up where you planted a rose. Is this an invitation to relax into the unexpected? What might seem like chaos could also be perceived as wild beauty. We can choose to worry, wrestle and interrupt. Or we can pause, observe, embrace and participate.

We live in a society that conditions us to perfection and prods us to freak out so we will seek more products and experts to pave the path toward an ideal that will free us. Consider it an act of resistance to grow a garden without fretting over every spot on a fruit and every hole in a leaf. Pluck weeds, but leave a few volunteer wildflowers to mingle among the cultivated ones. Let the plants participate in finding their own order. What will unfold is a diverse garden that hosts all kinds of bees, birds, insects, snakes, toads and amazement.

When we allow this kind of mingling, disease and pest pressure lessens, and the blemishes don't stand out so much. We need green things in our lives for food and beauty. We need diversity, too, for learning, delight and to foster a rich, healthy ecosystem both on the land and in our minds.

Looking back at 2024: We bid farewell to two longtime Trees workers. Laura Childs, who curated our perennials line for the last fifteen years, is shifting gears to curate Fedco's art department. She remains our on-call herbaceous expert. Also, we extend our gratitude to Elizabeth Smedberg for steadfastly guiding our warehouse operations through rapid growth in the last decade. Everyone who has ever worked here —whether for a few weeks or for decades — remains part of our story. Their contributions shape who we are today.

What's new? We are the excited recipients of a Thrive grant, which we are using to make much-needed improvements to our tree storage facility and to fund the installation of refrigeration that will be hooked up to our solar array. This will allow us to keep plants fully dormant longer. After 40 years of relying on increasingly unreliable cold winters to cool our shop, we had to say *uncle*. We're also rolling out new software to sync up our systems and provide you with better service. Our old system from the early '90s is dying. We ask for your patience while we work out the bugs.

Keep an eye out for an in-person **Surplus Sale** in later May if we have leftovers. Come say *hi* to us at the various events we will attend over the winter (check website for details). Look for more varieties online as we harvest our crops and make final inventory decisions.

As always, we welcome your comments. Got a good plant story? Send it to us. If we print it with your permission, we'll send you a gift certificate.

 Jen Ries and the Fedco Trees team



John Bunker, Laura Childs, Jacob Mentlik and Jen Ries wrote plant descriptions. Elisabeth Benjamin edited with help from Joanna Linden and Emily Skrobis. Laura Childs and Alicia Letteney did the layout.

Fedco Trees Guarantee Policy

We guarantee to ship you a plant that is healthy, will leaf out, and is true to name. Because we have no control over growing conditions such as weather, soil, cultural practices, pests, wildlife, or weed whackers, we cannot guarantee a plant's survival past leaf break. If you have thoroughly cared for the plant and it does not leaf out by July 31, we will issue a refund or gift certificate credit. We cannot offer replacements. We do not guarantee plants that are potted by you, except for perennials, which are the only plants we recommend for temporary potting. We are not responsible for the quality of plant material in the event your package is not promptly opened. For scionwood or rootstock orders, we do not issue refunds or replacements based on diameter of wood. We do not guarantee the survival of your grafts, the caliper or rootstock you receive or that rootstock will be fully dormant upon arrival

We do not guarantee the survival of your grafts, the caliper or root size of the stock you receive or that rootstock will be fully dormant upon arrival.

We limit our liability in all instances to the purchase price. The liability of Fedco Seeds, Inc., for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

Claims for errors in your order must be presented within 30 days of receipt of your order. Claims for any product defects should be presented as soon as possible after discovery and must be made no later than July 31 of the year the plant was received. Failure to assert claims within the aforementioned time frames renders this warranty null and void.

Order by Friday Monda 7, 2025

Order by Friday, March 7, 2025

for best selection and priority spring shipment. Final order deadline: Mid-spring, when we run out of stock!

Scionwood deadline: Feb. 21, 2025. Online only, see page 26.

New for 2025

(or back after a long absence!)

- New Fruits, Berries, Grapes & Hops!
- New Blueberries & Saskatoons!
- New Cane Fruits (some thornless)!
- New Kiwiberries online only!
- L'Acadie Blanc Grape!
- Sycamore!
- Hawthorn!
- Flowering Raspberry!
- Millennium Asparagus!
- Red Hot Poker!
- Ranunculus!
- New Roses!
- New Heathers and Ericas!
- New Daylilies, Irises, Lilies, Peonies!
 - More Native Plants!

Ordering Instructions, see page 36.

- Order online at fedcoseeds.com/trees. You can also check product availability and see color photos of most of our trees, shrubs and perennials.
- We no longer offer order pickups, but Maine customers pay only \$10 or \$25 flat-rate shipping!

Indigenous Royalties

Fedco will donate 10% of sales on varieties bearing Native American names to Nibezun, a Wabanaki project in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community. For more about Indigenous Royalties, see page 24.

FERCO-TREES

Where is everything?

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Our Variety Descriptions –

- All trees and plants are bare-rooted (except where noted). Because of the nature of dealing with living commodities, size variations will naturally occur within each crop.
- For fruit trees and berries, the **exact dates of peak ripeness** will vary from place to place.
- The zone hardiness rating will aid you in determining whether a plant will be hardy for you. The average minimum temperature in your area determines your zone (chart on p. 71). All plant descriptions list the coldest hardiness zone. Your own soil conditions, microclimate and topography will be equally important in determining the best varieties for you.
- Please note pollination requirements for fruits, nuts and berries.
 Some plants are self-pollinating, others require a second plant for pollination, and others require a second variety.
- We strive to give you accurate information about all the plants we sell. If you notice inaccuracies, please let us know.

Abbreviations:

ME Grown = grown in Maine at one of our small local nurseries.

PPA = Plant Patent Act.



PICK THE RIGHT APPLE!

3				42	744				
		NAH	1	All-	Fresh	m	A.		High
12 11200		Apple Variety	Season	Purpose	Eating	Storage	Cooking	Pies	Flavor
	7203	Ashmead's Kernel	winter		•	•			•
	7204 7205	Baldwin Belle de Boskoop	winter	•	•	•	•	•	•
	7206	Black Oxford	winter winter	•	•	•	•	•	•
	7207	Blue Pearmain	fall	•	•	•	•	•	
	7209	Brock	fall	•	•	•	•		•
		Burgundy	fall		•		•		•
	7211 7212	Calville Blanc d'Hiver Canadian Strawberry	winter fall	•	•	•	•	•	•
	7213	Chenango Strawberry	summer		•		•		
	7214	Cherryfield	winter	•	•	•	•	•	•
Comment of the second second	7215	Chestnut	fall		•		•		•
		Cortland	fall	•	•	•	•	•	
		Court Pendu Plat	fall		•	•			•
	7219 7222	Cox's Orange Pippin Duchess of Oldenburg	fall summer	•	•		•	•	•
	7223	Enterprise	winter		•	•			•
	7224	Esopus Spitzenburg	winter	•	•	•	•		•
	7225	Fameuse	fall	•	•		•		
	7226	Frostbite	fall		•	•			•
	7229	Golden Russet	winter		•	•			•
	7231	GoldRush	winter		•	•			•
	7232 7233	Granny Smith Gravenstein	fall	•	•	•	•	•	•
	7234	Gravenstein Gray Pearmain	summer winter	•	•	•	•		•
	7235	Grimes Golden	fall	•	•	•	•	•	•
	7236	Haralson	winter	•		•	•	•	
60,000	7238	Honeycrisp	winter		•	•			•
	7239	Hudson's Golden Gem	fall		•	•			•
	7241	I-95	fall	_	•	•			_
	7243 7244	Keepsake Kerr Crabapple	winter	•	•	•	•		•
	7244	King David	summer fall	•	•	•	•	•	•
	7245	Liberty	fall	•	•		•		
	7248	Macoun	fall		•				•
	7250	McIntosh	fall	•	•		•		
	7252	Mutsu	winter	•	•	•	•		•
	7254	Northern Spy	winter	•	•	•	•	•	•
	7257 7259	Pewaukee Pipsqueak	winter fall		•	•	•		•
	7260	Prima Prima	fall		•	+	-		-
	7261	Pristine	summer		•		•		•
A 10"		Red Astrachan	summer				•	•	
	7264	Redfield	fall				•	•	
	7266	Rhode Island Greening	fall	•	•	•	•	•	
			fall	•	•	•	•		•
	7268 7269	Roxbury Russet Scott's Winter	winter winter	•	•	•	•	•	•
	7270	Scout	fall		•	<u> </u>			•
	7271	Starkey	fall		•	•			•
The state of the s	7273	Sweet Sixteen	fall	•	•	•	•	•	•
	7274	Tolman Sweet	fall	•	•	•	•		
	7275	Trailman	summer		•				•
Configuration of the Configura		Transcendent Crab	summer				•		
		Wealthy Wickson	fall fall	•	•	•	•	•	•
	7279	Williams Pride	summer		•		•		•
	7281	Winekist	summer	•	•		•		•
CARL BUT BUT BUT BUT	7282	Winter Banana	winter		•	•	•		
Acres of the Party	7283	Wolf River	fall				•	•	
	7285	Zabergau Reinette	winter	•	•	•	•		•
4 questions@fedcoseeds.com		Zestar	summer		•	1			•

Choosing the right apple

Summer apples ripen in summer, are generally firm only for a short period, do not store well, and are often best for cooking.

Fall apples store longer and are useful for a wide variety of purposes.

Winter apples ripen mid to late fall, store well, and reach their best flavor after weeks, or even months, of storage.

Dessert apples are delicious eaten raw.

Cider apples are especially suited to making fermented "hard" cider. Some cider apples are also good dessert fruit, but most are not. Find cider apples and crabapples on pages 16-18.

Subacid means tart!

Russet is a skin texture (fairly common on apple varieties and on a few pears and potatoes) that looks and feels somewhat like suede.

Bloom is a naturally occurring dust-like yeast film on the skin of some varieties of apples, plums, grapes and blueberries.

Choosing a variety: Not every variety may be right for you. All-purpose apples are just that—they're good for a bunch of jobs. If you're planting just one tree, perhaps start there. However, if you're a history buff, consider the historical varieties and maybe plant one that originated nearby. If you don't eat many apples fresh but love pies, go for the pie apples. If you're a dessert connoisseur, skip all the others and go for the highly flavored dessert varieties. Some are strictly for cider. Some are great to put out at the camp for summer use. Some are perfect for those who want fall fruit but don't have a root cellar. Others keep all winter and into the following summer. Read the descriptions and consult the chart. If you have a question about a specific variety, drop us an email: questions@fedcoseeds.com. We'll try to help!

Varieties that bear fruit annually are noted in the descriptions; others are biennial, usually bearing every other year. However with diligent annual pruning and thinning, most trees will produce an annual crop, heavy one year, light the next.

Hardiness zone: The USDA plant zone hardiness map (see page 71 for chart) is a guide designed to assist gardeners and orchardists in choosing suitable plants. The zones are based on the average annual minimum winter temperature. The lower the temperature, the lower the zone rating number, and the "hardier" the plant. Zone 3 is about as cold as it gets in any part of New York and New England. Most of northern New York, Vermont, New Hampshire and Maine would all be Zone 3. The central part of the four states would be Zone 4. The southern half of each state would be Zone 5 or 6. This can vary from site to site depending on elevation, proximity to the coast and other microclimatic factors.

When choosing apple varieties, note the zone rating at the end of each description. If an apple has a Z3 rating, you will be able to grow it successfully in the coldest locations in Maine, as well as two or three zones "south." In other words, if the rating is Z3, it may be in its prime in Z3, but should do well down to Z5 or 6. Typically, it will not perform well outside of that approximate range. Note that hardiness works both ways: you can't grow mangoes in Maine, and you can't grow most apples in Florida.

Bloom times: Early season, midseason, late season bloomers—should you be in a tizzy about pollination? No. If there is at least one other apple tree somewhere in your neighborhood, the bees will do their thing, and you'll get fruit. It can be a wild roadside apple tree. It can be an ornamental crab. It can be old or young, in your yard or your neighbor's. But it must be different from yours. In other words, avoid planting ten Honeycrisps if no other apples are in sight.

Most apples flower at about the same time, so timing is almost never an issue. However, if you live on a desert island with only an early bloomer and a late bloomer, you should plant a midseason bloomer, too.

Choosing a rootstock

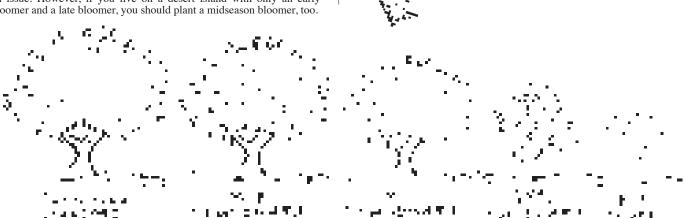
Rootstock determines the size, longevity, hardiness and growth habits of a tree. After enthusiastic response from customers, we continue to offer an assortment of dwarf and semi-dwarf rootstocks in addition to the standard.

results. (Trees on standard stock are shipped at 3-6'.)

We offer bundles of rootstock for grafting on page 27. Standard rootstock: Most of the apples we offer are on standard full-sized Antonovka rootstock (and occasionally another full-sized rootstock). Standard trees have deep, substantial—and therefore hardier—root systems. By selecting the varieties appropriate to your district, grafted on standard rootstock, you may well be planting a tree that will be picked by your grandchildren's grandchildren. Standard trees will grow to be large, but you can manage the size with pruning. The largest trees in our orchards are now about 30 years old, yet the tallest are well under 20' due to careful pruning. Although standard-sized apple trees may be planted as close as 10–15' apart, they were typically planted 30' apart in 19th-c. orchards. We generally plant standard trees 20–25' apart with good

Semi-dwarf and dwarf rootstocks: We offer an assortment of semi-dwarf and dwarf apple trees on Bud 118, M111 and Bud 9 rootstocks. Each has great advantages for some growers, but these size-controlling rootstocks also have their limitations. Please read on and decide if they are what you want. If you are uncertain, stick with the good old standards, which are extremely rugged, hardier, more tolerant of drought and poor soils, very long-lived, and more capable of thriving under a regime of benign neglect. (Trees on semi-dwarf and dwarf stock are shipped at $2^1/2-5^1$.)

- Bud 118 semi-dwarfing rootstock produces a tree about 85–90% of standard size or even larger. Sometimes Bud 118 trees are called semi-standards or even standards. Considered to be more precocious (fruiting at a young age) than standards, and probably more productive. Very hardy, though not as hardy as Antonovka. Plant about 20–25' apart.
- M111 semi-dwarfing rootstock produces a tree about 65–80% of standard size. Sometimes M111 trees are called semi-standards. M111 may not be more precocious than standard-sized trees. However they will likely be more productive. M111 has a relatively shallow spreading root system, does well in light soils, and is relatively drought tolerant. Prone to suckering; not as long-lived or hardy as Antonovka. You can plant them closer together than standards, about 15–20' apart.
- **G890 semi-dwarfing** rootstock produces a tree about **55–65%** of standard size. Adaptable to different climates and soil types, deeply rooted and hardy. Highly resistant to fireblight—the varieties we offer on G890 are ones we've found to be susceptible to fireblight in some locations. Plant trees 10–15' apart.
- Bud 9 dwarfing rootstock produces a small dwarf tree, 25–55% of standard size. This makes it easy to spray, prune and pick. It requires less space in your yard and will fruit at an early age. Trees should be staked or trellised for support. These trees are hardy, though not as hardy as Antonovka, and they won't live as long. You can plant trees 5–10' apart.



Apples Malus spp.

Rootstocks

We offer most apple varieties on standard-sized Antonovka rootstock.

A follows the item number in the apple section, the variety is on Antonovka (or occasionally another) standard rootstock.

B is on Bud 118 semi-dwarf rootstock,

C is on M111 semi-dwarf rootstock.

D is on G890 semi-dwarf rootstock,

E is on Bud 9 dwarf rootstock.

For more about rootstock, see pages 5 and 27.

Ashmead's Kernel Winter. Unknown parentage. Gloucester, England, about 1700. Possibly a seedling of Nonpareil. An after-dinner apple of unparalleled quality. Not for those who like sweet mild apples. Each bite is an intense aromatic sting of sharp and sweet, with hints of other indescribable but absolutely wonderful tastes and aftertastes. Beginning to show up here and there in commercial orchards. A good sharp addition to hard cider. Medium-small oblate and lopsided orange-goldgreen russet fruits ripen in October. Store until the New Year to reach perfection. Keeps until they're all gone. Moderately vigorous tree may bear irregularly, but it's worth the wait. Somewhat scab resistant. Blooms midseason. Z4. ME Grown.

7203A Ashmead's Kernel, \$38.50 7203C Ashmead's Kernel on M111, \$38.50

Baldwin Winter. Wilmington, MA, about 1740. Also called Butters Apple or Woodpecker. Discovered on the Butters Farm by a surveyor planning the Middlesex Canal and noted as a favorite site for local woodpeckers. By 1850 Baldwin was the standard all-purpose home and commercial variety wherever it was grown. It remained dominant in Maine until the terrible winter of 1934 when tens of

thousands of trees perished and McIntosh became king. Large round-conic thick-skinned fruit, almost entirely blushed, mottled and striped with red and deep carmine. Hard crisp juicy yellowish flesh makes excellent eating and cooking. Makes topquality hard cider, blended or alone. Keeps

till spring. Vigorous adaptable hugely productive long-lived healthy tree. The late renowned entomologist Ron Prokopy described Baldwin as "not practical commercially due to biennialism but the only apple that is both disease and insect resistant." Blooms early to midseason. Z4. ME Grown.

7204A Baldwin, \$38.50 7204C Baldwin on M111, \$38.50

Belle de Boskoop Winter. Bud mutation of Montfort. Boskoop, Holland, 1856. For generations every European backyard had a Boskoop. Even today, chefs in Europe know Boskoop, which cooks and bakes beautifully. Quickly reduces to a nice sauce: yellow, soft and medium tart. Big blocky somewhat ribbed fruit largely patched with green and russet, sometimes with a reddish blush. Grower David Maxwell of Nova Scotia calls it "an absolutely outstanding apple...seemingly resistant to everything. I didn't spray them at all and they are absolutely clean. The taste is equally outstanding." Rather tart right off the tree. In storage the acidity softens and it becomes quite tasty fresh. Keeps well. Triploid: not a pollinator for other varieties. Blooms early, Z4. ME Grown.

7205A Belle de Boskoop, \$38.50

Growing Apples

Soil: Adaptable, but prefers well-

drained fertile soil.

Sun: Full.

Pollination: Requires a second variety for pollination. Any apple or crabapple blooming within a quarter mile will

probably do.

Planting and Pruning: See pages 67-70 for instructions on soil prep, planting,

pruning and pest control.

Spacing: For trees on Antonovka and Bud 118 rootstock, 20-25' apart. M111 semi-dwarf, 15-20' apart. G890 semi-dwarf, 10-15' apart. Bud 9 dwarf, 5–10' apart.

Black Oxford Winter. Hunt Russet x Blue Pearmain. Paris, Oxford County, ME, about 1790. This outstanding apple, a favorite long ago around much of Maine, has made a huge

comeback. Neck and neck with Honeycrisp as our bestselling apple. Medium-sized round fruit, deep purple with a blackish bloom. From a distance you might think you'd discovered a huge plum tree. Excellent pies, superb late cider. Leave the skins on for a delightful pink sauce. Best fresh eating late December to March, but we've eaten them in July

and they were still quite firm and tasty. They get sweeter and sweeter as the months go by. Good cooking until early summer. Some insect and disease resistance. Unusual light pink blooms early to midseason. Z4.

7206A Black Oxford, \$38.50 7206C Black Oxford on M111, \$38.50 **7206E** Black Oxford on Bud 9, \$38.50

Blue Pearmain Fall-Winter. Thought to be from Middlesex County, MA, 1700s. Our favorite for baked apples—it was made to be stuffed.

Moderately juicy flesh, firm, dense and slightly crisp, sweet with a bit of a tart background flavor. Incredibly beautiful medium to very large fruit is streaked and splashed with purplish red, mottled with russet and covered with a distinct dusty blue bloom. In a pie, it has just enough firmness and a good balance of sweet and tart with hints of pear. Tart coarse yellow sauce cooks up in a couple minutes. Tasty eaten out of hand. One of New England's most famous varieties. Mentioned by

Henry David Thoreau as a favorite in

his wonderful essay "Wild Apples." Grown throughout much of Maine for well over 200 years. Massive trees still found here and there. Keeps in the root cellar until midwinter. Blooms midseason. Z4. ME Grown.

7207A Blue Pearmain, \$38.50



Fertilizer Mixes for Fruit Trees Young and Old Available from Fedco's Organic Growers Supply!

Our house-blended mixes make feeding your fruit trees a cinch.

- Hole-Istic Spring Planting Mix Recommended for fruit trees at planting time. Add 3 lb per tree hole. Available in 3-lb and 30-lb bags.
- Fruition Mix Bearing fruit trees may not require fertilization every year, but if your tree put on 4" or less of terminal growth in the previous season then our Fruition Mix will put new spring in its step. In spring apply 10 lb per 1" trunk diameter, or a 45-lb bag per tree 5" and over, out to the drip line, and then cover it with mulch.
- Ancients Rise Mix A unique blend for revitalizing old apple trees. Apply in fall or spring, ideally in conjunction with a thoughtful pruning program. Apply one 45-lb bag per old tree.

Find these mixes and more at fedcoseeds.com/ogs.

Brock Fall-Winter. ME 7-492 (Golden Delicious x McIntosh) Monmouth, ME, 1966. Very large conic all-purpose fruit is yellow with deep rusty-red blush. Cream-colored fine-grained flesh is aromatic, sweet and crisp. Small core makes it excellent for sauce. One of the featured varieties in the exceptional book *Apples for the 21st Century* where West Coast-author and orchardist Warren Manhart calls it "similar to Golden Delicious, but with more aroma and flavor." The original cross was made in 1934 by Russ Bailey, as part of a UMaine program to breed hardy commercial varieties after the disastrous winter of 1933-34. Named for Henry Brock who popularized this apple when it was under test at his orchard in Alfred, ME. Fruits over a long period—a plus for home orchardists. Keeps till midwinter. Vigorous tree develops strong wide-angled branches. Scab susceptible. Blooms midseason. Z4. ME Grown. BACK!

Burgundy Late Summer-Early Fall. NY 161 Monroe x NY 18491 (Macoun x Antonovka) NY Ag Exp Stn, 1974. Northern Aroostook County fruit growers Steve and Barb Miller introduced Burgundy to us as their favorite cooking apple. Striking for its large 3" size and glossy purplish-red roundish fruit. Waves and rays of red in the firm juicy flesh. Strong distinctive aroma and a pleasantly unique flavor with a tart zingy aftertaste. One taste tester said, "Wow, hey, that's really different!" Steve said, "It reaches out and grabs you!" Makes an aromatic well-balanced early cider. Bears annually, and fruit hangs on for extended picking. Stores about two months. Recommended for all northern districts. Extremely hardy. Blooms late. Z3. **ME Grown**.

7210D Burgundy on G890, \$38.50

7209A Brock, \$38.50

Calville Blanc d'Hiver Winter. Unknown parentage. France or Germany, 16th c. Also called White Winter Calville. Famous as a dessert and cooking apple for more than 400 years. Steve Wood of Poverty Lane Orchards in Lebanon, NH, called it "the best culinary apple in the world." Large flattish pale green-yellow fruit with deep ribs and a dotted orange-red blush. Creamy-white aromatic fine-grained juicy flesh with a sweet distinctive effervescent flavor. Also recommended for vinegar, fresh cider and as a sharp (acid) component in hard cider. Should be stored a month to reach peak flavor. Will keep until midwinter. Very vigorous strongly upright vase-shaped tree with good branch angles. Not for the coldest areas though certainly hardy to Zone 4. Blooms midseason. Z4. ME Grown.

7211A Calville Blanc d'Hiver, \$38.50 **7211C** Calville Blanc d'Hiver on M111, \$38.50

Canadian Strawberry Fall. Unknown parentage. Solon, ME. Beautiful superb-tasting dessert apple. Surprisingly juicy distinctly tart full-flavored medium-to-large round-conic fruit. Rich buttery-yellow skin overspread with a veil of vibrant red-orange. Very good early season cider. Perfectly ripe at the end of September in central Maine where, in a good year, you won't find a better apple. At our Common Ground Fair taste tests, it usually vies for the crown with Cox's Orange Pippin. It was the overwhelming favorite in 2017 and runner-up in 2018 and 2019. In 1996 the late Roy Slamm convinced us to visit and subsequently propagate nursery stock from the three ancient "Strawberry" trees on his South Solon farm, thus saving the apple from almost certain extinction. Popularized throughout Fedcoland as "Canadian Strawberry" but recently found to be a DNA match with the old New York apple Washington Strawberry from the mid-1800s. Fruit keeps about a month. Triploid: not suitable for pollinating other varieties. Blooms midseason. Z4. ME Grown.

7212A Canadian Strawberry, \$38.50

Chenango Strawberry Late Summer. Lebanon, NY, or possibly Connecticut, c. 1850. Excellent tender-skinned tender-fleshed dessert and cooking apple ripens over several weeks in September. Subacid and aromatic. Yellowish-white skin covered with soft pastel pinky-red "strawberry" stripes and a very long famously distinctive conic strawberry shape. One of the more famous American heirlooms—there's no other apple like it. Originally called Frank, after the man who first introduced the variety. Another early synonym was Jackson Apple, possibly his last name. Also known by several other synonyms including Tappherus Chernogues. Wowl Tapds to

Zepherus Chernogous. Wow! Tends to bear annually. Keeps only a week or two. Blooms midseason. Z4.
Indigenous Royalties. ME Grown.
BACK!
7213B Chenango Strawberry on B118, \$38.50

ME Grown = grown in Maine at one of our small local nurseries.

Cherryfield Fall-Winter. Westfield Seek-No-Further x unknown. Wyman B. Collins intro, Cherryfield, ME, about 1850. Also called **Collins**. Popularized more than 100 years ago by David Wass Campbell of Cherryfield and Welton Munson of UMaine. This all-purpose variety does everything well. We love it. Relatively tart with only a hint of sweetness. Makes a fairly quick tart sauce with a smooth texture—the skins mostly dissolve. Good in salads. Makes a highly flavored pie with great color and texture. Excellent sliced up on pizza. Irregular conic shape washed and striped with pink. Ripens mid-October and keeps until the end of March.

Rediscovered with the help of Margery Brown, Larry Brown, and Kathy Upton, all of Cherryfield, ME. Recent DNA profiling appears to show that what we know in Maine as Cherryfield could be a local synonym for the Illinois apple **Salome** and may also have been known as **Benton Red** around Maine's Kennebec County. It's also possible that we have not yet found the true Cherryfield. As we learn more about this connection, we'll keep you posted. Tree is vigorous, hardy, spreading and productive. Blooms early-midseason. Z4. **ME Grown**.

7214A Cherryfield, \$38.50

Chestnut Early Fall. MN 240 (Malinda x open-pollinated) U Minn, 1946. A dessert crab with truly excellent fruit for fresh eating, pickles and sauce. Round 2" yellow and bronze-red apple with some russeting. Firm crisp juicy fine-grained

russeting. Firm crisp juicy fine-grained very sweet yellowish flesh. For a growing number of people in central Maine, late September is Chestnut apple time. A lot of people love this apple and it always scores high at our Common Ground Country Fair taste tests. Chestnut alone with no sugar makes a sweet and subtle sauce. Not a keeper, but can be stored for a month or two. Vigorous, somewhat weeping, medium-sized productive tree tends to bear annually. Disease resistant. Beautiful in bloom, mid-late season. Z3. ME Grown.

7215A Chestnut, \$38.50

Cortland Fall-Winter. Ben Davis x McIntosh. NY Stn, 1915. Although never as important as McIntosh, Cortland remains very popular throughout northern New England even in this era of many new introductions. Medium-large slightly ribbed dull red fruit with a purple blush. Excellent eating and cooking. Slow-oxidizing white fine-grained crisp tender juicy flesh: very good in salads. Produces a surprisingly delightful cider, fresh or fermented, in a mix or even on its own. Stores for a month or so. Vigorous tall upright spreading tree. Annual producer of heavy crops. A recent UMass study showed Cortland's resistance to apple maggot fly. Bears young; remove fruit for the first year or two to avoid stunting growth. Susceptible to scab. Blooms midseason. Z4.

7217A Cortland, \$38.50 **7217C** Cortland on M111, \$38.50 **7217E** Cortland on Bud 9, \$38.50

Red Delicious-er

Customers often ask us for suggestions for equivalents to their favorite "grocery store" apples. We can't offer any direct comparisons since we think the varieties we offer are far superior in flavor and character than those widely available in stores. But here are some suggestions for varieties that share qualities with some familiar commercial apples.

If you like	you should try
Fuji and Gala	Keepsake Tolman Sweet Williams Pride
Golden Delicious	Brock GoldRush Grimes Golden Hudson's Golden Gem Pristine
Pink Lady	Sweet Sixteen
Red Delicious	I-95 Tolman Sweet

Court Pendu Plat Fall. Ancient French dessert apple first recorded in 1613 but thought to have been grown as far back as the Roman Empire. High flavor, unusual shape, hardiness and disease resistance—no wonder this apple's been cultivated for centuries. The flesh is dense and dry with a satisfying crunch and a strong fruity sweet-tart flavor. Light green fruits with red blush and orange russet appear squashed down, with the short stem set in a deep cavity and an equally gaping calyx basin on the flip side. Flavor develops in storage; keeps till midwinter. The name translates to something like 'short, flat and stumpy.' Nicknamed Wise Apple for its strategy of blooming late to avoid frost damage. Cold hardy, productive and resistant to scab. Partial tip-bearer. Blooms late. Z4. NEW!

7218A Court Pendu Plat. \$38.50

Cox's Orange Pippin Fall. Possibly a seedling of Ribston Pippin.

Near Slough, Bucks, England, around 1825. Deservedly one of the most famous of all apples. Not only one of the best eating apples ever but also one of the most sought-after in modern apple breeding; parent or grandparent of many other varieties. Revered in the U.K. Medium-sized all-purpose aromatic fruit is red-orange to red with orange russet striping and wash. Perfectly balanced slightly subacid flavor and crisp juicy tender flesh improve with storage. Moderately vigorous moderately productive tree bears young and annually. Prefers cooler climates and higher pH. The oldest Maine Cox's we know is about 60, thriving in Mercer. Scab resistant. Blooms midseason. Z4. ME Grown.

7219A Cox's Orange Pippin, \$38.50 **7219C** Cox's Orange Pippin on M111, \$38.50

Duchess of Oldenburg Late Summer. Russia, well before 1800. Also called Duchess or simply Dutch. Imported to North America in 1835 and named in honor of Catherine Pavlovna, Grand Duchess of Oldenburg, sister of Czar Alexander. Extremely hardy. Medium-sized round red-striped fruit is crisp, tender, juicy, subacid and aromatic. Highly recommended for all sorts of cooking, especially pies and sauce. If you live where it's cold and you're looking for one apple, this is it. Historically planted extensively wherever growers needed extreme hardiness. Still popular in Aroostook county and other northern districts. Small to medium-sized adaptable tree. Duchess seedlings come relatively true to type, are rugged and hardy, and make good rootstock for grafting (known as 'Borowinka' in the nursery trade). Scab resistant. Does not perform well in warmer districts. Blooms early-midseason. Z3. ME Grown.

7222A Duchess of Oldenburg, \$38.50

Enterprise Fall-Winter. Coop 30 [PRI 2693-1=(PRI 1661-2 x PRI 1661-1)] PRI Coop, 1993. From the well-known Purdue-Rutgers-Illinois apple-breeding program, a highly recommended fresh-eating apple. Medium-large roundish red-orange fruit is crisp, firm, juicy with a rich spicy flavor. Stores for 6 months or more. Flavor improves in storage, with best eating about a month into winter.

Longtime readers of the Fedco Trees catalog know we can be a bit skeptical when it comes to modern varieties. We were reluctant to pay much attention to Enterprise for years, but now have added it to our list of varieties worth planting. Two of our favorite Maine growers, Steve Meyerhans of Fairfield and Joe Vachon of Stetson, are among those who have raved about this fruit.

Annual bearing, scab immune,

resistant to powdery mildew, ciderapple rust and fireblight. Blooms

late-season. Z4. ME Grown. BACK!

7223A Enterprise, \$38.50 **7223E** Enterprise on Bud 9, \$38.50

Why did the apple stop in the middle of the road? It ran out of juice.

- Aimee from Jackson, ME

Esopus Spitzenburg Fall-Winter. Reinette Franche x unknown. Esopus, NY, before 1776. For more than 200 years "Spitz" has been a choice dessert and culinary variety, mentioned in nearly every list of best-flavored apples. Slightly subacid, crisp and juicy. Excellent acid source for sweet or fermented cider. Medium-large bright red round-conic fruit, covered with russet dots. Moderately vigorous tree with easily trained wide-angle branches. Forever famous as Thomas Jefferson's favorite apple though performs much better in New York and New England than Virginia. Moderately susceptible to scab though we have never sprayed ours with fungicides and the fruit has been great. Blooms mid-late season. Z4. ME Grown.

7224A Esopus Spitzenburg, \$38.50 **7224C** Esopus Spitzenburg on M111, \$38.50

Fameuse Early Fall. Parentage unknown. Canada, before 1700. Also called Snow. Excellent fresh eating, great sauce and sharp cider apple. Alas, however, not a pie apple—turns to soup. The 1865 Department of Agriculture yearbook sums it up: "Flesh remarkably white, tender, juicy...deliciously pleasant, with a slight perfume... No orchard in the north can be counted as complete without this variety... It is just so good that everybody likes to eat of it: and when cooked. it is white, puffy, and delicious. Famous in Maine for well over 200 years. Medium-small roundish ruby-red thin-skinned fruit. Keeps until late December. As one of the few apples that comes relatively true-to-type from seed, occasional "variations on a Fameuse theme" can be found in old orchards. Thought to be a parent of McIntosh. Recent discoveries suggest that it could be one of the oldest varieties in North America. (For more details, you'll have to check out John Bunker's book: Apples and the Art of Detection!) Productive long-lived tree. Susceptible to scab. Blooms mid-late. Z3. ME Grown. BACK!

7225A Fameuse, \$38.50

Frostbite Fall-Winter. MN 447. Unknown parentage. First fruited in 1921; named and introduced by U Minn in 2008. A massively flavored dessert apple, among those we most look forward to each fall. Likely the most distinctive, complex and unusually flavored apple you'll ever try. Astonished eaters have described it as tasting like molasses, olives, sugar cane, cheap whiskey, yogurt, tobacco juice, and so on. We love it. The aromatic crisp crystalline apricot-orange flesh, with its occasional red staining, is so juicy it might run down your hand. The roundish fruit is medium-sized and entirely covered with dark bluish-purple stripes. Lost in the dustbin of weird apples for nearly 90 years before it was finally named and released. Extremely hardy, productive and reliable; at its best in colder districts. A parent of the popular Sweet Sixteen and Keepsake, and grandparent to Honeycrisp. Blooms midseason. Z3. ME Grown.

7226A Frostbite, \$38.50 **7226C** Frostbite on M111, \$38.50 **7226E** Frostbite on Bud 9, \$38.50

Golden Russet Winter. Uncertain origin. Thought to be from England, New York or New England, before 1800. Round medium-sized russet fruit. Excellent eating; keeps all winter and well into spring. One of the best apples dried. The champagne of cider apples, ripening late in fall when the best sweet cider is ready to be made: sweet, balanced, thick and smooth. Also recommended as a sharp component for fermented cider. For more than 100 years, orchardists have been attempting to sort out the various russets. Several different apples have been called Golden Russet. Most resemble one another visually but differ in fruit qualities and tree habits. This is most likely the Golden Russet of western New York—we continue to work on unraveling this mystery by DNA testing various "Golden Russet" types. Vigorous diverging up-curving tree with long willowy branches. Scab resistant. Blooms early to midseason. Z4.

7229A Golden Russet, \$38.50 **7229C** Golden Russet on M111, \$38.50 **7229E** Golden Russet on Bud 9, \$38.50



GoldRush Winter. Co-op 38 {PRI 2750-6=[Co-op 17 (PRI 1689-100) x Golden Delicious]} PRI Co-op, 1994. The first of the disease-resistant varieties from the Purdue-Rutgers-Illinois apple breeding program to have superior storage qualities. Not only that, it's probably the best-tasting apple to come out of that program. Medium to large round-conic fruit has uniform deep greenish-yellow opaque chewy skin that turns golden in storage. Creamy-white green-flecked flesh is hard, very crisp, juicy and tart. Excellent flavor. Serve them for dessert in February and March and no one will be disappointed. Becoming very popular with cidermakers and commercial orchardists. Ripens late but successfully in central Maine. Ours have stayed firm and delicious through early June in the root cellar. Highly resistant to scab and powdery mildew. Moderate fireblight resistance. Blooms midseason to late. Z4. ME Grown.



Granny Smith Fall. Unknown parentage, possibly a seedling of French Crab. New South Wales, Australia, 1860s. Named for its discoverer Maria Ann Smith. Perhaps the most widely known and recognizable of all apples, available in almost every supermarket on the planet! Iconic medium-sized grass-green fruit with bright shiny skin, often with fine russet netting and purplish dots. Known in our area as Blushing Granny—in colder climates it develops a beautiful contrasting pink blush with the cold fall nights. Thick-skinned extremely durable storage apple. We've seen bins of perfect Grannies in the depths of February at the Apple Farm in Fairfield, ME. Oft considered a tart acidic apple, but it sweetens in storage. Great for midwinter snacks and famous for apple pies. Blooms midseason. Z4. ME Grown.

7232B Granny Smith on B118, \$38.50

Gravenstein Late Summer. Thought to be of Russian, Italian or German origin, before 1700. Brought to the U.S. in the early 19th c. Probably the most famous of all pie apples. Rightly so. It's great. By 1880 it was also the most popular summer apple in Maine, especially along the coast. Fruit is medium to large, irregularly round, asymmetrical, usually ribbed. Thin tender skin, striped with yellow, red and orange. Tender crisp aromatic richly flavored juicy firm tart flesh. Outstanding eating and cooking. Rated "very good to best" by Beach in *The Apples of New York*. Still commonly grown in Nova Scotia, northern California, Oregon and Washington. Large vigorous productive tree with a nearly perfect wideangle branching habit that requires practically no training. Ripens over several weeks. Too tender for the coldest areas of New England. Triploid: not suitable for pollinating other varieties. Blooms early. Z4/5. **ME Grown**.

7233A Gravenstein, \$38.50 **Gray Pearmain** Fall-Winter. Tolman Sweet x unknown. Probably Skowhegan, ME, before 1870. Absolutely delicious dessert apple with a distinct pear flavor and firm white juicy mildly tart flesh. Steadily gaining a devoted following. Medium-sized slightly ribbed and muffinshaped fruit has a soft opaque greenish-yellow skin with a rosy pink blush, a russet veil, and a greyish bloom. Produces excellent juice. Pick late and eat them in the fall and all winter. At a late-fall apple tasting at the Maine Heritage Orchard, we had to stop at Gray Pearmain because every apple that followed paled in comparison. Not long ago the only trees we knew of were at The Apple Farm in Fairfield, across the town line from Skowhegan. Through the generosity of Marilyn and Steve Meyerhans, the Gray Pearmain is now grown throughout Maine and beyond. Annually bearing easy-to-grow medium-sized spreading tree. Blooms midseason. Z4. **ME Grown**.

7234A Gray Pearmain, \$38.50

Grimes Golden Fall. Parentage unknown. West Virginia, 1804. Tart citrusy crisp dense firm fruit is excellent for both dessert and cooking: wonderful spicy fresh eating, pies, applesauce and cider. Medium-sized roundish fruit with opaque yellow skin scattered with grey russet dots and an occasional faint blush. All-around excellent variety grown in old Maine orchards for more than 100 years. This is a perfect apple for the New England homestead north to about Bangor. An added bonus is that the fruit doesn't ripen all at once. In central Maine they begin to drop mid-October. We collect the drops and use them right up. Around Halloween we pick the bulk of the crop to store in the root cellar until late winter. Productive precocious tree. Blooms mid-late season. Z4. ME Grown.

7235B Grimes Golden on B118, \$38.50

Haralson Winter. MN 90 (Malinda x open-pollinated) U Minn, 1923. One of the first introductions from the Minnesota Horticultural Research Center and still the most commonly grown apple in Minnesota. A nearly perfect all-purpose apple for those in northernmost areas. Roundish-conic bright red-striped to mostly solid red fruit, with moderately conspicuous dots and some russeting. White firm crisp juicy flesh. Pleasant sprightly subacid flavor for fresh eating, pies, baking, sauce, freezing and cider. Highly productive and reliable. Harvest in October, keeps until March. Extremely hardy naturally small tree with a strong central leader and well-formed wide-angled branching habit. Sets fruit heavily; thin some of the small apples to ensure larger fruit size and encourage annual cropping. Fruit quality and size also seems to respond noticeably to better soils. Blooms late. Z3. **BACK!**

7236A Haralson, \$38.50

Honeycrisp Winter. MN 1711 (Keepsake x open-pollinated) U Minn, 1991. Medium-large fruit, mottled and striped red over yellow. Sweet and juicy with hard snapping-crisp texture. Top quality in September. Improves steadily in storage. Unusual because it ripens in early fall yet keeps up to seven months in the root cellar. First of the many excellent University of Minnesota intros to receive large-scale commercial attention, now has a huge following. Rivals Black Oxford as our bestselling apple. Probably best planted north of Massachusetts; less suited to warmer districts. Tends towards annual bearing. Relatively small low-vigor upright spreading tree. Above-average scab resistance. Blooms mid-late season. Z3. ME Grown.

7238A Honeycrisp, \$38.50X **7238C** Honeycrisp on M111, \$38.50 **7238E** Honeycrisp on Bud 9, \$38.50

Solving Apple Mysteries with DNA Testing

For the past six years, Fedco and MOFGA's Maine Heritage Orchard (see page 15) have been working with apple geneticists at Washington State University to confirm the identity of all the apple varieties we offer through Fedco and preserve at MOFGA in Unity. Until the development of DNA profiling, all apple identifications were made by farmers, orchardists, and the occasional pomological experts, who examined the fruit and made educated guesses: the shape and color may fit, the location may match historical records, yet they couldn't be certain. It's safe to say that in the past few centuries tens of thousands of trees have been passed around with incorrect names.

Mapping the apple genome has been a tremendous tool in helping to confirm the identity of dozens of rare varieties. It has also corrected a few bummer mistakes, some of which have been perpetuated for generations. The apple trees we've sent out to customers over the years will bear fruit that match what we've described in our catalog. If we learn of a change in nomenclature and parentage, we'll continue making updates to our descriptions and records to ensure you get the best information available.

One of our newest and most noteworthy discoveries involves Arkansas Black. We got our original scionwood from an old central-Maine orchard where for generations locals have known the trees as "Arkansas Black." Initial DNA testing showed that the tree was an offspring of Winesap, which we've always known to be true of Arkansas Black. However, further DNA testing revealed our source trees to actually be another Winesap seedling called Black Twig (syn. Paragon). These two distinct apples both hail from Arkansas, and their names have been mixed up for centuries. Similar to Arkansas Black, Black Twig is a late-ripening burgundy-skinned Southern apple with excellent keeping qualities.

If you have questions about our DNA identification program, please don't hesitate to be in touch at apples@fedcoseeds.com.

Hudson's Golden Gem Fall. AD Hudson's Wholesale Nurseries, Tangent, OR, 1931. A wild seedling discovered in a fence row and introduced soon afterward. A truly fine dessert variety of unique appearance. Exceptional flavor, and sweet juicy crisp smooth firm-butmelting yellow pear-like flesh. Highly recommended for those who love to eat their apples out of hand. Nearly everyone loves the flavor after a single bite. Magnificent medium-to-large distinctly conical and beautifully russeted long-stemmed fruit. Skin a soft yellow-tan overlaid with a fine weave of light and dark browns. A favorite in Oregon, more recently gaining notice practically everywhere apples are grown. Stores several months. Productive scab-resistant tree resists powdery mildew and fireblight. Blooms mid-late. Z4. ME Grown.

7239B Hudson's Golden Gem on B118, \$38.50 **7239E** Hudson's Golden Gem on Bud 9, \$38.50

I-95 Fall. Possible Red Delicious seedling. Waterville, ME, 1987. A tasty and rugged dessert apple found growing on a sucker from a neglected ornamental crab near an entrance ramp to Interstate 95 by fruit explorer Jack Kertesz. Propagated by fellow fruit enthusiast Tom Vigue before the highway crew cut down the original tree after it suffered severe storm damage. Medium-large round-conic slightly ribbed fruit is yellow with a red blush and darker red broken stripes and blotches. Reminiscent of Red Delicious in appearance only—I-95 offers a superior eating experience than its presumed parent. Crisp flesh has a balanced sweet-tart flavor for good fresh eating and great dried apples. Stores into the winter. Skin can be a bit tough and dry, but it's a fair trade-off for a high-quality apple that needs little care. Jack has always been "intrigued by wild fruit that isn't insect infested and can grow under unfavorable conditions," which is what drew him to this one. Tom reports that in his no-spray orchard "I-95 is not susceptible to the wide range of problems that plague its likely parent... It produces a high percentage of dessert-quality fruit without intervention." Blooms midseason. Z4. ME Grown. BACK!

7241A I-95, \$38.50

Keepsake Winter. MN 1593 (MN 447 [Frostbite] x Northern Spy) U Minn, 1979. One of the best of all winter storage varieties. Fine-textured flesh is hard, crisp, juicy and sweet. Excellent aromatic flavor, but wait about a month after picking before eating. Well named—keeps until July in the root cellar. Irregular conic medium-sized fruit is almost entirely overlaid with stripes and a wash of very deep red. Same parentage as Sweet Sixteen. Resembles Frostbite and Sweet Sixteen in appearance and taste, although the flavor is not quite as intense. Fruit size can be somewhat small. Don't be afraid to thin the crop each year 3 or 4 weeks after petal fall. You'll be happy you did. Moderately vigorous medium-sized tree reaches its prime in northern New England and the Upper Midwest. Somewhat resistant to scab. Blooms late. Z3. **ME Grown**.

7243C Keepsake on M111, \$38.50

Kerr Crabapple Late Summer. Morden 352 (Dolgo x Haralson) Morden, Manitoba, Canada, 1938. Introduced by the famous Canadian plant breeder WL Kerr. Firm deep red ovate 2" fruits are a tasty snack fresh off the tree, and even better after storage. They keep well. Be sure to thin fruitlets so the remaining apples size up. We love culinary crabs, and this one is especially good for brandying. Pack fruit into a mason jar with a scoop of sugar and cover with your favorite vodka. Let stand a year or two; flip it upside-down now and then. Extremely productive and precocious, somewhat spreading vigorous medium-sized tree. Heavy annual long-lasting bloom of single white flowers makes this a great pollinator for other varieties. Early to midseason blooms. Exceedingly hardy. Z3 or maybe even Z2. **ME Grown**.

7244C Kerr Crabapple on M111, \$38.50

King David Fall-Winter. Chance seedling, thought to be Jonathan x Arkansas Black. Washington County, AR, 1893. Stark Brothers Nursery intro, 1904. King David has a reputation as an intensely flavored apple. The initial bite is an explosion of flavors—pineapple, tangerine, lemon, sweet, sour, tart, sharp, aromatic and spicy. You may wince or moan or scream. You may see stars. Fine juicy flesh is firm yet tender and distinctly yellow. Known primarily as a dessert apple, but also good for pies and sauce. Medium-sized round-oblate-conic fruit is very dark solid maroon—nearly black. Occasionally found in old Maine orchards. The tree is vigorous, bearing young and regularly. Ripens in fall and keeps until the beginning of the year. Its one drawback is scab susceptibility. We grow it anyway. Blooms early midseason.

7245A King David, \$38.50

ME Grown = grown in Maine at one of our small local nurseries.

Liberty Late Summer-Fall. NY 55140-19 [Macoun x PRI 54-12 (PRI Co-op complex cross includes Rome Beauty, Jersey Black, McIntosh, Wealthy and *M. floribunda*)] NY Stn, 1978. One of the best of the disease-resistant varieties, particularly in the Northeast. Somewhat similar to Macoun. Handsome medium-sized round-conic bluish-pinkish-red apple with crisp white flesh of very good dessert quality when dead ripe. Excellent cooking and sweet cider, too. Recommended for single-variety sweet cider. Keeps till late fall. Begins fruit production at an early age, bearing consistent heavy annual crops. Naturally well-structured sturdy tree is easy to care for. Considered to be 100% scab-immune, though not resistant to insects or other lesser apple diseases. Don't let it crop too heavily at a young age. Blooms early to midseason. Z4. ME Grown.

7246A Liberty, \$38.50 **7246B** Liberty on B118, \$38.50 **7246C** Liberty on M111, \$38.50 **7246E** Liberty on Bud 9, \$38.50

Macoun Fall. NY 547 (McIntosh x Jersey Black) NY Stn, 1923. This is an apple with a near cult following, even though practically no one seems to know how to pronounce the name. (It rhymes with *town*, not *tune!*) Especially good choice for those who like McIntosh but live south of Maine where Macs might not reach their prime. Medium-sized ribbed lobed truncate fruit, almost entirely covered with a dark purplishred blush. The very juicy aromatic white flesh is crisp with a rich sweet flavor. Excellent for fresh eating. Large vigorous upright spreading tree. Moderately productive. Although susceptible to scab, the fruit appears to be less affected than McIntosh. Macoun also shows some natural resistance to insect damage. Blooms mid-late season. Z4. **ME Grown**.

7248A Macoun, \$38.50

McIntosh Fall. Thought to be a seedling of Fameuse or perhaps St. Lawrence. Dundela, Ontario, 1811. First discovered by John McIntosh on his farm near the St. Lawrence River. Originally called Granny's Apple, then McIntosh Red, sometimes Gem, and finally McIntosh or simply Mac. Beginning in about 1930, the most important apple in the Northeast until Honeycrisp appeared. Although not planted in many other locations, it grows to perfection in our cool climate. There are many strains of McIntosh, some selected for traits other than flavor, and the variety has gotten a bad reputation. Despite the criticism, this is a delicious aromatic apple. Excellent for sauce but turns to soup in a pie. Annual cropper. Large beautifully rounded spreading strong tree is easy to manage. Beware, however: it's extremely susceptible to scab. It also doesn't keep well in ordinary storage. Blooms midseason. Z4. ME Grown.

7250A McIntosh, \$38.50 **7250C** McIntosh on M111, \$38.50 **7250E** McIntosh on Bud 9, \$38.50



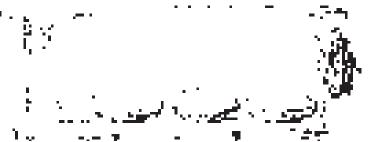
Mutsu Fall-Winter. Golden Delicious x Indo. Aomori Apple Exp Stn, Japan. Introduced commercially in the U.S. in 1948. High-quality large fruit for fresh eating and cooking keeps till March. Yellowish-white flesh is mildly subacid and very flavorful with notes of honey. Smooth green to golden-yellow skin is blushed orange and sprinkled with dots. Looks like an oversized Golden Delicious. Large vigorous tree is an annual bearer. Named after Mutsu Bay, an important scallop fishery in Northern Japan. Triploid: will not pollinate other apples. Midseason blooms. Z4. **ME Grown. NEW!**

7252A Mutsu, \$38.50 **7252B** Mutsu on B118, \$38.50

Northern Spy Winter. Chance seedling. East Bloomfield, NY, about 1800. One of the most famous of all heirloom apples. Very large delectable all-purpose fruit, covered with pink and light red stripes. Very juicy and tender. Even when the thin skin bruises, the fruit keeps extremely well. Cooks up quickly into a loose mild sauce. No need to remove the skins. Its reputation as a pie apple is well deserved: makes a very good single-variety pie! Recommended as a source of sharp juice in cider. Its one drawback is being slow to come into bearing, although for us it's been worth the wait. Medium-to-large moderately vigorous long-lived tree. Good scab resistance. Leafs out late and blooms

7254A Northern Spy, \$38.50 **7254C** Northern Spy on M111, \$38.50

late season. Z4. ME Grown.



Pewaukee Fall-Winter. Duchess x Northern Spy. George Peffer intro, Pewaukee, WI, about 1842. A cross between two of the best culinary apples. Recommended for pies and sauce and other kitchen use. Cooks up fairly quickly into a light yellow smooth tart sauce. Yellowish flesh is crisp, firm, juicy, tender and subacid. Medium-sized roundish ribbed ruddy-red striped and blushed fruit. Very distinctive because of the small pronounced protuberance (or lip) nearly always found next to the stem. The fruit has pretty much no cavity at all, making it easy to identify once you've seen one or two. Keeps until midwinter. Typically grown in old Maine orchards but ancient trees can still be found now and then all across northern New England. Very long-lived, healthy and hardy. Blooms late. Z3. ME Grown. BACK!

7257A Pewaukee, \$38.50

Pipsqueak Fall. MN 447 (Frostbite) x open-pollinated. Super Chilly Farm, Palermo, ME, 2009. Small russeted dessert apple with a long stem and a few faint pinkish-orange stripes. The rough skin almost feels like a kiwi. A large pipsqueak might approach 2" in diameter. For such a diminutive fruit it packs a lot of flavor. We eat them raw or baked whole rolled in cinnamon and sugar. One of our friends called it "the best apple I've ever eaten." It's surprisingly juicy, full of good flavor—tropical like a piña colada. Great fresh-eating crabapple—rivals Trailman. Ripens around October 1 in central Maine. A favorite of the kids at the Community School on Mount Desert Island in the fall of 2015. Blooms midseason. Z4. **ME Grown. BACK!**

7259B Pipsqueak on B118, \$38.50

The Functional Orchard

The 15-year-old "functional orchard" in our backyard is looking more like a jungle each year. That's intentional. The idea is to grow fruit trees in a mixed plant environment and see what happens. You might call it semi-organized chaos. Our friend Mike calls it Jurassic Park.

Fifty standard-sized apple trees surround a small pond in three concentric ovals in a one-acre clear cut. Soil improvement has been primarily accomplished by laying down brush and covering it when possible with soil, compost or manure. Any plants we snip off or pull out get cut into pieces and tossed right there on the ground. The orchard floor becomes the compost heap, as it is in nature. Some new plantings get fertilizer or compost, but mostly all the plants and the apple trees are fertilized by the decomposition of plant matter.

The site is now a menagerie of dozens of woody and herbaceous "companion" plants, some introduced and others wild "volunteers." Among the apple trees we've planted blueberries, clethra, elderberries, Pagoda dogwood, various Viburnums and willows. We have raspberry and blackberry canes, grapes, honeysuckle and schisandra vines. We even planted a catalpa tree, now getting very large!

The herbaceous perennial plants range in height from low groundcovers to 3–4" tall. We are maximizing flowers and aromatics and welcoming plants we might discourage in our vegetable garden, like nettles, tansy, goldenrod, yarrow, Queen Anne's lace and comfrey. We're especially partial to plants that like to form seedling populations. Three favorites are boneset, monarda and valerian.

Early on in the project, I was tempted to remove all the volunteer plants that were appearing spontaneously. After all, this is agriculture and I should be in control, shouldn't I? But I've resisted the temptation to weed out the "weeds." Agriculture should be a partnership between plants and people. I want to have a hand in what's going on in the functional orchard, but not a heavy hand. I want to trust the plants themselves. If they want to be there, there's probably a good reason.

It's not entirely laissez-faire however. I keep the base of each apple tree cleared to about 36" out. I also thin or cut back nearly everything when I prune the orchard in winter, which is time-consuming but worth it. By early summer, the site is packed with plants. I shudder to think what it would look like if I didn't cull. I also keep a path mowed to every tree. I want access. This is an orchard, not the woods.

I get out into the functional orchard as often as I can. Often I have no plan. I just take a few tools with me and go see what comes next. Mostly I try to observe. Constant observation is essential to learning. When it comes to noticing, you can't overdo it.

A few observations:
- The apple trees seem to like the current set-up. They are thriving among all the companions. Shoot growth and foliage color are good.

- The soil is improving. We started with a woodsy duff and ledge. The soil is moist, and the color is darkening.
- There has been practically no borer damage to the apple trees. Other young trees on the farm have been hit by borers, but something about this orchard seems to be fooling them. Could diversity be the best protection?

A few challenges:

- Voles like the arrangement. Our cat, the owls and the local goshawk have been hard at work, but still we have voles. Clearing vegetation from right around the tree trunks is especially important in discouraging voles from nibbling on bark.
- The fertility, soil type and water availability varies throughout the woodsy site. Four trees of fifty inexplicably died to the ground in the past 15 years. My best guess is that we planted these four in spots that were deficient in nutrients or received too much water. We removed two of them, adjusted the soil a bit, and replanted. Those new trees are now doing well. We cut the other two to the ground and they have re-sprouted and are doing fine.

The future:

There is still so much to learn! We hope to continue to reduce external inputs—including sprays—eventually to zero. It's possible that specific companion plants deter specific pests, but I suspect it is the totality of the community of plants, not the

community of plants, not the individual species, that will ultimately be our best strategy. While the scientific method isolates and tests, the functional orchard is about creating an interconnected community of plants—a balanced ecosystem— where each plant plays a role in a complicated system. The whole is greater than the sum of its parts. Or as we like to say,

Multifactorial Synergy!

John Bunker

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Prima Fall. Coop 2 [PRI 1225-100 (PRI 14-510 x NJ 123249)]. PRI Coop, 1970. One of the first diseaseresistant varieties to hit the market, now resides among the tried and true. Medium-large roundish fruit has rich yellow skin with a striking orange-red blush. Resembles Jonathan, which is buried somewhere in its convoluted parentage. Mildly subacid juicy white flesh provides excellent fresh eating and makes good cider. Keeps a couple of months. Open spreading tree bears annually if kept thinned. Proving to be hardier than anyone had thought. Scab immune and resistant to fireblight, cedar apple rust and mildew. Blooms early. Z4. ME Grown. BACK! 7260A Prima, \$38.50

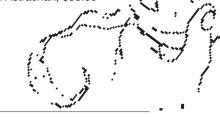
Pristine Summer. Coop 32 (Coop 10 x Camuzat). PRI Coop, 1994. Disease-resistant medium-large roundish-oblate clear-yellow fruit is mildly subacid, spicy and rich flavored. Sometimes with an orange blush. Resembles Yellow Transparent and Lodi but with better dessert quality for good tart fresh eating. Tasty in summer salads and also a fine cooking apple. A good choice for backyard growers because the fruit doesn't ripen all at once. You can pick them over a week or more. Keeps more than a month in refrigeration. The eleventh variety released by the well-known PRI disease-resistant apple breeding cooperative program at Perdue, Rutgers and Illinois Universities. The original seedling is a complex cross planted in 1975 at the Purdue Horticultural Research Farm in West Lafayette, IN. Has since been widely tested around the U.S. and across the world. Recommended for commercial orchards and hobbyists alike. Resistant to most apple diseases and scab immune; the name refers to its unblemished skin. Blooms mid-late season. Z4. ME Grown. BACK!

7261C Pristine on M111, \$38.50

Red Astrachan Summer. Thought to be from Astrakhan on the Black Sea, prior to 1800. The standard Maine summer cooking apple for generations. Still found occasionally in old Maine dooryards. Juicy rich subacid white flesh frequently tinged with red makes a highly colored sauce. Especially loved for its distinctive flavor in pies. Medium-sized somewhat oblate fruit, splashed or sometimes solidly covered with dark red. An obvious russet patch surrounds the stem. Looks like a junior version of a Wolf River. Fruit ripens over a period of several weeks in midsummer, making it perfect for the home orchard and lousy for the commercial folks who want them all at once. After finding its way to Sweden, the apple traveled to England

and finally to Massachusetts in 1835. From there it quickly spread throughout New England and beyond. Keeps for a few weeks with refrigeration. Very hardy. Blooms early. Z3. ME Grown.

7262A Red Astrachan, \$38.50



Apple Maggot and plywood

The late orchardist and rare apple collector Don Johnson made nifty apple maggot traps. We've gotten into doing so ourselves. In small orchards, the traps alone may be enough to reduce the AM pressure to a tolerable level. Here's how:

Cut up plywood ($^{3}/_{8}$ " or $^{1}/_{2}$ ") into 8x11" rectangles. Drill a hole along the top edge. Paint the plywood bright yellow with a 2-3" red spot (the apple) in the center. Coat with Stiky Stuff (an adhesive found at fedcoseeds.com/ ogs) and hang three in each tree in mid-June, positioning the traps at about chest height. Trim away any foliage that might stick to the trap. Check for trapped AM flies. Now and then, when they get too gnarly, scrape the traps and add new Stiky Stuff. Remove traps around Labor Day.

Redfield Fall. Wolf River x Niedzwetzkyana. NY Stn, 1938. One of the best and largest of the red-fleshed apples. Although usually considered too tart for eating out of hand, the medium-large fruit with opaque solid rusty-red skin is absolutely great in pies, makes wonderful jelly and turns sauce and cider red. We love this apple. Gained fame in the hard-cider world thanks to the wonderful single-variety Redfield cider and Redfield blends made by the late Terry Maloney of West County Cider. Very sharp and bitter in cidermakers' lingo. (SG 1.052)

Flesh is two-toned: deep pink fading to white around the core. The flowers are also two-toned, deep pink, tipped with small white lightning bolts. And the bronze-red foliage adds further interest all season. Bears young, annually, and shows some insect resistance in our trials. One of the very first to bloom each year. Z3. ME Grown.

7264A Redfield, \$38.50 7264C Redfield on M111, \$38.50

Rhode Island Greening Fall-Winter. Green's Inn, near Newport, RI, about 1650. Also known as **Greening**. The classic New England cooking apple. Large roundish-conic-oblate green fruit often has a tannish blush. Light yellow-green flesh is crisp and tart. Great for pies, also excellent for fresh eating. The most well-known of the various Greenings, and the number one green apple for a few centuries before Granny Smith arrived from Down Under and stole the show. With its high-quality fruit and adaptability to a range of soil conditions, Rhode Island Greening established itself as one of the most important commercial varieties throughout the Northeast in the 19th c. Keeps well into winter. About as hardy as Baldwin. Old trees can still be found in central Maine. Not recommended for northernmost districts, but cooks everywhere else will love it. Blooms late season. Z4. ME Grown

7266A Rhode Island Greening, \$38.50

Ribston Pippin Fall-Winter. Ribston Hall, Yorkshire, England, about 1688. Highly recommended, richly flavored, multi-colored, partly russeted late fall dessert apple. In the words of Robert Hogg, the preeminent English pomologist of the 19th century, "There is no apple which has ever been introduced to this country, or indigenous to it, which is more generally cultivated, more familiarly known, or held in higher popular estimation than Ribston Pippin." One should never assume an English apple will do as well in the U.S., but Ribston is an exception. It was brought to Kennebec County about the time of the Revolution and then became one of the state's most important apples. *Maine Farmer* reported in 1854 that Ribston "does better in Maine than any where in the U.S." Also well known as the parent of the even more famous Cox's Orange Pippin, as well as of Starkey, one of John Bunker's all-time favorite Maine apples. Blooms midseason. Z4. ME Grown. BACK!

7267C Ribston Pippin on M111, \$38.50

Pest Management in the Orchard

Lately, we've been trying to become more tolerant of imperfections in our gardens and orchards. We're leaving a little more for our bird and bug and mammal friends, and staying calmer when things go awry. Agriculture is full of challenges, but it doesn't need to be a battle.

But when should we intervene with pests and diseases? Check out our planting guide (pages 67-70), which highlights serious threats to the orchard. Often small measures can be taken early before disaster strikes. For example, if you don't check for apple borers, your young trees may die! A little scab on an apple is ok; when all the apples are covered in scab, you may want to get involved. If the young leaves of the peach tree are becoming puckered and curled, take the time to pick off and compost the infected leaves, and the tree will thank you.

Fedco's Organic Growers Supply is standing by to help you with pest management when trouble does arise. Lean also on your local cooperative extension agents who have a treasure trove of knowledge and often lots of bulletins with suggestions and advice about pest identification and mediation. Above all, try to relax and enjoy life with all its chaos.

Roxbury Russet Winter. Roxbury, MA, early 1600s. Said to be the first named American apple variety. One of the best late-winter dessert apples—it would be hard to live without a stash of them in our root cellar. Our favorite for winter sauce. Hard medium-large patchy green and russeted fruit not uniform in size, shape or color. Rich, spicy and juicy. Dried, it's nice and tart with a pleasant first sensation and a lingering good aftertaste. The aromatic juice has potential for cider, fresh or fermented. Medium to large vigorous spreading tree. One of the most popular commercial apples of the 19th century, largely because it can store until summer. Scab resistant. Blooms midseason. Z4. ME Grown.

7268A Roxbury Russet, \$38.50 **7268C** Roxbury Russet on M111, \$38.50

Scott's Winter Winter. Unknown parentage. Newport, VT, 1864. A very tart dessert apple and a supremely wonderful midwinter pie apple. Small to medium-sized roundish truncate fruit completely and densely striped and dashed with red. Pick them in late October and store them at least a month before putting the knife to them. A pie in December will hold its shape and be still on the tart side. While nearly everyone will like these early pies, the real treat comes in February when the apples are still firm but a little spongy. Then the pies are at peak flavor; they might sink a bit but the taste is exquisite. Friends have told us it was the best pie they'd ever eaten—and it wasn't the crust! Will keep all winter in the root cellar. Blooms early-midseason. Z3. **BACK!**

7269B Scott's Winter on B118, \$38.50

Scout Late Fall. Probably MN 447 (Frostbite) x open-pollinated. Palermo, ME, 2013. Exquisite dessert fruit ripens in late October and keeps until March. Won "Best Quality Eating" award at the 2022 Wild Apple Exhibition in western Mass. Large, roundish-oblate, deep red and russeted fruit. Flavor described by Matt Kaminsky in the Exhibition's catalog as "crisp fine-grained juicy and snappy...clean fruity finish with superior aromatics. A true knockout." Seedling selected on Super Chilly Farm by John Bunker and then-apprentice Emily Skrobis, who originally named the tree "Good Girl, Scout" to honor John's beloved collie. We're awaiting DNA profiling to confirm Scout's parentage. Blooms mid-late season. Likely hardy to Z3. ME Grown. NEW! 7270A Scout, \$38.50

Starkey Fall-Winter. Seedling of Ribston Pippin. Moses Starkey intro, Vassalboro, ME, about 1800. Exceptionally delicious late fall to early winter dessert apple. In the same league as its parent Ribston Pippin and its probable half-sibling Cox's Orange Pippin. Medium-sized roundish-oblate fruit is almost entirely rosy-red blushed and striped, then sprinkled with prominent white dots. Off-white flesh is juicy, tender, crisp, mild, lively and subacid. Rediscovered in 1998 on the farm of Sue and Walter Ernst in Vassalboro with the help of orchardist and life-long Starkey fan, the late Frank Getchell of Vassalboro. A second tree was later discovered in Vassalboro with the help of Bob Clark. In recent years we have also discovered trees farther afield in the Maine towns of Bowdoinham and Industry. Not to be confused with Stark. Triploid: will not pollinate other varieties. Blooms early midseason. Z4. ME Grown. BACK!

7271A Starkey, \$38.50

Sweet Sixteen Fall. MN 1630 (MN 447 [Frostbite] x Northern Spy) U Minn, 1979. The first bite into a Sweet Sixteen is always a surprise. Fine-textured crisp flesh contains an astounding unusually complex combination of sweet, nutty and spicy flavors with slight anise essence, sometimes described as cherry, vanilla or even bourbon. We always love Sweet Sixteen season. Truly excellent fresh eating, although it is too sweet for some palates. Also good for pies and sauce. Round-conic bronze-red medium-sized fruit, striped and washed with rose-red. Annual bearer if thinned. Very hardy moderate-sized vigorous vase-shaped tree grows upright with willowy branches that get loaded with fruit but do not break. Best grown in northern districts. Keeps till midwinter. Some resistance to scab. Blooms mid to late season. Z3. ME Grown.

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7273A Sweet Sixteen, \$38.50 **7273B** Sweet Sixteen on B118, \$38.50 **Tolman Sweet** Fall-Early Winter. Sweet Greening x Old Russet. Dorchester, MA, before 1700. Sometimes called **Talman Sweet**, **Taulman Sweet**, **Tomey Sweet** and many other variations. One of the first American apples and one of the few to remain popular for centuries. Truly an all-purpose fruit, used for cider, cooking, dessert and even animal fodder. Once popular for pickling, boiling and baking. Especially prized in Maine for apple cake. Unforgettably peculiar sweet strange flavor. Very low acidity. Moderately juicy medium-sized greenish fruit, sometimes with a bit of a blush and often marked by a distinct suture line running from stem to stern. Long-lived heavy-bearing vigorous tree. Still often found throughout central and southern Maine. Blooms midseason. Z4.

7274A Tolman Sweet, \$38.50

Scott Farm

Driving the winding road up to Scott Farm in Dummerston, Vermont, feels like stepping back in time. The farm has been active since 1791, when George Washington was in his first term as president, and to this day it maintains the aura of a quintessential New England farmstead. Each of the 23 buildings on the property are part of the National Register of Historic Places, with the iconic white-clad 1862 barn as the centerpiece. Adding to the charm throughout the landscape is an impressive array of masterful dry-stacked stone walls built by the Stone Trust, a nonprofit dedicated to the preservation and promotion of drystone walling. It's no wonder this place was the site to film the Academy Award—winning adaptation of John Irving's *The Cider House Rules*.

The real magic begins up the hill, past the barn and through the fence gate. Long neat rows of apple trees snake their way up the rise, and when you turn back around you are greeted with a panoramic view of the Green Mountains. It's truly idyllic. While most orchards of this size are composed of perhaps a handful of commercially popular varieties, Scott Farm boasts nearly 130 varieties of heirloom apples. 130! For historical apple fanatics like us, it is a dream come true to see varieties like Belle de Boskoop, Cox's Orange Pippin and Tolman Sweet grown on this scale in this day and age.

The original orchard, planted in 1911, became one of the first to use refrigeration to store apples. In its patented apple-shipping crates, Scott Farm once shipped fruit across the country and even internationally. In the early 2000s the original trees were topwork grafted and "the orchard evolved from one of conventional management and cultivar selection to an ecologically managed heirloom apple oasis."

In recent years we have been fortunate to connect with orchardist Erin Robinson, who has deep roots in the Dummerston community and has generously welcomed us again and again to tour the undulating orchard rows, taste and photograph the fruits, and collect quality scionwood from her immaculately maintained trees. Erin knows the orchard like the back of her hand and is dedicated to stewarding this extraordinary place. All winter long you can find her on the mountainside pruning each of the nearly 3,000 trees by hand. Throughout the spring and summer she is eagle-eyed, coordinating her beloved crew and working long days nurturing the diverse crops from blossom to harvest.

During a winter visit in 2022 we marveled at part of the old barn that has been converted to a large cooler for fruit storage. In a good year the full bins (16 bushels in each) are stacked 6 or 7 high, even in the depths of winter. It was so fun to see the patchwork of different colors and textures of familiar Fedco favorite heirloom apples en masse: bins full of golden Roxbury Russets, bright red Baldwins, and deep purple Black Oxfords. Erin explained the puzzle of accessing the crates of different varieties. Whereas other commercial orchards may often have one dedicated storage unit full of just Macs or Honeycrisps, the diversity in the Scott Farm cooler requires a game of forklift Tetris to get to that one bin of Blue Pearmains that you need. These days nearly 80% of Scott Farm's harvest is sold and distributed within 100 miles of the orchard.

Scott Farm is more than just apples. They also grow medlars, quince, blueberries, grapes, pears, plums, peaches, cherries, currants, ginger and paw paws. And this year, thanks to a late-night orchard bonfire battle to protect blossoms against frost in April, an elusive

crop of beautiful Northeast-grown apricots! Scott Farm offers a fruit CSA, makes and bottles quality fermented cider, runs a seasonal cafe, hosts weddings, events and tours, and rents out lovely historical homes for farm stays.

If ever you are in the Brattleboro area, we encourage you to visit this gem tucked away in the Green Mountains. Look out for new Fedco catalog offerings from their extensive collection.

Jacob Mentlik



Trailman Summer. Trail x Osman. Beaverlodge Research Farm, Alberta, Canada, 1973. In spite of its small size, this is an exceptionally delicious fruit for fresh eating. Spicy sweet crisp crunchy golden-yellow flesh. Visitors who try it in our orchard usually fall in love with it instantly. Some have called it the best summer apple they've ever tasted—some even call it their favorite apple of any season! Ripens around Aug. 20 in central Maine. Translucent yellow skin has a porcelain finish, white bloom and sometimes a brownish-red blush. Fruit the size and shape of an egg. Hangs on the tree for 2 weeks without softening. Precocious. annually productive, moderately vigorous spreading tree with somewhat drooping branches and distinctive greyish-beige twigs. Exceedingly hardy. Might be tasteless south of Zone 6. One of the first to bloom each year. Zone 3 or even 2. ME Grown.

7275B Trailman on B118, \$38.50

Transcendent Crab Late Summer. Thought to be *Malus* x *adstringens* (M. baccata x M. pumila). Europe, New York or New England, well before 1840. First known reference appears to be the William Prince nursery catalog in 1844. One of the most famous of all heirloom American crabapples and certainly the one with the coolest name. Round apricot-colored fruit with a pink blush is large for a crab (11/2-2") and ripens in late summer. Flesh is orange tinted, tart, juicy and astringent, used traditionally for all culinary purposes and now becoming popular with cidermakers. Tree is large, wide spreading and somewhat weeping. Fireblight susceptible. Fragrant pink and white single flowers bloom midseason. Triploid: won't pollinate other varieties. Z3. ME Grown. BACK!

7276C Transcendent Crab on M111, \$38.50

Wealthy Fall. Duchess x Jonathan. Excelsior, MN, 1860. A Maine native of sorts, the seed having come from Bangor. As the story goes, Minnesota fruit breeder Peter Gideon sent the last of his family's dollars to a Maine grower in exchange for some cold-hardy apple seeds. One of those seeds grew into the first Wealthy tree, named for Gideon's wife. With its perfect texture and complex flavors, all-purpose Wealthy is widely considered to be one of the best hardy apple varieties. We agree. Roundoblate medium-sized fruit is pale greenish-yellow streaked with carmine. Tender very juicy sweet subacid flesh is white, often stained red. About as firm as McIntosh. Good eating and even better cooking. Wonderful pies! Good acid source for fermented cider. Ripens over a long period. Productive moderately vigorous long-lived naturally small-statured tree. Blooms early. Z3. ME Grown.

7277B Wealthy on B118, \$38.50 7277D Wealthy on G890, \$38.50



A few of my original orchard trees came from Fedco in 1989. They are all thriving under Biodynamic practices all these years later. Alan from Ashfield, MA

intro, Humboldt County, CA, 1944. One of the most intensely flavorful apples we list. Small roundish bright red fruit is crisp, juicy, tart, tangy and spicy. Highly recommended for dessert. Extremely high in both sugar and acid. Sugar level of the juice is around 25%. Becoming one of the most sought-after American cider apples. Makes perfect singlevariety cider—the best there is! In September the tree looks like a mass of cherries. Bred and introduced by the generally unknown Albert Etter, one of America's most innovative and important fruit breeders of the 20th century. Keeps until January. Wickson bears young, heavily and mostly annually. Blooms midseason. Z4. ME Grown. 7278A Wickson, \$38.50

Wickson Fall. Esopus Spitzenburg x Newtown Pippin. Albert Etter

7278C Wickson on M111, \$38.50

Williams Pride Summer. Coop 23 [PRI 2845-1=(PRI 1018-101 x NJ50)] PRI Coop, 1988. Probably the most popular summer apple among PRI's disease-resistant introductions. It's actually crisp, which is

rare for a summer apple. Deep purple roundish-conic irregularly shaped fruit highlighted with areas of glowing rosy red and covered with a thin bloom. Light cream-colored flesh with red staining just under the skin. Firm, crisp and very juicy. Has a nice acidic blend of tart and sweet, reminiscent of Fameuse. Long ripening period means you don't have to eat them all at once. Vigorous annually bearing tree with some biennial tendency. Well shaped with strong right-angled branches that do not require careful training. Highly resistant to fireblight, cedar apple rust and sooty blotch; resistant to powdery



mildew. Scab immune. Blooms early to midseason. Z4. ME Grown.

7279B Williams Pride on B118, \$38,50

Winekist Summer. Unknown parentage. Carl A. Hansen intro, Brookings, SD, 1949. Medium-sized fruit is wine red with patches and stripes of darker red and very small white dots. The very juicy coarse flesh is almost solid beet red, a deeper color than Redfield. Extremely tart tasty cranberry flavor. Makes a colorful addition to fresh cider or sauce. Good fresh eating for those who like it tart. For many years we assumed the apple was the creation of the Winthrop, ME, fruit explorer and collector Morris Towle, who had it in his collection. Dan Bussey's research has straightened that out. It must have come back east shortly after its introduction. Leaves are tomentose (soft and woolly) and have a dark reddish cast. Blossoms are light pink. Tree is a natural semi-dwarf. Blooms midseason. Z3. ME Grown. BACK!

7281B Winekist on B118, \$38.50

Winter Banana Fall-Winter. Unknown parentage, Adamsboro, IN, 1876. One of the most famous American heirloom apples. Large blocky brilliant shiny yellow fruit with a bright red blush, rather conical, somewhat ribbed and sometimes with a suture line. Best as a dessert apple: aromatic, slightly crisp, juicy, mild and quite tasty. Good sauce. Some say they detect a banana aroma or flavor. Keeps through the fall and into midwinter. Often planted in the mega-orchards of the Northwest for its compatible and presumably potent pollen. Blooms midseason. Z4.

7282A Winter Banana, \$38.50

Wolf River Fall. Alexander seedling. Near Wolf River, Wisconsin, 1875. Perhaps the most famous old-time apple in Maine, likely due to its catchy name and its extremely large—even huge—round-oblate fruit. Giant Wolf River specimens always stand out in our apple displays at the Common Ground Country Fair. Pale yellow-green skin mostly covered with pink, deep red and bright crimson with a vivid yellowish-greenish russet splash around the stem. Creamy-white coarse flesh is firm but tender. Aromatic subacid flavor is very good for cooking. Makes an excellent baked apple and a decent pie. Not much good for fresh eating, but particularly tasty when dried. Keeps until late fall. Large moderately vigorous productive spreading tree. Excellent scab resistance. Blooms mid to late season. Z3. ME Grown.

7283A Wolf River, \$38.50

Zabergau Reinette Winter. Württemberg, Germany, 1885. One of the most famous of all European heirlooms. Excellent fresh eating and good for cooking. Very large, sometimes huge, round-conic, sometimes lopsided, greenish-bronze russeted fruit with a red-orange blush. Similar to Pomme Grise in color, but much larger. Quite visible whitish russet spots cover the entire fruit. A very attractive apple. Firm white finegrained flesh with a rich nutty intense sweet-sharp flavor—fruity with hints of raspberry. Keeps well until midwinter and sweetens up in storage. Productive upright vigorous tree. Triploid: will not pollinate other varieties. Blooms midseason. Z4. ME Grown. BACK!

7285B Zabergau Reinette on B118, \$38.50

Zestar Late Summer. State Fair x MN 1691. U Minn, 1999. Also called Zestar! Extremely hardy high-quality mid-late summer dessert apple. Medium-sized blocky round fruit covered with red stripes and blush. Juicy and crisp with a well-balanced acid-sweet flavor. As the late Michael Phillips, New Hampshire orchardist and author of *The Apple Grower*, said, "When you tree-ripen Zestar, it's fabulous." Northern Maine orchardist Steve Miller added, "That's an impressive apple. From the standpoint of appearance and quality, they're first rate." Keeps in cold storage up to 7 weeks. Tree has moderately vigorous upright form; excellent horizontal branching habit makes it easy to train and prune. Precocious and annual-bearing. Blooms early season. Z3. ME Grown.

7286B Zestar on B118, \$38.50 **7286E** Zestar on Bud 9, \$38.50

Seedling Apple

These trees were grown from seeds, rather than grafted onto rootstock like the other apple varieties we offer.

These standard-sizes trees will grow to 20-30'.

Borowinka (Duchess) Seedling M. domestica. Late Summer. While most apple seeds do not grow true to type, the progeny of Duchess, or Duchess of Oldenburg, are very similar to the parent tree. Over the years we've offered many apple varieties that are Duchess seedlings, all just variations on a theme, including Nutting Bumpus and New Brunswicker. Borowinka seedlings are extremely rugged and were among the first apples to be successfully grown north of Bangor. Whole fields in Aroostook County are overgrown with these pippins and the fruit is all similar-good tart late-summer cooking and sauce apples with the characteristic Duchess stripes. Often used as a rootstock for grafting, Borowinka seedlings are standard-sized, vigorous, disease resistant and cold hardy. Grow these trees for their own fruit, or topwork (graft) on varieties of your choice. Early

to midseason blooms. Z3. ME Grown. NEW! 7287A Borowinka Seedling, \$22.00 Become an

Maine Heritage Orchard Stewardship Apple The Maine Organic Farmers and Gardeners Association (MOFGA) established the Maine Heritage Orchard (MHO) in a renovated

gravel pit in Unity, with the first trees planted

Apple Steward!

on Earth Day 2014. MHO is home to hundreds of heirloom varieties of apples that were known to be grown in Maine dating back as far as 1630, as well as a growing collection of noteworthy, provisionally named seedling varieties grafted from impressive ancient trees found across the state. Nearly 350 apple trees have been planted so far with many more to come. The trees are managed with innovative organic practices and planted on a terraced hillside alongside native flowers and shrubs to create a polyculture orchard unlike any other. MHO is an educational resource, open to the public during various workshops, tours and volunteer days throughout the year.

You can join in this effort by becoming an Apple Steward. By purchasing a Heritage Orchard Stewardship Apple, you become the proud keeper of one of the varieties growing at MHO. In the event that the orchard's tree dies, you'll have a backup so we can collect scionwood for grafting another.

We'll send you a historic apple tree with a description and a form to fill out. After planting your tree, you return the form with the tree's location to MOFGA. MOFGA will contact you from time to time.

\$30 from the sale of each tree goes to support the Maine Heritage Orchard project. All trees best grown from Z4-6. ME Grown. -6' bare-root trees)

7288A Stewardship Apple, \$60.00



Where can I taste that apple?

While we take pride in our variety descriptions, there's nothing like trying the real thing. Frequently we're asked, "Where can I taste a...? One opportunity is Great Maine Apple Day, October 20, 2024, at MOFGA in Unity, ME. See our calendar of other apple-related events on the back cover of this catalog.

To try more than 20 varieties, sign up for Out on a Limb Apple CSA (outonalimbapples.com) co-managed by Fedco Trees founder John Bunker. Members pick up biweekly shares of rare apples during the fall harvest season.

Visit an orchard near you. There are many great orchards out there. Even one or two rare fruit finds can make the trip worthwhile. Below are some Maine orchards with good collections. For a more complete list of Maine orchards, go to maineapples.org.

For a longer list of orchards around the Northeast, visit:

fedcoseeds.com/trees/tasting.htm

Some orchards in Maine:

- The Apple Farm, Fairfield, Somerset County (207) 453-7656, applefarm.us. A great collection of unusual old and new varieties.
- Bailey's Orchard, Whitefield, Lincoln County (207) 549-7680. One of the largest collections of old varieties in the state. Other fruits, too.
- Cayford Orchards, Skowhegan, Somerset County (207) 474-5200, cayfordorchards.com. 57 new and heirloom varieties of tree fruits.
- Clayfield Farm, East Blue Hill, Hancock County (207) 374-2159, clayfieldfarm.net. Small organic orchard of mixed varieties.
- 5 Star Orchard, Brooklin, Hancock County (207) 359-4960, 5starorchard.com. Organic heirloom apples, pears, plums and peaches.
- Lane Road Orchard, New Sharon, Franklin County (774) 265-0614. Many interesting heirlooms and unusual modern varieties.
- McDougal Orchards, Springvale, York County (207) 324-5054, mcdougalorchards.com. Many unusual apple varieties.
- Maine-ly Apples, Dixmont, Penobscot County (207) 234-2043, mainelyapples.com. Excellent collection of old, new and rare varieties.
- North Star Orchards, Madison, Somerset County (207) 696-5109, northstarorchards.me. Pick-your-own apples, cider mill, and farm store.
- Pleasant Pond Orchard, Richmond, Sagadahoc County (207) 737-4443. Apples, pears, plums, peaches, blackberries and pick-your-own highbush blueberries.
- Ricker Hill Orchards, Turner, Androscoggin County (207) 225-5552, rickerhill.com. Mostly modern varieties, some organic.
- Rollins Orchard, Garland, Penobscot County (207) 924-3504, rollinsorchards.com. More than 20 unusual old varieties.
- Sandy River Apples, Mercer, Somerset County (207) 587-2563, sandyriverapples.com. Francis Fenton's orchard, original source of many of Fedco's apple varieties. More than 40 heirloom and modern apples.
- Sewall Orchard, Lincolnville, Waldo County (207) 763-3956, sewallorchard.com. Organic apples including some of the first diseaseresistant releases. Organic apple cider vinegar, too!
- Sweetser's Apple Barrel and Orchards, Cumberland Center, Cumberland County (207) 829-6599, maineapple.com. A great collection of 39 old and new varieties. Don't miss their Rolfe apples.

Cider Apples

Each year we offer a different assortment of the best European and American cider varieties, including new wild apple introductions from local fruit explorers and cidermakers. Many of these are NOT for fresh eating. They do however possess qualities that make them very desirable for fermented cider production.

Cherry Norman Fall. Bittersweet cider apple. Exceedingly rare, this classic English heirloom bittersweet probably originated in Herefordshire well before 1880. Roundish-oblate 2" brilliant red-blushed fruit, sometimes decorated with patches of russet. Tender white soft sweet astringent juicy flesh. We got our scionwood from English cider historian and collector John Teiser in collaboration with the USDA APHIS program (Animal and Plant Health Inspection Service). After a period of quarantine the apple received final release from APHIS in 2021, and we're now pleased to offer it. Fedco is likely the only North American source of the true Cherry Norman. We've been trialing it since 2017, and it's proven to be hardy in central Maine. Blooms midseason.

Z4. ME Grown. BACK!

7290A Cherry Norman, \$38.50

Dabinett Late Fall. **Medium-bittersweet** cider apple. Probably a seedling of Chisel Jersey. Middle Lambrook, Somerset, England. One of the most popular cider varieties in Somerset today and one of the mainstays of Poverty Lane Cider Orchards in NH. At a MOFGA workshop, Steve Wood of Poverty Lane and Farnum Hill Ciders said, "If you're going to plant one bittersweet, plant this one." Sugar content fair and fermentation moderate. High-quality well-balanced low-acid cider with a soft-tasting tannin. (SG 1.057, acidity 0.18%, tannin 0.29%) Medium-sized roundish fruit covered with brownish brick-red stripes and blush. Picked last week of October and usually blended with other late varieties. Crops annually. Grower-friendly tree with flat lateral branches may require help in developing a strong central leader. Not pollen compatible with Chisel Jersey. May be susceptible to fireblight in some locations. Midseason bloom. Z4. ME Grown.

7292A Dabinett, \$38.50 **7292C** Dabinett on M111, \$38.50

Harrison Mid-Late Fall. Vintage sharp cider apple. Parentage unknown. South Orange, Essex County, NJ, as early as 1712. One of the most renowned American cider apples, dating from the early days of domestic cidermaking. Harrison cider was famous and considered to be better than champagne. Medium-small oval yellow-skinned fruit. Rich firm dry yellow flesh. According to William Coxe in 1817, it makes a "high coloured, rich, and sweet cider of great strength, commanding a high price in New-York, frequently ten dollars and upwards per barrell." Vigorous productive tree. A Harrison revival is underway in several locations on the East Coast. Performing well in our central Maine trials. Appears to be plenty hardy. Blooms mid to late season. Z4. ME Grown.

7294A Harrison, \$38.50 **7294C** Harrison on M111, \$38.50

It's All in the Mix!

"From the great diversity of soil and climate in the United States of America, and the almost endless variety of its apples, it followed that much diversity of taste and flavor will be necessarily found in the cider that is made from them."

- Colin MacKenzie, 1829

For the best cider, plant several varieties. That's because when it comes to cider, it's all in the mix. Unlike beer, cider usually has only one ingredient: apples. They provide everything: acidity, sugar, tannin and flavor.

We classify the cider varieties into four categories:

- **Sharp** (low in tannins, high in acid)
- Sweet (high in sugar, little or no tannin, low acid)
- **Bittersharp** (high in tannins and high acid)
- **Bittersweet** (high tannins and sugar, low acid).

Tannin denotes naturally occurring compounds whose bitter astringency gives rounded full flavor, body and golden color.

Most cider is best blended. We recommend you plant some sharp apples for acidity, some sweet apples for sugar and some bitter apples for the tannin. However, **vintage** refers to varieties with perfect qualities for single-variety cider.

For those who are really serious about it, we include where we can the percent malic acid (acidity), percent tannic acid (tannins) and specific gravity, or SG (sugars) for the individual varieties. Brix is another measure of sugar content.



Harry Masters Jersey Fall. Medium-full bittersweet cider apple. Often called Port Wine in north Somerset. Probably introduced by Harry Masters, Yarlington Mill, Woolston, Somerset, England, before 1900. High-quality bittersweet variety recommended for blending with other fall varieties. Soft astringent tannins. (SG 1.056, acidity 0.20%, tannin 0.32%) Becoming popular commercially in New England. One of the mainstays of Farnum Hill Cider in New Hampshire. Medium-large oblate-conic fruit, mostly covered with bright red stripes and blush, and a splash of yellow russet around the stem. Narrow upright tree form. Harry Masters himself was the miller at Yarlington Mill. Harry Masters Jersey and Yarlington Mill are thought to be of the same parentage. Blooms midseason. Z4. ME Grown.

7295A Harry Masters Jersey, \$38.50 **7295C** Harry Masters Jersey on M111, \$38.50

Hewe's Virginia Crab Fall. Vintage sharp cider apple. Probably a seedling of the native *M. angustifolia*, the Southern Crab. Introduced about 1700 in Virginia. One of the most prized of all American cider apples. One of the rare varieties recommended for single varietal cider. In his 1817 *A View of the Cultivation of Fruit Trees*, William Coxe devoted an entire chapter to making cider with Hewe's. The red-skinned white-spotted fruit is small, round, juicy, tough, astringent and acidic. According to AJ Downing in 1848, Hewe's "makes a very high-flavored dry cider, which, by connoisseurs, is thought unsurpassed in flavor by any other, and retains its soundness a long time." Incredibly vigorous, productive and healthy in our trials. Quite hardy despite its name. Long ago used as a rootstock even as far north as Maine. Prolific large white blooms persist for a long time midseason, making it a great pollinator for other varieties. Z4. ME Grown.

7296C Hewe's Virginia Crab on M111, \$38.50

Kingston Black Fall. Vintage bittersharp cider apple. Parentage unknown. Somerset, England, early 19th c. High in tannin and acidity. (SG 1.061, acidity 0.58%, tannin 0.19%) Produces full-bodied vintage cider with a nice blend of acid, tannins and sugar. One of the noteworthy varieties that makes a high-quality single variety hard cider; also good in a blend. We became fans of Farnum Hill's tasty Kingston Black varietal. Now we make it ourselves. Also makes superb fresh cider. Even the fresh juice is a deep rich dark color. Medium-sized conical beautiful rich red fruit is mottled with red russet and deeper shades of maroon. Fairly decent fresh eating. The tree is a reliable bearer, but is gangly and needs careful pruning. Blooms midseason. Z4.

7297A Kingston Black, \$38.50 **7297C** Kingston Black on M111, \$38.50 **7297E** Kingston Black on Bud 9, \$38.50

John and Cammy's Simple Hard Cider

Apple juice wants to ferment. Although there are many books, websites and conferences devoted to hard cider, the process is quite simple.

Our best ciders come from a mix of different apples. We combine small and somewhat bitter wild seedling apples with sweet low-acid apples like Tolman Sweet, and bittersweets like Dabinett, Yarlington Mill, or other cider varieties. That said, just use what you have!

A bushel of apples will yield about 3.5 gallons of juice. You can buy, borrow or build a cider press. You could also buy fresh cider from a local orchard in the fall.

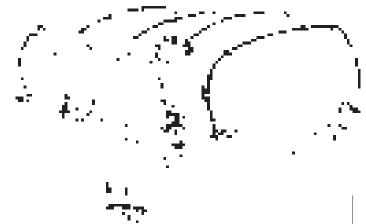
Pour juice into a clean container, such as a glass gallon jug, a 5-gallon carboy, or a 50-gallon wooden whiskey or wine barrel. We clean our fermentation vessel with potassium metabisulfite, available at beer/wine supply stores.

Some cidermakers add yeast. Others add raisins, brown sugar, various fruits or even a piece of steak. Our cider is just juice. The natural yeasts on the farm are enough to make great cider.

Seal the vessel with an airlock. When the airlock stops bubbling, the fermentation is done. This takes several months in the cool basement where we ferment our cider.

Time to drink the cider or bottle it. We like to bottle ours and wait another few months because it keeps getting better. Sometimes we add ³/₄ tsp sugar to each bottle to make the cider fizzy. Twist-top wine bottles or flip-top bottles are easy because you don't need to purchase bottle caps or corks. Enjoy!





Knotted Kernel Late Fall. Medium-bittersweet cider apple. Somerset, England. Featured in the London Horticultural Society's 1842 catalog. Kernel in the name (à la Ashmead's) suggests this was a chance seedling. Hardy, small to medium-sized conic and ribbed fruit is waxy yellow and washed with red blush overlaid with darker red stripes. Very long stem in a deep russetted cavity. Cream-colored flesh with streaks of red bleeding from the skin is sweet with soft tannins. (SG 1.059, acidity 0.24%, tannin 0.34%) Suitable for a single varietal cider. Mostly unheard of until it reappeared over a century later in New Zealand in the orchard of a British emigrant. Scions were sent back home to the U.K. and reintroduced by Brentwood Fruit Trees in Buckinghamshire in 2006. Z4. ME Grown.

7298C Knotted Kernel on M111, \$38.50

Old Fertile Fall. Sweet cider apple. Wilmington, VT. From the Gnarly Pippins wild-apple collection. Matt Kaminsky, aka Gnarly Pippins, is an adept forager who has discovered numerous untamed apple varieties with superior qualities across the Northeast. Many of these finds have been grafted ex situ with promising results for cider orchards. Old Fertile is one of the best. A complex sweet apple with what Matt calls "super duper flavor. Honey sweet with a bit of vanilla or honeysuckle." Makes good sweet cider (Brix 18–20) sometimes with a bittersweet lean. Low acid. Round to round-oblate fruit is intense yellow with a russeted stem cavity. The original tree produces small to medium apples, but grafted specimens show increased fruit size. Stores well. Strong low-maintenance trees with no disease pressure observed. Blooms midseason. Z4. ME Grown. BACK!

7300C Old Fertile on M111, \$38.50

Discovered around 1600 in the Forest of Dean in western Gloucestershire. The identity of Foxwhelp, one of the most famous of all English cider apples, has been perplexing for decades... no, centuries! To make a long story short, after years of imposters (faux-whelps) and through diligent and thorough investigation, phenotypic examination and DNA results now conclude that we finally have the original Foxwhelp! Small to medium-sized, roundish, sometimes cylindrical and irregularly ribbed and lopsided. Yellow skin with beautiful deep crimson stripes. The flesh is yellowish, tinged with red and has a peculiar flavor combo of sharp, astringent and sweet. (SG 1.057, acidity 1.07%, tannin 0.20%) Recently released from APHIS along with a few other English Foxwhelp types. Look out for Red Foxwhelp, Rejuvenated Foxwhelp and Broxwood Foxwhelp, which we hope to make available in the future. (For a comprehensive history of Foxwhelp, see Bunker's article "Will the Real Foxwhelp Please Stand Up" in Malus, Issue 10.) Blooms midseason.

7301A Old Foxwhelp, \$38.50

Pears for pressing

Z4. NEW!

Perry pears, which are varieties especially suited to fermented pear cider, can be found on page 20.

Otterson Fall. Bittersharp cider apple. Fameuse x Niedzwetzkyana. Entered into USDA apple germplasm repository in 1992. Rediscovered and cultivated at Michigan State U by plant geneticist Dr. Steve van Nocker and botanist Chris Gottschalk, who have done extensive research and trials on red-fleshed apple varieties and started the Michigan PureRed breeding program. Otterson was selected as one of the best from more than a hundred varieties for its size, vigor and disease resistance, as well as its deep red juice, high in anthocyanins and antioxidants. Medium-sized round fruit are DARK red inside and out. Cidermakers have pressed and fermented Otterson into rosé cider, winning honors at the Great Lakes International Cider and Perry Competition. On trial around the U.S. and growing well in our local Maine orchards. Highly ornamental purple-red foliage and pink flowers. Early to midseason bloomer. Z4. BACK!

7302A Otterson, \$38.50 7302C Otterson on M111, \$38.50

Porter's Perfection Late Fall. Medium bittersharp cider apple. Charles Porter intro, East Lambrook, near Kingsbury Episcopi, Somerset, England, before 1900. Heavy cropper of small dark red-blushed fruit. (SG 1.054, acidity 0.82%, tannin 0.25%) Pomologist Liz Copas writes that it "can produce an excellent cider. Its juice is rather acidic bittersharp and is better blended for a more balanced product." When we meet cidermakers, we always ask them about their favorite varieties. Eric Shatt of Redbyrd Orchard Cider in the Finger Lakes region of New York replied, "Porter's Perfection." Redbyrd's website calls it an "excellent balance of tannins and acidity." Often produces twins or triplets—two or more fruits fused together. Similar to the excellent Lambrook Pippin; the two varieties are thought to be of same parentage. Scab resistant. Blooms midseason. Z4. ME Grown.

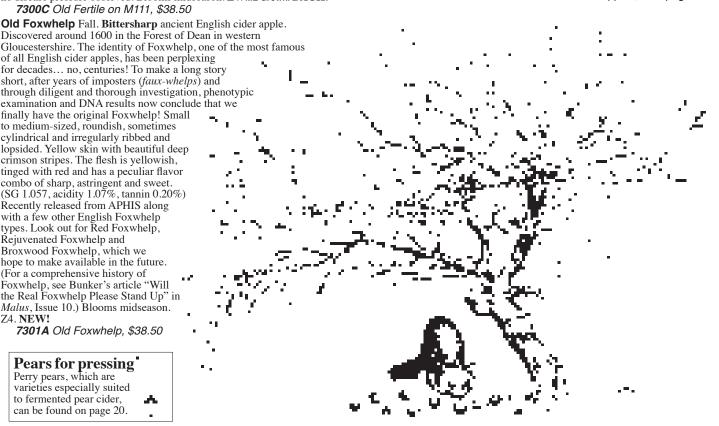
7304C Porter's Perfection on M111, \$38.50

Puget Spice Late Fall. Bittersharp cider apple. Prima x Alkmene. WA St U intro, 2012. Eve's Cidery in Van Etten, NY, where we originally got our scionwood, calls Puget Spice a "high gravity tannin acid bomb." Bright red 2" crabapples have everything you need to make a good cider. Lots of sugar, bitterness and acidity make this a good candidate for a single varietal. (SG 1.057, acidity 0.96%, tannin 0.13%) Crabs can be a pain to pick in large quantities but these gems shake easily off of the tree when ripe. If you don't pick them, they'll hang on quite long into the winter providing a nice and colorful food source for wildlife. Trees have a distinctly upright habit and are highly disease resistant, immune to scab and mildew. Great pollenizer with a long midseason bloom time. Z4. ME Grown. NEW!

7305C Puget Spice on M111, \$38.50

Redfield Fall. **Bittersharp** cider apple. See page 12 for description.

More cider apples, next page.



more Cider Apples

Searsburg Cherrybomb Early Fall. Sharp cider apple. Eric Shatt, Redbyrd Cider selection, Finger Lakes region, NY. Abundant small bright red crabapples almost look like ripe cherries on the tree. Surprising orange flesh is tart with sharp bright acidity, but also packs a lot of sugar. The best thing about this apple is that the trees are "absolutely clean of foliage blemishes with no spray!" according to Shatt. Cedar apple rust can be a huge problem in New York orchards and Cherrybomb has had no issues. On trial here in Maine. Seems like a good candidate to use as a parent in the quest to breed climate-resilient and naturally diseaseresistant apple varieties. Midseason bloom. Z4. ME Grown. NEW! **7306C** Searsburg Cherrybomb on M111, \$38.50

Stoke Red Late Fall. Bittersharp cider apple. Also called Neverblight. May have originated in Rodney Stoke or near Wedmore, Somerset, England. Medium-sized round-conic fruit covered with dark red radiating stripes that blend into a nearly solid glowing red and pink blush. Some russet dots and netting. Very attractive. Sharp juice with some astringency. Very sharp cider. Consistent heavy cropper and a reputation in the U.K. for resistance to pests and disease. Very scab resistant. (Neverblight!) Pick late in the fall and combine with other late varieties. Blooms late season. Z4. ME Grown. BACK!

7308C Stoke Red on M111, \$38.50

Wickson Fall. Vintage sharp cider apple. Description on p. 14.

Yarlington Mill Fall. Medium-bittersweet cider apple. Yarlington, near North Cadbury, Somerset, England, 1898. Rich brown low-acid juice, mildly aromatic, fruity and not aggressively tannic. Above-average sugar content. (SG 1.053-1.075, acidity 0.22%, tannin 0.32%) Slow to medium fermentation. Medium-sized yellow distinctly conic fruit with a pinkish blush and overspreading darker red stripes. Considered an all-round excellent cider variety: reliable, productive and adaptable to varying conditions. We've heard reports of it thriving in Zone 3. Steve Wood's other favorite bittersweet (see Dabinett). Highly recommended for home and commercial cider plantings. You may need to head back the leader in early years to encourage strong laterals. Midseason

bloomer. Susceptible to fireblight in some locations. Z3/4. BACK!



Flowering and Culinary Crabapples *Malus* spp. A crabapple is any apple with fruit smaller than 2" in diameter. All crabs

bear edible fruit, some more favorable for culinary use than others. Some fruits are persistent, hanging on the branch through winter and providing forage for robins, jays and waxwings in the early spring. The flowers, tree form and even the shape of the leaves can vary subtly or profoundly. Most are magnificent in bloom and ornamental year round, especially in winter when the leaves drop and the trees show off their interesting forms. (21/2-6' trees)

Brandywine 20x20' M. ioensis 'Plena' Klehm's No. 8 (M. x purpurea Lemoinei x M. Klehm's Improved) Incredibly beautiful fragrant flowers followed by unbelievably bitter fruit. Deep pink buds open to fragrant 1" wide pink double rose-like blossoms. Put an arrangement of these flowers in a vase, and people will swear they are roses. Cidermakers love the unattractive 1-2" maroonblushed green fruit that drops in the fall and makes a mess. Very high in tannin. In Cider Digest some years ago, one grower wrote, "You ought to try planting a crab called 'Brandywine'. WOW!!! what a real mouth-killer as far as tannin goes... Couldn't tell you the acidity because my tongue had gone dead. Along with Dolgo, our topselling crab year after year. Loosely rounded tree blooms most years. Z4. ME Grown. 7316C Brandywine

Dolgo 25x30' From seed collected by NE Hansen of M. x robusta in 1897 at the Imperial Botanical Gardens, St. Petersburg, Russia. (Dolgo means 'long' in Russian.) Introduced in the U.S. in 1917. The classic culinary crab still found in old Maine dooryards. Apricot-pink buds, large fragrant 2" pure white single flowers bloom early. Beautiful purple-red 11/2" teardrop-shaped fruit makes flavorful clear ruby-red jelly.

Crabapple on M111,

\$38.50

In recent years the aromatic sweet very acidic fruit has found favor with cidermakers. Great for canning, pickling and delicious sauce. Vigorous large blocky upright spreading tree consistently yields abundant summer crops. Very hardy. Z2. ME Grown.

7317A Dolgo Crabapple, \$38.50 7317C Dolgo Crabapple on M111, \$38.50

> For more crabapple varieties, please check our website!

Growing Crabapples

Soil: Adaptable, but prefers welldrained fertile soil.

Sun: Full sun, but will tolerate less if you pamper it.

Pollination: Requires a second variety for pollination. Any apple or crabapple blooming within a quarter mile will probably do.

Planting: Same as other apples. See pages 67-70 for instructions on soil prep, planting and pest

Spacing: 15–20' apart.

control.

Pruning: Crabs do not require formal pruning. Prune broken branches and suckers; moderately shape as you wish, but otherwise allow the tree to assume its natural form.



European Pears Pyrus communis

Native to temperate Europe and Ásia, pears can grow up to 100' tall in the wild. Many pear varieties are hardy in New England but tend to take longer to come into bearing than apples and might not bear every year. Farther south, pears tend to bear annually. Pick fruit when green and ripen it on the shelf. Or, for optimal eating, try this method, from Ed Fackler of Rocky Mountain Orchard: "...when fruits exhibit slight color changes, begin to test pressure (using your thumb) near the stem. When there is a slight 'give,' pick all the fruit, store at or near 35° for 7 or more days. Then remove them as needed, allow them to sit at room temps for 2–4 days which allows them to ripen to peak flavor."

Pears are on OHxF97 and will reach 25' or taller at maturity. (2¹/₂-6'

Bartlett Late Summer. Seedling found in Aldermaston, England. Introduced to the U.S. in the late 1700s. Also known as **Williams' Bon Chrétien**. The most widely planted and well known of all pears in U.S. commercial production. Adaptable to many climates and soils. Large classic pear-shaped greenish-yellow fruit; very good quality. Full reliable annual crops. Might be iffy north of Bangor. Large vigorous easy-to-grow long-lived tree bears young. Susceptible to fireblight. Good pollinator for Asian pears. Z4. **ME Grown**.

7332A Bartlett Pear, \$38.00

Buffum Fall. Possibly a seedling of White Doyenne. Rhode Island, early 19th c. Small (about 2" long) heirloom dessert pear with deep brownish-yellow skin and a reddish blush. Flesh is white, rich, melting and aromatic. Ripens in late September to early October, around the same time as Seckel. For best flavor, pick fruits early and store them in a cold place (around 35°) for at least a week before bringing them to room temperature to fully ripen. The tree is vigorous and considered ornamental with its glossy foliage. Ours tends to shoot for the sky, so train it early to spread and stay low unless you have a very tall ladder. Somewhat resistant to fireblight. Bears biennially. Rare. Z4. **ME Grown**.

7334A Buffum Pear. \$38.00

Cabot Vermont Fall. A superior old dessert pear, c. 1850, discovered in Cabot, VT, a few miles west of the New Hampshire border and about as far north as Bangor. Medium-large pear-shaped yellow-green fruit has a slight reddish blush. Yellowish sweet flesh is coarse grained, extremely juicy, with no grit cells. Not only is it a delicious dessert fruit, it is also remarkable for its very rare "double" flowers.

Highly ornamental! Introduced to us many years ago by Armando Bona of Passumpsic, VT. Not to be confused with the old Massachusetts pear named Cabot. Annual and self-pollinating. Very hardy. Z4 or possibly even Z3. ME Grown.

7335A Cabot Vermont Pear, \$38.00

Growing European Pears

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: We recommend planting a second variety for pollination, though some pears may be self-pollinating. Bloom times are similar for all

varieties we offer.

Planting and Pruning: See pages 67-70 for instructions on soil prep, planting, pruning and

pest control.

Spacing: 15-20' apart

Dana Hovey Winter. Thought to be a seedling of Seckel. Roxbury, MA, about 1854. Introduced by 19th-c. fruit enthusiast Francis Dana who dubbed it "Dana's Hovey" in honor of CM Hovey, Boston nurseryman and author of *The Fruits of America*. Sometimes called Winter Seckel because of its similarity to Seckel. Small squat rich golden-yellow russeted fruit. Intensely sweet highly aromatic tender storage pear has excellent flavor; possibly the best eating of all winter pears. Keeps extremely well. Harvest in October and store in a cool dry spot. Still great eating in December—sometimes even as late as February. Hardy vigorous moderately productive spreading tree adapts to a variety of soils. No scab and relatively few bugs. Z4. ME Grown.

7336A Dana Hovey Pear, \$38.00

Doyenné Boussock Early Fall. Belgium, 1819. Highly attractive large fruits with a classic symmetrical pyriform shape. Pale greenish-yellow skin with a bold red flush, covered with fine russet netting and small lenticels. Juicy melting cream-colored flesh is sweet, yet briskly acidic and lemony. Perfect for boiling down into *stroop*, a Dutch pear syrup that some say rivals maple. Sold in Brussels as Doyenné de Mérode but its name was inexplicably changed to Doyenné Boussock when brought to France a few decades later. *Doyenne* is a French forename given to many pears to indicate excellence. Added to the American Pomological Society catalog in 1856. Once widely planted in U.K. gardens and grown for market in the eastern U.S. Fruit does not store for long. Vigorous cold-hardy trees are productive annual bearers. Z4. **ME Grown. NEW!**

7337A Doyenné Boussock Pear, \$38.00

Duchesse de Berry d'Ete Mid-Late Summer. Seedling from Commune of Saint-Herblain, Dept of Loire-Inferieure, France, 1827. Very high-quality summer dessert fruit. Semi-fine, melting, juicy, sugary and aromatic. Medium-small roundish yellow fruit blushed red and flecked with small dots. Vigorous upright habit. We've been on a mission to track down lost pears historically grown in Maine. Sometimes it feels a bit like looking for passenger pigeons, but then another one shows up. We found this one in a collection out West. We think it initially came to Maine from one of the large 19th-century nurseries in Rochester, NY. Productive vigorous upright grower. Z4. ME Grown. BACK!

7338A Duchesse de Berry d'Ete Pear, \$38.00

Early Pear Summer. Uncertain origin. Very tasty soft-fleshed dessert pear. Medium-sized attractive fruit resembles Vermont Beauty in shape (obovate acute-pyriform) and size. Light yellow skin, sprinkled with small brown dots and a flashy red blush. The earliest-ripening variety we know. Earlier than Summercrisp, ripening in mid-August in central Maine. As with the summer apples, it does not keep. Enjoy it while it's here. Introduced to us several years ago by one of

Maine's great pear growers, Howard Wulf. He calls it Early Pear, or *Fruhbirne* in German. Howard believes that it may be the same as Wilder Early, a 19th-century Rochester, NY, introduction. Fully hardy in central Maine. Z4. ME Grown. BACK!

7339A Early Pear, \$38.00

Kaspar's Winter Late Fall-Winter. Frankendorf, Germany. Very good tough-skinned storage pear—will keep until April in the root cellar. Greenishmottled medium-small pear-shaped fruit with some russet splashes or dots. Coarse flesh with a floral vanilla-cake flavor. Very hard off the tree; don't begin to eat them until a month after picking. Years ago this nameless winter pear found its way from the roadside near Frankendorf to Unity, ME. The name came later, courtesy of grower Howard Wulf who calls it "the latest-keeping pear I've ever seen." Sturdy adaptable hardy precocious tree. Recommended for those who want pears into January. Z4. ME Grown.

7340A Kaspar's Winter Pear, \$38.00

Pear Leaf Blister Mite

Pear leaf blister mites can sometimes be a problem for pear growers in the U.S. The tiny mites overwinter under the bud scales and become active in spring. They are too small to see with the naked eye, but you'll know you have them if pear foliage looks like it has red blisters that eventually turn black. We recommend a dormant oil spray in spring just before the pears leaf out.
You can also do a sulfur spray in the fall. (Apply appropriately, with protection. Read labels.) As a precaution, we spray Fedco pear trees with Organic JMS Stylet-Oil in the spring before shipping. You'll find organic treatments for fruit trees in our Seeds & Supplies catalog, or at fedcoseeds.com/ogs. We have noticed that trees often outgrow the infection even if you do nothing.

more Pears

Louise Bonne d'Avranches Fall. Seedling pear from Normandy, France, c. 1780. Buttery juicy flesh with some grain and grit. Medium oblong-pyriform fruit with smooth pale yellow skin that is often blemish free. Vigorous, productive and upright trees are hardy and long-lived. Found in many commercial orchards and home collections in New York. Also called Louise and was known as Louise Bonne de Jersey in England after arriving through the Channel Islands. Brought to the U.S. in the early 19th c. Z4. ME Grown. BACK!

7341A Louise Bonne d'Avranches Pear, \$38.00

Nova Late Summer. Hammond, NY. Seedling discovered and introduced by Bill MacKentley of St Lawrence Nurseries, Potsdam, NY. Large yellow rounded dessert fruit covered in green dots with occasional russet splashes. Melting juicy flesh. Chris Blanchard's favorite pear. For decades he and Liz Lauer have been trialing a wide assortment of pears a few hours north of us in Penobscot County. He described it as "large with smooth creamy texture and a thin skin. Wonderful dessert pear. Also the best canning of our 12–14 varieties." Holds its shape in the jar. Very hardy, though from our trials in northern Aroostook County, not quite as hardy as Patten. Appears to be scab free. Z3. ME Grown. BACK!

7342A Nova Pear, \$38.00

Patten Late Summer. Orel 15 x Anjou. CG Patten intro, IA St U, 1922. Very good fresh eating with sweet "high flavor." Oblong and greenish-yellow with a red blush. Vaguely reminiscent of Bosc in size and shape. Fine-grained soft flesh has minimal grit cells. Good canning pear. Tree is extremely adaptable, growing all over the Northeast. Long willowy very flexible branches won't break even under the weight of its heavy crops. Fared incredibly well during the cold "test winter" several years ago when hundreds of northern Maine pear trees died to the roots. Extremely hardy and highly recommended for coldest districts. A good pollinator for other varieties. Scab resistant. Z3. ME Grown.

7343A Patten Pear, \$38.00

Rogue Red Fall-Winter. 5-235 [Comice x (Seckel x Farmingdale seedling #122)] Frank Reimer intro, Southern OR Exp Stn, Medford, OR, 1969. Very sweet high-quality late-ripening dessert pear with buttery cream-colored flesh and very few grit cells. Large Seckel-shaped mostly red-blushed and partially russeted fruit. Harvest about the time of Bosc. Said to be a very good winter keeper. Sometimes mistakenly called Rouge Red, an understandable slip-up considering its red skin. Vigorous upright annual-bearing moderately productive tree. Shows tolerance to fireblight; resistant to pear scab. Z3/4. ME Grown.

7344A Rogue Red Pear, \$38.00

Seckel Late Summer. Seedling found near Philadelphia, PA, early 1800s. Sometimes called Sugar Pear. Often considered the best-flavored of all pears; even the skin is delicious. Small squat fruit is russeted yellowish-brown often with a deep red blush. Juicy, spicy, distinctive and aromatic. Eat ripe off the tree, or pick firm and ripen later. We use Seckels to make our roasted pear sauce (recipe found on our website). It's wonderful. Very productive annualbearing large tree, easy to grow. The most reliably bearing pear we have in our home orchard. Scab and fireblight resistant. Z4. ME Grown.

7345A Seckel Pear, \$38.00

Summercrisp Midsummer. MN N33201 (Gaspard No. 5) Brought to the MN Hort Res Stn by John Gaspard in 1933, likely discovered as a wild seedling. U Minn, 1986. Large fat very sweet dessert and canning pear with green skin and a red blush. Ripens in August in Maine. Eat them fresh, can them in quarters, and juice the rest. Precocious annually bearing tree, medium-sized with typically conic habit. Considered the hardiest variety in the Minnesota collection. Free from fireblight. One of the most popular pears we offer. Z3. ME Grown.

7346A Summercrisp Pear, \$38.00

Perry Pears
Perry is fermented pear juice—the pear equivalent of hard cider. While you can ferment any pear juice, the best perry is made from small dry astringent varieties selected over the centuries just for that purpose. Most of these perry pears are not suitable for fresh eating or cooking. These trees are a good investment—they should live to be about 300 years old.

Brandy Fall. Medium-sharp perry pear. Southwest England, about 1820. Too bitter for fresh eating but very good for making a strong aromatic perry. Also suitable for cooking. Medium acidity, low tannin. (SG 1.069) Small roundish-pyriform yellowish fruit with a reddish blush. Brandy was one of the pears used by James Marsden and Helen Woodman in the delicious perry we drank at their Gregg's Pit Orchard in Herefordshire. Their press had a large flat grooved stone base that looked to be about 300 years old. It probably was. Annual or tending to biennial. Medium-small spreading tree. Probably Z4. BACK!

7347A Brandy Perry Pear, \$38.00

Taynton Squash Fall. Medium-sharp perry pear. Gloucestershire, England, before 1700. Ancient perry pear named after the village of Taynton where it was found growing near the parish. Small yellowy green fruit with white grainy flesh should get frosted for a day or two before pressing. Juice has medium acid and tannin with adequate sugar content for a fine singlevariety perry. Taynton Squash perry fetched a high price in London during the 18th c. and Robert Hogg said "it affords a Perry of the greatest excellence with a sweet rich distinctive flavour, peculiarly its own." Also good in blends. Can yield heavy crops in good years, but like many pears it is biennial in habit. Z4. ME Grown. NEW!

7348A Taynton Squash Perry Pear, \$38.00

Share the Bounty!

Food prices have risen 18% over the last three years. There's no better time to grow your own. A small packet of broccoli seeds can get two people more than a year's worth of broccoli if you freeze some for winter. A bag of asparagus crowns gives you a low-maintenance perennial vegetable for decades with more spears than you can keep up with each June. A few trees can provide bushels of fruit.

Since we all must eat, it should follow that tending a garden should be a birthright. Every person who so desires should get to feel warm soil on their hands, whether they have their own garden, participate in a community garden, or tend a pot with a single tomato or herb on an apartment balcony. Unfortunately, many people don't have access even to that.

> A garden offers opportunities to build relationships and opens paths to service in our communities. If you have land, consider sharing it with someone who needs a place to grow. If you have more produce than you know what to do with, donate it to food pantries or local distribution programs. In our area we're lucky

to have organizations like Waldo County Bounty, whose mission is "to work to ensure that everyone has access

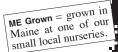
to fresh, nutritious food by collaborating with local farmers, organizations, and community members towards an equitable food system."

Find creative ways to trade, barter and share the

Every spring we set aside free trees for groups in need, like underfunded schools that want to teach kids about orcharding, or our local hospice chapter that holds an annual plant sale to support the important work of helping central Mainers die in comfort and with dignity. If you're part of a group that could use some plants, get in touch!

As a cooperative, it's in Fedco's charter to not seek to profit off our customers and farmers. We charge only enough to pay the bills and tend our infrastructure-our bottom line is usually tiny. Although we work hard to set fair prices, we recognize that not everyone can afford to shop our Trees catalog. If we've sold enough trees to pay the bills, we'll offer the leftover plants at an end-ofseason discount. To qualify for a bulk discount and save on shipping, consider coordinating with with friends or neighbors to place one big order.

We'll do our best to help you get a garden growing. Check our website in spring to see about discounts or our small walk-in plant sale.



Asian Pears Pyrus pyrifolia

There are thousands of named Asian pear cultivars in China, where they have been grown for more than 2000 years. They bear young and are long-lived. Asian pears differ from European pears: they are crisper and very juicy, sweet and mild with a nutty background, and are roundish in shape. Because they set heavily, thin the crop once or even twice during the first two months after bloom to ensure large fruit. Leave about one fruit per spur. Unlike European pears, they should be tree-ripened. When the seeds are black, the pears are ready. They ripen in late summer and keep for several weeks with refrigeration.

Asian pears reach 15–20' at maturity. (3-6' trees)

Atago Fall. Nijisseiki x Imamura Aki. Ninomiya-Engei Testing Center intro, Japan, 1928. Very large sweet juicy golden-brown pear with a claim to fame. According to *The Guinness Book of World Records* in 2011, an Atago grown by JA Aichi Toyota Nashi Bukai in Japan was the heaviest pear in the world at 6 lb 8 oz. Will develop sweetness even in cooler summer weather. Long bloom period makes it a good pollinator for other Asian pears. Good resistance to fireblight. Z5. *7349A Atago Asian Pear*,

\$38.00

Hosui Late Summer. Ri-14
(Kikusui x Yakumo) x Yakumo.
Nat'l Hort Res Stn, Tsukuba,
Japan, 1972. Firm crisp fine-textured juicy
mild subacid yet sweet rich-flavored white
to off-white flesh is considered by some to
be the best-flavored of all Asian pears. Large
round-oblate long-stemmed fruit with mediumthick skin covered with glowing yellow-orangegolden brown russet and numerous light-russet
dots. Standard commercial variety. Will store
for a month. Hosui means 'much water.'
Medium-sized very vigorous productive tree.
Susceptible to fireblight. Z4/5. BACK!

7350A Hosui Asian Pear, \$38.00

Kosui Late Summer. Kikusui x Wasekozo. Natl Hort Res Stn, Tsukuba, Japan, 1959. Crisp, juicy and very sweet. Medium-sized fruit is mostly covered with golden-brown russet. Early ripening, two weeks before Hosui, and keeps for about two months. *Kosui* means 'good water.' Medium-sized vigorous spreading tree. Some resistance to scab. Z4/5.

7351A Kosui Asian Pear, \$38.00

Shinko Fall. Nijisseiki seedling, Japan, 1941. Yellowish flesh is sweet, crisp and juicy, with very good flavor. Medium-large lumpy round brownish russeted fruit ripens late and stores up to 3 months. *Shinko* means 'new success' in Japanese. Moderately vigorous precocious annually bearing tree. Fireblight resistant. Z4/5.

7352A Shinko Asian Pear, \$38.00

Shinsui Summer. Kikusi x Kimizukawase. Hort Res Stn, Yatabe, Japan, 1967. Medium-sized round-oblate yellowish-brown russeted fruit with crisp juicy fine-textured very sweet flesh. One of the earliest to ripen each year. Pennsylvania grower and Asian pear aficionado like Kerschner considers this a great pear. Keeps about 6 weeks in refrigeration. *Shinsui* is translated as 'new water,' 'adoration,' 'inundation' and more. It is also the pseudonym of one of Japan's most famous 20th-c. artists, Ito Shinsui (1888-1972). Z4/5.

7353A Shinsui Asian Pear, \$38.00

Yoinashi Fall. Fowler Nurseries intro, Newcastle, CA, about 1987. Fine-textured off-white flesh is crisp, juicy, aromatic and sweet. Large conic light brown russeted fruit. Means 'good pear' in Japanese. It is a good variety! One of the folks at Fowler Nurseries described it to us as having "a little bit of a zip" to it. Harvest after Hosui and before Shinko. Upright medium-vigorous tree. Moderate tolerance to fireblight. Z4/5. **ME Grown**.

7355A Yoinashi Asian Pear, \$38.00

Growing Asian Pears

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: We recommend planting a second variety for pollination, though some Asian pears may be self-pollinating. Some European pears, notably Bartlett, will also act as pollinators.

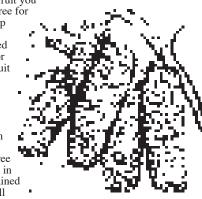
Spacing: 15–20' apart

Planting and Pruning: See pages 67-70 for instructions on soil prep, planting, pruning and pest control.

Mulberry Morus alba x M. rubra

Illinois Everbearing 30x20' White County, IL, 1947. Sweet flavorful purple-black 1" blackberry-like fruit is delicious fresh, in sauces, pies, fruit leather or smoothies. What fruit you

don't pick, the birds will. Great tree for viewing a huge variety of birds up close. Plant it next to the chicken pen where it will rain chicken feed into the vard for several weeks, or put down a sheet to collect the fruit as it falls. Dense round-topped tree is one of the last to leaf out in the spring and one of the first to set fruit. Ripens in mid-July and continues for several weeks into late summer or longer. Aaron Parker of Edgewood Nursery in Falmouth, ME, had fruit on his tree into October! Fast growing, even in poor soils. Prefers moist well-drained soils but otherwise adaptable. Full sun to partial shade; withstands



pollution, drought, wind and salt. **Self-fruitful** grafted cultivar, so only one plant required for fruit. Z4/5. (2-4') **BACK!**

7357A Illinois Everbearing Mulberry, \$42.00

Quince Cydonia oblonga

At one time, every Maine dooryard had a quince, a small tree with large tan or yellowish aromatic fruit with mild light yellow flesh. The fragrance is so intoxicating that just having a bowl of ripe fruit on the table might distract you from getting around to cooking them! Large lovely white to pink flowers—not to be confused with the small-fruited *Chaenomeles*, Flowering Quince. The wood of mature trees becomes impressively gnarled and twisted. Quince are native to Asia.

Great in stews and preserves. Makes a fragrant orangey-pink jelly—unlike anything we've tasted. Sometimes added to hard cider. We asked longtime Fedco friend Aktan Askin, who grew up in Turkey, the world's largest quince producer, what he most loves about the fruit: "I love the sound a big, fully ripe quince makes as it falls off the tree and hits the ground. So solid. So invincible. Thunk! But that aside, I really just love eating fresh quince with a spoon. Carving little balls out and chewing to juice them in my mouth."

Ripens in October in central Maine; may not ripen in coldest areas. Susceptible to fireblight and apple borers.

Trees reach 10–25' at maturity. (3-6' trees)

Aromatnaya A very hardy Russian variety, maybe the hardiest of them all. Selected for its pineapple-like flavor notes and disease resistance. 74/5.

7360A Aromatnaya Quince, \$42.00

Pineapple Named by breeder Luther Burbank for the pineapple-like flavor of the fruit when made into jelly. Late bloomer ripens in late summer. Z4/5.

7361A Pineapple
Quince, \$42.00

Smyrna Brought from Smyrna,
Turkey, by Californian GC
Roeding, whose father Fred
brought the famous Smyrna
fig to the U.S. Selected for
excellent flavor and good
keeping quality. Z4/5.

7362A Smyrna
Quince, \$42.00

Growing Quince

Soil: Prefers well-drained fertile soil.

Sun: Full

Pollination: Self-fruitful, but plant more than one for better yields.

Spacing: 15–20' apart

Planting and Pruning: Prune like an apple tree, and protect young trunks from apple borers. See pages 67-70 for instructions on soil prep, planting, pruning and pest control.

Stone Fruits Prunus spp.

Widely cultivated around the world and adaptable to most of New England. Not highly particular as to soils. Clingstone means the fruit's flesh sticks to the pit (or stone) and a freestone pit drops cleanly away

Like our apples and pears, all our stone fruits are grafted trees.

Sweet Cherries P. avium

Generally grow into large trees although the flowers are tender and fruiting can be iffy in central Maine and north. We are testing the hardiest varieties and hope to keep adding more varieties. Mature trees reach 25–30' tall. (3-6' grafted trees)

Benton Summer. PC7146-8 Stella x Beaulieu. WSU, 2003. Highly flavorful large firm deep red cherry resembles Bing. Neighbors reported that the cherries on their young tree had a sweet chin-dripping heavenly flavor that made them think of little plums dressed up in cherry suits. Less susceptible to cracking than other varieties. Flowers almost a week later than other sweet cherries, potentially missing late frosts. Vigorous upright and spreading growth. Self-pollinating. Z5

7363A Benton Sweet Cherry, \$38.50

BlackGold Summer. NY 13791 (Stark Gold x Stella) NY Station, 2001. Also known as Ridgewood. Large beautiful glossy dark red heart-shaped sweet fruit of very high quality. Upright spreading growth habit. Much more adapted to eastern U.S. conditions than Bing cherry and other "western cherries." Late blooming and very hardy. Survived -33° in SW Minnesota. **Self-pollinating.** Disease and crack resistant. Z4. BACK!

7364A BlackGold Sweet Cherry, \$38.50

Black Tartarian Early Summer. Originated in North Caucasus of southwestern Russia and brought to England in 1794, landed in U.S. markets in 1848. In *Cherries of New York 1914*: "... tempting to the eye through their rotund form and glossy black color and are a delight to the palate, the handsome purplish-red flesh being firm and crisp, yet juicy, with a sweet, rich flavor which all agree gives the quality the rank of 'very good to best." Once widely distributed in home gardens around the world, it fell out of favor commercially for thicker-skinned varieties that were easier to ship. Requires a second variety for pollination. Z4.

7365A Black Tartarian Sweet Cherry, \$38.50

Lapins Summer. Van x Stella. Summerland Res & Dev Ctr, BC, Canada, 1983. Large sweet high-quality black-mahogany-red fruit. Ripens a week after the popular variety Stella, by mid-July in warmer districts. Very vigorous, productive and upright; crops consistently in central Maine. **Self-pollinating**, but benefits from planting with another variety. Z4/5.

7366A Lapins Sweet Cherry, \$38.50

Rainier Summer. Wash. P1-680 (Bing x Van) Harold W. Fogel intro, WA Ag Exp Stn and USDA, 1960. Classic dessert cherry. Very large fruit, light yellow skin with red blush. Firm fine-textured flesh with a distinct delicious flavor. Colorless juice. Good fresh or canned. Quite resistant to cracking. Ripens midsummer. Vigorous productive tree. Early to come into bearing. Requires a second variety for pollination. Z4/5. Indigenous Royalties. BACK!

7367A Rainier Sweet Cherry, \$38.50

Sam Summer. Summerland, BC, Canada. Large firm dark-skinned medium-sized fruit resists cracking. Flavor is sweet with hints of tart, best left to ripen as long as possible for full flavor potential. Deep red like a Bing. Blooms around the same time as Van, and pairs well with Rainier for pollination. Requires a second variety for pollination. Vigorous disease-resistant cultivar. Z5. NEW!

7368A Sam Sweet Cherry, \$38.50

Growing Sweet and Pie Cherries

Soil: Prefers well-drained fertile soil; pie cherries are more forgiving and adaptable than sweet cherries.

Sun: Full.

Pollination: Most sweet cherries need a second variety for pollination, so plant two or more for best results. Pie cherries are self-pollinating.

Spacing: Plant sweet cherries 25' apart. Plant pie cherries 15-20' apart.

Planting: See pages 67-70 for instructions on

soil prep, planting and pest control.





Pie Cherries P. cerasus

Also called Sour Cherries. Delicious enough to eat right off the tree and especially good in pies. They fruit in early to midsummer and don't mind heavy soil. Pie cherries are generally divided into two groups: Morello types have dark red spherical fruit, dark juice and relatively small compact trees (check our website—we might have a Morello type available). Montmorency (or Amarelle) types have light red slightly flattened fruit, clear juice and medium-sized somewhat open trees.

Pie cherries are significantly hardier than sweet cherries but flower buds may be damaged in colder winters. We often encounter excellent crops in central Maine.

Mature trees reach 10-15' tall. (3-6' grafted trees)

Montmorency Summer.

Seedling of Cerise Hâtive or Cerise

Commune. Montmorency Valley, France, before 1600. Introduced to the U.S. c. 1830. The most famous of all pie cherries, long considered the standard of excellence in the U.S. Aromatic firm-fleshed bright red fruit makes a clear light pink juice and is a favorite for processing. Tart but still enjoyable fresh off the tree when fully ripe. Birds love them, too. Surprisingly hardy, showing no signs of dieback in central Maine after the arctic blast of February 2023. In Aroostook County, trees fare better than Meteor. Appears to be resistant to brown rot. Vigorous productive medium-sized upright-spreading tree

tolerates a variety of soils. Self-pollinating. Z3/4. 7374A Montmorency Pie Cherry, \$38.50

Relative ripening dates

Although our catalog focuses on woody plants that do well in the northeast, we have customers all over the U.S.—up along the Canadian border, in the mid-Atlantic states, down in the mountains of North Carolina and out west in the high desert-anywhere hardiness is important. We love having customers so spread out, but it's not easy

to tell when a variety will ripen in every far-flung orchard. A fruit that ripens in September in northern Maine might ripen a month earlier in Pennsylvania. Ripening dates also vary from year to year depending on conditions. Not only that, the fruit might be exquisite up north but rather blah farther south. That's the nature of these varieties, and it's part of why we offer a wide selection. We think you'll find varieties that can thrive in your area.



Peaches P. persica

Northern New England peach growing can be very successful. The trees often bear so heavily that the fruit needs thinning and the branches need support. Some winters can be hard on certain peach trees, and they may die. Other trees live for many years. Replant and try again. They are worth the trouble, and since they bear young, you won't have to wait too long!

Peaches are usually unaffected by pests or diseases in northern areas, the occasional exception being **peach leaf curl**. PLC is not a fatal problem but does need to be controlled if you get hit with it. Look for crinkled or puckered foliage in spring. Remove affected leaves and compost them. Spray the tree with lime, sulfur or copper early the following spring while it is still dormant (before any buds open!) Onion, garlic or horsetail spray while leafed-out may also be effective. It's common for peaches to have black gummy wounds. This is usually harmless and happens from any environmental stress, even when a bird or a bug looks sideways at the tree.

Mature trees will be 10–15' tall. (3-6' trees)

Blazingstar Mid-Late. Bred by Jim Friday of Coloma, MI, as part of his Stellar Series in the 1980s. Boldly red-blazed skin with yellow firm flesh. Yields medium-sized peaches consistently well each year, ripening shortly after Redhaven. Bred for non-browning flesh quality and for good storage and handling for commercial growers. We hear some folks like them for grilling. Grilled and served with ice cream? Yum! Freestone. Resists bacterial leaf spot. Z5. **NEW!**

7378A Blazingstar Peach, \$38.50

Canadian Harmony Mid. Harrow Ag Res Stn, Ontario, Canada, 1968. Large fruit with a red blush over gold skin. Flesh is sweet and juicy, an overall great all-purpose peach for fresh eating, canning or baking. Freestone. Buds are hardy to about -20°. Z5. **NEW!**

7379A Canadian Harmony Peach, \$38.50

Contender Late. NCT 544 (Winblo x complex parentage of North Carolina selections) DJ Werner, JR Ballington and DF Ritchie intro, Ag Exp Stn, Raleigh, NC, 1988. Extend your peach season with this high-quality variety that is proving to be hardy in northern Maine. Large round bright red and yellow freestone fruit with a slightly raised suture. Firm melting aromatic yellow flesh. Growth habit similar to Redhaven, but fruit ripens 3 weeks later. Resistant to leaf spot. Because it blooms quite late, it might escape late spring frosts. Z4 maybe Z3.

7380A Contender Peach, \$38.50

Garnet Beauty Early. A sport of Redhaven discovered by Garnet Bruner in 1951 and introduced in Ruthven, Ontario, 1958. Mediumto-large yellow-fleshed semi-clingstone fruit with excellent flavor. Causing some buzz in northern peach-growing districts. John has two trees on trial at his place. The earliest peach we offer; ripens 12 days before Redhaven with similar hardiness. Vigorous and productive tree. Good bud hardiness. Recommended for colder districts. Z4/5. BACK!

7381A Garnet Beauty Peach, \$38.50

Growing Peaches

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: Self-pollinating. You only need

one tree.

Spacing: Plant 20' apart.

Planting: See pages 67-70 for instructions on soil prep, planting and pest control. **Pruning:** Prune in spring after the buds

begin to swell and show pink. Remove dead and inward-growing branches. Make a few bold cuts to bring main branches closer to the trunk. After cutting back any main branches, thin last year's shoots and cut them back to about 12–18". When you're done, the tree shape should look something like an open hand reaching for a peach, with the tree not much taller than 10' or so.

The goal is to keep trees small and open. Peach trees grow vigorously each year and fruit on the previous year's wood. Leggy branches will break from the weight of fruit.

Madison Late. Ideal x Redhaven. VA Stn, 1963. A fine peach for the North, with hardiness similar to Redhaven but ripening 3 weeks later, around the time of the Common Ground Country Fair. Medium-large fruit with bright orange skin and bright red blush. Orange-yellow firm fine-textured juicy flesh with excellent very sweet rich peach flavor. Skin peels easily. Freestone, excellent canner. Very productive. Exceptional tolerance to blossom-season frost. This winter, deep freeze caused widespread dieback on all of our peach trees, but Madison fared the best, upstaging even Reliance on hardiness! A Fedco favorite! Z4.

7384A Madison Peach, \$38.50

Reliance Early-Mid. Open-pollinated seedling of Minn PHO 4559 x Meredith. NH Ag Exp Stn, 1964. Considered the hardiest peach. Medium-sized, roundish, freestone. Rather dull red blush over greenish yellow. Bright yellow flesh, soft and juicy. Flavor usually considered fair, but we love it in Maine for its unfailingly reliable

crops no matter what. Often produces large crops. Bears at an early age. May have some resistance to peach leaf curl. Z4 and pockets of Z3. BACK!

7386A Reliance Peach, \$38.50



Grilled Peaches!

Who invented this brilliant idea? No clue, but we're all in. Last winter was mild, and as we write this in August 2024, the peach trees are loaded with ripening fruit!

The previous winter brought a cold snap of -20° and 50 mph winds that killed half of the peach limbs. Needless to say, Maine had no peaches the next summer, and the freezer has been empty of peaches for too long. But the trees bounced back, and our anticipation of fresh peaches is even sweeter.

Peaches ripen all at once and suddenly you are overrun with them. We recommend eating as many fresh peaches as you can everyday before they get mushy. Share with neighbors. Let the wasps have a few. Make cobblers, upside-down cakes, serve warmed peaches on top of pancakes, and freeze whatever you can't eat. And save some for grilling!

To grill: Cut them in half, remove the pit and brush the open face with olive oil. When the grill is hot, place peaches face down and cook till they have grill stripes and are toasty warm. This might

take only 5 minutes. Flip, and give them another minute so the pit cavities fill with sweet juice. Serve with ice cream and crushed nuts, or yogurt with a drizzle of honey and a sprig of mint.



Hybrid Plums Prunus SDD.

Extremely hardy crosses between various Asian and American species; may fruit even after severe winters.

Hybrid plum fruiting can be inconsistent but it's worth the trouble! Warmer areas will see longer bloom times. Cold late springs may force blooming all at once. Both of these conditions can be optimal for plum crops. At other times, it can be a little hit or miss. Bloom times are similar for all the varieties we offer.

Hybrid plums are less susceptible to black knot than European plums and have few issues other than Japanese beetle and plum curculio

At maturity, hybrid plums are roughly 15–20' tall. (3-6' trees)

American Plum Seedling P. americana 15-20' Not a hybrid, but included here since it may be the best pollinator for hybrid plums. Seedling plum native to much of North America that grows in thickets and produces very decent red, yellow and orange 1" fruit, suitable for fresh eating, canning and freezing. Spectacular white bloom in spring is highly ornamental. Red fall color. Plant singly as a graceful specimen, or let the branches intertwine with other plums for maximum pollination, with one American plum for every 3-4 hybrid trees. Tends to sucker freely. This tree stock is significantly larger than plum seedling rootstock (see page 27). Extremely hardy. Z3. ME Grown.

7389A American Plum Seedling, \$25.50

Black Ice Midsummer. P. Lydecker [P. besseyi x (P. salicina Oka x P. sal. Z's Blue Giant)] U of WI, River Falls, 2006. Large 2" round earlyripening high-quality hardy blue-black dessert plum. Very sweet juicy reddish-purple semi-freestone flesh. Precocious and productive tree with a naturally compact growth habit. Bred by

Brian Smith, whom we visited on a fruit exploration trip in the Upper Midwest. He graciously showed us around his amazing nursery in River Falls, WI. He was growing many of his plums in huge tubs, manipulating bloom time using greenhouses and coolers. This enabled him to cross species or varieties that would never normally flower together. The literature recommends Toka or La Crescent as a pollinator. PPA expired in 2024. Z3. ME Grown.

7391A Black Ice Plum, \$38.50

Ember Late Summer. MN 83 (P. sal. Shiro x P. a.

South Dakota #33) U Minn, 1936. Medium-sized roundish-

conic slightly pointed red plum with a medium bloom. Tastes like an apricot. Rich yellow juicy sweet flesh is very firm and meaty but tender. Recommended for cooking and fresh eating. Low spreading vigorous

tree. Rare in the trade. Z3. ME Grown. BACK!

7392A Ember Plum, \$38.50

Growing Hybrid Plums

Soil: Prefers well-drained fertile soil.

Sun: Full.

Pollination: Requires a second variety. We recommend planting at least 4 different varieties close together. Including an American Plum Seedling in your grove can help ensure pollination.

Planting: See pages 67-70 for instructions

on soil prep, planting and pest control. **Spacing:** 15–20' apart, or closer for a

thicket.

PPA = Plant Patent Act. Unauthorized propagation of the plant is prohibited. The use of PPA in the catalog is for informational purposes only and does not constitute an endorsement by Fedco of plant patenting.

Kahinta Mid-Late Summer. Luther Burbank's P. sal. Apple x P. a. Terry. SD, 1912. Another intro by plant breeder NE Hansen. Large 11/2" roundish slightly pointed fruit is flattened at the stem end. Brilliant red-purple tart skin and translucent yellow-orange tart but quite flavorful flesh. Easy to peel; peeled fruit looks like a peeled tangerine. Or you can bite a small hole in the skin and suck out the juicy flesh. Clingstone. Very good for fresh eating or canning. Medium-sized spreading tree. Kept pruned, our old tree remains about 8' tall. Bears more reliably than most other varieties in our orchard. Kahinta is the Sioux word for 'sweep.' Rare. Z3. ME Grown. Indigenous Royalties.

7393A Kahinta Plum, \$38.50

La Crescent Late Summer. P. sal. Shiro x P. a. Howard Yellow. U Minn, 1923. Also known as Golden La Crescent or Golden Minnesota. Most of the hybrid plum varieties are colored with some variation of red and orange with a little purple tossed in. Yellow-skinned La Crescent is one notable exception. The beautiful roundish tender thin-skinned yellow fruit is sometimes blushed with a little pink. Tender yellow juicy flesh of excellent quality is sweet, aromatic and suggestive of apricots. Freestone. Upright spreading vigorous tree. Z3/4. ME Grown.

7394A La Crescent Plum, \$38.50

Lavina Mid-Late Summer. P. cerasifera x P. sal. Developed in Lithuania, early 2000s. May also be known as Avalanche. Rare variety in the trade. Stunning golden-yellow skin is blushed dark red to pink when fully ripe—one of the most attractive plums in the orchard with fruit weighing in at just over an ounce. Amber flesh is meaty with unusual flavor notes of papaya and caramel. Ripens in mid-late September in central Maine. Seems to bloom around the same time as Toka. Grower Jesse Stevens grafts survived a cold snap of -26° with only minor dieback. Highly vigorous growth. Semi-freestone and crack resistant. Z4. ME Grown.

7395A Lavina Plum, \$38.50

Obilinya Midsummer. P. cer. x P. sal. Origin obscure but cataloged at the Nikitsky Botanical Gardens, Republic of Crimea. Purple-red fruit with yellow-bleeding-to-red sweet firm flesh is excellent fresh eating. Grower Jesse Stevens says it has "skin less sour than many other hybrids, but still a good amount of zing.' Seems plenty hardy once established with good pest and disease resistance. Blooms early and pairs well for pollination with Lavina and Purple Heart. Ripens mid-August in central Maine. Highmoor Farm, UMaine's Ag Experiment Station, gives it an overall rating of "excellent." Z4/5. ME Grown.

7396A Öbilinya Plum, \$38.50

Indigenous Royalties

A few years ago, Fedco began to pay a portion of our seed sales of certain varieties—like Hopi Blue corn and Jacob's Cattle bean—to Nibezun, a Wabanaki project here in Maine that is working to rematriate Penobscot land and to create dialogue on healing throughout the extended community (nibezun.org). Our Indigenous Royalties program is one small way to appreciate and recognize the native breeders and seed keepers whose varieties continue to sustain us here on Turtle Island.

We extended the program to our Trees catalog by paying royalties on any plant that bears a Native American name. We recognize that Kahinta plum, for example, was given a Sioux name by a white person. These plants were likely named without permission. While this practice continues in the nursery trade, it is not something we embrace. At the same time, we can appreciate a plant as an innocent third party, holding merit in our landscape.

Long before breeding stations and universities, there were Tree Seed Keepers. Many of our named cultivars likely carry the genetics of the old trees tended long before European arrival. Where you see Indigenous Royalties at the end of our description, you will know we are dedicating 10% of sales of these plants to Nibezun. Last year's Trees royalties came to \$4,883.22

Purple Heart Late Summer. Elwyn Meader intro, Enfield, NH, 1968. Medium-sized clingstone fruit with red-purple skin and flesh. Some say the most delicious plum we offer. Meaty, mild and rich with no astringency. It's wonderful. Origins shrouded in mystery. It was brought to the great plant breeder Professor Elwyn Meader by a fellow who passed away before Meader could ascertain the plum's origin. We planted ours next to Black Ice: both are fruiting well. Underwood also may be a good pollinator. Not as hardy as other hybrids. May show tip damage following colder winters in central Maine, some susceptibility to black knot. Z4/5. **ME Grown**.

7399A Purple Heart Plum, \$38.50

Shiro Midsummer. Uncertain parentage (thought to be *P. simonii* x *P. sal.*). Luther Burbank intro, California, 1899. Although Shiro's parentage is unclear—it may be a pure Japanese type—it's hardy in much of Maine, especially along the coast and Portland south. The 1½" round-conic thin-skinned fruit is light yellow, deepening as the season progresses and sometimes colored with a pinkish blush. The sweet chin-dribbling light-yellow translucent flesh is so juicy it might soak your shirt. Or skip the mess and jam or can them. Broadly spreading picturesque tree will eventually span 30' or more but tops off at only 10 or 12'. Z5. **ME Grown. BACK!**

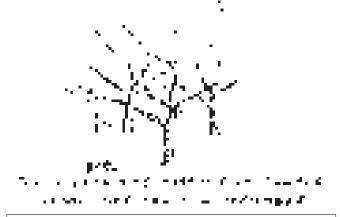
7400A Shiro Plum, \$38.50

Tecumseh Midsummer. *P. sal.* Shiro x *P. hortulana* Surprise. NE Hansen intro, SD Stn, 1923. Excellent fresh-eating clingstone. Round bright red fruit with a bluish bloom. Firm juicy yellow flesh is only moderately acidic. Reliable and productive. Not well known but considered by some enthusiasts to be one of the best introductions of the great 20th-c. plant breeder NE Hansen. Named in honor of the celebrated Shawnee chief Tecumseh, a leader and great orator who worked for tribal unity and refused to sign the Treaty of Greenville in 1795. Z3/4. ME Grown. Indigenous Royalties. BACK!

7402A Tecumseh Plum, \$38.50

Toka Late Summer. (*P. a.* x *P. sim.*) NE Hansen intro, SD Exp Stn, 1911. Rosy red fruit is mottled with darker purplish-red and covered with a faint bloom, up to 1¹/₂" in diameter. Grower Don Johnson's comment: "Talk about flavor: candy plum." Sweet, distinctive, meaty and flavorful. Not real juicy. Somewhat freestone. Extremely vigorous tree blooms heavily every year. Diligent pruning may be required to keep it from becoming a bit of a monster. Considered a great pollinator for other hybrid plums because of its long bloom period. Z3. **ME Grown. Indigenous Royalties.**

7403A Toka Plum, \$38.50



Plum Curculio... and garlic

Plum curculio is a small pesky insect, a terrible plum and apple pest, that deforms fruit and causes it to drop prematurely. We have read that laying sheets of cardboard under plum (and apple) trees will smother the pupae developing in the soil. Many organic growers spray Surround clay powder on their trees to combat this weevil. (See our Seeds & Supplies catalog or **fedcoseeds.com/ogs** for this and more orcharding supplies.)

Many years ago we planted garlic near one of our apple trees and neglected to harvest all the bulbs. Now we have a small colony of garlic plants around the tree. Recent reports are touting garlic as a curculio deterrent. Anecdotal evidence suggests it may be working at our place. Plant more garlic!

Underwood Midsummer. MN 91 [(*P. sim.* x *P. sal.* Shiro) x *P. a.* Wyant] U Minn, 1921. Large 2" dull red fruit. Firm sweet juicy golden-yellow semi-freestone flesh, very good for eating and cooking. Long picking season. Blooms earlier and longer than most hybrids and appears to be a very good pollinator for other hybrid plums, including Purple Heart. Northern Maine grower Steve Miller considers it one of his most reliable bearers. Long ripening season. Vigorous large spreading tree. Z3. **ME Grown. BACK!**

7404A Underwood Plum, \$38.50

Waneta Midsummer. (P. sal. Apple x P. a. Terry) NE Hansen intro, SD Exp Stn, 1913. Released when hybrid plums were an important and commercially viable crop. Medium to large, somewhat pointed, 1½-2" reddish-maroon clingstone fruit. Sweet tender translucent orange flesh is very juicy but not dripping. Medium-thick skin, tart and easy to peel. Delicious overall taste. Hansen said of Waneta: "My belief is that in this variety I have combined the best points of the native and the Japanese plum. It is probably the largest [fruit] of over 10,000 seedlings.' Early blooming healthy open spreading tree bears reliably in our orchard. Named after a Yanktonai youth who won fame in the War of 1812 and later became a great chief. Z3. ME Grown. Indigenous Royalties. 7405A Waneta Plum, \$38.50

Don't Give Up!

With our short growing season and long winter slumber, northern gardeners have to put on their patience pants. With annual vegetables and flowers, we can watch the bounty unfold before our eyes, but the plants offered in this catalog demand way more endurance and resolve. The prospect of adding new perennials, shrubs and trees to our gardens and landscapes can be so exciting—yet sometimes so disappointing. We want to fill in all those bare spots and soak up as much life and color as we can while the sun is high. It's natural to want immediate results: the lush green texture, colorful blooms, and juicy summer fruit. But why is it taking so long?

Perennials: Sleep, creep, leap!

You may have heard the saying that new perennials "sleep, creep, leap." The first year after planting, most herbaceous perennial plants will focus their energy into establishing a healthy and robust root system. This is the foundation of the plant, coaxing vital water and nutrients from the earth and anchoring in place. Some plants may literally seem like they are sleeping. While a squash plant will grow at an exponential pace sending vines in every direction, a new echinacea plant may have just a bit of foliage and no blossoms. We must remember that our "sleepy" young perennial's first job is to settle in and get ready to survive its first winter.

In the second year you usually see a bit more vegetative growth "creeping" along and hopefully some of the first flowers. But the above-ground results may still not live up to your expectations or fill out the spot you carefully selected. After waking up from their first long period of dormancy, most of the plant's energy is still being focused into the roots, building strength and resilience for the real show.

And then—WHAMMO—the "leap" year when plants start to reach their full potential, claiming their space with lush foliage and full blooms. Now you are over the hump and with basic care your plant should thrive.

Fruit Trees: Sleep, sleep... sleep?

Some fruit trees can take up to 10 years before flowering and fruiting for the first time! Ugh. It can be discouraging to care for your new trees year after year with no return on your investment. Producing fruit requires immense energy, and your young trees need to focus on their basic framework: stretching the roots that will feed them for years to come and the growing branches that will bear the weight of future fruit.

Occasionally a young tree will flower in the first year or two after planting. While it can feel counterintuitive and almost painful to remove those first blossoms, it's best to pluck them off and let your trees use their resources for vegetative growth. It's worth the wait.

Then one summer you'll watch the first apples and pears take shape and begin to express their unique character. There's nothing like when you first need a whole basket, or bushel box, to collect your harvest. Now your problem is what to do with all that fruit.

Don't give up! Take good care of your plants, keep your eyes on them, notice what they need, give them basic care and protect them from the extremes of weather. And trust that in time, you will be rewarded.



Scionwood for Grafting, online ordering only!



Deadline for ordering scionwood is February 21, 2025. Scionwood must be ordered online.



Scionwood will be shipped to you around March 10.

Rootstock (next page) can be sent with your scionwood order in March if you select that option when you order, otherwise we'll ship it during our regular shipping season in April/May.

We sell scionwood in two ways:

By the stick: One 8" stick (\$6 each) can graft 3 or 4 trees.

By the foot: For orchardists grafting large numbers of trees of a particular variety, we also offer scionwood by the foot (\$5.50/foot, minimum order of 10 feet). In our own nursery work, we are usually able to graft 6-8 trees from one foot of scionwood.

Storage: You can graft right away or store scionwood for later use. It will keep quite well for several weeks in the fridge or in a cold dark basement, root cellar or shed. Storing scionwood close to freezing temps can be okay, but the very cold temperatures in a freezer will kill it. Scions will also die if they dry out or are stored without special protection from ripening veggies or fruits. We recommend triple plastic bagging your scionwood. There is no need to dampen the scionwood or to insert wet paper towels before bagging it, as this can lead to mold.

What does a person do with scionwood?

Scions are twigs. They have no roots and will not grow if you plant them. They are cuttings from dormant branch tips, intended for spring grafting.

Is grafting easy? Yes, once you get the hang of it. Experienced grafters often have 100% "take" with their grafting. Beginners often have less. While you can learn to graft from a book or video, we highly recommend the old-fashioned way: find a real person to teach you. MOFGA and other organizations have grafting classes every spring. Find one near you!

There are two general ways to graft fruit trees in spring. You can **bench graft** by grafting scionwood onto **rootstock** (see next page). Generally we do this indoors in late March or early April. We keep the little grafted trees packed into a bucket of damp sawdust in a warm spot in the house (77-86°) for a couple weeks to promote callus development. Then we harden them off in a colder (but not freezing) place for a week or two before planting out in nursery beds anytime from late April to mid-May. If trees have begun to leaf out before planting time, we slowly introduce them to direct sunlight before setting them out. In a couple of years when the trees are 3-6' tall, we plant them in the orchard

You can also **topwork** scionwood onto established trees. We do our topworking after the trees have begun to show some green growth and the bark slips easily from the wood when cut, but before petal fall. The window for topworking is roughly the whole month of May in central Maine, but often can be successful for a week or so on either end.

Fedco's Organic Growers Supply offers everything you'll need for grafting and pruning—knives, pruners, saws, wax, tape and more. See our Seeds & Supplies catalog, or go online at fedcoseeds.com/ogs.

Scionwood Collection at Fedco

Scionwood season at Fedco is a truly hopeful time. Each tiny dormant bud on every stick we ship out has the potential to become a new grafted fruit-bearing tree. Last winter we collected more than 22,000 feet of scionwood from nearly 200 varieties of apples, pears and plums! We ship about half of those scions to customers across the country: first-time grafters, orchardists, apple collectors and cidermakers alike. The rest is distributed to our local growers to propagate most of the fruit trees found in this catalog.

During the frigid days of January and February, scionwood

collection is in full swing. We bundle, label and seal the wood in bags to store in our cold warehouse. In March we measure, snip and label the scions for shipping. As our founder John Bunker says, we are passing the baton.

There is no single Fedco Orchard. Over many years John and others from Fedco have built friendly relationships and collaborated with orchards around Maine. In exchange for permission to collect scionwood, we have offered grafting in the spring, pruning in the winter, or traded some trees from the Fedco inventory. A win-win for all.

We have also sourced some of our rare and difficult-to-find varieties from out-of-state orchards. For instance, Poverty Lane Orchards in NH, home of Farnum Hill Ciders, was one of the first in the Northeast to grow many of the now popular European cider apple varieties. For years they shared generously with us while we built up our own scion banks. We continue to collect rare and important varieties and

graft them into our own orchards to ensure access in the future and to localize and streamline our winter scion collection.

.Join us! Scionwood Exchange and Seed Swap

at MOFGA in Unity, ME Sunday, March 30, 2025

Bring seeds and cuttings to share. If you don't have any, come anyway!

See mofga.org for details and to learn about other organic orcharding classes and events

Scionwood Varieties 2025 Online only!

We expect to offer around 150 varieties on our website. Many of the apples we're listing as trees in this catalog will also be available as scionwood. Here's a sample of other apple scions we plan to collect:

American Summer Pearmain

Ananas Reinette

Aunt Penelope Winslow

Ben Davis

Black Twig

Blenheim Orange

Bourassa

Bullock

Cellar Hole Bitter

Centennial

Chisel Jersey

Cole's Quince

Cora's Grand Greening

Cornish Gilliflower

Drap d'Or

Ellis Bitter

Empire

Fletcher Sweet

Freedom

Gideon

Ginger Gold

Gnarled Chapman

Grinder Goblin

Grindstone

Holstein

Honeygold

Jonathan

Kavanagh

King of Tompkins County

Liveland Raspberry

Lodi

Melrose

Milden

Milo Gibson

Mother

Narragansett Crab

Nodhead

Pinwheel

Pomme d'Or

Pomme Grise

Red Gravenstein

Rolfe

Shavel Sharp

Smith Cider

South Dakota Ben

Spencer

Spice Sweet

St. Edmund's Russet

St. Lawrence

State Fair

Tetofsky

Thompson

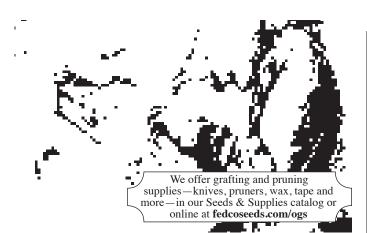
Tumanga

Twenty Ounce

Westfield Seek-No-Further

Winn Russet

... and many more, all available online!



Hardy Rootstocks for Grafting

We consider these to be some of the best rootstocks for home or commercial use. Even without grafting, any of these will produce fruit suitable for wildlife. For rootstocks not listed, or for larger calipers or larger quantities, please contact us for information.

Because of the way they are propagated, clonal rootstocks (B118, M111, G11, B9 apples and OHxF97 pear) rarely come with more than a few roots. Don't fret: they're alive and well, and with proper care and planting they will thrive.

You can receive your rootstock sooner—shipped around March 10—if you select the early shipment option online. Otherwise, your rootstock will be shipped during our regular schedule later in March or April.

Please note! We do our best to provide 1/4" caliper stock, but we cannot guarantee scion or rootstock caliper. Because of factors beyond our control (like weather!) stock may be 3/16—3/8".

Apple Rootstocks

Malus 'Antonovka' (Apple) Hardy Russian seedling rootstock for full-sized "standard" apple trees. The hardiest rootstock we offer. Space trees 20–30' apart. Z3.

7322A Malus Antonovka, bundle of 10, \$39.50

Malus 'Budagovsky 118' (Apple) [Moscow Pear x (M8 and M9 pollen)] Michurinsk College of Ag, Michurin, Russia. Also called Bud 118 or B118. Semi-dwarf rootstock, about 85–90% of standard. Sometimes referred to as a "semi-standard" or even a standard. Space trees 20–25' apart. More productive and precocious (fruits at a young age) than trees on Antonovka. Very winter hardy and soil adaptable. Generally not used in commercial orchards due to its large size. Note that reddish cambium does not scrape green like other rootstocks. Moderately resistant to collar rot and fireblight. Z3.

7323A Malus Budagovsky 118, bundle of 10, \$39.50

Malus 'M111' (Apple) [Northern Spy x Merton 793 (Northern Spy x East Malling11)] Collaborative intro of East Malling Research Stn and the John Innes Institute, Merton, England, about 1950. Technically named MM111, the MM refers to Malling and Merton. Very popular semi-dwarf rootstock produces a tree about 65–80% of standard. Space trees 15–20' apart. No staking necessary. Slightly more precocious than standards. Well anchored and adaptable to a wide range of soils. Resistant to woolly aphid. Prone to suckering. Not nearly as long-lived as standards. Hardy to Z4, maybe Z3.

7324A Malus M111, bundle of 10, \$39.50

Malus 'Geneva 11' (Apple) Also called G11. Cornell U intro, NY. Dwarf rootstock produces a tree about a third the size of standard, about halfway between M9 and M26 (a bit larger than Bud 9). Space trees 8–10' apart. Suckers only slightly. Moderately susceptible to woolly aphid. Excellent fireblight resistance. Requires staking and irrigation in most locations. Z4/5.

7325A Malus Geneva 11, bundle of 10, \$39.50

Malus 'Budagovsky 9' (Apple) [M8 x Red Standard (Krasnij Standart)] Also called Red-leafed Paradise or Bud 9. Michurinsk College of Ag, Michurin, Russia, 1946. Dwarfing rootstock, produces a tree about a quarter the size of a standard tree. Highly productive and precocious with large fruit size. Very hardy though not as hardy as Antonovka. In most locations, requires mulching, staking and irrigation. Space trees 5–10' apart. Note that reddish cambium does not scrape green like other rootstocks. Some resistance to fireblight. Z4.

7326A Malus Budagovsky 9, bundle of 10, \$39.50

Stone Fruits and Pear Rootstocks

Prunus americana (Plum) Seedling rootstock for American, Japanese or hybrid plums. Also recommended for grafting peaches. Seedling plum produces very decent 1" fruit without grafting. The best pollinator for hybrid plums. (See explanation in plum section on page 24.)

7327A Prunus americana, bundle of 10, \$39.50

Prunus avium 'Mazzard' (Cherry) The rootstock we use for grafting sweet and pie cherries. Shallow spreading root system. Longer lived than Mahaleb though not as hardy. Does not do well in heavy poorly drained soils. Z4, sometimes Z3.

7328A Prunus avium Mazzard, bundle of 10, \$39.50

Prunus cerasifera 'Myrobalan' (Plum) Seedling rootstock for European plums. Not recommended for American or hybrid plums. Z3.

7329A Prunus cerasifera Myrobalan, bundle of 10, \$39.50

Pyrus 'OHxF97' (Pear) (Old Home x Farmingdale 97) Produces a vigorous hardy well-rooted almost-standard-sized tree. Superior to *Pyrus communis* in numerous ways, and can be used for both European and Asian pears. We use "97s" for most of our Fedco catalog offerings. Z3/4.

7330A Pyrus OHxF97, bundle of 10, \$39.50

Rootstock Propagation and the Future of Fedco

Nearly every fruit tree listed in our catalog began as a scion (or bud) and a small rootstock. Each year our growers graft tens of thousands of fruit tree varieties onto various rootstocks. We get a lot of questions from customers about rootstock: Which will make fruit the soonest? How big will the semi-dwarf trees be? Which stock will do best in clay soil? But what we don't talk much about is where all of these rootstocks come from. How are they grown?

Most of the rootstock we offer is produced commercially on a gigantic scale, clonally propagated and typically grown in large Pacific Northwest nurseries where fertile soil and milder winters create ideal growing conditions. Research institutions developed these varieties over many years to achieve the desirable characteristics, like cold hardiness, disease resistance and mature tree size.

Rootstocks can also be grown from seeds of hardy and resilient varieties whose offspring are true to type. Antonovka, which is the mainstay of Fedco's line of standard-sized apple trees, is grown from seed that has historically been sourced from Russia and Ukraine, where Antonovka is a popular variety for cooking, fresh eating and processing. Due to the ongoing war and volatile political climate in Ukraine, this source of seed has become increasingly unreliable and difficult to get. This seed insecurity, along with supply-chain issues during the pandemic, has inspired us to think creatively about ways to produce our own rootstock locally.

In recent years we have been experimenting with growing Borowinka rootstocks from locally collected seed as a possible alternative to Antonovka. Borowinka refers to any tree grown from the seeds of Duchess apples, which are unusual in that they grow out true to type. (The seeds of most apples will grow into trees with fruit that is different from the parents.) Duchess trees are abundant in Maine and have proven to be some of the toughest and hardiest around. We've also been trying our hand at a propagation method called 'stool bedding' with some of our favorite clonal stocks like M111 and Bud 118. We like the idea of propagating long-living apple trees from plant materials sourced solely from our own orchards.

We're experimenting with growing rootstocks of other species, too: Lovell seedlings for peaches, *Prunus americana* for plums, and *Pyrus communis* for pears, just to name a few. We have been planting out mother trees of hardy rootstock varieties like Mazzard cherry and Siberian C peach for more sources of rootstock seed. In this catalog, we're offering seedling trees of Borowinka apple (p. 15) and *Prunus americana* (p. 24), with more available on our website—perhaps you'll want to

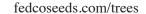
(p. 24), with more available on our website—perhaps you'll want to establish your own seed source for future rootstocks. The fruit from these trees is also good to eat. Our homegrown rootstock can be dug from the nursery after

one or two seasons and bench grafted just as we've always done with commercially sourced stocks. We can also direct seed certain vigorous rootstock species into the nursery in the spring, then bud graft in place later that same summer, resulting in full-sized grafted trees in just two seasons. This year we are excited to offer some of our very first trees

grafted onto our locally grown rootstocks.

Alan from Ashfield, MA

Thank You!!!! for shipping my rootstock order ahead of schedule. 15 people learned to graft at my workshop last weekend and they all went home with a tree to plant.



Small Fruits & Berries

Highbush Blueberries Vaccinium corymbosum

Many of Maine's lakes are lined with massive stands of highbush blueberries, native to North America. Grazing the shore requires only time and a suitable vessel; we prefer kayak or canoe. The beautiful vigorous shrubs are extremely easy to grow at home, productive and reliable. By planting several varieties, you can harvest berries from early July through most of August. First crops come 3–5 years after planting. Productive for at least 20 or 30 years. Berries may turn blue before they reach their peak flavor. Leave them on the bush until they are fully ripe. Check a few before you pick them all! (gallon pot, 15-20")

Bluejay Early-Mid. 5-7'. HBS400 [Berkeley x Michigan 241 (Pioneer x Taylor)] MI St U, 1978. Medium-large firm mild-flavored light blue berries with high sugar content. One of the best blueberries for eating, freezing, canning and preserving. Loose clusters are easy to harvest. Productive bush is vigorous and upright, slightly spreading. Disease resistant. Z4. BACK!

7410A Bluejay Blueberry, \$19.50

Blueray Early-Mid. 4-6'. (GM 37 x CU-5) USDA, NJ, 1955. Large firm dark blue berries of high dessert quality in small clusters. Considered the best-tasting by nearly everyone who grows highbush blueberries. Very vigorous bush with upright spreading habit. Consistently productive. Z4.

7411A Blueray Blueberry, \$19.50

Draper Early-Mid. 4'. MSU, John Hancock intro, 2004. Light blue firm crisp berries are low acid, ripen uniformly and hold up well on the shelf as the thick skin resists splitting. These qualities make this a highly sought-after cultivar among market growers. Does not tolerate clay. Z5. NEW!

7412A Draper Blueberry, \$19.50

Duke Early. 4-6'. G-100 (Ivanhoe x Earliblue) x 192-8 (E-30 x E-11) USDA, NJ, 1987. Medium-large light blue firm fruit with excellent sweet flavor. Even after temps of -30° the winter of 2019, the branches were still loaded with fruit that summer. One of grower Seth Yentes's favorites in his U-pick. Flavor holds up better than other varieties in the freezer. Vigorous upright high-yielding bush. Long stems and loose clusters. Z4.

7413A Duke Blueberry, \$19.50

Elizabeth Mid-Late. 5-6'. Discovered by Elizabeth White, Whitesbog, NJ, and released in 1966. Friend and avid fruit grower Dan Kennedy of Searsmont, ME, grows 17 different varieties of highbush and rates Elizabeth and Blueray as his top favorites. He describes the bushes as bearing dense clusters of large fruit with a balanced flavor of sweet and tart. Stores well in refrigeration.

Large vigorous upright shrub has strong spreading lateral branches. Z4. 7414A Elizabeth Blueberry, \$19.50

Jersey Mid-Late. 5-7'. Rubel x Grover, USDA, 1928. The beloved old standard of blueberry introductions to which new varieties are compared. Medium to large dark blue berries in large loose clusters. Vigorous erect hardy bush. Productive, adapted to a wide range of soils, highly praised, easy to grow and suited to the New England climate. Z4. 7415A Jersey Blueberry, \$19.50 **Legacy** Mid. 6-8' x 5'. Elizabeth x US 75 (V. darrowii Florida 4B x Bluecrop) USDA, Beltsville, MD, 1993, selected in 1976. High-quality medium light blue berries are firm,

sweet and low in acidity. High yielding. Upright bush has shown some tolerance to clay soils. Z5. NEW! 7416A Legacy Blueberry, \$19.50

Meader Early-Mid. 5-7'. Elwyn Meader intro, UNH Ag Exp Stn, Durham, NH, 1971. Medium-large medium-blue fruit with excellent flavor, from one of our most beloved breeders. Sweet with a hint of acid. Vigorous upright open lightly spreading form. Very hardy. Z4 or even Z3.

7417A Meader Blueberry, \$19.50

Northblue Mid. 2-3'. MN 360 (B10 x US3) U Minn, 1983. Very hardy highbush-lowbush cross. Large dime-size dark blue fruit especially good for freezing and cooking. Sweet wild flavor. This half-high shrub yields 3-4 quarts per plant. Good choice where space is limited. Excellent pollinator for St. Cloud and Patriot. Z3.

7418A Northblue Blueberry, \$19.50

Patriot Early-Mid. 4'. US3 (Dixi x Michigan LB-1) x Earliblue (Stanley x Weymouth) UMaine, 1976. Partial lowbush parentage. Adaptable to many soil types. Large firm berries with excellent flavor. Productive upright open spreading bush. Tolerant or resistant to some strains of soil fungus. Hardy. Good pollinator for other lowbush-highbush types. Z3.

7419A Patriot Blueberry, \$19.50

Sunrise Early. 5-6'. USDA, 1978. Good quality early variety with medium-sized very flavorful deep blue berries. Extended ripening season of 4–5 weeks. Upright spreading form. Z4. BACK!

7420A Sunrise Blueberry, \$19.50

Talisman Mid-Late. 5-6'. Magnolia x Elizabeth. Blueberry and Cranberry Res Stn, Rutgers, NJ, 2005. Medium-large berries are mild and sweet with low acidity. Best attributes are uniform ripening, heavy yields (around 12 lb per plant) and good resistance to mummy berry. Z4.

7421A Talisman Blueberry, \$19.50

You all have a special place in our hearts. Thank you for providing us with nourishing food for years to come! Sarah from Belfast, ME



Blueberry Booster Fertilizer Mix Available from Fedco's Organic Growers Supply!

Our house-blended mix is formulated to bring down the soil pH and provide the nutrients needed for healthy blueberry plants and good fruit.

Contains granite meal, K-Mag, sulfur, Tennessee brown rock, Penobscot Blend Compost & Peat, and Azomite. Mix 3# per plant into the soil when planting. As a sidedressing in spring or fall, apply 3# per established plant.

Find it in 3-lb and 30-lb bags at fedcoseeds.com/ogs.

Growing Highbush Blueberries

Soil: Light acid soil with plenty of organic matter. Keep them watered.

Sun: Full.

Pollination: Two varieties required, three or more recommended.

Spacing: Plant 6' apart (or closer for smaller lowbush-highbush

types) in rows 8-10' apart.

Planting: Mulch yearly with at least 3-6" pine needles, wood chips, hay, cardboard, even old slab wood. They don't like grass competition.

Pruning: Fruit is produced on one-year shoots off healthy canes. Older canes become twiggy and less productive. After three years, head back long sprigs of new growth for a bushier plant. Each bush should be allowed to grow 6-10 canes varying in age from 1-6 years old. Thereafter, remove dead canes and those over 6 years old to encourage new replacement canes. Bushes with regular moderate pruning produce the most berries.

Black Huckleberry

Gaylussacia baccata

Cousin of the blueberry. Flowers in June and fruits in August. Nectar of the pink bell-shaped blossoms helps sustain the endangered adult Karner Blue butterfly and native bumblebees. Brilliant purple-red fall foliage. We've found many quiet little shrubs tucked in along pond edges and uplands woods, and also in great swaths among the sheep laurel and the lowbush blueberries of coastal Maine. Native to eastern U.S. and Canada.

Michigan 1-3' x 2-4' Hartmann's Plant Co intro, found growing in Allegan County, MI, among some lowbush blueberries. Shiny black huckleberries are mildly sweet with the slightest crunch from tiny seeds. Delicious fresh or in desserts. Prefers sandy acidic well-drained soil. If you've got white pine, you're probably all set. Once established, they are drought tolerant. Fruits best in full sun. Self-pollinating, but planting multiples will enhance fruit production. Space 3-4' apart for a nice hedge. Forms colonies but does so very slowly. Z3/4. (gallon pot, 15-20")

7422A Michigan Black Huckleberry, \$19.50

Saskatoons Amelanchier spp.

Also called Juneberry, Parsonberry, Serviceberry, Shadblow, Shadbush and Shad. Purplish-black sweet berries great for pies, cobblers, jellies, jams, smoothies and cakes. Berries are about the size of a lowbush blueberry, or a bit larger, and seedier. Fruit ripens in mid-July in central Maine.

We've always admired our native Amelanchiers in the wilds of Maine where they grow along stream edges and rocky slopes. Beautiful fragrant 5-petaled white flowers are early harbingers of spring in Maine. Nice red-orange fall foliage. Recently we're learning more about saskatoons farmed commercially for fruit in Canada, much like how we grow highbush blueberries. In Canada there are saskatoon festivals, and even a baseball team called the Saskatoon Berries! (1-3')

Regent 4-6' x same. A. a. J. Candrian intro, Faribault, MN, 1997. An open-pollinated seedling originating near Regent, ND. Compact prolific shrub with sweet purple-magenta berries. Foliage somewhat susceptible to leaf spot or rust but this doesn't affect fruit. Z2. ME Grown.

7423A Regent Saskatoon, \$19.25

one variety for better yields. Spacing: 5' apart.

Smokey 9-12' x 6' Beaverlodge, Alberta, 1952. Large mildly sweet berries with high sugar-to-acid ratio. Fast growing and high yielding, this was once the most popular cultivar in commercial orchards in Canada before it got displaced by Northline, which



Honeyberry Lonicera caerulea Also called Haskap or Edible

Honeysuckle. Our Canadian neighbors are crazy about haskaps, ramping up commercial U-pick orchards, exporting fruit to Japan, and making fun treats like honeyberry jam and ice cream. Mediumsized fruiting shrub is somewhat similar in bush and berry to our native highbush blueberry. In the Japanese Ainu language, haskap means 'lots of little things on top of the branches.' Native to Siberia and the Kuril Islands.

Honeyberry Seedlings 4-6' x same. Small dark blue oval fruit, very high in antioxidants, ripens in June around or just before strawberries. Productive plants bear at a young age with proper pollination. Ten pounds of fruit per plant is possible after a few years. Adaptable to most soils. Fruits best in full sun, but tolerates part shade. Leaves may show signs of sunburn as season progresses. Plant at least two for pollination. Space 4-6' apart. Shallow roots benefit from a good layer of mulch. Extremely hardy, low maintenance and disease free. Z2. ME Grown. (1-3') NEW!

7425A Honevberry Seedlings, \$22.00

Fedco's Propagation Program Grows!

At Fedco Trees, we place high value on propagating from plants we live with and know well, and from wild plants representing our local ecotype. Many of the plants we offer begin from seeds, scions and cuttings we collect from healthy local specimens and then germinate or root to be grown out using best practices on one of the small-scale regional farms we contract with

Propagation and growing are two separate steps to get plants from their source to you, and not all growers are propagators. Many plants, shrubs in particular, can be difficult to get started. For years Western Maine Nursery had a wonderful propagator who could root anything and deliver baby plants to our local growers to raise in their nurseries for our catalog. When WMN shut down, they left a hole.

In response, we've shifted gears to put more resources toward building up our local propagation program, with the long-term goal of propagating all our plants from our own germplasm. Germplasm can be thought of as our mother plants, or stock plants, whose seeds, scions and

cuttings we use to propagate our nursery crops.

To expand our local germplasm, we've grafted hundreds of varieties of fruits into our orchards, and planted seedlings and cultivars of many species into our gardens and landscapes. We've developed maps of favorite wild specimens and dooryard trees around the state and in pockets of New England, from which we collect seeds and cuttings. By maintaining and expanding our local germplasm, we get to know these plants through the seasons, learn about the pests and diseases that may plague them, and observe their hardiness.

The added benefit of this program is that it allows us to become more self-sufficient. For example, we graft our entire fruit-tree line onto excellent rootstock that comes from farms in Oregon's Willamette Valley. We love these farms and they are experts at this particular crop. However, we never know when climate crisis or shipping-route disruption could cut off this supply. In recent years, we've had a few close calls. For this reason, we have begun to experiment with growing our own rootstock for grafted fruit trees from hardy seedlings (see page 27.) It's tough work, but we're going for it.

To support our propagation program, we are also working toward improved facilities, like mist tents and chambers for rooting cuttings, hot callus pipes for grafting finicky species, and improved cold storage for overwintering delicate seedlings.

Thanks for supporting our work. Every plant you buy furthers the cause!



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Elderberries Sambucus spp.

Elderberry trees appear in myths from days of yore, thought to possess magical and protective powers. Dangling clusters of edible purple-black berries ripen in late summer on this broad vigorous multi-stemmed shrub. The fruit is highly nutritious and medicinal. A century ago, every grandmother knew how to make the perfect elderberry pie. Recipes for jam could be found in all the old farm cookbooks. Elderberries have made a big comeback as folks rediscover the scrumptiousness of elderberry jelly, cordial, elixir and wine. The large creamy-white flower clusters, or cymes, that cover the shrub in early summer

make delicious fritters. Dry
them for a fragrant wintertime
cold-and-flu remedy tea.
For centuries, humans have
used this plant's medicinal
qualities to treat a wide range
of ailments and to boost the
immune system. Hippocrates is said to
have called the elder tree his "medicine chest."
Birds love the fruit, and the blossoms attract
beneficial insects and pollinators.

No serious pest or disease issues. (1-3' shrubs)

Note: Cooking elderberries is essential to breaking down toxic cyanide-inducing glycosides in the seeds. Not for fresh eating.

American Black Elderberry S. canadensis

This species is native to North America. Hardier than the European Sambucus nigra, and fruits on first-year wood.

Adams No. 1 6-12' x same. NY Stn intro, 1926. Selected in 1915 from the wild by William Adams in Union Springs, NY, and sent to Geneva where it was introduced 11 years later. Large berries and fruit clusters make for easy and fast picking. If you're heading to a potluck and need to make a pie in a pinch, Adams is the shrub you want. Very large vigorous strong productive bush. Z3. **ME Grown**.

7426A Adams No. 1 Elderberry, \$22.00

Bob Gordon 6-8' x same. MU intro, 2011. Wild seedling selected by Robert Gordon in Osceola, MO. Large clusters of large dark berries. High Brix levels makes this elderberry a good one for winemakers. Upright slightly spreading habit. Z4. **ME Grown**.

7427A Bob Gordon Elderberry, \$22.00

Goodbarn 5-10' x same. Chance seedling. Elwyn Meader intro, Rochester, NH. Professor Meader named this Goodbarn because it was the good elderberry growing under the eaves of his barn in New Hampshire. Another of the many fine plants Elwyn's son John has brought to our attention. Thanks, John! Hardy, vigorous with apparent self-fertility. It blooms heavily and produces large crops annually. Z3. **ME Grown**.

7428A Goodbarn Elderberry, \$22.00

Johns 8-10' x same. Adams No. 1 or Adams No. 2 x open-pollinated. Nova Scotia Exp Stn, 1954. Very vigorous. One particular cutting in our garden grew 5' in one season and had berries and flowers at the same time late into the summer. Z3. **ME Grown**.

7429A Johns Elderberry, \$22.00

Mattawamkeag 6-12' x same. Fedco intro, 2014. Originally selected and propagated by Sue Szwed and Mitch Lansky of Wytopitlock, ME. Sourced from a wide swath of plants growing in Aroostook County between Wytopitlock and Bancroft near the Mattawamkeag River. Robust plants with consistently high fruit yields. Z3. ME Grown. BACK! 7430A Mattawamkeag Elderberry, \$22.00

Nova 6-8' x same. Open-pollinated seedling of Adams No. 2. EL Eaton intro, Kentville, Nova Scotia, 1959. Selected in 1946 and named for its province of origin. Large sweet fruit matures early and uniformly. Suckers easily. Z3. **ME Grown**.

7431A Nova Elderberry, \$22.00

Scotia 8-12' x same. Seedling of Adams 2. Kentville, Nova Scotia, 1960. High-yielding cultivar popular with market growers in Canada. Selected for high levels of sugar compared to other elders. Berries are on the small side. Showing serious vigor in our trials. Z4. **ME Grown**.

7432A Scotia Elderberry, \$22.00

Wyldewood 6-12' x same. Selected from wild bushes in 1995, introduced in 2010, MU/MSU, by PL Byers and AL Thomas. A consistently high-yielding elderberry cultivar, popular in the Midwest. Some trials are showing it produces as much as Adams, if not more, and ripens a little bit later. Vigorous! Give it lots of room or whack it back. Z3. **ME Grown**.

7433A Wyldewood Elderberry, \$22.00

York 4-10' x same. Ezyoff x Adams No. 2. NY Stn, 1964. An old reliable, considered by some to be the largest-fruited and heaviest-bearing cultivar. In most of our Maine trials, this shrub is more compact than Adams, topping out at 4–5', but we've seen a 10' specimen growing on a compost pile. Persistent and will bear well for many years alongside other varieties. Heavy clusters of mildly tart large berries that ripen after Adams. Z3. **ME Grown**.

7434A York Elderberry, \$22.00

American Elderberry Seedlings Each one is grown from cold-hardy seed and will be a totally unique plant. Some of our best plants grew from batches of such seedlings. Z3. **ME Grown**.

7435A Elderberry Seedling, \$22.00

7435B Elderberry Seedling, bundle of 5, \$95.00

European Elderberry S. nigra

This species is native to Europe. The medicinal berries are extremely high in immune-boosting anthocyanins. You can use them in all of the same wonderful ways you would use the *canadensis* species. More tender than *canadensis*, but ours in Zone 4 seem to be almost as hardy. Note that *nigras* produce on second-year wood—prune accordingly.

Korsor 6-8' x 2-5' Danish cultivar bred for heavy

fruit clusters and excellent juicing quality. Leaves are broader and darker green than other elderberries and the plant gives off a musky scent when you brush past it. Upright habit, extremely vigorous. Z4/5. ME Grown.

7436A Korsor Elderberry \$22.00

Marge 4-6' x 4-5'
An open-pollinated seedling of Haschburg, one of the most popular commercial varieties in Europe. A heavy-yielding *nigra* with extreme vigor, hardiness and pest resistance. Upright and non-suckering. Named after Marge Millican of

Wyldewood Cellars Winery, Mulvane, KS, also responsible for giving us the cultivar Wyldewood. Z4. ME Grown.

7437A Marge Elderberry, \$22.00

Samyl 5-8' x 2-5' Res Ctr for Hort intro, Aarslev, Denmark. Selected for juice production based on very high anthocyanin content and sweet flavor. Strong upright shoots yield dark glossy berries. Z4/5. **ME Grown**.

7438A Samyl Elderberry, \$22.00

Growing Elderberries

Soil: Adaptable and low maintenance, but prefers moist fertile soil. Can tolerate drier soil, poor drainage and even temporary flooding.

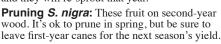
Sun: Full, but will tolerate some shade.

Pollination: Self-fruitful, but plant more than one variety for better yields. *Canadensis* and *nigra* species will pollinate each other.

Spacing: 6-8' apart.

Planting: Add plenty of compost to the planting hole; sidedress with compost every spring. Mulch with a thick layer of hay, leaves or wood chips to control weeds and protect shallow roots. Do not invite the elderberry borer by allowing sod to grow at the base of the plant!

Pruning S. canadensis: Fruit on both new and old canes, with best sets on one-and two-year canes. In spring when plant is still dormant, prune out broken or dead canes, and periodically cut out the oldest wood. New canes will emerge. You may treat them like perennials and cut them to the ground each spring, and they will re-sprout that year.



Strawberries Fragaria x ananassa

A major highlight of every summer is picking strawberries. In central Maine strawberry season is usually around summer solstice.

Modern strawberries, developed about 1830, are a hybrid of F. chiloensis (native of Chile) and F. virginiana (native of North America). Royce Bringhurst of UC-Davis developed everbearing strawberries from wild plants found in Utah's Wasatch Mountains. He crossed these with modern varieties and introduced the first everbearers in 1980.

50 plants will plant from 50–100'. (virus-free bare-root crowns)

EVERBEARING STRAWBERRIES

Everbearing, or day-neutral, strawberries flower regardless of day length as long as temperatures are between 35 and 85°, and produce fruit from June to October. They are uncommonly productive—about 1 lb of fruit per plant the first year, and slightly less the second year. Productivity peaks in August the first year. The second year, berry size decreases in the hottest weather and increases in cooler weather. After second year, turn under and start again.

Albion CN220 (Diamante x Cal 94.16-1) UC-Davis, 2006. Everbearing strawberry with very large conical firm fruit, excellent flavor and good shelf life. High yielding. Fedco's Alice Coyle switched to Albion from Seascape and never looked back. She says, "Albion is definitely no slouch for flavor. It continues to bear reliably and produce large delicious berries in hot weather." Plants are large and need extra space to produce bigger berries. Resistant to verticillium wilt, phytophthora crown rot, and anthracnose crown rot. PPA expired. Z4.

L7439A Albion Strawberry, bundle of 50, \$30.00

Mara des Bois (Gento x Osara) x (Red Gauntlet x Korona) Hybridized by Jacques Marionett, Soings-en-Sologne, France, 1991. Everbearing strawberry claimed to be the most flavorful and fragrant of the day-neutrals, often referred to as "gourmet." Berries are high in methyl anthranilate, the volatile compound that gives them their strong fragrance. Commercially grown in France where they are sold at a premium. Shorter shelf life makes them better suited for local markets. Plants bear mediumsmall glossy red berries prolifically from summer into fall the first year. Second year bears a heavy spring crop with continuously ripening berries throughout the summer. Z4.

L7440A Mara des Bois Strawberry, bundle of 50, \$30.00

Seascape CN 49. Developed by Royce Bringhurst, UC-Davis, 1991. Everbearing strawberry with bright red medium-to-long conic highyielding firm productive reliable fruit. Excellent flavor. Broad resistance to fungal diseases. Somewhat susceptible to common leaf spot and twospotted spider mite. Very hardy. Z4.

L7441A Seascape Strawberry, bundle of 50, \$30.00

If we had to pick one plant...?

Customers sometimes pose this diabolical question. We get it!—folks with only a small planting space or a small budget want to know what to choose. While all the plants in our catalog offer something special and necessary, we do have our personal favorites.

We pick elderberry. It's one of the most adaptable and forgiving plants we know, with little to no disease or pest pressure. It's easy to grow and will reward you year after year if you give it compost and a mulch of wood chips. There's not a more delicious and interesting conversation piece than an elderberry pie.

The birds will rival you in their fandom. Elderberries are growing everywhere on our property. We heeled in two small plants at the end of a garden bed one year with the intention of moving them out into the landscape the following spring. Well, that never happened, and now it's a bird palace, about 16' wide and 10' high. We lost the ends of those paths but now there are so many insectgobbling birds scouting the garden. A few years ago we bush-hogged over the York elderberry that was interfering with a laundry line. No problem, the plant said, and every year it rebounds as gloriously as the year before. You can let your elderberry run free, or prune it to the ground like a perennial.

If you already have an elderberry, drop us a line and we'll try to help you find your one

Got a favorite? Send us your short story. If we publish it, we'll send a free plant of your choice!



JUNE-BEARING STRAWBERRIES

When cultivated as described in sidebar below, June-bearing plants begin bearing their second year and can produce for up to 5 years.

Galletta Early. NCH87-22 x Earliglow. NCSU, 2010. This newer variety has quickly gained popularity among strawberry growers in Maine. Large glossy bright red fruit not only ripens before Earliglow, but also has great flavor. Benji Knisley of Sand Hill Farm says she likes it almost as much as her long-time favorite Earliglow. Highly productive and maintains fruit size. Vigorous plants are tolerant to red stele and foliage diseases. PPA. Z4. BACK!

L7442A Galletta Strawberry, bundle of 50, \$30.00

Honeove Early-Mid. NY 1409 (Vibrant x Holiday) NY Stn, 1979. Folks pronounce it honey-eye. Tough, hardy, vigorous, extremely productive and easy to grow. The freezer-filler of the strawberry patch. Produces large conic bright red fruit over a long fruiting season. Firm flesh with tart—and surprisingly good—flavor. Excellent freezing quality. Probably the most popular commercial berry in the Northeast. Susceptible to verticillium wilt. Z3/4.

L7443A Honeoye Strawberry, bundle of 50, \$30.00

Malwina Late. Unnamed seedling x Sophie. Bred by Peter Stoppel, Germany. Extend your picking season into late June or early July with these sweet dark glossy beauties. One of the darkest strawberries we've ever seen and possibly the tastiest. Best for fresh eating, Malwina doesn't like to hang around on the plants or the shelf. Pick every two days for firm fruits and eat 'em up with biscuits and cream. Produces fewer runners than standard varieties, so plant beds accordingly. Resistant to verticillium wilt and red stele. PPA. Z4. BACK!

L7444A Malwina Strawberry, bundle of 50, \$30.00

Sparkle Mid-Late. Fairfax x Aberdeen. NJ Ag Exp Stn, 1942. We've yet to taste a strawberry that comes even remotely close to Sparkle. They possess a flavor that can only be described as the essence of strawberry. The best in an early year, the best in a late year, the best this year, last year, every year. Soft small-to-medium berries make delicious fresh eating and are also excellent for jams and freezing. One of its few drawbacks is that it tends to lose color in the freezer. Moderate crop yields. Resistant to most strains of red stele. Blooms late, rarely affected by spring frost. Z3. L7445A Sparkle Strawberry, bundle of 50, \$30.00

Growing Strawberries

Soil: Well-drained and fertile. Avoid planting sites where tomatoes, peppers or potatoes have grown in the past 4 years.

Sun: Full

Pollination: You need only one variety.

Planting and Spacing: Choose a site with good air flow. Plant at the same depth as they were in the nursery, with the middle of the crown at soil level. To optimize plant survival, plant crowns on cloudy days

or in the evening. Soak roots in fish/kelp emulsion to lessen transplant shock. • For Everbearing or Day-Neutral Strawberries: These heavy feeders benefit from 3-4" of manure worked into the soil prior to planting. Plant

6–12" apart. Remove flowers for the first 6 weeks, and remove all runners the first season. After harvest the second year, turn under and start again.

• For June-Bearing Strawberries: Use Matted Row system: Set plants 12–24" apart in rows 3' apart. Allow plants to produce runners freely and fill in the row. Remove all flowers the first year.

Harvest berries the second year, and immediately after harvest, fertilize liberally with compost or aged manure and renovate the row. By hand or with a tiller, narrow the row to 12" wide. Thin plants to 4–5" apart within the row. By this method a bed can last about 5 years.

Mulching: In late fall mulch with hay to protect plants over winter. In spring pull mulch off plants and place between rows to keep fruit dry and clean in summer. Floating row cover may be used for frost protection.





We love raspberries: fresh or frozen, in smoothies, jam and especially pie. We even like the foliage—best taken from the first-year primocanes—which makes a delicious astringent healthful tea. Raspberry leaf and fruit vinegar is very high in minerals. The root bark is also medicinal.

Raspberry season in Maine is mid-July through fall. Native to North America, Europe and Asia, they are usually identified as *R. idaeus* or *R. i.* var. *strigosus*. 53 different *Rubus* species and subspecies live in Maine.

Please note: Raspberries have very fine, fibrous roots. Often they do not sprout from the plant stem after planting. This is normal. Be patient! Keep them well watered and they should all break dormancy, sprout from the roots and thrive for many years to come. (Canes are bare root unless otherwise noted in the description.)

EVERBEARING RASPBERRIES

Everbearing raspberries bear on first-year canes (primocanes). Particularly desirable for northern growers because they can die (or be cut) to the ground and still produce a sizable crop the following year. In central Maine the first of these ripens in mid-late August and the latest can go through September.

Anne Late. JEF-b1 (Amity x Glen Garry) U of MD, 1998. Everbearing sweet flavorful pale yellow raspberry ripens in fall. Large cohesive conic fruit stores decently and is firmer than other yellows. Semi-vertical canes may sucker less than most everbearing types. Cut it entirely to the ground after the season is over. Resistant to phytophthora root rot. Z4.

7446A Anne Raspberry, bundle of 5, \$27.00

August Red Late. NH R7 [Durham x NH 102 (dwarf F2 seedling x Taylor)] x NY 287 [NY 18810 (Marcy x Indian Summer) x NY 20990 (*R. strigosus* selection)] Developed by EM Meader, UNH, 1973. Considered the hardiest of the everbearing types—the last hope when no other raspberry will survive. Medium-large crimson fruit has excellent flavor. Compact 3' bush bears earlier than other everbearers, even Polana. Productive midsummer, about Aug. 10 in central Maine. We are very pleased to offer this rare variety. Z3. **ME Grown**.

7447A August Red Raspberry, bundle of 5, \$35.75

Joan J Late. Joan Squire x Terri-Louise. Dark red medium-large berries of very good quality are firm, holding up well in the quart without slouching. Thornless (!) moderately vigorous canes. An early fall bearer, ripening about a week later than Polana. Notably good heat tolerance. **Z4. NEW!**

7448A Joan J Raspberry, bundle of 5, \$27.00

Polana Late. Heritage x Zeva Herbsternte. Res Inst of Pomology and Floriculture, Brzezna, Poland, 1991. Large firm red berries with very good flavor on vigorous and productive short canes. Early for an everbearing variety. In northern districts, it ripens in late August or September and has performed well in our Fedco trials. According to David Handley of UMaine, "as near a thing to a sure bet." Easy to pick: the berries hang off the tops of the plants. Suckers freely. Z4.

7449A Polana Raspberry, bundle of 5, \$27.00

Growing Raspberries and Blackberries

Soil: Well-drained soil rich in organic matter. Avoid planting sites where tomatoes, peppers, potatoes, strawberries or wild brambles have grown. For every 100 row feet, fertilize each spring with up to 100 lb manure or compost (or 8 lb blood meal or 14 lb soybean meal).

Sun: Full.

Pollination: You need only one variety.

Planting: Prepare holes wide enough to spread out roots. Don't let roots dry out—consider soaking roots in Agri-gel (**L7622A**, page 42) for 1–2 hours before planting. Add plenty of compost. Plant canes 1–2" deeper than the nursery line. Mulch with a thick layer of wood chips. Plants require 2" water per week during growing season.

Spacing:

- Everbearing raspberries: Plant 9–15" apart.
- Summer-bearing raspberries: Space 2' apart. To trellis, run a wire on either side of the 18–36" bed, with wires 3–4" high to support the tall canes.
- Purple and black raspberries and blackberries: Plant in hills 3–4' apart, 3–4 plants per hill. Tie to a center post if needed.

SUMMER-BEARING RASPBERRIES

Summer-bearing raspberries bear on second-year canes (floricanes). Midseason berries ripen around late July in central Maine.

Boyne Early-Mid. Chief x Indian Summer. Morden Stn, Manitoba, Canada, 1960. Round-conic medium-sized berries with an intense deep dark almost purple color. Strong aromatic tart raspberry flavor and a perfect medium-soft texture. Grower John Meader speaks glowingly of Boyne, calling it "an excellent, excellent variety. Boyne is the one to beat if you're going to introduce a new raspberry." Leaves tend to curl down over the fruit making it harder to pick if you're in a hurry. According to friends who make honey and fruit butters, there is no better raspberry for processing. Disease resistant. Extremely hardy. Z3.

7450A Boyne Raspberry, bundle of 5, \$27.00

Encore Late. Canby x Cherokee. Cornell Small Fruit Breeding Program, Geneva, NY, 1980. Large red berries of good quality on highly vigorous sturdy canes. One of the most popular raspberries among home gardeners for being *nearly* thornless and for ripening late in the season. Stores well in the freezer. Z4. **NEW!**

7451A Encore Raspberry, bundle of 5, \$27.00

Latham Mid. MN4 (King x Loudon) U Minn, 1920. A standard raspberry for more than a century, extremely popular and widely grown. Large bright red 1" fruit is roundish, firm, a little crumbly and sprightly sweet, full-flavored and aromatic. Great for fresh eating, canning, freezing, jam, juice or pie. Ripens over an extended season making it an ideal candidate for the home garden. Canes are 4–5' tall and highly productive. Not as

spiny as most raspberries. Widely adaptable and very winter hardy. Disease resistant. Z3.

7452A Latham Raspberry, bundle of 5. \$27.00

Nova Mid. Southland x Boyne. Kentville, Nova Scotia, Canada, 1981. In our trials Nova appears as hardy, if not hardier, than Boyne and on par in fruit quality, too. Medium-sized firm somewhat acid bright red fruit. Upright productive minimally spiny canes

produce long fruiting laterals that make berries

easy to pick. Z3. BACK! 7453A Nova Raspberry, bundle of 5, \$27.00

Royalty Purple Mid. (Cumberland x Newburgh)
x (Newburgh x Indian Summer) NY Stn, 1982.
Their distinctive flavor is different from the red raspberries, with a hint of black raspberry. A favorite for fresh eating among those who know it. Cohesive fairly firm large berries make outstanding jam and jelly, too. Extremely robust minimally suckering plants are very productive and open-formed; the berries

are eye-level and easy to pick. Ready to harvest when they are deep purple, somewhat later than the reds. Plant in hills (see below). Disease resistant. Occasional slight tip dieback in Zone 3. Z3/4. (plugs) **7454A** Royalty Purple Raspberry, bundle of 5, \$38.00

Agri-gel Highly recommended for raspberry planting. See p. 42. *L7622A Agri-gel*, *\$4.00*

Pruning Raspberries and Blackberries:

- Everbearing raspberries: Cut all the canes to the ground in late fall or early spring. New first-year canes will fruit in mid-late summer. (In warmer districts, you can leave old canes, which could fruit lightly the following year.)
- Summer-bearing raspberries: In fall or early spring, prune out the canes that last carried fruit (they will be the branchy ones). Thin the fresh first-year canes to about 3–4" apart. During the growing season cut back canes to 5' if they are bending over severely.
- Purple and black raspberries and blackberries: In spring, thin to 5–8 canes per hill. In early summer, pinch back tip of first-year canes to 2½–3′ tall. This will encourage lateral fruiting branches. You may run a wire between hills for lateral branching but this is not necessary. The following spring, cut these fruiting laterals back to 8–12 buds.

Black Raspberries

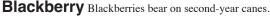
Black raspberries bear on second-year canes. Also called **black caps**. Contain high levels of antioxidants and anthocyanins, strengthening the immune system when eaten regularly. Freeze excess berries for winter to help combat colds and flu. (plugs)

Jewel Midsummer. Bristol x Dundee. Cornell, Geneva, NY, 1973. High-yielding variety with superb quality and flavor. Glossy large firm juicy fruit with rich sweet lingering flavor. Larger than Bristol. Excellent choice for fresh eating, jams and jellies. Cohesive texture holds shape with refrigeration. Vigorous disease-resistant canes. Z4.

BACK! 7455A Jewel Black Raspberry, bundle of 5, \$38.00

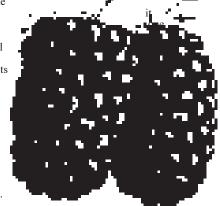
Tahi Early-Midsummer. Shekinah Berry, Auckland, New Zealand. The first ever thornless black raspberry available to home gardeners! Deep black large berries are moderately firm and tightly clustered. Vigorous upright canes. In Māori, *tahi* means 'number one.' Z5. **NEW!**

7456A Tahi Black Raspberry, bundle of 5, \$39.50

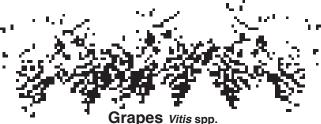


Nelson Midsummer. Nelson has been surviving Maine winters for at least a century. Introduced to us by the descendants of Nelson Fronk, whose 1928 family photograph taken on their

farm northeast of Farmington shows the blackberries growing by the barn. John Meader calls "exceptionally hardy," of the most enduring blackberries he knows. Tall sturdy upright inch-thick canes can be grown on posts or free standing. Fruit is moderately large and quite juicy with true blackberry taste. Highly productive with 16-18 blossoms on the central stalk—the most we've seen on any blackberry. Four good pickings over two weeks in mid-August. Excellent jelly and good fresh eating. Disease resistant. Like all



blackberries, spreads quickly so give it room. Z3/4. (plugs) **7457A** Nelson Blackberry, bundle of 5, \$40.00



Grapes are easy to grow and can bear plentifully even in northern New England. They begin fruiting in the second or third year after planting. They are rugged and cold hardy. Our vines bear consistently every year. Although many people prefer seedless types for table use, seeded varieties can be quite enjoyable right off the vine if you don't mind "grape nuts." Grape seeds contain an antioxidant that is twice as powerful as vitamin C.

Most grape varieties are bred from a combination of different species, *V. labrusca* and *V. vinifera* being the most important. *Labrusca* is native to the eastern U.S., has a wild tart musky (foxy) flavor, and is hardy and disease resistant. Concord is the best-known of the *labruscas*. *Vinifera*, native to Europe, is extremely high quality, and is the most important wine grape in the world, but is not cold hardy and is prone to disease. *V. riparia*, native to North America, used as rootstock for grafted varieties and in hybridization with *vinifera*, is very adaptable to a wide range of soils, disease resistant and very cold hardy.

In central Maine, "very early" grapes begin ripening in mid-August, while "midseason" ripen mid-September. Late-season Concord, a standard elsewhere, does not ripen in many northern areas. (well-rooted vines)

Bluebell Mid. MN 158 (Beta x unknown) Developed by JM Dorsey, U Minn, 1944. Our most popular seeded grape; it does everything well. Delicious flavor makes them excellent for fresh eating, jelly and juice. Clusters of medium-sized dark berries with a heavy blue bloom. Extremely hardy, to -30° , *labrusca*-type ripens 2–3 weeks earlier than Concord. While it ripens beautifully from central Maine south, it may not have time to ripen in some northernmost locales. Strong, productive, vigorous—but not rampant—vine. A joy to grow. Immune to most or all fungal diseases. Z3/4.

7458A Bluebell Grape, \$18.00

Brianna Early-Mid. ES 7-4-76 (Kay Gray x ES 2-12-13) IA St U, 2001. Bred by Elmer Swenson in WI, selected in 1989. High-quality white wine grape that is also great for fresh eating. Medium-large round thick-skinned gold berries in medium-small tight clusters. As a wine grape, imparts pineapple and grapefruit flavors with very floral characteristics. French-American hybrid including *V. labrusca* and *V. riparia*. Vigorous vines are easy to manage. Z3/4.

7459A Brianna Grape, \$18.00

Edelweiss Mid. MN78 [(Beta x Witt) x Ontario] Elmer Swenson intro, U Minn, 1980. Considered one of Swenson's favorite grapes. Sweet green slipskin with a white bloom. Good for fresh eating and also makes a nice fruity wine. Slightly foxy. High sugar content. Large conical loosely formed clusters of medium-sized tender juicy berries. Harvest when mature—if you leave them on the vine too long, the flavor strengthens and becomes musky. Vigorous and productive. Disease resistant. Hardy to -30° or -35° . Z3. **BACK!**

7461A Edelweiss Grape, \$18.00

Growing Grapes

Soil: Very well drained with moderate fertility. Every few years, fertilize liberally with granite meal. Mulch annually with hay or straw.

Sun: Full.

Pollination: Self-pollinating; you need only one for fruit.

Spacing: 8–12' apart in rows 8–12' apart.

Planting: Spread roots out in hole, planting the crown even with the soil surface. Pack soil, water and mulch well. After frost danger has passed, prune new vine back to 3–5 strong buds.

Pruning and Trellising: There are many systems for training grapes, and all involve annual pruning to remove most growth in late spring. This aggressive pruning encourages new fruiting canes. See next page for a few methods, or go to umaine.edu/highmoor/ and click on "videos."

The current vineyard standard for wire is high-tensile-strength class III galvanized steel. The gauge should be 11 to 12.5. The wire is generally sold by weight. 100 lb of 11 gauge measures about 2600'. 100 lb of 12.5 measures about 3800'.

Optional Winter Protection: If a variety is marginally hardy in your area, you can still grow it if you take special care in winter. Remove the vine from the trellis in fall, lay it on the ground, and bury with just enough soil to cover.

If you plan to do this, plant your new grapevine at a 45° angle. Train new shoots horizontally for at least one foot. Then, curve shoots upward to form a J shape. This creates a flexible hinge, allowing you to lay the vine down at the end of the season.



more Grapes

L'Acadie Blanc Early. V-53621 (Cascade x Seyve-Villard 14-287) Ollie A. Bradt intro, Vineland Stn, Ontario, 1953. Loose mediumsized clusters of golden-green grapes suited for a wide range of blended white wines or use as a single varietal. Fruity, crisp, mineral, with hints of apple and pear. Think Chardonnay. Lineage has eight different types of Vitis species—perhaps this explains its exceptional versatility. Widely planted in Nova Scotia and parts of Quebec. Hardy to -20° or colder. During the deep freeze of February 2023 that knocked back plants across Maine and the Canadian Maritimes, this vine came through unscathed. Josh Horton, head grower and winemaker at Lightfoot & Wolfville Vineyards, said "...you can make some really delicate, beautiful wines with it, but it's a workhorse in the sense that it doesn't matter if it's a frost, a polar vortex, a lot of rain or wind-it just pushes through, and you always end up with pretty good quality." Recommended to us by local winemaker Brian Smith of Oyster River Winegrowers in Warren, ME. Z4/5. BACK!

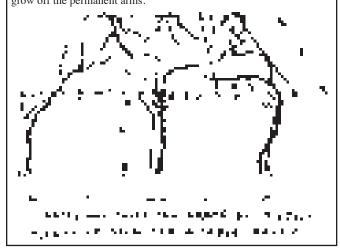
7462A L'Acadie Blanc Grape, \$18.00

Marquette Mid-Late. MN 1211 (MN 1094 x Rivat 262) U Minn, 2006. This grape has northern winemakers buzzing with excitement. The best variety this side of the Atlantic for a Pinot Noir-style red wine. One parent, MN 1094, has both *V. riparia* and *V. vinifera* in its background. The other, Rivat 262, is a French hybrid with Pinot Noir as one of its parents. Not only is Marquette heavy with *vinifera*, the vines are also extremely cold hardy. And there's more: sugar levels are high—in the range of 26.1 Brix—and the acid levels are lower than Frontenac. Substantial tannins add complexity. Small-medium bluish-black berries in small to medium-sized clusters. Ripens a few days before Frontenac. PPA. Z3.

7463A Marquette Grape, \$18.00

Training Grapes on an Arbor

Train one or more vines onto an arbor or gazebo; we have 8 vines, spaced about 10' apart. Prune each vine back to a single trunk. Encourage several permanent arms from each trunk. In late spring remove 70-90% of the past summer's growth. Next summer new fruiting canes will grow off the permanent arms.



Mars Seedless Very Early. Island Belle x Arkansas 1339. U of AR, 1984. Large seedless blue berries good for fresh eating, juice or raisins. Typical *labrusca* foxiness of Concord-like grapes. Big orbs, though might not accommodate a Rover. Thick slipskins are resistant to cracking and one of the best for disease resistance, performing well during hot wet summers. Very vigorous vine showed hardiness after –20°. Z5, but definitely worth trialing in Z4.

7464A Mars Seedless Grape, \$18.00

Reliance Seedless Very Early. Arkansas 1163 (Ontario x Suffolk Red) AR Stn, 1982. Medium-sized berries are good for fresh eating or juice. Large loose clusters of tender melting sweet pinkish-red fruit with a strawberry-like flavor. Stores well in a root cellar for 1–2 months. Seems hardy although it has shown significant dieback in our Zone 4 trials. You may need to lay vines down for the winter in colder areas (see sidebar on previous page). While the literature cautions about Reliance's disease susceptibility, our vines have performed well and remained free of disease. Z4/5.

7465A Reliance Seedless Grape, \$18.00

Somerset Seedless Early. ES 12-7-98 (ES 5-3-64 x Petite Jewel) Elmer Swenson intro. Somerset is likely one of the hardiest seedless dessert grapes available today. One of the last Swenson introductions before the renowned and beloved grape breeder passed away in December 2004. Medium-sized loose clusters with small sweet ruddy reddishgolden fruit. Crispy texture and great flavor. Easy to grow but not overly vigorous. Z4.

7466A Somerset Seedless Grape, \$18.00

Vanessa Seedless Mid. Seneca x NY 45910. Introduced by KH Fisher and OA Bradt, Vineland Stn, Ontario, 1983. Large bright firm seedless deep red grapes with a fruity flavor make the absolute best raisins we've ever eaten. Excellent fresh eating. Medium-sized well-filled clusters on vigorous vines. Ours had some dieback at -20° but they all resprouted from the base and grew back to where they left off the previous summer. Going strong in our central Maine vineyards. Z4/5. 7468A Vanessa

Seedless Grape, \$18.00

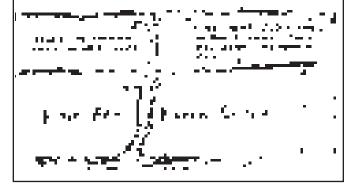
Training Grapes in the Four-Arm Kniffin System

First year: After the danger of frost has passed, cut newly planted vines back to a single stem, 6" long with two to three buds.

Second year: Set up two wires, 3' and 5' high, stretched between posts. Cut plant back to a single stem, 6 feet long and tie it to the top wire. Leave 4–6 buds near each wire and remove others.

Third year: Select 8 canes, 4 for each wire, and remove the rest. Tie two canes to each wire, one in each direction. Cut these 4 canes back to 10 buds each. Cut the remaining 4 canes back to 1–2 buds each.

Later years: In late spring, remove last year's fruiting canes. Select eight new canes. Cut 4 of them to 10 buds each, and tie them to your wires. Cut the remaining 4 back to 2 buds each. These will produce next year's fruiting canes. Remove all other canes. The number of buds left on the fruiting canes may be adjusted to encourage more fruit (leave more buds) or larger size (leave fewer buds).



Hardy Vines & Creepers

Hops Humulus Iupulus

Up to 20-30' long. Beautiful twining vine covers a trellis, archway or the entire side of a barn. Our favorite live awning to shade out the summer sun. Green lobed leaves, bristly stems, and insignificant greenish flowers, followed in late summer by the hops: papery aromatic cone-like strobiles used medicinally and in brewing for more than 1000 years. Herbalist John

than 1000 years. Herbalist John
Christopher recommended the strobile
tea as "a powerful, stimulating and
relaxing nerve tonic." For brewing, there
are basically two types of hops. Aroma hops
are used for flavoring, finishing or conditioning
brews. Bitter hops have more alpha acids and are
used to impart bitterness. Native to Eurasia. Z3.
(female rhizomes)

H. I. 'Cascade' USDA 19124 (Fuggle x Serebrianka-Fuggle S) x openpollinated. OR St U, 1972. Contains 4–7% alpha acids. Fragrantly aromatic hop, low bittering value. For years Cascade has been the most widely used hop in the beer industry. Very productive with large cones, ready to harvest mid-late August in central Maine. A customer wrote, "Cascade has gained impeccable renown as the charismatic hop in such unsurpassable ales as Anchor's Liberty Ale, Sierra Nevada's Pale Ale and McNeill's Firehouse Amber Ale. Nothing 'light' about these." Resistant to downy mildew.

L7469A Cascade Hops, bundle of 3, \$21.25

H. I. 'Magnum' Galena x select German male. German Hallertauer hybrid, 1980. Very high bittering with good storability. Alpha content 12–17%. Not generally used as an aroma hop, but lends subtle hints of spice and citrus along with the clear distinct bitterness that's not overpowering. Used in IPAs, pale ales, stouts and lagers.

L7470A Magnum Hops, bundle of 3, \$21.25

H. I. Mt. Hood Hallertau Mittelfrüh x USDA 19058M male. OR St U, 1989. Low to moderate bitterness with 4-7% alpha acid content. Spicy and floral aromas are great for a variety of brews including lager, pilsner, wheat beer and especially German- or Belgian-style ales. Mt. Hood resulted from efforts to create an American hop that captured some of the old school terroir of early European "noble" hops, of which there are only four, including Hallertau, Mt. Hood's parent. BACK!

L7471A Mt. Hood Hops, bundle of 3, \$21.25

Growing Hops

Soil: Adaptable, but prefers rich light well-drained soil. Top-dress with manure or compost each spring.

Sun: Full, but will tolerate some shade. **Pollination:** You need only one variety.

Spacing: In hills 3' apart, 1 or 2 plants per hill.

Planting: Plant hops where you're sure you want them—they'll be hard to get rid of once established.

Prepare planting holes with plenty of compost, manure or other slow-release organic fertilizer. Plant rhizomes with buds pointing up and cover with 1–2" loose soil. Appreciates frequent light waterings and mulch the first year.

Training: Vines may grow up to 25' in a single season, and do best if they are trained onto strong twine 12–30' high, supported by a trellis, wire, pole, tree branch or south-facing building.

When young vines are about 1' long, select the most vigorous 2 or 3 shoots per hill and remove the rest; gently wrap the vines clockwise on the twine to get it started.

Harvest: Pick the hops when they are papery but still slightly sticky and filled with yellow powder. Dry hops thoroughly before use. Spread on screens in a dry room, they will dry in a few weeks. Dried hops freeze well.

Pruning: Vines die back to the ground in fall and rebound vigorously in spring. Just cut back the dead vines after frost. To help control vigor, prune roots by cutting a 2–3' circle with a shovel around the base of the plant in spring.

Lonicera x brownii 'Dropmore Scarlet' Brown's Honeysuckle

10-20' long. (L. sempervirens x L. hirsuta) Tall climbing (non-invasive!) honeysuckle developed by FL Skinner in Manitoba. Jazzy whimsical whorled clusters of 11/2" scarlet-orange tubular flowers bloom profusely and tirelessly from early summer into late fall. Attracts butterflies and bees but especially loved by our ruby throated hummingbird. Striking blue-green foliage is perfoliate, appearing as if the red stems were growing through a single cupped disk. Finely shredded peeling bark makes an interesting winter display. Great for fence or arbor or cut back like a perennial for a low rangy mound in the garden. Easy to grow, generally free of problems, though susceptible to aphids. Flowers the first year. Likes average well-drained soil and full sun. Both parent species native to North America. Z3. (well-rooted vines) 7473A Dropmore Scarlet Honeysuckle, \$19.50

Looking for Kiwiberry or Schisandra Berry? Check our website for more vines!



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Our more than 1,500 consumer members and 130 worker members are the foundation of our strength and the fount of our support.

- We ask for a \$100 membership equity, refundable upon request.
- If this would be a hardship, there is a \$25 option.
- Limited to one membership per household, farm or organization.

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- An invitation to our Annual Meeting of Members
- A chance to vote for and serve on our Board of Directors
- The satisfaction of owning a small part of a successful co-op!

Yes, I want to join Fedco as a consumer member!

Enclosed is a check for my membership deposit of \$100. Please make membership certificate out to:

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Town	St	Zip				
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Mail to: Fedco Seeds P.O. Box 520, Clinton, ME 04927

Ordering Instructions

Order online at fedcoseeds.com/trees.

Or mail your order form:

Fedco Trees, PO Box 520, Clinton, ME 04927

- Use a current catalog, as prices and selection vary year to year!
- Use the 2025 order form; submit as many pages as you need using our exact format. Download a PDF of the order form to share or print at fedcoseeds.com/requests.htm
- Keep a copy of your order for your records.
- We do not take fax or phone orders.

Scionwood orders and March shipment of rootstock: Order online. If this poses a difficulty for you, give us a call at (207) 426-9900.

Bulk pricing on large orders

- Orders \$1,200 and more receive a 10% discount.
- Starting this year! Once you have ordered at least \$1,200 in products from Fedco, you will receive bulk pricing for a 12-month rolling cycle. Orders of any size from any Fedco division (Seeds, Trees, Bulbs, Supplies) will count toward this total.
- · We encourage you to go in with friends and neighbors to save on shipping by submitting *one* regular order under one name. We can no longer bundle and label items separately—you'll sort that out yourselves.



Retailers and farms: We need a copy of your state resale certificate or farm exemption, otherwise we must collect sales tax.

- Mail orders: include a copy of your certificate with your paper order.
- Online orders: email us at questions@fedcoseeds.com with a scan of your tax exemption certificate <u>before</u> placing your order.

Shipping Restrictions

Some states have restrictions on imported plants. Please check this list to make sure you're not trying to order something that's restricted in your area.

* We do not ship any plants outside the U.S.

AZ: Carya spp. Hickory; Juglans spp. Walnut, Butternut

CA: Carya spp. Hickory; Castanea spp. Chestnut; Diospyros spp. Persimmon; Juglans spp. Walnut, Butternut; Pinus spp. Pine; Quercus spp. Oak

CO: Some counties prohibit *Prunus* spp. Cherry, Peach, Plum. Please check your county regulations.

DE: Hemerocallis spp. Daylily

FL: Castanea spp. Chestnut; Cornus spp. Dogwood; Quercus spp. Oak

GA: Vaccinium spp. Blueberry, American Cranberry, Lingonberry **HI**: Pinus spp. Pine

ID: Allium spp. Chives, Flowering Onion, Nodding Onion; Humulus lupulus Hops; Mentha spp. Mint; Vitis spp. Grape

IN: Fragaria spp. Strawberry; Rosa spp. Rose KS: Juglans spp. Walnut, Butternut

MI: Abies spp. Fir; Vaccinium spp. Blueberry, American Cranberry, Lingonberry

MT: Pinus spp. Pine

NJ: *Rosa* spp. Rose

NV: Allium spp. Chives, Flowering Onion, Nodding Onion; Mentha spp. Mint

OR: Allium spp. Chives, Flowering Onion, Nodding Onion; Castanea spp. Chestnut; Corylus spp. Hazelnut; Humulus lupulus Hops; Quercus spp. Oak; Sambucus nigra European Elderberry; Ulmus spp. Elm; Vaccinium spp. Blueberry, American Cranberry, Lingonberry; Vitis spp. Grape

TX: Juglans spp. Walnut, Butternut
WA: Allium spp. Chives, Flowering Onion, Nodding Onion; Castanea spp.
Chestnut; Corylus spp. Hazelnut; Humulus lupulus Hops; Vaccinium spp.
Blueberry, American Cranberry, Lingonberry; Vitis spp. Grape
WI: Abies spp. Fir; Pinus spp. Pine; Picea spp. Spruce

Plants in soil medium cannot be shipped to the following states: AK, AL, AR, AZ, CA, HI, ID, KS, MS, MT, ND, NM, NV, OK, OR, SD, TX, UT, WA.

The following plants come in soil: Achillea millefolium 'New Vintage Violet' 'Oertel's Rose' and 'Paprika'; Arctostaphylos uva-ursi Bearberry; Asarum canadense Wild Ginger; Calluna vulgaris Heather; Clethra alnifolia Summersweet; Erica carnea Winter Heath; Gaultheria procumbens Wintergreen; Gaylussacia baccata Huckleberry; Phlox 'Blue Moon' and 'May Breeze'; Rubus 'Royalty Purple', 'Jewel', 'Tahi' and 'Nelson'; Sempervivum Hens & Chicks; V. corymbosum Highbush Blueberry; V. macrocarpon American Cranberry; V. vitis-idaea Lingonberry

Order by March 7, 2025,

for best selection and priority spring shipment. **Final order deadline:** Mid-spring, when we run out of stock! Scionwood deadline: Feb. 21, 2025. Online only, see p. 26.

Shipping Rates

- We ship via FedEx or USPS Priority Mail, our choice.
- Maine customers pay only flat-rate shipping fees.
- Alaska shipments are sent via USPS Priority Mail. Please include a postal address. This rate also applies to Hawaii and anyone in the Lower 48 who requires postal delivery.
- Small & Light shipping applies only to orders in the Lower 48 that exclusively contain item numbers beginning with L: perennials, bulbs, strawberries, rhubarb, hops, asparagus, scionwood, etc. İf you order other items in addition to these, you must pay the higher shipping rate.

Shipping Schedule

- around March 10: Scionwood and mid-March rootstock orders ship.
- March 26 through late April: Priority spring shipment of orders placed on or before March 7, starting with warmer areas and finishing in
- Late April through early-mid May: Orders placed after March 7, shipped in the order we received them. Sorry, we cannot expedite these
- If you provide an email address, you will receive an email update in mid-March with the approximate ship date for your order. When your order ships, you'll receive an email with the tracking number.
- Please allow 1–3 business days for delivery in the Northeast, and 3–7 days for locations farther south and west.

No Special Ship Dates!

We cannot accommodate specific ship date requests or guarantee your order will arrive on a certain day. If you are away during our shipping dates, consider having your plants shipped to a friend or neighbor to care for them until you return.

• Check our website in the spring for an approximate shipping schedule.

Terms & Conditions

See our limited guarantee on page 2.

Out of Stock

We fill all orders on a first-come first-served basis. If an item on your order becomes out of stock and no reasonable substitution is available, we will issue you a refund.

Substitutions

Our plants are subject to seasonal availability. We strive to provide accurate information regarding stock levels, but availability may change due to factors beyond our control. If a specific product becomes unavailable, we may substitute it with a similar variety of the same or greater value, at no additional cost.

Handling Charges

We charge \$10 for handling each time you adjust your order. Additions and deletions are costly for us to process. You are welcome to place as many separate orders as you wish.

Cancellation Policy

If you must remove items after our final order deadline, we will charge a \$20 fee. If you must cancel after the deadline, we will retain a \$20 fee or 20% of the order total, whichever is greater. Please don't make us do this. Unlike most businesses, we take orders from this catalog for about five months and then fulfill them all in a span of a few weeks. When we receive last-minute cancellations or order reductions, we cannot easily resell the plants we've designated for your order.

Plant Sizes

Unfortunately, we can't take requests for particular plant sizes or branching preferences. We grade for healthy trees with excellent root systems. Sizes listed for each item should be considered an average. The trees and shrubs in your shipment will sometimes be slightly larger and occasionally smaller than these projections.

Fedco Trees 2025

PO Box 520 Clinton, ME 04927

www.fedcoseeds.com/trees

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Email			

Order by March 7, 2025 for priority spring shipment

Final order deadline:

Mid-spring, when we run out of stock!

Visit **fedcoseeds.com** to check product availability.

De	liverv	
	, .	

■ FedEx or Priority Mail (our choice)

Mail to PO Box, AK, HI

We cannot accommodate specific ship date requests.

Substitutions:

If an item in your order becomes unavailable, we might substitute with a similar variety.

Item Total from reverse	
Bulk pricing orders \$1,200+ take 10% off	_
Subtotal	=
Fedco Member? (p. 35) 5% Discount from Subtotal	_
Adjusted Total	=
Shipping	+
Sales Tax (if your state is listed)	+
Order Total	=
Optional \$2 to defray catalog mailing cost	+
Grand Total	=

Shipping Rates					
If	We ship via FedEx or Priority Mail, our choice. If you require postal delivery (all PO Boxes), use the Alaska/Hawaii rates.				
1)	1) Maine				
	All item #s begin with L: Maine Small & Light flat rate \$10 Otherwise, Maine regular flat rate \$25				
2)	Alaska, Hawaii, or addr	resses that <i>require</i> postal delive	ery		
	Adjusted Total up to \$129.00 \$27 Adj Total more than \$129.00 21% of Adj Total				
3)	All other U.S. states				
	All item #s begin with L Adj Total up to \$59.00 \$10 (Small & Light Shipping) Adj Total > \$59.00 17% of Adj Total				
	Otherwise, Adj Total up to \$147.00 \$25 Regular Shipping Adj Total > \$147.00 17% of Adj Total				

٠.	Sales Tax						
	ME addresses — Pay 5.5% sales tax on Adjusted Total						
	CO, IL, MA, MD, MI, UT, VA — Pay your local tax rate on Adj Total						
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We accept Visa, MasterCard, American Express and Discover Card. Exp. Date					

Fedco Trees 2025: Trees, Shrubs & other Plants For scionwood and early shipment of rootstock, order online.

	Item #	Letter code	Quantity	Item Name	Price per item	Total Price
ex.	1234	A	2	Fantabulous Fruit Tree	\$38.00	\$76.00
1						
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If you	u are ordering	more than	28 items, cop	py this page or our format u can also download	Item Total	

If you are ordering more than 28 items, copy this page or our format and submit as many pages as you need. You can also download another form at fedcoseeds.com/requests.htm.

If you order only item numbers beginning with ${\bf L}$, you qualify for our ${\bf Small}$ & Light shipping rate. See other side for details.

Order Comments:



Nuts

The nut seedlings we're offering are grown from nuts harvested from the most productive specimens. Like all seedlings, each one is a little different, and nut quality may vary.

Castanea Chestnuts Delicious sweet chestnuts are an important food for both humans and wildlife. Use them for roasting, stuffing and soups, or dry them to make flour for baked goods. The tree's profuse fragrant white blossoms feed the pollinators. Lustrous dark green foliage is ribbed and sharp-toothed. Yellow fall color.

Before 1900 the American chestnut was one of the most important deciduous trees in the eastern U.S. Chestnut blight showed up in Brooklyn, NY, in 1904; within 50 years it killed virtually every chestnut tree in the eastern U.S. The blight does not kill the roots however, and rare stands of stump sprouts can still be found. Hybrid chestnuts and Chinese chestnuts are resistant to blight.

Chestnuts prefer loamy well-drained acidic soil and full sun. **Two or more needed for pollination** and all three chestnuts we're offering this year will cross-pollinate with each other. Z4.

C. dentata American Chestnut Up to 100' Our native chestnut, fast growing and straight trunked with a wide-branching magnificent rounded crown. Precocious, bearing heavy crops of nuts in 10 years. Arrow-straight rot-resistant wood was once used for everything from mine timbers to musical instruments. In July 2015, the tallest American chestnut in North America was discovered in Lovell, ME, by researchers who spotted the white blossoms from the air. The trees we offer are not immune to chestnut blight but are likely to thrive in a suitable site for 10-30 years. From each American chestnut purchase, Fedco will donate \$3 to support the American Chestnut Foundation Maine Chapter's traditional breeding program. Z4. ME Grown. (2-4')

7479A American Chestnut, \$30.00

C. Hybrid Chestnut Seedling 40-60' x 30-40' Seed collected from orchards with potential crossings of *C. crenata* (Japanese), *C. mollissima* (Chinese) and *C. dentata* (American). Harvested from healthy trees showing excellent blight resistance. Great flavor and high annual nut production averaging 20-50 lb per mature tree. Typically begin flowering at age 3-5. Produce well even during harsh droughty conditions. Z4. (1-3') **BACK!**

7480A Hybrid Chestnut Seedling, \$22.00

C. mollisima Chinese Chestnut Seedling 40-60' x same. Low-branching broadly rounded open form with large long narrow sharp-toothed shiny green leaves. Curious catkins look like green fireworks sprouting from the branch tips. Grooved grey bark. Although variable because they are seedlings, they usually produce good-to-excellent nuts 5–7 years after planting. Immune or at least highly resistant to the dreaded chestnut blight and used in breeding work to develop a blightimmune American chestnut. Native to eastern Asia. Z4. (1-3') BACK!

7481A Chinese Chestnut Seedling, \$22.00

Fedco does not support genetically engineered Seeds or Trees.

At our 1996 Annual Meeting, our cooperative voted unanimously not to knowingly offer for sale any genetically engineered variety because the gene technologies may pose unacceptable risks to the environment. Similarly, we have supported the campaign to stop GE Trees and taken a stance against the release of genetically engineered chestnuts. For more about this pledge, our commitment to testing for GE contamination, and talks on GE by Fedco founder CR Lawn, please go to:

fedcoseeds.com/seeds/genetic_engineering.htm.

Please read our extended discussion of the genetically engineered chestnut at fedcoseeds.com/trees/ge-trees.htm

Corylus americana American Hazelnut 12-18' x 10-15'

Also called American Filbert. Squirrels. blue jays and humans alike relish the sweet tasty 1/2" nuts of this multi-stemmed rounded native shrub. Usually bears 3-5 years after planting. Collect the crop as soon as the husks begin to brown and lose their sticky yellowness. In central Maine that's around the third week of September. Showy catkins in spring. Dark green serrated foliage in summer. A patchwork of reds, yellows, oranges and greens in autumn. Suckers from the roots. Excellent for naturalizing in thickets. The main pest is nut weevil, which

leaves a "hit" mark on the nut shell. (Raking up drops and spraying Surround may help with this.) Prefers well-drained soils; pH adaptable. Full sun or light shade. May be self-fruitful but **for best nut sets, plant more than one**, 4–6' apart. Native to U.S. Z4. (1-3')

7483A American Hazelnut, \$20.50 **7483B** American Hazelnut, bundle of 5, \$95.00

Jualans cinerea Butternut 40-60' x same. Very large impressive rounded shade tree produces edible nuts. Broad open crown, distinctive compound leaves on large arching branches that can hang nearly to the ground. Leafs out relatively late in spring. Use the oblong edible nut to make oil, or pickle the soft young nut for snacking. Husks yield a yellow orange dye. Very nice cabinet wood referred to as White Walnut. Prefers moist rich deep soils but will grow in dry rocky conditions. Give it full sun and plenty of space. Susceptible to butternut canker, which has devastated many wild specimens. Some lovely old trees are thriving in Belfast, Belmont and Newburgh, ME, and may have been back-crossed long ago to include genes resistant to the canker. These seedlings are from nuts we harvested from some of those old Maine trees. Self-fertile but plant two for more abundant crops. Native New Brunswick to Georgia. Z3. ME Grown. (1-3') 7484A Butternut, \$23.00

J. nigra Black Walnut 70-90' A spectacular shade tree with a magnificent open rounded crown of massive limbs with dark green leaves. Harder to crack than commercial English walnuts but worth the effort for their distinct sweet earthy rich flavor. Eat them chopped on salads, or with dark chocolate for dessert. Highly valued cabinet and veneer wood. Husks, leaves and roots common in herbal medicine for antifungal properties. Husks also yield a rich brown dye. Deep taproot Prefers moist welldrained soils, neutral to slightly acidic. Roots give off a compound called juglone that inhibits some plants, so don't plant one too close to your garden. Space trees about 50' apart for nut production, 20' apart for lumber. May begin to bear fruit in 5–10 years. Some say multiple trees needed for pollination but we've seen enough solo trees with large nut crops to say you only need one. Native to eastern U.S. though not quite into Maine, yet many majestic and productive specimens can be found near old homes and farmsteads throughout the state. Z4. (1-3')

7485A Black Walnut, \$21.00

Pollination clarification

Self-pollinating, **self-fertile** and **self-fruitful** all mean the same thing. You can plant a self-fertile tree and expect it to pollinate itself and set fruit alone (e.g. peaches and pie cherries). Many self-fertile trees' fruit sets are enhanced with multiple plantings (elderberries and saskatoons).

Self-sterile or **self-infertile** means that another tree of a different cultivar or variety is needed to set fruit (cross-pollinate). This is the case with most apples.

Monoecious (from Greek meaning 'one household') plants have their female and male parts on separate flowers both together on the same plant. In most cases, these plants are self-fertile. Dioecious ('two households') plants have either all male or all female flowers on separate individuals. You would need to plant one female and one male to achieve pollination. When you buy unsexed seedlings, you generally have a 50-50 chance of getting one sex or the other (e.g. spicebush and bayberry). Bisexual or perfect flowers contain both male and female components within the same flower. Some plants with perfect flowers will be self-fertile, some will not. Often, specific cultivars or varieties have perfect flowers but they cannot pollinate themselves and need other varieties to do it for them (apples and blueberries).

Shade Trees

Acer saccharum Sugar Maple 50-100' Largest of our native maples, also known as **Rock Maple**, valued for shade, syrup and lumber. A New England tradition was to plant a pair of sugar maples in front of the farmhouse on the inhabitants' wedding day. Those "wedding trees" still grace many Maine front yards. Famous for its yellow, gold, scarlet and crimson fall foliage and its fresh sap that's boiled down to make real maple syrup. Huge upright spreading form with light grey bark. Shade tolerant, making it easy to interplant in existing woods. Prefers moist well-drained soils. Sensitive to salt and air pollution; not a good city tree. Native Quebec to the Gulf Coast. Z3. (2-4') BACK!

7487A Sugar Maple, \$14.00

Betula papyrifera Paper Birch 30-70' x 30' Also called Canoe Birch or White Birch. The classic birch tree. Elegant as a single- or multi-stemmed specimen. Medium-sized tree with an irregular oval shape, upright angled branches and magnificent chalkwhite peeling bark. Deep green foliage produces light shade in summer and turns clear yellow in fall. Birds prize the catkins, buds and seeds. Twigs are a favorite deer browse. Bark traditionally used for building canoes, containers and roofing. When traveling in the north country, keep a small bundle of finely shredded bark in your pocket to kindle the nightly fire. Valuable wood at the sawmill. Twiggy branches, stuck into the ground, are perfect for pea fencing. Prefers moist welldrained acid soil though we've seen it thrive on ledge. Native to northern North America. Z3. (2-3')

7489A Paper Birch, \$10.00

Ginkgo biloba Ginkgo 50-80' Also called Maidenhair Tree. Considered the oldest living genus of seed plants; grew in North America in the time of the dinosaurs. There are 3000-year-old specimens in China.Upright tree when young with branches that spike out and up like the rays of the sun, eventually becoming wide-spreading and graceful. Slow-growing, can be extremely long-lived. Unique fan-shaped foliage turns sparkling golden-yellow in fall, then all at once the leaves drop and within hours the tree is bare. Famous for their edible nut-like "fruit," which botanically speaking is actually a gametophyte. Once the flesh is removed the softish nuts can be used in stir-fries. Leaf tea used to enhance circulation to the brain and extremities. Tolerates smoke, dust, wind, ice, insects, disease, salt. Prefers slightly acidic well-drained soil, very adaptable, full sun to partial shade. Minimal maintenance requirements, nearly indestructible, an excellent city tree. Male and female trees required for seeds. These are unsexed seedlings. Plant two or more to increase the chance of seeds. Native to southeastern China. Z5. (1-3') BACK!

7490A Ginkgo, \$22.00

Gleditsia triacanthos

Honeylocust 50' x 30-35' Beautiful fast-growing pyramidal leguminous nitrogen-fixing tree. Bright green lacy leaves provide filtered light, making it good for "two-story" agriculture or great shade for the lawn. Subtle greenish-white flowers turn to sugary pods suitable for cattle or pig forage or even ethanol. Traditionally pods were dried and ground as flour. Good for erosion control and often used as a street tree. Plant in full sun, well-drained soil. Tolerates drought, pollution, salt, disease and insects. May have thorns, which some growers find to be one of its interesting features. Native to eastern U.S. Z4. (2-3') **BACK!**

7491A Honeylocust, \$22.00

Liriodendron tulipifera Tuliptree

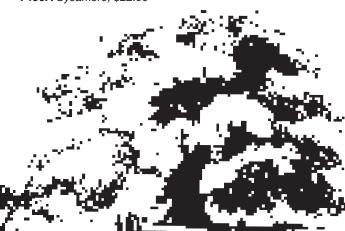
60-90' x 30-50' Also called **Tulip Poplar**. Highly ornamental shade tree and largest native relative of the magnolia. Decorated in late spring with large tuliplike flowers that lure in the hummingbirds. Each 6-petaled light lime-yellow flower is ornamented with a bright orange band that extends from petal to petal, visible inside and out. Deeply grooved richly colored bark.

Very attractive flat soft-green rounded leaf has a shape like a child's drawing of a tulip. Golden-yellow fall color. Fast-growing tree produces a very straight and clear trunk, hence its popularity with furniture makers and boat builders. One of the tallest trees in the eastern U.S. but it will adapt to the space you give it. Reaches full potential toward southern New England but we've seen a few impressively large specimens in central Maine. Full sun, moist well-drained slightly acid loam. Native to eastern U.S. Z5 or maybe Z4. (2-4')

7494A Tuliptree, \$20.00

Plantanus occidentalis American Sycamore 75-100' x same. Also called American Planetree, Water Beech or Buttonball-tree. Extraordinary native shade tree considered to be the largest indigenous hardwood in the U.S. The trunks and stems are a strikingly mottled patchwork of greenish-grey bark plates against chalky white background. Large 6"-wide lobed leaves resemble sugar maple. Little brown fruiting balls turn fuzzy, disperse in the winter wind and are eaten by finches and juncos. Branches twist and turn often at a sharp right angle. A remarkable show against the winter sky. We collected seed from the Hudson, NY, area and have been trialing in central Maine for the last seven years. Grows well in average moist well-drained soils in full sun but will tolerate light shade. They show no dieback in winter, are FAST growing and seem unperturbed by extreme heat or drought. Native to bottomlands and riverbanks Maine to Minnesota and south to Texas. Z4/5. (2-3') BACK!

7496A Sycamore, \$22.00



Make Space for Native Plants

We love incorporating native plants into our gardens and orchards. These plants are attractive, natural and beautifully suited to our growing conditions. They are also the best food sources for our butterflies, bees and other wildlife. Here are some you'll find in our catalog:

and other wildlife. Here
Amelanchier
Asters
Bayberry
Bearberry
Beardtongue
Bee Balm
Birch
Blackberry
Blazing Star
Blueberry
Bluestar
Boneset
Butternut
Buttonbush
Carolina Allspice
Eastern White Cedar
Chestnut
Chokeberry
Wild Columbine
American Cranberry
Highbush Cranberry Diervilla
Diervilla
Pagoda Dogwood

Redosier Dogwood Echinacea Elderberry American Elm Ferns Balsam Fir Geranium Stiff Goldenrod Hawthorn Hazelnut Honeylocust Huckleberry Blue Flag Iris Jack-in-the-Pulpit Joe Pye Weed American Linden Lingonberry Sugar Maple Milkweed Mountain Mint Mockorange Nannyberry

Ninebark

Nodding Onion American Persimmon White Pine American Plum Flowering Raspberry Snowberry Spicebush White Spruce Steeplebush Fragrant Sumac Sweetflag American Sycamore Tuliptree Vervains Violet Black Walnut Wild Ginger Winterberry Wintergreen Witch Hazel



Quercus Oak Many oaks are native to New England. They are generally divided into two groups: the reds and the whites. The reds have pointier leaves and the whites have rounder ones. Most of them make absolutely breathtaking shade trees, creating a major presence in almost any landscape and providing bountiful forage for wildlife and for humans. The strongly astringent inner bark, foliage and acorn caps are all medicinal, and acorns were an extremely important human food source for thousands of years. Contrary to much of the literature, all acorns are edible, both reds and whites. (For instructions on acorn processing, see Samuel Thayer's book *Nature's Garden*.) The tannins from a handful of oak leaves added to homemade half-sours will keep pickles crisp for months. These oaks are all native to eastern North America. **Oaks are monoecious so you need only one to get acorns.** (1-3')

Q. alba White Oak 50-80' x same. Spectacular broad irregularly rounded oak with low-lying branches that stretch out horizontally from the trunk, sometimes as far as 50'. Bark is finely grooved and etched. Wood is valued for lumber and firewood. Once common along the Maine coast, it was almost entirely stripped for boat-building lumber more than a century ago. Some extremely fine specimens in Maine grow on Swan Island in the Kennebec River. Soil adaptable. though prefers deep moist welldrained acid conditions, full sun. Thrives where fallen leaves can be left around the base; avoid soil compaction, even foot traffic. Disease and insect resistant, drought tolerant. Slow growing and extremely long-lived. Z3.

7497A White Oak, \$19.00

Q. bicolor Swamp White Oak 50-60' x same. Also called Bicolor Oak. A massive rounded shade tree with a short deeply ridged trunk and a fan of branches, the uppermost ascending and the lower drooping. The contrast between the light grey bark and the dark trunk fissures is particularly striking. Called Swamp White in recognition of its affinity for the wild low wetlands that once peppered eastern North America before the days of the parking lot and the Big Box. Called Bicolor because its large thick leathery lobed leaves have a glossy dark green upper surface and a white to greyishgreen hairy felty underside. Its large 11/2" sweet acorns are highly attractive to wildlife, particularly waterfowl, sapsuckers and squirrels. Yellow to reddish-purple fall foliage persists until spring. Prefers moist acid soils where drainage is poor, but exhibits excellent drought resistance as well. Very fast growing once established. Z3.

Q. macrocarpa Bur Oak 70-80' x same.

Hardiest of the white oaks with a deeply grooved massive trunk and a wide-spreading crown of huge branches. Small branches are distinctively corky, winged and tend to twist and kink. The habit is upright and somewhat vase-shaped. Lustrous dark green foliage and large 1–2" acorns, each almost entirely enclosed in a fringed cup. These are edible and low in tannic acid; when roasted they reportedly make a decent coffee substitute. The most urban-tolerant oak. Fairly fast growing. Needs full sun but adaptable to a wide range of soil types including clay. Z3.

7498A Swamp White Oak, \$19.00

7499A Bur Oak, \$21.00

Salix pendulina f. salamonii 'Chrysocoma' Golden Weeping Willow 50x50' (S. babylonica Babylon x S. alba Vitellana) Selected by Späth, Berlin, Germany, 1888. For years we listed this as S. alba 'Tristis' Niobe Weeping Willow. The classic weeping willow. A very large majestic graceful wide-spreading tree with golden drooping branches that hang to the ground and sweep in a breeze. Buzzes with life when May flowers attract loads of pollinating bees. Very fast growing and hardy, may shed lower branches as it grows. Light green leaves turn vellow in fall. Prefers full sun and moist to wet soils but tolerates a range When young, treat like apple tree and protect the trunk with mouse guards in winter. Keep grass away from the base to deter voles in summer. Don't plant near septic fields; roots can break into the tank. Native to southern Europe and western Asia. Z3. (2-3') (More willows on page 49.)

7501A Golden Weeping Willow, \$23.00

Tilia americana American Linden 60-80' x same. Also known as Basswood, Butterwood and Lime. Tall stately long-lived tree with rounded crown and numerous low-hung spreading branches. Sweetly fragrant yellow June flowers will attract all the bees in the neighborhood, make the best honey, and also make a popular after-dinner tea and stomach remedy. Sprinkle them on your salad for a festive treat. The young half-size foliage makes a high-quality salad green. Excellent carving wood. Fibrous inner bark used for making cordage. Yellow fall color. Prefers deep rich moist soils. Full sun or partial shade.

Virginia. Z3. (2-4') **7502A** American Linden, \$15.00

Sensitive to salt and

New Brunswick to

pollution. Native from

Ulmus americana 'Princeton' American Elm 60x70' Princeton Nursery intro, 1922 Large fast-growing graceful native once lined virtually every street in New England but declined dramatically due to Dutch elm disease. Fortunately, several disease-resistant cultivars have been introduced. Princeton has been a standard in the trade for almost a century, chosen for its high resistance to the disease. Good resistance to elm leaf beetles, too. At maturity the trunk can be 4' (even up to 8'!) in diameter with an immense vase-shaped canopy. Long pendent branches blow and sway in a hazy breeze on hot summer days. One of the most wonderful shade trees for northern climates.

We're infatuated with them. If you find yourself in Castine, ME, visit the huge old elms lining every street; you'll feel like you stepped back in time. Soil adaptable, prefers moist areas along rivers and streams but also grows well in drier places. Plant off the corners of a house and they'll provide all the shade you need. Salt and drought tolerant. Plant more elms! Z4. ME Grown. (2-4')

7504A Princeton American Elm, \$35.00

Conifers

Abies balsamea Balsam Fir 45-75' One of the most abundant of our native conifers. Narrow, conical, smooth-barked. Twigs, inner bark, needles and sap are all medicinal. Small "blisters" contain a transparent aromatic resin that has been traditionally used as an inhalant for headaches and congestion, and as a salve for cuts and arthritis. Needle tea is rich in vitamin C. The fragrant boughs are a favorite for wreaths; the needles used in scented pillows and potpourri. The best of all conifers for a Christmas tree! Prefers well-drained moist acid soil. Avoid polluted areas. Semi-shade tolerant, slow growing. Good hedge or specimen tree, songbird nesting area or rabbit thicket. Native from Labrador to northeastern U.S. Z3.

Balsam Fir (6-12")

7506A Balsam Fir, bundle of 5, \$25.00

Balsam Fir (12-18") ME Grown 7506B Balsam Fir, bundle of 5, \$38.00

Picea abies Norway Spruce 80-100' Fast-growing wide-spreading upright picturesque tree with graceful long pendulous branches that often reach the ground. Largest of the spruces. If you go to the Mt. Auburn Cemetery in Cambridge, MA, don't miss the ancient Norway spruce just inside the front gate. Several of its massive drooping branches have rooted and turned into secondary trunks. It is truly amazing. Orange-brown scaly bark. Excellent lumber. Showy 4-6" cones. Bright green foliage. Plant in full sun to part shade. Prefers loam but tolerates poorer soils better than other spruces. Native to northern Europe. Z2.

Norway Spruce (14-18") ME Grown J 7507A Norway Spruce, bundle of 5, \$39.00

Norway Spruce (24-30") 7507B Norway Spruce, bundle of 5, \$40.00

P. glauca White Spruce 60-80' One of the best trees for wind blocks and privacy screens. Trunk diameter reaches up to 2'. Wood commonly used for lumber, pulp and paddles. Harvest bright green spruce tips in late May to early June and process into citrusy sugar, syrup, vinegar

or cordials. High in vitamin C. Adaptable and tolerant to wind, drought and cold. Full sun. Native to boreal forests, subalpine regions and Acadian forests of North America ranging from Alaska to Newfoundland. Northernmost trees nearly reach the arctic and will withstand winter lows of -70°. Z2.

ME Grown. (12-18")

7509A White Spruce, bundle of 5, \$38.00

P. pungens var. glauca Colorado Blue Spruce 30-60' Very popular specimen tree with frosty blue needles. Excellent for privacy screens, as it is fast growing after 3'. A beautiful stand of blue spruce is on Rt. 139 in Benton, on the east side of the Sebasticook River. Plant in full sun to part shade. Does not like wet soil. Extra spring nitrogen will improve blue color, which doesn't appear for the first few years.

Native to western U.S. Z2. (18-30")

7510A Colorado Blue Spruce, bundle of 5, \$39.50

Pinus strobus Eastern White Pine 100-130' or more. The largest northeastern conifer. Magnificent and massive when mature. Smooth greyish-green bark becomes thick, rough and deeply furrowed with age. A cup of pine needle tea has more vitamin C than a cup of orange juice; Native Americans showed early white explorers how to brew it and stave off scurvy. The resin has numerous practical and medicinal applications. Excellent wood with a thousand uses. Grown in the forest it will typically be "clear" (no lateral branches) for the first 30–80'. Planted thickly and sheared, it makes a beautiful hedge that won't drop its lower branches. Likes ordinary to poor—even sandy—soil. Shade tolerant, but does not like salt or roadsides. Fast growing. Native to eastern U.S. Z3. **ME Grown**. (12-16")

7511A Eastern White Pine, bundle of 5, \$38.00

Thuja occidentalis Eastern White Cedar 20-60' Also called Arborvitae, which means 'tree of life.' Common throughout the entire state of Maine although some stands have been depleted by overcutting. Narrow and tall with twiggy branches, soft fibrous orange-brown bark, and flat foliage unlike that of any other conifer. Valuable light fragrant wood, the standard for fence posts and log cabins in Maine. Slow growing, lives up to 400 years. Good for screens and hedges. A favorite browse of deer. Pruning limbs and leaving them on the ground during a harsh winter helps sustain these animals and is a long-practiced tradition in the forests of Maine. Foliage and bark tea is high in vitamin C and helps fight infections. Twig decoction makes an antiviral antifungal skin wash. Thrives in rich moist marshy neutral-to-alkaline soils. Z2. (18-24")

7512A Eastern White Cedar, bundle of 5, \$39.50

Agri-gel A hydrogel formulation that absorbs and holds water. The swollen crystals adhere to plant roots, reducing transplant shock. Safe, nontoxic, easy to use. Useful for garden seedlings as well as woody plants. Highly recommended for raspberries and conifers. Half-ounce packet mixed with 1 to 3 gallons of water will treat up to 100 cane plants, or 50 trees and shrubs. Not allowed for organic certification. ¹/₂ oz.

L7622A Agri-gel, \$4.00

Growing Conifers

Soil: Tolerate a wide range of soil conditions; most prefer slight acidity. **Sun:** Most tolerate some shade.

Planting: If you are planting in dry or well-drained areas, dip tree roots in a solution of Agri-gel before planting to protect roots from drying out. Do not *soak* conifers in the Agri-gel solution; a good dipping is sufficient

It is better to prune the roots than to crowd them in the hole; you can shear back roots by about a third of their length. Dig a small hole or make an incision with a spade and slip the tree in to the level it grew in the nursery. Fan the roots out. Water well and pack the earth down with your feet to remove air pockets.

Periodic deep watering is far more beneficial than frequent sprinkling. Fertilization is not necessary in the first year. In later years you may fertilize around the drip line.

Pruning: To make evergreens dense and compact, prune back the central leader and the center bud on the end of each side branch. Otherwise, leave them alone.

Small Trees and Shrubs

As Green's Nursery catalog from 1904 explains, "There are many trees that by pruning can be made to resemble shrubs, and many shrubs that by different pruning may be made to produce medium-sized trees."

Aronia spp. Chokeberry Aronia has gotten a lot of press in recent years as a superfruit: it has wonderful medicinal qualities, works well in a range of culinary applications and is an important wildlife plant in the native landscape. Both red (A. arbutifolia) and black (A. melanocarpa) chokeberries are edible when cooked, but we emphasize the red for wildlife, while the black may be a better choice for medicine and food. Black chokeberries are commercially cultivated for their high levels of antioxidants and myriad health benefits. Both species are small rounded shrubs with blueberry-sized fruit and electric-red fall foliage. Begins to bear fruit in its third year and increases to full yield around five years. Ripens in late July or early August. If not harvested, the berries will hang on the bushes until songbirds eat them in late winter. Will form colonies, especially when planted in partial shade. Not particularly picky about where it grows: adaptable to moist or dry areas, sun or partial shade. Native to eastern U.S. **Self-fruitful**. Z3/4. (1-3')



A. arbutifolia 'Brilliantissima' Red Chokeberry 6-8' x 3-4' In The Best of the Hardiest, John Sabuco calls red chokeberry "one of our finest native landscape shrubs." Upright multi-stemmed form. Dense clusters of small white flowers with red stamens. Birds love the abundant persistent glossy bright red fruit. With "brilliant" fall foliage, this plant is the best alternative to the invasive burning bush. **ME Grown**.

7514A Brilliantissima Red Chokeberry, \$18.75

A. a. Red Chokeberry Seedlings 6-10' x 3-6' Same habit and form as Brilliantissima but each one is genetically unique. All produce stunning red fruit and fall foliage. Beautiful in mass plantings and borders. Plant several in a hedge and make the birds happy! **ME Grown**.

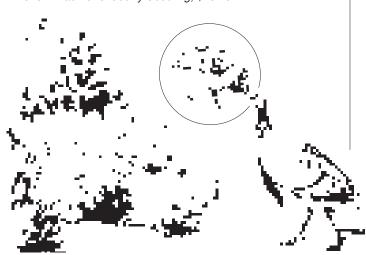
7515A Red Chokeberry Seedling, \$18.75 7515B Red Chokeberry Seedling, bundle of 5, \$79.50

A. melanocarpa 'Viking' Black Chokeberry Seedling 4-6' x same. Introduced in Sweden. Upright vigorous high-yielding shrub produces very large dark tasty berries. Genetic testing has shown Viking to be a cross of A. melanocarpa and European Mountain Ash (Sorbus aucuparia). Plants grown from seed come true to type. ME Grown. BACK! 7517B Viking Black Chokeberry Seedling, \$18.75

A. m. Black Chokeberry Seedlings 3-6' x same. Each one is genetically unique. Plant several for an attractive edible hedge for juice, jam and syrup production, or intermingle with perennials in a wildflower garden. Everything about this plant is lovely from spring foliage emergence, to flowering, to fall when the branches are pendulous with ripe fruit. Summer foliage stays glossy and bright, free of disease.

ME Grown.

7518A Black Chokeberry Seedling, \$18.75



Calycanthus floridus Carolina Allspice 6-10' x 6-12' Beautiful aromatic native shrub with unique 1" dark maroon flowers. Blooms as it breaks dormancy in April and May and continues flowering sporadically throughout the summer. Upright flowers resemble small magnolias with petals spiraling into similarlooking sepals, a characteristic of many primitive plants. Highly fragrant blooms reminiscent of pineapples and bananas. Interesting fig-like seedpods can hang on through the winter. Dirr considers it one of the great treasures of eastern North America, especially when allowed to grow into a large open specimen. Flowers on previous year's wood so best pruned in summer. Will become more vigorous and form colonies in warmer zones. Partial sun and moist rich soil. Native to stream edges and woodlands of southeastern U.S. Z5. (1-3')

7520A Carolina Allspice, \$19.25

Cephalanthus occidentalis Buttonbush

6-10' x 8' Loose rounded branchy shrub with masses of unusual spherical fragrant white flowers that appear for 4–6 weeks in summer – a magnet for every honeybee around. These highly ornamental blooms the size of ping-pong balls do well in dried flower arrangements. The seeds (nutlets) make good duck fodder in the fall. Bright green foliage. Often found in masses along the shores of New England's rivers and ponds but also suitable for well-drained soil. Recommended in hedges for naturalizing. Native from eastern U.S. to New Mexico. Z4. ME Grown. (1-3')

7521A Buttonbush, \$19.25

Clethra alnifolia 'Ruby Spice' Summersweet

4-5' x same. Sport of 'Pink Spires', Broken Arrow Nursery, Hamden, CT, 1992. Also known as Sweet Pepperbush. Red buds and beautiful spires of heavenly scented deep-pink flowers appear on racemes for six weeks in midsummer. Bees and butterflies love it. Whorls of extremely attractive finely serrated distinctly veined glossy dark green foliage turn deep gold in fall. Dangling racemes of "black peppercorns" persist into the next growing season. Erect oval habit, often suckering to form dense colonies. Slow growing. Prefers acid moist well-drained soils. A good shrub to border streams and ponds. Will tolerate salty coastal conditions. Full sun to shade. Easy to grow. Species native Maine to Florida. Z3. (plugs)

7523A Ruby Spice Summersweet \$18.50

It's always one of my favorite moments of the year when the box of Fedco trees arrives.

- Dan from Shady, NY

Cornus alba 'Bud's Yellow' Dogwood 6-8' x 5-6' COPF intro. Selection made from a seedling stand near Boughen Nurseries, Saskatchewan. Also called Tatarian Dogwood. Luminescent yellow stems are brightest in winter and sought out for winter plant arrangements. Round flat flower cymes up to 2" wide appear in early spring as the smooth glossy green deeply veined foliage emerges. Small white drupes are visible in summer. Suckers and spreads over time and can be used where erosion control is needed. Annual pruning is recommended for keeping stem color bright. More resistant to canker than C. sericea. Very adaptable to a wide range of soil conditions. Full sun to partial shade. Native to Asia. Z3. (1-3') BACK!

7525A Bud's Yellow Dogwood, \$19.00

C. alternifolia Pagoda Dogwood 20' x 30-35' Also known as Alternate-Leaved Dogwood. Small tree or large multi-stemmed shrub, particularly beautiful with its tiers of horizontal branches and fragrant white 2–3" flower clusters. These appear in mid-late spring followed by immature olive-green berries, each tipped

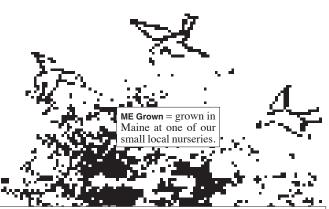
y immature olive-green berries, each tipped with a tiny bright yellow style remnant. In midsummer clusters of dark blue berries ripen above the blue-green foliage. One of the most popular dogwoods with the birds. Roots, bark and inner bark are all medicinal.

Prefers partial shade and moist well-drained acid soil, but tolerates full sun, poor soil and even clay. pH adaptable. Excellent naturalized as a specimen or in groups. Reddishpurple fall color. Susceptible to golden canker: when dormant, prune out diseased branches to prevent spores spreading to the trunk. Native to eastern U.S. Z3. (1-3')

7526A Pagoda Dogwood, \$20.50

C. racemosa Gray Dogwood 3-8' x 10-15' Also called Northern Swamp Dogwood. Native multi-stemmed thickly branched suckering shrub with rounded domes of small 4-petaled white flowers that bloom in early summer; they look like small hydrangea panicles and will attract many pollinators. White berries appear in autumn, set off by bright red fruit stalks. "Spent" pinkish inflorescences, particularly attractive in winter, look like miniature trees and are sometimes used by architecture students in models. Simple elongated medium-green foliage. Distinctive grey bark. Useful for windbreaks, riparian plantings and attracting birds. The most adaptable dogwood—plant it anywhere and it will grow. Sun or partial shade. Forms colonies in all directions, so choose planting location wisely. Native to eastern U.S. and southern Canada. Z4. (1-3') BACK!

7529A Gray Dogwood, \$19.00



Cultivars and varieties

Cultivar is short for 'cultivated variety.' A **cultivar** is a plant that has been bred; it does not occur naturally in the wild.

A variety is a plant that occurs naturally in the wild, is chosen for commercial propagation and maintains its genetic characteristics.

In the nursery trade, the terms 'cultivar' and 'variety' are mistakenly used interchangeably. We do it sometimes, too. Both cultivar and variety names follow the botanical name (*Genus species*) and are enclosed in single quotes (e.g. *Malus domestica* 'Black Oxford' or *Philadelphus lewisii* 'Blizzard'.)

In the tree and shrub world, most cultivars and varieties are propagated clonally by cuttings or grafting. When there is no variety or cultivar name after the botanical name, the plant is most likely grown from seed. We often refer to these as "the straight species" of a plant, or as **seedlings**.

Cornus sericea Redosier Dogwood 8-10' Formerly called C. stolonifera. Bright red stems are a favorite sight from late fall through early spring, before the foliage emerges. Broad loosely rounded multi-stemmed shrub spreads freely by stolons (underground stems) and forms excellent hedges and borders. Most admirable in the winter when the masses of brilliant stems contrast a backdrop of freshly fallen snow. Bring them inside and enjoy them for wreaths, arrangements and basket-weaving. By June, the stems are hidden by dark green foliage and sprinkled with tiny 4-petaled star-shaped flowers. Whitish berries in 2–3" clusters are popular with dozens of bird species. One of the most valuable of our native wildlife plants. Perfect for swamps, streams and wetlands. Very adaptable to a range of soils and climates, but generally likes wet conditions. Sun or partial shade. Fast growing and easy to transplant. To improve stem color, prune out older stems in the spring. Native to eastern U.S. Z2. ME Grown. (1-3')

7530A Redosier Dogwood, \$19.00 **7530B** Redosier Dogwood, bundle of 5, \$85.00

Crataegus phaenopyrum Washington Hawthorn 25-30' x 20-25' Widely recommended as one of the best hawthorns. Rounded oval form with a fragrant white showy bloom in late spring and reddish-purple foliage which turns lustrous green with maturity. Sets ½ glossy redorange berries ("haws") that persist all winter or can be harvested in October and dried for herbal use. Orange, red and pink fall color. Excellent as a specimen, in groups, on streets, in borders. The 2" thorns and shrubby habit make an impenetrable hedge while protecting nesting birds tucked within. Incredibly tough wood will dull any axe and makes the hottest fire. Prefers sun but tolerates shade. Well-drained moist or dry soils, will handle alkaline conditions, exhaust, pollution and drought. Disease-free and impossible to stress. Self-pollinating, but plant multiples for best fruit set. Note: Plants may be slow to break dormancy. Native to eastern U.S. Z3. ME Grown. (2-4') BACK!

7531A Washington Hawthorn, \$23.00



Diospyros virginiana American Persimmon Seedling

35-60' x 20-35' Medium-sized native tree with a slender oval crown, glossy dark green foliage, beautiful checked bark, and edible 11/21 orange fruit. Small very fragrant yellowish flowers in spring attract pollinators from miles around. Foliage turns attractive reddish-purple in fall. Fruit is variable and extremely astringent before thoroughly ripening. Best after a frost. Be sure it's soft before you bite—your mouth just might implode! Use in pies, jams and jelly. May not always ripen north of Boston, though some Maine growers do report crops some years. May die back in winter in northern zones, but ours survived extreme cold temps this year and came back strong in spring. Prefers moist well-drained sandy soil but adaptable to dry areas of low fertility. Can sucker and form naturalized stands. Dioecious, requiring separate male and female plants to produce fruit. These are unsexed seedlings—plant two or more to ensure fruit. Native to eastern U.S. Z4/5. (1-3') BACK!

7533A American Persimmon Seedling, \$22.00

Forsythia x ovata 'Northern Gold' Forsythia

6-8' x 5-7' Bred by Felicitas Svejda, Ottawa, Canada, 1979. One of the earliest forsythia cultivars to flower in spring. Upright form with yellow-grey branches clad in healthy rich green foliage. Northern Gold has not only the bud hardiness necessary for flower production above the snow line, but also outstanding golden-yellow flowers. You can have a full bloom every year! Prefers full sun and moderately fertile, slightly acid to neutral soils with good drainage. We cut our first bouquet of the year when we harvest the dormant branches for forcing inside mid-February. Bred from F. ovata, a hardy dependably blooming species native to Asia and Europe. Z3. (1-3')

7535A Northern Gold Forsythia, \$20.00

Hamamelis virginiana Witch Hazel 8-20' x same. A small irregular rounded fall-flowering medicinal tree or large shrub. Quirky ²/₃" yellow flowers appear in early to mid-November. Oval hazel-like textured foliage turns brilliant golden-yellow in fall. Makes a soothing astringent with a seemingly endless number of uses from controlling acne to soothing diaper rash, poison ivy, chicken pox and browntail moth rashes. Most preparations involve simply brewing tea from the leaves and/or twigs. "Witch" is said to refer to the odd flowering time or maybe it's because dowsers like to use the interesting forked branches to "witch" for water. Full sun or shade. Prefers moist acid soils; avoid dry spots. No pests or diseases, does well with very little care. We do nothing to ours and it looks better and better every year. Native Canada to Georgia. Z3. (1-3')

7537A Witch Hazel, \$22.00

llex verticillata Winterberry Seedling Also called Black Alder, Fever Bush,

Also called black Alder, Fever Bush,
Possumhaw, Swamp Holly and more. Deciduous suckering medicinal holly with clusters of upright stems. Best known for profusions of bright red 3/8" berries that stand out after the leaves fall—they keep their color all winter, spectacular against the snow. A staple of the Maine landscape, providing late-spring forage for birds. Lustrous deep green leaves retain their color long after they're cut for decoration. Richly foliated, but open enough to display interesting branch structure. Tiny white flowers in mid-July attract pollinators. Tolerates dry conditions but prefers moist or wet acidic soil, even standing water. Sun or partial shade. No serious pests. Male and female plants required for fruit, which

female plants required for fruit, which is produced on female plants. These are unsexed seedlings, so plant several for berries. Native from Midwestern to eastern U.S. Z4. ME Grown. (1-3')

7541A Winterberry Seedling, \$20.00

7541B Winterberry Seedling, bundle of 5, \$90.00

Lindera benzoin Spicebush

6-12' x 8-12' Large rounded multistemmed native shrub suited to naturalizing in moist or wet areas, singly or in groups. Soft-yellow flowers early in spring followed by small clusters of glossy red berries (drupes) by mid to late summer. Blue-green foliage turns golden yellow in fall. Edible berries and medicinal twigs and bark. Scratch the berries, foliage or stems and you'll know how it got its name: all three have a delicious lemony spicy scent and can be used as a native alternative to allspice. Leaves, twigs and fruit used in teas. Attracts bees, birds and butterflies, particularly the strange and dynamic Spicebush Swallowtail (Papilio troilus) larva with its stunning false eye spots. Prefers moist well-drained neutral or slightly acidic soils. Often found in full or partial shade, but at its showiest in full sun. These are unsexed seedlings: male and female plants required for fruit so plant several for best results. Only the females bear red fruit. Native to eastern U.S. Z5. ME Grown. (1-3')

7542A Spicebush, \$20.50

Myrica pensylvanica Bayberry

5-10' x same. A common sight along Maine's rocky shores. Glossy leaves are highly aromatic, although not to be confused with the Mediterranean bay leaf in your spice collection. Small greyish-blue waxy fragrant berries were historically used for making candles. Non-showy flowers appear in late spring followed by fruit production along the stems of female plants during summer into late fall. Plants feed numerous wildlife species and are especially craved by swallows. Rounded deciduous semi-evergreen very salt-tolerant shrub thrives in full sun to partial shade, sandy poor soils to heavy clay soils. Excellent en masse or in hedges, tends to sucker. Fixes nitrogen. Tends toward being dioecious: male and female plants required for good fruit development. Unsexed plants; plant several if you desire berries. Native to eastern U.S. Z2. ME Grown. (10-12") 7544A Bayberry, \$14.00

Special Plants for Challenging Locations

Drought Tolerant: Wet Tolerant: Shade: Amelanchier Dogwood Bearberry Carolina Allspice Birch Balsam Fir Catmint Highbush Blueberry Geranium Wild Ginger Chokeberry Buttonbush Eastern White Cedar Hazelnut Chestnut Chokeberry Hops Elm Erica American Cranberry Hosta Dogwood Jack-in-the-Pulpit Grape Heather Elderberry Lady's Mantle Hens & Chicks Flowering Raspberry Elm Honeylocust Ferns White Pine Blue Flag Iris Pulmonaria Huckleberry Lavender Marshmallow Snowberry Lilac Swamp Milkweed Spicebush Lingonberry Spicebush Summersweet Steeplebush Nannyberry Viburnum Rosa rugosa hybrids Sweetflag Wintergreen Snowberry Trollius Witch Hazel Spruce Willows Fragrant Sumac Winterberry American Sycamore Witch Hazel

Philadelphus lewisii 'Blizzard' Mockorange 4-5' x 3-4'

COPF intro, Alberta, Canada. Medium-sized coarse upright loosely arching ornamental blooming shrub. A "blizzard" of sweet citrusy fragrance from pure white slightly cupped 4-petaled blossoms for up to four weeks in late spring, after the lilacs fade. A spray of golden yellow anthers attractive to bees and butterflies accents each flower. Species was named after Meriwether Lewis who noted it in 1806 during the Lewis and Clark Expedition. Prefers moist rich well-drained soils but will grow well in most conditions. Full sun to partial shade. Since blossoms form on prior year's growth, best to prune after flowering. Similar to old-fashioned European P. coronarius, but this species is native to North America. William Cullina, plant curator at the Coastal Maine Botanical Gardens, calls it "our most ornamental Philadelphus species." Z3. (1-3')

7545A Blizzard Mockorange, \$17.00

Physocarpus opulifolius Ninebark 8-10' x same. An eye-catching native pollinator plant that flowers early when not a lot else is blooming. Buds form in early May and open up to 2–3" creamy white inflorescences (called corymbs) consisting of 30-60 tiny flowers that will be buzzing with every bee and butterfly around. Short-lived flowers fade to pointy orange follicles (the seedheads) that contrast beautifully against the foliage. Clean foliage emerges light green and turns deep green as the leaves mature giving the shrub a diaphanous illuminated quality in the sun. Unusual shredding bark becomes visible in winter. Upright arching habit. Plants can be pruned nearly to the ground to restore shape and size. Full sun to part shade. Easy to grow: hardy, no maintenance, disease- and pest-free. Native to eastern U.S. Z3. (1-3') BACK! 7546A Ninebark, \$19.00

Pruning Flowering Shrubs

• Summer-Flowering Shrubs should be pruned in late winter or early spring, before the new wood begins to grow. These shrubs blossom on the new wood they produce in the spring.

- Spring-Flowering Shrubs form flower buds in the summer, after they are finished blooming. Prune them immediately after their bloom is over. If you wait and prune them in the winter or following spring, you will likely remove many flower buds.
- A common error is to prune or shear shrubs straight across the top. This encourages top-growth and the lower part of the shrub becomes woody and unsightly with less foliage. Proper pruning promotes growth at the base of the shrub.
- · Observe your plants and see what they need. Some trees and shrubs benefit from aggressive pruning each year and might even respond well to being cut all the way back to the ground; others will respond by delaying fruit or blossom. Some plants thrive with little or no pruning.
- Overgrown shrubs with little foliage near the base may be rejuvenated by cutting canes down to the ground in early March, even though early blooms may be sacrificed that year. They will send forth new shoots in late spring and will be bushy with foliage clear to the ground. Pinch off tops when the desired height is attained. It usually takes two to three years to rejuvenate shrubs and

Prunus glandulosa 'Rosea Plena' Dwarf Flowering Almond 5-6' x 3-4'

Abundant pink double flowers in late April when little else is blooming. We've fallen head over heels for this arresting little shrub, an old standard in the trade. Branches are nearly covered with the 1/2' blooms ranging all shades of pink and loaded with petals that look like layers of petticoats. Pointy lanceolate leaves are light green and contrast beautifully against the maroon stems of first-year wood, extending its interest into summer after the curtain closes on act one. Prune after flowering to shape and for better blooms the following year, or do nothing. Rich loamy soil, full sun to partial shade. May sucker and naturalize, but the one in our garden is keeping to itself. Native to China and Japan. Z4. (1-3')

7548A Dwarf Flowering Almond,

P. tomentosa Nanking Cherry 6-10' x same.

Broad dense fruiting shrub, becoming open and attractively irregular. One of the earliest flowering fruits every spring. Pink buds open to masses of fragrant white 3/4" flowers. Deeply veined light green foliage with very fine fuzz (tomentum) lining each vein underneath. Excellent hedge plant: an edible landscape crop that produces a lot of tasty fruit! Variable 3/4" fruit in early summer ranges in flavor from mild to tart and in color from scarlet to clear red to pink and sometimes even white. Eat fresh or frozen. Excellent jelly and fruit leather. Covering plants with netting will deter birds from robbing your crop. Prefers full sun in well-drained soil. Plant two or more for pollination. Susceptible to brown rot. Native to China and Japan. Z3. (1-3')

7550A Nanking Cherry, \$18.00

Rhus aromatica Fragrant Sumac 5-6' x 6-8' Glossy blue-green trifoliate leaves emit a pleasing aroma when crushed: maybe lemony or musky but also a tad minty. Phenomenal fall colors when leaves turn orange to brilliant scarlet. Throughout summer, young leaves emerge reddish-pink, older leaves mellow into a deep green, and teenage leaves are lighter green, creating a lovely display. Beautiful small bright yellow flowers in spring draw in butterflies. Small red fuzzy fruit clusters on females attract birds. Low irregular form will sucker from the roots, and branches touching the ground will root themselves to quickly produce a colony; useful in erosion control on banks or hillsides. Dioecious: these are unsexed plants; multiples needed for fruit. Easy to transplant, adaptable, prefers acid soil, sun to partial shade. Native to eastern U.S. Z3. (1-3')

7552A Fragrant Sumac, \$19.00

Rubus odoratus Flowering Raspberry 3-6' x 6-12' Also called False Raspberry, Ornamental Raspberry or Purple-flowering Raspberry. Relative of the cultivated raspberry, grown for its fragrant rosy-purple flowers and nutritious fruit. Longblooming, from June to August, attracting pollinators. An excellent addition to wildlife hedges. Thornless canes sucker and spread into a dense colony. Berries contain phytonutrients ellagic acid and resveratrol, regenerative and beneficial to health. New leaves can be made into a medicinal tea much like its fruiting cousin, the red raspberry. Lobed palmate leaves fade to pale yellow in the fall. Tolerates a range of conditions, average to acidic soil, sun or shade. Low maintenance and easy to grow. Native to eastern North America. Z4. ME Grown. (1-3') BACK!

7553A Flowering Raspberry, \$18.75

A selection of pruning tools and books are available from our Seeds & Supplies catalog and through our Organic Growers Supply website, fedcoseeds.com/ogs

hedges completely.

Rosa spp.

For millennia, roses have beguiled humans. The first cultivation of these flowers dates back more than 5000 years in China. Fossil records suggest that roses may have been around for more than 30 million years. Regarded as the ultimate icon of love, grace, beauty and elegance, roses continue to be the subject of art and poetry across the world.

Leaves, petals, hips and roots all have medicinal properties. Rose hips (fruits) are rich in vitamin C and make a wonderful "rose apple" jam; rose-petal elixir calms the nerves and lifts the spirit.

Each year, we aim to offer a diverse selection of unusual and antique varieties. Unlike hybrid tea roses, these roses are all vigorous, cold hardy and on their own roots. The antique varieties grow slowly compared to newer hybrids and tend to be more difficult to propagate. You may notice when you receive your order that some of these roses have small root systems and little top growth. Don't be alarmed by this—it's just the nature of these old varieties. We can attest that they perform just as well as the others. If roots are tangled, cut them back to 6" or so and spread them out in the planting hole.



R. 'Bassino' 11/2–3' tall and trailing. Complex hybrid (Sea Foam x Red Max Graf) W. Kordes & Sons, Germany, 1988. Single bright red flowers grow in clusters on this sprawling groundcover rose. Ruffly blooms are just over 1" in diameter. Deep gold stamens and small glossy leaves. Later to bloom but reblooms through summer into fall till frost. Fragrance is unnotable. Hardy but may require some pruning in spring to remove any winter dieback. No worries—it will rebound with joy the same season. Z4. NEW!

7554A Bassino Rose, \$23.00

Growing Roses

Soil: Well-drained soil with a good amount of organic matter.

Sun: Full sun, but some will tolerate part shade. Pick a site with good air flow, but avoid sites with cold northwest winds.

Spacing: 4-6' apart.

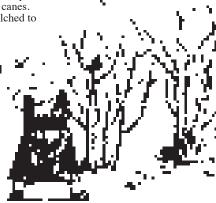
Planting: Plant as early as soil can be worked. The roots of roses don't spread beyond the original hole, so dig a bushel-sized hole, as deep as 2' or more. Mix soil with liberal quantities of well-rotted

manure and compost. Add a coffee-can of rock phosphate or bone meal.

Prior to planting, prune plants back to 3–5 of the best canes.

Keep roses well mulched to retain moisture and reduce weeds. Add 2 shovelfuls of compost to each crown annually in late fall.

Pruning: Other than clipping out any dead wood, shrub roses and climbers require little pruning.



R. 'Goldbusch' 8x5' Complex hybrid (Golden Glow x Obergärtner Wiebicke hybrid) Reimer Kordes, Germany, 1954. Rare in the trade! Orange-honey pyramidal buds open to soft yellow large 3" semi-double blooms with tones of honey and apricot when first opening. Moderately fragrant repeat bloomer. Bright green leaves. Growing well and showing good hardiness in Zone 4 as a shrub with only some dieback to prune out after very cold winters. Trellis as a climber in warmer zones. Z4/5. BACK!

7555A Goldbusch Rose, \$23.00

R. 'Prairie Joy' 3-5' x same. Prairie Princess x Morden Cardinette. Collicutt and Marshall, Morden Res Stn, Manitoba, Canada, 1990. Loads of bright pink semi-double 3" flowers form in clusters and fade to light pink. Blooms open in a cupped form before relaxing in the warm sun. Low fragrance. Low-growing hedge shrub will not sucker. Reblooms most reliably in warmer locations, where it can grow taller and more arching. Glossy deep green leaves are resistant to blackspot. Z3. NEW!

7556A Prairie Joy Rose, \$23.00

R. damascena 'Belle Amour' 4-5' x 3-4' Parentage unknown. Introduced 1950. Discovered growing on a convent wall in Elboeuf, Normandy, by Nancy Lindsay. Highly fragrant myrrh-scented flowers are semi-double with cupped loosely crinkled soft salmony pink petals surrounding bright yellow stamens. The light shades of the petals resemble *alba* but foliage and thorns generally place it with be Damasks. Some place it with *gallica* hybrids. We recommend placing it in your garden or anywhere that you will pass by frequently to admire it. Z4. BACK!

7558A Belle Amour Rose, \$23.00

More roses, next page.



True Love Rose & Ornamental Fertilizer Mix Available from Fedco's Organic Growers Supply!

Our house-blended mix (2.5-6-3) is formulated to feed both soil and plant to encourage healthy foliage and lush colorful blooms. Roses are particularly high-maintenance garden partners (their preferred love language is gifts of fertilizer), but other ornamentals will also appreciate this mix if they look like they need a little tender loving care.

Contains fish bone meal, alfalfa meal, bone char, gypsum, Azomite, sulfate of potash, epsom salts, kelp meal and humates. Supplemented with endomycorrhizae to improve the roots' ability to take up nutrients, water and oxygen. Apply ½-1 cup per plant once the soil has warmed (approx. 10 cups per 5-lb bag), or 50–60 lb per 1000 sq ft.

Find it in 5-lb and 45-lb bags at fedcoseeds.com/ogs.

more Roses

R. gallica 'Officinalis' Apothecary's Rose 4x4' Ancient semidouble deeply fragrant intense deep pink rose is just as medicinal as it is charming. Quite possibly the first rose cultivated in European gardens. Four rows of soft silky petals surround a crown of golden stamens. The strong fragrance retained in the dried petals led to an entire perfume industry in France, producing everything from essential oils to confections with "Rose of Provins." Many modern roses have been derived from this classic rose. Z4. BACK! Supply limited—order early!

7559A Apothecary's Rose, \$23.00

R. g. 'Cardinal de Richelieu' 2-3' x 3-4' Laffay, France, 1840. Unparalleled fragrant deep purple-burgundy very double 3" blooms in midsummer. Densely petaled flowers hold their fragrance and can be dried whole for potpourri. Smooth green foliage. Bushy and smooth stemmed. One of our all-time favorites here at Fedco. Rugged and eath to grow. Blooms on old canes, so little pruning or maintenance required. Soil adaptable. Sun or partial shade. Blooms in early to mid-June for about a month in central Maine. Disease and pest resistant. Z3/4. BACK!

7560A Cardinal de Richelieu Rose, \$23.00

R. g. 'Charles de Mills' 5x5' Parentage unknown. Likely originated in the Netherlands and named in France in the 17th c. Classic old garden rose with large strongly aromatic deep magenta-pink, perhaps purplishred, flowers—it's hard to say where one color ends and another begins. Very double blossom opens flat like a saucer with petals divided into distinct "quarters," as though it was sheared. It is exquisite, and easily one of the most jaw-dropping in all of our rose trials. Petals hold on in bouquets. Robust, hardy, suckering and easy to grow. Roundish symmetrical form. Deep glossy green foliage is moderately resistant to black spot and other foliar diseases when given sufficient air flow. Z4.

7561A Charles de Mills Rose, \$23.00

R. g. 'James Mason' 5x4' R. gallica hybrid (Scharlächglut x Tuscany Superba) Peter Beales, UK, 1982. Semi-double 4" crimson blooms have the velvety trait of gallica parent Tuscany Superba, itself the progeny of the beloved and much sought-after Tuscany rose (see below). Fragrant! Blooms once a summer. Very hardy and vigorous shrub form. Will send up shoots and become dense in time. Great as a hedge rose. Apparently named for the actor who played thorny handsome leading men and collected roses in his spare time. Z3/4. **NEW!**

7562A James Mason Rose, \$23.00

R. g. 'Tuscany' 3x2' One of the oldest *gallicas*; has been in cultivation since the 14th century. Often referred to as the **Old Velvet Rose**. Fragrant dark crimson double 2–3" flowers are blushed blackish purple surrounding prominent golden-yellow stamens. This is the original Tuscany rose, which has fewer petals than its more commonly seen sport Tuscany Superba. Foliage is greenish grey and rough in texture. Displays its strikingly dark aromatic flowers once each summer. Plant it nearby where it can be closely admired. Adaptable and needs little maintenance. Z4. **BACK!**

7563A Tuscany Rose, \$23.00

R. macrantha 'Raubritter' 3-4' x 6-8'. Daisy Hill x Solarium. Kordes, Germany, 1936. Unlike any rose we've seen, with clusters of unusual semi-double globular 2" silvery-pink flowers that are reminiscent of little peonies with a peppery fragrance. Spreading habit makes it ideal for slopes, banks or trailing over rock walls. Dark grey-green foliage is somewhat susceptible to mildew but not until well after bloom. Stunning in full bloom! Blooms for about a month starting in mid-June in central Maine. Ours is unbothered by disease or pests. Z3. BACK!

7564A Raubritter Rose, \$23.00

Rosa rugosa hybrids We no longer offer straight *Rosa rugosa* seedlings. Many wonderful old and new roses carry *rugosa* in their parentage (sometimes of an undetermined amount), and we have not observed these hybrids to be harmful to the environment. However the State of Maine legally requires us to include this statement: "R. rugosa: Invasive species, harmful to the environment. Do not plant in coastal environments, especially on or near sand dunes. Alternatives: Bayberry and red chokeberry."

R. r. 'Blanc Double de Coubert' 5x4' R. rugosa x Sombreuil. Cochet-Cochet, France, 1892. The best of the double whites with recurrent blooms of lush fragrance. Large 21/2–3" blossoms are creamy and substantial as if they were carved out of snow-white ivory; not fluffy like some other doubles. Begins blooming in June with some recurrence thereafter. Infrequent hips. Attractive dark shiny green foliage. Good fall color. Open vigorous shrub will form a thicket if allowed. Good for hedges or soil stabilization. Z2.

7565A Blanc Double de Coubert Rose, \$23.00

R. r. 'Schneeköppe' 3x3' R. rugosa hybrid. Also knows as Snow Pavement 6446. Baum, Germany, 1986. Soft pink buds open to very faint lilac-white blooms that are practically white but most definitely not so. Some say slightly pink, but we see purple. You might say white "infused with lavender" as Bob Osborne notes. Whatever you call it, the color is soothing to the eyes. A personal favorite of John's. Semi-double (12–16 petals) fragrant and recurrent from from early June through summer. Loose low shrubby form spreads slowly but suckers here and there. Red hips. Clean foliage, disease resistant. Z3. BACK!

7566A Schneeköppe Rose, \$23.00

R. r. 'Roseraie de l'Hay' 10x5' R. rugosa hybrid. Cochet-Cochet, France, 1901. Deep purple-red to magenta double blossoms are big and lush with an interesting form: the very full blooms have relaxed outer petals with twisty center petals and erect inner petals that rise up from the center of the stamens. Very fragrant repeat bloomer. This one stood out for its staggeringly beautiful scent the morning we walked around Corn Hill Nursery with Bob Osborne. Indeed, it is one of his favorites! Dark green crimply foliage. Arching and upright. Sterile flowers do not produce hips, so it's a safe salt-tolerant rugosa type to plant near coastal areas without concern about spreading. Z3. NEW!

7567A Rosarie de l'Hay Rose, \$23.00

Old-fashioned Roses

Roses grown in Europe before 1800 are referred to as "Old World" roses, including the cultivars of *Rosa gallica*. Their pink colors ranged from the deepest dark purple of 'Cardinal de Richelieu' to a faint pink blush like that of 'Chloris'. There were no reds among these antique roses and, though rich in fragrance, they bloomed only once per season. In the late 1700s red roses with repeat blooming tendencies were introduced from China, shifting the focus of rose breeding toward those traits. Demand for the aromatic and medicinal qualities of the Old World roses declined, supplanted by flowers that lasted long through the season. The hybrids created since the 1820s are called "modern" roses and are much more commonly seen in gardens today.

R. gallica is considered the oldest rose, steeped in history, legend and myth, and still grows wild in some places in the Caucasus, the mountainous region between the Black and Caspian seas, where it originated. Its exact origin is unknown but it can be traced back fourteen centuries when it was considered a symbol of love by the Persians. The aromatic petals hold their scent better than any other rose and have long been considered medicinal. This species contains hundreds of different cultivars, some very similar and others unique. Most have compact shrub habits and are generally very hardy. Most modern-day roses are presumed to be descendants of the gallicas.





Willow Salix spp.

The genus Salix comprises hundreds of different species of plants most commonly called willows but sometimes called Osier or Sallow. Willows grow all over the world. Some, like the weeping willow (see page 41), are towering specimens. Others are short scrubby bushes; willows growing in the arctic can be 100 years old but only 2' tall! Uses include ornamental landscaping, shade, basketmaking, erosion control, timber, fuel and medicine. All parts, especially the bark, contain salicin, used for relief of pain and fever for hundreds, or even thousands, of years. Aspirin is a synthetic analog of salicin. Willows feed local wildlife, insects and birds. We plant them near the orchard to provide early season forage for our native pollinators. All prefer sun and loamy wet soils, but are adaptable, easily transplanted and fast growing.

S. alba 'Britzensis' Coral Bark Willow 15-30' x 12-15' Späth intro, Britz, Germany, 1878. Also called S. a. var. vitellina Britzensis. Fast-growing shrubby tree with highly ornamental red bark that starts yellow and graduates to coral. Especially splendid in the snowy winter landscape. Recommended for filling the winter flower vase: Set the dormant branches in a vase without water and enjoy. The deep red stems will dry to a rusty red. Color is most striking on new growth, so give it an annual spring pruning or even cut it right to the ground. Every spring you'll get new 5–10' red stems. Typically narrow Salix leaves. Originally raised from seed by the famous nurseryman Ludwig Späth, whose lilac is an all-time favorite. Likes water, adaptable to a wide range of soils and conditions. Full sun to light shade. Z2.(1-3')

7568A Coral Bark Willow, \$20.00

S. gracilistyla 'Mt. Aso' Japanese Pink Pussy Willow 6x6' Possibly a hybrid of *S. gracilistyla x S. caprea*. Male specimen selected in Japan by Dr. Tsuneshige Rokujo. Pink buds open to electric pink catkins for a stunning early spring display. When the plants in our stark warehouse began to reveal their darling daubs of pink, the crew gathered round and cooed as if we'd discovered baby bunnies. Excellent in cutflower arrangements. Foliage opens pink and turns rich bluegreen with prominent veins and soft fuzzy undersides. Catkins form on second-year wood. Coppice just

after flowering to keep form pulled in and less rangy. Easy to maintain. Prefers full sun and sandy soils but will do fine in average or moist conditions. Z4. (1-3')

7569A Mt. Aso Japanese Pink Pussy Willow, \$20.00

S. purpurea 'Frances Red' Basket Willow

8-10' We grew these plants from cuttings we got from basketmaker Johnny Suderman in Ontario. He describes the plant as having long non-branching purplish-red rods with blue-green leaves. When he soaks them for basketmaking, the stems turn "dark grey with some purple-red." This is his favorite willow for baskets. Once established, you can coppice it annually for a perpetual source of basketmaking material. Z4. (1-2') **NEW!**

7570A Frances Red Basket Willow, \$20.00

Spiraea tomentosa Steeplebush 2-4' x same. Seeing this bonny little plant makes a heart leap with joy. Seriously, it's adorable, and we and the pollinators are obsessed with it. A must for every butterfly garden. Rosy pink steeples emerge as terminal spikes about 4-6" tall, appearing mid-late summer and lasting at least a month. Foliage is medium green, serrated with woolly undersides. Easy to grow. Lovely en masse. Likes average acid moist soils but not picky.

Full sun or part shade. We've seen it emerge in newly cut woodlots on dry soil and thriving on pond edges, as single canes or in clumps with multiple blooms. No serious pest or disease issues. Native Nova Scotia to Georgia and inland. Z3. ME Grown. (1-3')

7572A Steeplebush. \$19.25



Symphoricarpos albus White Snowberry 5-6' x same. Also called Common Snowberry or Waxberry. Broad rounded arching spreading wildlife shrub. Inconspicuous pinkish flowers in late spring, followed by plump whitish insipid berries. More palatable cooked, but still better for the birds who will gobble them up. Leaves, roots and bark all medicinal. Ripple-edged foliage of muted multi-shaded blues and greens. Quite beautiful all season. Excellent for holding soil on a steep shady moist bank while providing good wildlife cover and forage. Will spread with age and eventually form colonies. Easy to transplant, adaptable to most soils, sun or shade, even clay and city conditions. Drought tolerant. Self-fertile. Native to eastern U.S. Z3. (1-3')

7573A White Snowberry, \$19.00



Lilac Syringa spp.

Lilacs have been a fixture in the New England landscape for generations. More often than not, when we find old apple trees, the ancient lilacs are not far away. The large rambling suckering shrubs continue to flourish each spring long after the buildings have disappeared and all that remains of homesteads are crumbling stone foundations. Why were the lilacs always planted just outside the kitchen door? On cold winter mornings, someone would clean out the wood stove and sprinkle ashes on the icy path to the backhouse, the woodshed or the clothesline. The earth outside the kitchen door became more alkaline, which lilacs love.

Excellent alone or in hedges. Deep green glossy heart-shaped foliage looks good all season. Intensely fragrant blooms in May. Flowers range from singles to doubles, pure white to the deepest purples, pinks, reds and lavenders. Bees and butterflies love them, too. Ornamental, edible (frittered flowers), medicinal, and a great Mother's Day gift. (1-3')



Growing Lilacs

Soil: Adaptable. Prefers well-drained moderately rich soil; sandy gravelly loam is perfect.

Sun: Full sun, but will tolerate part shade.

Planting: Add shovelful of wood ash or lime to hole at planting time, then add another shovelful of either every 3 years. A yearly mulch of manure or compost will encourage spectacular annual blooming. Pink, lavender and blue lilacs color up best in soil with a neutral pH.

Pruning: If you choose to prune your lilacs, do it right after flowering. (Late-season pruning removes next year's buds.) As the plant matures, prune off a quarter of the new suckers and the oldest growth (a few main stems each year).

Some growers prefer to keep the plant low and bushy. Do so by "topping" it off every year: prune any upright branch back to a junction with a lower branch. Others prefer a tall tree-like form. Our friends Philippe and Danielle have let theirs soar to 8' or more, removing the lower branches and creating a magical walkway in the process. Lilacs

walkway in the process. Lilacs are more than willing to cater to your own personal vision. Have fun! No need to cut off spent flowers except for appearance.

Lilac isn't blooming?

- Too shady: lilacs need sun to form blossoms.
- Over-pruned: pruned too late, removed buds. Also, some plants respond to excessive pruning by putting their energy into vegetative growth instead of flowering.
- Too wet: lilacs like well-drained soil.
- Over-fertilized: lilacs will bloom well without assistance. Too much fertility can lead to more vegetative growth and inhibit bud formation.

S. vulgaris Common Purple 12-15' x same. A mass of medium-light purple blooms every year. A magnificent New England sight for nearly 400 years and still one of our most popular ornamentals. When a friend looked out John Bunker's living room window and thought he had some fancy new cultivar, John chuckled, "Nope, just the good old common purple." Never disappoints. Suckers freely, the best lilac for a spreading hedge. Z3.

7576A Common Purple Lilac, \$21.00

S. v. alba Common White 12-15' x 8-12' The only common thing about this lilac is that it is one of only two types you see growing where the old homesteads once stood. May be the oldest loveliest purest white of them all with single flowers on a hardy vigorous upright shrub. If you like a *menu fixe* rather than a bazillion options, this is the lilac for you. No one really knows its exact origin, but it predates the idea of heirlooms and hails from a time when there were only a couple of lilac strains in circulation (now there are thousands). Like its counterpart Common Purple, it gets the job done without messing around. Z2. **BACK!**

7577A Common White Lilac, \$21.00

S. x tribrida 'Miss Canada' 6-9' x same. S. x josiflexa Redwine x S. prestoniae Hiawatha. William Cumming intro, Morden Ag Res Ctr, Morden, Canada, 1967. Another outstanding Preston hybrid in the class of later-blooming lilacs. Masses of dark reddish-pink buds open to lovely fragrant single deep pink blossoms after the vulgaris lilacs have faded.

The florets are unique in shape, like little trumpets clustered along the flower stem. Plant singly as a specimen, preferably near the entrance to your home, or in a hedge for the butterflies and other nectarloving creatures. Like other Prestons, can be pruned to tree form; won't sucker and eat the building. Z3.

7580A Miss Canada Lilac,

\$22.00 For more lilac selection, please visit our website!

Wow! The two bare-root trees I got were large, healthy looking, and had amazing root systems. If they don't make it, it's all on me. I have always had good experiences with your seeds and other garden products, so I guess I shouldn't be surprised that the trees are such great quality.

- Alyson from Phoenix, MD

Viburnum spp.

The Viburnum genus encompasses more than 150 different species, which can range from dense shrubs lush with green foliage to more open and rangy small trees. Viburnums are prized for their multi-season interest, with blossom, berry and foliage varying by species. Flowers attract many butterflies and other early-season pollinators in spring. Ripening berries, some edible for humans, put on a show of color

throughout the summer. All the Viburnums we offer are important wildlife plants, native to eastern North America.

V. lentago Nannyberry 15-20' x 10-12' Also called Sheepberry or Sweet Viburnum. Large open vase-shaped suckering shrub with edible oval berries that turn from green to yellow to red to blue-black raisins that persist in winter and are popular with the birds. Large flattopped clusters of fragrant creamy white flowers are a common sight in spring in the Maine landscape and are reminiscent of elderberry blossoms. Shiny foliage, purplish red in fall. Medicinal bark and leaves. Recommended for naturalizing, bird and wildlife habitat, screens and borders. Z2. (1-3')

7582A Nannyberry, \$18.75

V. opulus var. *americanum* Highbush Cranberry Seedling 8-12' x same. Formerly known as *V. trilobum*. Also known as Crampbark. Medicinal multi-stemmed native shrub. Clusters of lovely 4" flat white flowers in May attract beneficial insects. Pendulous bunches of red berries ripen mid-October, popular with dozens of bird species. Fruit is extremely rich in antioxidants and vitamins A and C. Berries can be used

for juice, jam, fruit leather and syrups—when boiling them down, don't let the somewhat unpleasant odor deter you. Bark is one of the most effective antispasmodic medicinals. Good for screens and hedges. Not to be confused with low-growing American cranberry familiar in sauces (next page). Self-pollinating. Seed sourced from pure stands of americanum. Z2. (1-3')

7584A Highbush Cranberry Seedling, \$22.00

I was concerned because you're on the east coast but the price was right and it was worth a try! The packaging was so formidable it was like opening Fort Knox but everything arrived in perfect shape. You are obviously in a business that you love!

Rose from Oak Harbor, WA

Groundcovers

You'll find more groundcovers, like Canadian wild ginger, thyme, geranium and arnica, in the herbaceous perennials, beginning on page 55.

Arctostaphylos uva-ursi Bearberry Also called Kinnikinick, Hog Cranberry, Mealberry, Sandberry, Mountain Box or Bear's Grape. Delicate low-growing beautiful glossy evergreen spreading groundcover. Beautiful in rock gardens. One plant can sprawl to 15'. Small pinkish white flowers in spring. Small bright red drupe-type berries color up in late summer and persist into winter. Too insipid for fresh eating, but good fried with fish. Leaves are diuretic, astringent and antibacterial. Prefers poor sandy infertile acid soils, tolerates salt. Can be sensitive to root disturbance, thus finicky in transplanting and may be slow to establish. Set plants 1–2' apart. No need ever to prune or fertilize. Sun or partial shade. Native to North America and Eurasia. Self-pollinating. Z2. ME Grown. (1-gallon fabric pots)

7586A Bearberry, \$23.00

Calluna vulgaris Heather Magical, mythical and medicinal evergreen groundcover features a spread of flowers and foliage that change color throughout the season. Revered in the British Isles, important medicinally in teas, honey, liniments and ointments. First fermented a few thousand years ago, used in gruit, ale, and might be the original ingredient for the first whiskey. Branches used in thatching, bedding, basketry, rope and broom-making. Flowers attract bees, butterflies and moths, especially when planted in masses. Recommended for rock gardens and pathways—or for opening the portals to the fairy world.

Shear every April for best bloom. Species native to the dry forests, heaths and bare grounds of Britain and Ireland. More recently naturalized in North America. (4" pots)

C. v. 'Firefly' 1-2' x 1-2' In early spring vibrant yellow-green foliage emerges followed by tiny orange-red flower buds in June. As the mauve flowers awaken from their buds in August, the overall visual effect is a rainbow tie-dye. Blooms linger into October, and maybe longer. Salmonred foliage turns dark brick-red in late fall through winter. So far, this is among our top favorites. Upright habit. Z4. BACK!

L7587A Firefly Heather, \$12.50

C. v. 'Jimmy Dyce' 8x12" Foxhollow Nursery intro, Surrey, England. Lilac-pink double flowers are unusual for a heather. While we tend to go for bee-friendly single blossoms, there's nothing wrong with a few frilly indulgences here and there. This heather is stunning among rocks, where its long low-growing stems can drape. Foliage is dark green, turning bronze in winter. Later bloomer. Cultivated from a wild specimen found on the Winterton Dunes in Norfolk by J.W. Dyce in 1971 while he was out hunting for ferns. Z3. NEW!

L7588A Jimmy Dyce Heather, \$12.50

Erica carnea 'Springwood Pink' Winter Heath 6-12" x 12-18" Springwood, Stirling, Scotland, before 1930. Possibly a seedling of Springwood White, found by Mrs. Ralph Walker. Profuse pink blooms of distinct bell-shaped flowers in very early spring through April with repeat blooms in August. Foliage is more ferny and wispier than heathers and can be many shades of green through the season. Mounded mat-like growth habit sprawls and crawls like slime mold, and just as pretty. Ours bloomed through a crust of snow for an explosion of flowers with bees of all kinds clambering for early nectar. Ericas have become a favorite of ours. You won't be able to resist the urge to pet it when you walk past. Super low-maintenance. Plant en masse to create a magical carpet. Species native to the Alps and the British Isles. Z4/5. (4" pots) NEW!

L7589A Springwood Pink Winter Heath, \$12.50

Growing Viburnums

Soil: Adaptable, but in moist rich well-drained soil they will take on a fuller shape.

Sun: Full sun to part shade. **Pollination:** Plant multiples of the same species for best fruit set.

Pest Control: Viburnum leaf beetle (*Pyrrhalta viburni*) has become a problem in some areas. The larvae overwinter on twigs and can defoliate shrubs in spring and early summer. They seem to prefer Arrowwood, but we have seen them do a number on Wild Raisin and Nannyberry. Prune out and burn any egg-infested twigs in early spring before your shrubs are leafed out. Spraying with Spinosad in late April or early May when the larvae first emerge can also help. (Monterey Garden Spray is a Spinosad available from Fedco's Organic Growers Supply.) Timing is key—spraying eggs or adult beetles is less effective.

Growing Heather and Erica

Soil: Requires acidic well-drained soil.

Sun: Full sun to part shade. Sun and wind intensify their colors.

Spacing: Plant 18" apart. They'll spread.

Planting: We recommend pine needles or softwood

chips as an acidic year-round mulch.

Shearing Heathers: Heathers should be sheared every April for best bloom. Without annual shearing, they'll become woody and bare in just a few years. With pruners or shears, roughly cut the stems below where they flowered the previous

season, leaving a few inches of foliage. It should look like a little

mound with a haircut. Next thing you know, bright new growth will start emerging.

Shearing not only makes the plants look better but also makes them stronger and more

resistant to fungal problems. If you're not up for shearing, heathers might not be for you. **Pruning Ericas:** Lightly prune spent flower tips in spring after blooming. These don't

require shearing like heathers.



Gaultheria procumbens Wintergreen 6-10" tall with a 1-3' spread. Also called Eastern Teaberry. Herbaceous aromatic rhizomatous evergreen groundcover native to the woodlands of eastern North America. Glossy dark green elliptic-tooblong leaves form on erect stems. Nodding bell-shaped waxy white flowers bloom from the leaf axils in June. Flowers give way to vivid red berries. Leaves will take on beautiful burgundy shades in the fall. Excellent winter food source for free-

range chickens, partridge, turkeys, and some two-

and four-legged mammals. Fragrant leaves contain methyl salicylate, a potent external anti-inflammatory, and can be used to make a poultice or massage oil to ease arthritic pain and sore muscles. Designated Maine's State Herb in 1999. Plant 16" apart in dappled shade in moist but not boggy woodland soil. **Self-pollinating.** Z3. (3½" pots)

L7590A Wintergreen, \$10.75 **L7590B** Wintergreen, bundle of 3, \$24.00

American Cranberry Vaccinium macrocarpon

Dense low lustrous evergreen groundcover, reddish purple in fall and loaded with large red berries. Once established, makes a beautiful and edible "lawn." Bitter and alkalizing effects make it a common remedy for bladder infections. An excellent source of vitamin C. Native to northeastern U.S. and Canada.

Handpick or rake like blueberries before hard frost. Use fresh, freeze or store in a cool basement or root cellar for months. Commercial operations flood fields for frost protection and harvesting convenience, but this is not necessary in home plots. Easy to grow; pest and disease resistant. Z2. (6" pots)



V. m. 'Blushing Moon'™ Selected from a seedling John Harker found growing in a bog on an island off the coast of Maine in 1993; introduced in 2003. Berries are considered albino, having a red blush on a golden-white background at harvest. The fruit is smaller than Stevens with higher yields per shoot and strong recurring flowering the following year. Makes clear juice. Sauce is amber. Long life in cold storage, up to 6 months. ME Grown.

7591A Blushing Moon American Cranberry, \$23.00

V. m. 'Stevens' This is the red cranberry of holiday sauces, bread, juice and jelly. ME Grown.

7592A Stevens American Cranberry, \$23.00

I just received my order for 3 Cranberry bushes and I am delighted with them. I can't believe how great they look. They will become a treasured addition to my small fruit garden.

Joe from LaFayette, NY

Growing Cranberries

Soil: Prefers acidic cool moist soil high in organic matter; adaptable to everything from bogs to dry rocky outcroppings.

Pollination: Self-pollinating: you only need one.

Planting: Plant comes in a bushy 6" clump, which can be carefully divided or planted as a whole and divided in future years.

Lingonberry V. vitis-idaea

Also called Foxberry, Cowberry, Mountain Cranberry. Vigorous shallow-rooted spreading groundcover is related to blueberries and cranberries. Bright red glossy nutritious fruits are wicked tart until dead ripe, then have excellent flavor, richer and less astringent than cranberries. Can be eaten fresh but primarily used in sauces, jams, syrups, fruit leathers, juices and wines. Stores up to 2 months in the fridge. Small shiny dark green foliage is quite lovely. Adorable tiny bell-shaped white flowers in spring attract a plethora of pollinators. Extremely popular in Scandinavia and now catching on in the U.S. Ripen in late summer but are best after a frost. Can produce 1–2 lb per plant for up to 20 years.

Native to circumpolar boreal forests. Incredibly tough and very hardy. Z2. All are **ME Grown**. (1-gallon fabric pots)

V. v.-i. 'Erntedank' Up to 12" tall. Albert Zimmer intro, 1975. Collected in a wild heath near Uchte, Germany. Heavy yields of small- or mediumsized berries.

7593A Erntedank Lingonberry, \$22.75

V. v.-i. 'Erntesegen' 12-15" Also collected by Zimmer from a wild German heath. High-yielding plant produces very large berries.

7594A Erntesegen Lingonberry, \$22.75

V. v.-i. 'Linnea' 5-9" Swedish U of Ag Sciences intro, 1999. Newer cultivar selected from an open-pollinated seedling of Sanna, a wild strain. Strong producer of medium-sized berries.

7595A Linnea Lingonberry, \$22.75

V. v.-i. 'Magenta' 12-15" Swedish U intro. Vigorous cultivar produces large purplish-red berries. Selected for high yields.

7596A Magenta Lingonberry, \$22.75

V. v.-i. 'Red Sunset' 8-15" Hartmann's Plant Co intro. Medium-to-large firm flavorful berries. Considered one of the most vigorous cultivars.

7597A Red Sunset Lingonberry, \$22.75

V. v.-i. 'Regal' 4-8" WI-108, WU intro, Madison, WI, 1994. From openpollinated seed collected in southwest Finland. Produces firm small-tomedium berries with good flavor. May bloom twice in one season.

7598A Regal Lingonberry, \$22.75

V. v.-i. 'Ruby' 12" Swedish U intro. Medium-sized light red berries. Moderately vigorous with lots of spreading rhizomes.

7599A Ruby Lingonberry, \$22.75

'V. v.-i. 'Sussi' 4-8" Sometimes spelled 'Susi.' Patented by the Swedish Agriculture Dept, 1985. Moderate yields of medium-to-large berries. Great pollinator for other varieties. **PPA**.

7600A Sussi Lingonberry,



Growing Lingonberries

Soil: Prefers poor sandy acidic soils.

Sun: Full.

Pollination: Plant more than one variety to ensure good fruit production.

Spacing: Plant 12-18" apart.

Garden Roots

No garden is complete without the classic triumvirate of Horseradish, Asparagus and Rhubarb!

Asparagus officinalis Asparagus A spring staple for millennia, may have originated around the Mediterranean Sea, perhaps in Asia Minor. The pharaohs, Greeks and Romans were all aware of its highly nutritious qualities and delectable flavor. The earliest known American horticultural advertisement, from March 1719, is for "English Sparrowgrass Roots." Uncut shoots become a light green feathery hedge, a beautiful backdrop to a flower garden. Honeybees love the dainty dangling flowers, which develop into bright red spherical seed pods on female plants. Occasionally non–spear-forming females will show up in a planting. Leave them be or rogue them out as you wish. (1-yr crowns)

A. o. 'Mary Washington' Heirloom variety developed by JB Norton, USDA, 1919. Large early green stalks tolerate heat well and demonstrate good resistance to rust. For those of you who know your antique asparagus, Mary was selected from Martha. Of the two, Mary is earlier, more vigorous and more uniform. A parent to many modern varieties and planted in American gardens for more than a century. Z3/4.

L7602A Mary Washington Asparagus, bundle of 25, \$35.00

A. o. 'Millennium' Developed by Prof. David Wolyn, U of Guelph, Canada. High-yielding good-quality tender green spears are long-lived and very cold hardy. We offered Jersey years ago, but the producer stopped propagating it. Millennium is on the rise as an excellent replacement, actually outproducing Jersey in northern Minnesota trials! Z3. NEW!

L7603A Millennium Asparagus, bundle of 25, \$40.00

A. o. 'Purple Passion' Developed from the Italian heirloom Violetto di Albenga. Brian Benson intro. Very large deep purple stalk with a creamy white interior. Purple asparagus is actually a type of white asparagus shown the light; grow under cover to get white spears. Sweeter and less stringy than its green counterparts, so you can use more of the spear. Tender enough to eat raw in salads. Purple turns green when cooked. Z4.

L7604A Purple Passion Asparagus,

L7604A Purple Passion Asparagus bundle of 25, \$37.50

Growing Asparagus

Soil: Requires fertile soil and high levels of phosphorus.

Sun: Full sun.

Planting: Plant 14–18" apart, 6–10" deep, in trenches 4' apart. Or dig your trenches somewhat deeper and fill the bottom with 4" of compost and rotted manure. For an extra fertilizer boost, use Fedco's own **Gungnir Asparagus Mix**, found at fedcoseeds.com/ogs.

Lay plants with crowns up and cover with 2" of soil. Plants emerge very

Lay plants with crowns up and cover with 2" of soil. Plants emerge very slowly. As young shoots grow, add soil gradually, just covering the shoots, until the trench is full.

In late fall, remove dead stalks and mulch with 3" of manure.

Second summer: Add lime, rock fertilizers and compost as needed. Control weeds but do not injure crowns.

Later years: Same routine but increase fertilizer. Be sure to leave some spears each year to grow stalks that will nourish the roots and give you more spears next year. Keep the bed weed-free and mulched heavily.

Harvest: We recommend caution in harvesting too much too soon. Before the third or fourth season, harvest only the largest shoots from vigorous plants so the young plants can establish themselves.

Armoracia rusticana 'Big Top' Horseradish Exceptionally vigorous perennial with large dock-like leaves and spicy hot roots, savored for centuries for their culinary and medicinal qualities. Horseradish tea is said to be an effective control for brown rot on stone fruits. Deep taproot with numerous shallow runner roots. Choose carefully where you plant it because you may never get it all out. Even the tiniest root piece can produce a new plant. Leaves can be cooked as greens. Roots are traditionally harvested in the fall, but you can dig them anytime. Roots keep 3-4 months in the fridge. To use as an invigorating tonic, grate the fresh roots and mix with a little lemon juice or apple-cider vinegar and refrigerate. Use soon, then make more. Big Top is an especially disease-resistant variety. Prefers moist rich soil. Plant with the slanted cut down and the flat side up, or just toss them in and watch them grow. Native to northern Europe. Z3. (roots)

L7601A Big Top Horseradish, bundle of 5, \$22.50



Rheum rhabarbarum Rhubarb
Seedling Seedlings of heirloom
variety 'Victoria'. Famous for
early summer pie and wine, but
also good in sauce, bread, juice,
soup or cooked with meat and
fish. Rhubarb's clumps of juicy
acid leaf stalks were once a staple
food. The root is a toning purgative
herb traditionally used every spring

for thousands of years. There are dozens if not hundreds of rhubarb varieties. May have originated in Siberia and been carried across Asia on the Silk Road to Turkey and then into Europe. Victorian cookbooks included rhubarb compotes, fools and charlottes. Brought to North America through the efforts of Ben Franklin and John Bartram. Low-maintenance; will continue through summer if flower stalks are removed and new leaves allowed to grow. Leaves are not edible.

From our trials, we've learned that rhubarb rarely comes true to type when grown from seed, a fact often undisclosed in the nursery trade. We are offering seedling crowns grown on a local organic farm. There will be variation within the crop. Some stalks will be green with deep red bases and others will be solid green or splashed with red. All are vigorous and delicious, and we've enjoyed them in our pies, wines and sauces. Z2.

ME Grown. (1-yr crown)

L7605A Rhubarb Seedling, \$14.00

Growing Rhubarb

Soil: Well-drained rich slightly acidic soil.

Sun: Full sun

Spacing: Plant crowns 2–4' apart in rows 3–4' apart.

Planting: Plant the top of the root division level with soil surface. Add a bushel of well-rotted manure or compost to each planting hole. When plant is established, fertilize liberally with compost and

balanced garden fertilizer every spring, as it's a heavy feeder.

Harvest: Never remove more than two-thirds of the stalks from a plant. Two years after planting, harvest for no more than 4 weeks. Thereafter you can harvest for 8–10 weeks each year. Water during dry spells for extended season.

Dividing: Every 10 years or so, divide plants in early spring. Leave about ¹/₃ of the clump in place, and cut up remaining crowns into fist-sized pieces to replant or share with friends.

Mushrooms

In collaboration with North Spore Mushrooms, we're excited to help you get started on your own fungus garden!

- These products are all Maine-grown and organic, on natural substrates.
- Most can be refrigerated until you are ready to start growing. We send detailed instructions with your order and you can find more info about each item on our website.
- We ship mushrooms and related tools in April during our regular shipping season.



Getting started

First decide if you want plugs or sawdust spawn for your mushroomgrowing adventure. Kits are a good choice for beginners.

Plug Spawn are small wooden dowels colonized by mushroom mycelium. These get hammered into drilled logs of an appropriate tree species.

Sawdust Spawn comes in a 5¹/₂ lb loaf. Depending on variety, it can be crumbled into outdoor beds or used for larger-scale log inoculation projects.

Outdoor Log Kit contains 100 plugs, wax, a dauber, ⁵/16" drill bit and instructions. Everything but the log, drill and hammer!

Spray & Grow Kit Simply slice open the bag, and keep in a humid environment, like beside the kitchen sink. Mushrooms should start to produce "pins" within 2 weeks and will grow quickly. Each kit contains a 41/2-lb inoculated sawdust block that could produce up to 3 lb of mushrooms over 2–4 months. Instructions included. The easiest way to get into growing mushrooms. Makes a great gift.

Agaricus subrufescens Almond Agaricus Related to the well-known portobello, cremini and button mushrooms but has its own unique aroma and flavor reminiscent of almonds. The species grows on composted material and thrives in warmer temperatures. A great addition for the home gardener, can be incorporated with compost into vegetable and perennial plantings and does well in season-extension structures.

7606C Sawdust Spawn, \$30.00

Grifola frondosa Hen of the Woods Also known as Maitake. Rich earthy semi-firm mushroom resembles a fat hen with leafy feathers and can weigh up to 20 lb. This tasty polypore has a flavor akin to eggplant. Will fruit only on oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags (not needed for plug spawn). L7607A 100 plugs, \$18.00 L7607B 500 plugs, \$36.00 7607C Sawdust Spawn, \$30.00

Hericium erinaceus Lion's Mane Pure white cluster of icicle-like teeth, often found on beech and birch in the wild. When cooked, they have a consistency similar to crab meat. Naturally fruits during cooler months. Due to a slower colonization rate, a higher inoculation rate should be used. Can be grown on many different hardwood species, large- or small-diameter logs.

Laetiporus sulphureus Chicken of the Woods Large bright orange fruit bodies have a texture reminiscent of chicken. Great in soups and stir-fries. Fruits all season from late spring into late fall. Prefers large-diameter oak logs. For success with sawdust spawn, we recommend heat-treating and incubating log segments in XL 0.5-Micron Filter Patch Bags Mushroom Grow Bags (not needed for plug spawn).

L7609A 100 plugs, \$18.00 **L7609B** 500 plugs, \$36.00 **7609C** Sawdust Spawn, \$30.00

Lentinula edodes Shiitake Brown umbrella-shaped spongy caps, very nutritious and medicinal. Good for drying and reconstituting in winter soups. Meaty texture when cooked. Grows best on oak and hard maples. Fruits throughout the growing season and responds well to commercial forced-fruiting production methods. This is the Wide Range Shiitake strain. *Note:* **7610E Fruiting Block** is the same as a Spray & Grow Kit, except it doesn't come in a pretty box; instructions included.

Pholiota nameko Nameko Gelatinous orange-to-amber caps thicken soups and are popular in Japanese cuisine. Fruity earthy aroma pairs well with dark green veggies, red meat and miso soup. Produces in the cooler temperatures of fall. Grows on oak, aspen, maple and other hardwoods. If planted in beds, use fresh hardwood chips.

L7611A 100 plugs, \$18.00 **L7611B** 500 plugs, \$36.00 **7611C** Sawdust Spawn, \$30.00

Growing Mushrooms

Log method Drill holes in logs, insert plug spawn or sawdust spawn, then seal with wax. Tools are listed on the next page. Be sure to choose an appropriate tree species for the mushroom (see variety descriptions.) We offer these options for log inoculation:

• **Plug Spawn** 50 plugs will inoculate a single 4' long, 4" diameter log. Drill ⁵/16" holes (or 8.5mm with angle-grinder adapter) into your log, hammer in the plugs and seal the holes with wax. Plugs are an excellent choice for beginners. **Plugs come in bags of 100 or 500.**

• **Sawdust Spawn** Each bag contains 5½ lb of hardwood sawdust colonized by mushroom mycelium, enough for about 25 logs. Drill 12mm holes in your logs, pack the sawdust using an inoculation tool and seal with wax. Good for commercial mushroom growers.





Growing methods				
Mushroom type	Log method	Bed method		
Almond Agaricus		X		
Hen of the Woods	X			
Lion's Mane	X			
Chicken of the Woods	X			
Shiitake	X			
Nameko	X	X		
Golden Oyster	X	X		
Blue Oyster	X	X		
Italian Oyster	X	X		
Wine Cap		X		

Pleurotus spp. Oyster Mushrooms grow well on many different hardwood logs; soft hardwoods (poplar, aspen, cottonwood) are best. All three oyster species can also be grown in outdoor beds; they prefer straw to denser wood chips.

P. citrinopileatus Golden Oyster Tropical oyster strain that thrives in warm weather. Produces beautiful clusters with yellow caps that are a favorite at farmers markets.

P. ostreatus Blue Oyster Also called Grey Oyster. Very popular fleshy firm edible grey-white oyster-shaped caps often found growing on old dying maple trees. Our most productive oyster strain. Reliable and cold tolerant, fruits prolifically in early spring or late fall.

L7613A 100 plugs, \$18.00 **L7613B** 500 plugs, \$36.00 **7613C** Sawdust Spawn, \$30.00 **L7613D** Outdoor Log Kit, \$30.00 **7613E** Spray & Grow Kit, \$30.00

P. pulmonarius Italian Oyster Clusters of tender brown caps with thick white stems. Considered to be one of the finest culinary oysters.

L7614A 100 plugs, \$18.00 **L7614B** 500 plugs, \$36.00 **7614C** Sawdust Spawn, \$30.00 **L7614D** Outdoor Log Kit, \$30.00

Stropharia rugosoannulata Wine Cap Vigorous red-capped fruiting bodies for growing in outdoor beds. Prefers hardwood chips but will grow on a mix of soft and hard. Once established, they will produce for several years and can be easily transplanted to fresh woody debris. **7615C** Sawdust Spawn, \$30.00

Mushroom-growing Tools For log inoculation, you'll need some tools. Here are a few essentials to get you started:

Inoculation Tool for Sawdust Spawn A simple thumb-press hand tool for rapid inoculation of hardwood logs with sawdust spawn. (Not needed for plug spawn.) Drill holes with 12mm bit for best results.

L7616A Inoculation Tool, \$44.00



Angle Grinder Adapter (for Log Drill Bits)

Used to attach a drill bit to an angle grinder to increase speed on large projects. Fits 5/8" spindle and takes both 12mm and 8.5mm drill bits.

L7617A Angle Grinder Adapter, \$55.00

Log Inoculation Drill Bits

Specifically made for log inoculation, designed to clear the hole of sawdust as it drills to a set depth that matches plug length or sawdust dosage. For large projects, we recommend the **Angle Grinder Adapter**

with an 8.5mm bit for plug spawn or a 12mm bit for sawdust.

L7618A 8.5mm Drill Bit for Plug Spawn, \$22.00

L7619A 12mm Drill Bit for Sawdust Spawn, \$22.00

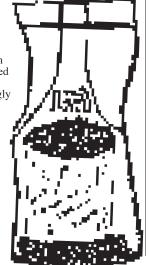
Log Inoculation Sealing Wax A clear food-grade paraffin wax ideal for sealing holes in inoculated logs. One pound of wax is enough to seal about ten 4'-long logs. Sealing the holes is critical to

success because it protects the spawn from drying out and from contamination by other fungal species. Wax is in granular form.

L7620A Sealing Wax, 1 lb, \$7.00

XL 0.5-Micron Filter Patch Mushroom Grow Bags Chicken of the Woods and Hen of the Woods are prone to being out-competed by other fungi. This makes them unreliable producers. For these two varieties, we strongly recommend heat-treating and incubating your logs in filter-patch bags to provide a blank slate for your desired species. Each bag fits a 1'-long, 8"-diameter log segment. One bag of Sawdust Spawn will inoculate about 10 log segments—you'll need one bag per segment. The 0.5-micron filter allows for ample gas exchange. More detailed instructions for heat-treating logs will come with your order. Bag is 3mil thick polypropylene, 10x5x24". Pack of 10 bags.

L7621A XL Filter Patch Bags, package of 10, \$20.00



Herbaceous Perennial Plants

USDA hardiness zone (chart on page 71) follows each description. All our plants are nursery propagated. They are not dug from the wild! All plant stock is bare root unless otherwise noted.

Organic after item name means the plants were grown at Ripley Farm, a MOFGA-certified organic nursery in Dover-Foxcroft, ME.

Achillea millefolium Yarrow Blooms June through September featuring 2–3" flat-topped flowerheads. Ferny green foliage is aromatic when crushed. Excellent filler for fresh and dried arrangements. Prompt removal of faded flowerheads guarantees a long season of blooms. Colors can fade out in extreme humidity but regular cutting will keep the blooms looking bright and fresh. It's a sweet and easy early morning task to walk the yarrow path and cut quick bouquets. Salt tolerant, excellent for coastal zones. Plant 12–24" apart in well-drained soil, full sun to part shade. (For white yarrow, see p. 63.) Z3.

A. m. 'New Vintage Violet' 24-28" tall. Charming bright magenta-violet flower clusters. Sturdy and upright, sports its vibrant color for a long bloom season, even in the heat. We're excited to find this new cultivar to diversify our yarrow collections! (2¹/4" plug stock) **NEW!**

L7651 A: 3 for \$16.25 **B**: 6 for \$26.75

A. m. 'Oertel's Rose' 12-15" tall. Deep rose-pink flower clusters. One of the most well-behaved yarrows we've seen—not messy or floppy in windy weather like some of the taller varieties. (2¹/₄" plug stock)

L7652 A: 3 for \$16.25 **B**: 6 for \$26.75

A. m. 'Paprika' 18-36" tall. Handsome bright red flowerheads. Each tiny blossom within the cluster has a sunny yellow center. Draws a crowd when we have friends over for barbecue. (2¹/₄" plug stock)

L7653 A: 3 for \$16.25 **B**: 6 for \$26.75

Aconitum napellus English Monkshood

36-40" tall. Also called **Friar's Cap**. Produces a mass of mid- to late-summer blooms with dense showy spikes of dark violet-blue hood-shaped flowers above elegant palmate foliage in late summer. Grand delphinium-style blooms rarely need staking. An excellent cutflower—cut when ½ to ½ the spike is in bloom. We love watching bumblebees disappear under the hood then clamber out covered in pollen. *Caution: the entire plant is poisonous*; wash your hands after handling or cutting. Prefers partial shade. Plant 15–20" apart in moist soil. Native to Europe. Z3.

L7654 A: 3 for \$14.00 **B**: 6 for \$24.50

Allium 'Little Sapphire' Flowering Onion 12" tall.

Round dense clusters of deep purple star-shaped flowers held above tidy upright clumps of strappy glossy grey-green foliage. Sweet-scented blooms make great cutflowers or dried winter arrangements whether you cut them before or after the green seed pods form. Attracts beneficial insects with its sweet nectar yet repels an array of undesirables slithery, winged and legged pests alike—including deer. Only if crushed will the plants smell like an onion. Adds rugged charm and vertical structure to herb and rock gardens. Full to partial sun, soil

L7655 A: 1 for \$7.75 **B**: 3 for \$19.75 **C**: 6 for \$35.50

mid to late summer. Z4.

adaptable, tolerates clay. Blooms in





Amsonia tabernaemontana var. salicifolia

Willow-leaf Bluestar - Organic 30" tall. Clusters of deep blue pointed flower buds form and open into powder-blue star-shaped florets held above deep green fine grassy willow-like foliage. Florets form a tight cluster as if the blossoms were held by self-gravitation, giving it a fantastically unusual appearance that is more chaotic than tidy upon close examination. Blooms in early June in northern Maine. Gorgeous foliage turns gold in the fall. Best planted en masse. Forms a handsome vase shape at maturity. Looks fabulous with catmint and irises. Adaptable to most garden environments but performs best in full sun

to part shade. Plant 12–18" apart in moist slightly acidic soil. Native from Illinois

south to Texas. Z3. ME Grown. L7656 A: 1 for \$9.00 B: 3 for \$24.00

Aguilegia canadensis Wild Columbine - Organic 12-24" tall. Delightful little stacks of round-lobed leaves emerge in early spring. Soon after, magical jewel-like nodding blossoms with red-spurred

sepals and yellow petaled skirts dance above the foliage. The elegant slender spurs are filled with nectar irresistible to hummingbirds. We planted ours at the base of a granite boulder, right alongside some highbush blueberries. The columbines start flowering at the same time as the blueberry bushes, and the rock helps retain even moisture in the soil. Excellent under fruit trees. Columbines bloom from late May to early June with sparse blossoms persisting through July. Prefers light moist well-drained soil. Nice planted in clusters, 12–18" apart. Dappled shade guarantees the best color. Will self-sow—you can never have too many. Native to eastern North America. Z3. ME Grown.

L7657 A: 1 for \$9.00 **B**: 3 for \$24.00 C: 6 for \$42.00

Planting Guide for Bare-root Perennials

To receive our guarantee (see page 2) for items on pages 55 to 65, you must have followed these instructions:

When you receive your order, open the bags and check the plant stock immediately. Roots and crowns should be firm and pliable, not soft or brittle.

After danger of freezing has passed:

- Dig a hole 2 or 3 times bigger than the plant stock.
- Add a little compost if needed.
- Fan or spread out the roots to encourage root development.
- Fill hole with soil, pressing out air pockets as you go.
- Keep the planting area free of weeds.
- Mulch around the crown with straw or wood chips.
- Avoid applying mulch directly on top of crowns as they could rot.
- Mark the location with a plant label.
- Check your plants daily in the first 2 weeks after planting!

If you cannot plant right away, you have two options:

- 1. Store bags of bare-root plants in a dark and cool (35–40°) place.
- 2. Pot up plants in well-drained slightly moist potting mix. Avoid coiling the roots in the bottom of undersized containers. Set pots in a protected spot in part-shade until you're ready to plant.

You must protect your herbaceous perennials from:

- Freezing
- Sun-shock in the first 2 weeks
- · Long periods of cold and wet conditions
- Too much or too little water
- Absentee gardening!

Arisaema triphyllum Jack-in-the-Pulpit

12-24" tall. In midspring, one or two compound leaves appear close to the ground, each with three leaflets framing an upright stem topped by a striped tannish-purple 3" long cuplike spathe (the pulpit) that contains and arches over the erect greenish-yellow spadix (Jack). It's always a delight to lift the flap and see Jack. This magical Northeastern native prefers dappled shade and moist rich woodland soil. Curiously, it consistently presents itself in damp areas that saw heavy tractor or excavator work the year before. Keep your eyes peeled! Plant 10–18" apart. Z3.

A: 3 for \$18.00 L7658 B: 6 for \$30.00 C: 12 for \$48.00

Asarum canadense Canadian Wild Ginger 6-12" tall. Heartshaped alluring rich green slightly fuzzy leaves up to 7" wide will spread into a beautiful groundcover. Aromatic roots used like other gingers for their warming qualities and for soothing indigestion, coughs, colds and motion sickness. The small reddish-brown urn-shaped flowers grow near the soil surface or in the surface leaf mold, pollinated by crawling insects. Flowers are fun to search for but won't decorate your landscape. Requires deep shade and moist rich woodland soil. Native to eastern North America. Z3. (21/2" plugs in pots)

A: 3 for \$28.25 L7659 B: 6 for \$49.25 C: 12 for \$88.00

Asclepias incarnata Swamp Red Milkweed - Organic 3-5' tall. Forms unique fragrant flat-topped clusters of upturned rosy red flowers. Willow-like leaves are 4–5" long. Clump-forming; great for naturalizing. Attracts bees, butterflies

and hummingbirds. The monarch butterflies need all the help we can give them-plant more milkweed! Grows naturally in floodplains and wet meadows but seems to do well in drier spaces. Self-sows, but doesn't take over like common milkweed. Plant 18-36" apart in moist soil. Native to North America. Z3. ME Grown.

L7660 A: 1 for \$11.00 **B**: 3 for \$\$30.00

A. tuberosa Butterfly Weed 24" tall. This brilliant summer wildflower features vivid tangerine-orange clusters of flowers

atop slender fuzzy stems, covered with green lance-shaped leaves. Spent flowerheads transform into prominent spindle-shaped seed pods that make a unique addition to mixed bouquets. The fleshy taproot will not tolerate clay or low ground. The very last to emerge in spring be patient. Plant in full sun, 18-24" apart in well-drained fertile soil. Native to eastern and southern North America. Z4

L7661 A: 1 for \$10.00 B: 3 for \$27.00

Astrantia major 'Burgundy Manor' Masterwort 24-28" tall.

Compact umbels of burgundy flowers surrounded by rosettes of bracts appear on airy branched deep red stems held above deeply lobed green buttercup-like foliage. Clumpforming perennial makes an excellent groundcover when planted en masse. We've observed ours to be free of pests, even snails and slugs. Makes long-lasting cutflowers and is also a great container plant. Prefers morning sun and afternoon shade. Blooms June to August here in central Maine. Plant 12-18" apart in moist poorly drained soil. Species native to Europe and Asia. Z4.

L7662 A: 3 for \$24.00 B: 6 for \$44.50

Baptisia australis Blue False Indigo - Organic 3-4' x same. An early summer stand-out with vibrant blue lupine-like flowers. Nitrogenfixing legume transfers nitrogen from the air to the soil where it can be absorbed by neighboring plants. Has a bushy habit and short shrub-like vase structure once mature. Seed pods turn black in fall, adding interest to the autumn landscape. Will develop an extensive root system, good for holding slopes to prevent erosion. Plant 3' apart in full sun and welldrained acid soil. Native to eastern and central North America. Z3. ME Grown.

L7663 **A**: 1 for \$9.50

B: 3 for \$25.50 **C**: 6 for \$45.00



Dicentra Bleeding Heart Also called **Lyre Flower**, its genus has been updated to **Lamprocapnos**. Graceful racemes arch over clumps of attractive cut foliage. Distinctive heart-shaped flowers dangle in a row on each raceme like charms on a bracelet. Native to eastern Asia. Z3.

D. formosa 'Bacchanal' 15" tall. Burgundy-red oblong heart-shaped blossoms dangle from long leafless stems. Flowers are a little less tidy than the respectable *D. spectabilis*. With consistent moisture, the lacy blue-green foliage of this Dicentra stays awake and looking good for moist well-drained fertile soil. Will not tolerate wet winter soils. Blooms in late spring.

L7664 A: 1 for \$7.50 B: 3 for \$19.50 C: 6 for \$33.75

D. spectabilis Old-Fashioned Bleeding Heart 30-36" tall. Perfectly formed pink heart-shaped flowers with delicate white inner petals define this classic hardy long-lived perennial. Plant 2–4" deep, 24" apart in rich moist soil and partial shade. Blooms in early to mid spring; goes dormant in summer.

L7665 A: 1 for \$8.00 **B**: 3 for \$21.00 **C**: 6 for \$36.00

Eutrochium Joe Pye Weed Also called **Queen of the Meadow**. Tall architectural clump-forming North American native wildflowers feature big soft terminal clusters of mini pink florets on strong stems from midsummer to early fall. Whorls of lance-shaped serrated leaves look good all summer. Chickadees like to pick at the tawny dried seedheads in winter. Flowers can be used for dyeing.

Choose a planting site where Eutrochium can naturalize at the back of a border, or along the edge of a wood. We've let ours spread into a tall perennial hedge right along the front of the house where it mingles in full sun with globe thistle and goldenrod. The deer don't seem interested, but pollinators abound! Native to eastern North America, found along the edges of moving water, in damp meadows, and in moist roadside ditches. Readily spreads from seed and underground rhizomes, so plant it thoughtfully if you are working in a small space. All three species we're offering do well in moist soil and full sun. If grown in shade, they might need support.

E. fistulosum Hollow Stem Joe Pye Weed - Organic 6' tall. Dusky-rose flowers are held on beautiful wine-red stems that are dusted with a light purplish bloom. Leaves whorl in sets of 4 to 7, with slightly more rounded teeth than other Joe Pye's. More adaptable to heat and drought than the other species we're offering. Z4. ME Grown.

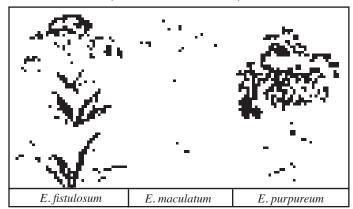
L7667 A: 1 for \$9.00 **B**: 3 for \$24.00

E. maculatum Spotted Joe Pye Weed - Organic 4-7' tall. Large lavender-rose flower clusters attract a plethora of pollinators. Leaves whorl in sets of five around sturdy unbranched bewhiskered purplespotted stems. Z4. ME Grown.

L7668 A: 1 for \$9.00 **B**: 3 for \$24.00

E. purpureum Sweet Joe Pye Weed - Organic 4-6' tall. Massive vanilla-scented pinkish-purple domed flowers are held atop sturdy green stems with whorls of 4 to 5 sharply serrated leaves. Often found in average to dry woodland edges. Z3. **ME Grown**.

L7669 A: 1 for \$9.00 **B**: 3 for \$24.00



Echinops bannaticus 'Blue Glow' Blue Globe Thistle 3-4' tall.
Luminous 11/2" steel-blue spiky

Luminous 1¹/₂" steel-blue spiky spheres balance atop stiff stems with deeply divided silvery green leaves. Draws bees all day long. *Echinops* comes from the Greek word for 'hedgehog.' Excellent addition to wreaths and fresh or dried arrangements. Blooms mid-July to August. Beloved by bees. Tolerates shallow rocky ground. Self sows. Plant 1–2' apart in full sun and well-drained soil. Z3. **BACK!**

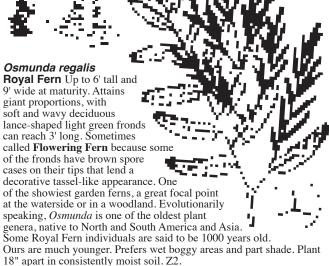
L7666 A: 1 for \$8.50 **B:** 3 for \$22.50 **C:** 6 for \$36.00



Ferns are flowerless spore-producing perennials, represented by more than 10,000 species worldwide, ranging from 70' tropical tree ferns to teensy plants sprouting from cracks in alpine rock. In Maine we enjoy lush fern displays all summer on the roadsides and in the woods. Ferns make wonderful low-maintenance foliage plants that thrive in woodsy humus-rich soil and lend a serene aura to a shady garden or landscape. Mulch with 2" of leaves if necessary to keep crowns from drying out.

Dryopteris marginalis Leatherwood Fern 24" tall. Also known as Evergreen Wood Fern. Strong sturdy stems and slightly glossy leathery grey-green fronds make this one of the best ferns for floral arrangements. In late spring it's great fun to look for immature sori (spore cases) on the underside of the frond. Hunt for small green bumps along the margins of the subleaflets. Later in the year, the sori change color to rustybrown. Evergreen leaves flourish through the winter and can be found in rocky wooded slopes in Canada, onwards south to Alabama and farther west to the Rocky Mountains. Performs best in less than 3 hours of sunlight per day but will tolerate more if you ask nicely. Plant 12" apart in moist well-drained woodland soil. Z3.

L7670 A: 6 for \$28.00



L7671 A: 6 for \$28.00

We love being customers at Fedco. Thanks for being such a great company to buy from. You have the best selection and your customer service is great.

– Jeff from Ashburnham, MA

Geranium Cranesbill Vigor, longevity, hardiness, lo-o-ong flowering period and lush attractive deeply cut leaves make this hardy perennial useful for borders, edging, rock gardens or as an orchard companion. After bloom, distinctive long narrow

"cranesbill" seed pods flutter jauntily above the spreading foliage, which quickly forms dense clumps and turns a rich red in fall. Name confusion may be a big reason why this attractive easy-togrow genus is not more well known: the popular bedding and indoor plant with big red flowers widely called geranium is actually *Pelargonium*. For best results plant in the lightly shaded areas of wild open woodland gardens or in the orchard underneath your ancient apple trees. Plant 12–18" apart in average garden soil. Z4.

G. maculatum Spotted Cranesbill 24" tall. Clusters of single 11/4" pinkish-lilac saucer-shaped flowers beckon the native pollinators. Also known as Wild Geranium, this is the true geranium, native to eastern North America. Low-growing spreading groundcover and the best choice

for planting in the orchard. **L7672** A: 3 for \$12.00 B: 6 for \$21.00 **C**: 12 for \$36.00

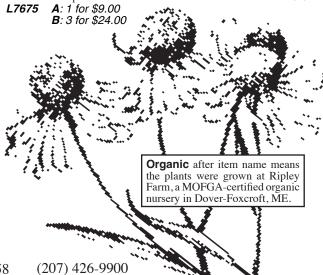
G. pratense 'Orion' 20-24" tall. Clusters of single 1" sapphire-blue flowers with violet veins. Blooms continuously from late spring through fall, the first big flush of flowers arrives in late May, with a lighter repeat bloom cycle continuing well into autumn. The best of the blues!

B: 3 for \$16.50 **C**: 6 for \$27.00 **L7673 A**: 1 for \$6.00

G. sanguinium 'Max Frei' Bloody Cranesbill 4-9" tall. Cunning bright magenta cups with purple-blue anthers cover tidy deep green lacy foliage. Its compact form works well in containers, too. This one is native to Europe and Asia but naturalized in the Northeast. Species considered more drought tolerant than others in the genus. Max Frei is the pen name of Ukrainian magic realist writer Svetlana Martynchik. Z3. NEW!

A: 1 for \$7.00 **B**: 3 for \$18.00 L7674

Helenium autumnale Red and Gold Sneezeweed Mix - Organic 4-5' tall. A rich and blazing scheme of bronze, brown, crimson and yellow for a vibrant end-of-summer display. Single flowers resemble coreopsis in shape but have large center buttons much like coneflower. Combine with asters and phlox for great late-season color. Not fussy, easy to grow, excellent cutflower. At its prime when most perennials are done blooming. Supposedly used for snuff at one time, hence the common name. Plant 18" apart in full sun. Native to North America. Z3. ME Grown.





Hemerocallis Daylily Champion low-maintenance perennial produces a bush of narrow arched leaves topped with lily-shaped flowers from July to September. Hemerocallis means 'beautiful day,' referring to the fact that each flower lasts only a day, but since each scape (or stem) is covered with buds, bloom periods can be extensive and the long stems work well in bouquets. Trouble-free, chokes out weeds. Flourishes under a wide range of conditions, from full sun to shade, wet to dry. Plant 12–18" apart in average soil; benefits from an annual shovelful or two of compost. Ditch the ditch lilies and check out these stunning cultivars! Native to eastern Asia. This year's stock is one-year-old field-grown rootstock with

H. 'Hyperion' 30" tall. Spider form. On dense foggy mornings, bright clear Hyperion peers through the gloom with intensely fragrant 5' trumpet-shaped lemon-yellow flowers. Widely planted on old farmsteads in Maine, where it became popular in the 1920s. Famous for its heavenly scent, extended blooms—flowers stay open for nearly 16 hours—and ability to rebloom later in the season. Hyperion remains a favorite and is a must-have in the naturalized perennial border.

L7676 A: 1 for \$11.50 **B**: 3 for \$33.00 **C**: 6 for \$60.00

H. 'Kansas Kitten' 22" tall. Ruffled slightly reflexed purple-lavender petals with a dash of magenta stirred into the pot. Fragrant 5" blossom has a deep purple-blue eye and yellow-green throat. This rebloomer is worth showcasing up front in the perennial garden. NEW!

L7677 A: 1 for \$11.00 **B**: 3 for \$31.50 **C**: 6 for \$57.00

H. 'Night Beacon' 27" tall. Radiant raspberry-purple blossoms with darker purple eye zone and a large luminous lemon-yellow throat. 41/2" flowers light up the landscape with showstopping color. Early to midseason rebloomer. BACK!

L7678 A: 1 for \$7.00 **B**: 3 for \$19.50 **C**: 6 for \$33.00

H. 'Primal Scream' 24" tall. Spider form. Let this daylily keep you company as you scream into the void. Giant 7-8" glowing diamond-dusted tangerine blossoms with apple-green throats. Unusually narrow recurved twisting tepals with a slight ruffled edge. Elegant and disheveled at the same time. Early to midseason blooms, which means early July here in central Maine. Dormant foliage. A Fedco customer favorite year after year!

A: 1 for \$8.00 **B**: 3 for \$22.50 **C**: 6 for \$39.00

H. 'Purple de Oro' 18-24" tall. Lavender-purple tepals with darker purple veins, lighter midribs and a yellow-gold throat. Broad, slightly reflexed and ruffle-edged petals form 3" flowers. Its continuous blooming tendencies and compact habit make this Stella-family member excellent for containers as well as the garden. BACK!

B: 3 for \$22.50 **C**: 6 for \$39.00 L7680 A: 1 for \$8.00

H. 'Rocket City' 36" tall. Fragrant 6" bright glowing orange blossoms with bittersweet copper eye zones and a mango-orange midrib and throat. Excellent landscape variety. Extended bloom, flowers remain open for at least 16 hours. **NÉW!**

L7681 A: 1 for \$8.00 **B**: 3 for \$22.50 **C**: 6 for \$39.00

H. 'Ruby Stella' 14-18" tall. Dark ruby flowers with deep wine-red markings, a striking yellow-bordered greenish throat, and red anthers for highlights. Flower scapes up to 22". Prolific 3" blooms from early summer until first frost. Performs best in full sun and does not require deadheading, pruning or pinching. BACK!

L7682 A: 1 for \$7.00 **B**: 3 for \$19.50 Hosta Bold foliage forms orderly mounds with dependable sprays of fragrant bell-shaped flowers on tall stalks. Valuable and cherished low-maintenance border plant provides shade-loving groundcover from spring to frost.

With their varying colors, textures and clump sizes, hostas alone under trees can make a woodland garden. Hostas tolerate a wide range of soil conditions but need moisture. Those with blue and variegated leaves develop their best color in shade. Deep shade gives fewer flowers but better leaf colors. Plant 2–4' apart in rich soil with adequate humus. Divide every 4–5 years, or leave them alone; they will improve with age as they spread and establish. Native to eastern Asia. Z3.

H. 'Dream Queen' 18" tall and 26" wide. Distinctive puckered heart-shaped leaves have broad blue-green margins with a solid green detail next to buttery yellow centers. A royal sport of Great Expectations with improved bold variegation, a speedier growth habit and better sun tolerance. White flowers.

L7683 A: 3 for \$17.00

H. 'Guacamole' 22–24" tall, scapes to 36". Pale lavender flowers are large and fragrant, but the leaves are the main attraction. Very substantial and large with irregular dark green edging and deep veins; centers are the yellow-green of avocado slices. Colors intensify in light and with age. Rapid grower with good sun tolerance. Sport of Fragrant Bouquet; won a Hosta of the Year award in 2002. BACK!

L7684 A: 3 for \$17.00

H. 'Tootie Mae' 18" tall and 36" wide. Rounded heavily corrugated blue leaves with wide chartreuse margins. White flowers smoked with lavender. Released in 2006, it's a sport of Tokudama Flavocircinalis with the improved attribute of holding its margin color well through the season. **NEW!**

L7685 A: 3 for \$18.00

H. 'Velvet Moon' 24" tall and 36" wide. Bright golden-yellow leaves with striking dark green centers. We searched far and wide for an interesting hosta that grows well in both shade and full sun. A sport of the famous variety Abiqua Moonbeam. Lavender flowers. **BACK!**

L7686 A: 3 for \$27.00

Iris sibirica Siberian Iris In late June, delicate flowers dance above tall slender slate-green foliage that looks beautiful all summer. Tolerates most conditions, but performs best in rich moist acid soil. Plant 18" apart in full sun or partial shade. Give them room to spread, and divide clumps every few years to share with friends!

All of our selections this year hail from Maine hybridizers! All are also tetraploids, which means they have the chromosomes of four parents; bred for size, color intensity and sturdy stalks. Z3.

I. s. 'A Capella' 26" tall. Bred by Jeff Dunlop, Windham, ME, 2012. Mid-late to very late season. Ruffled rosy-violet and blue standards with red-blue styles. Wide ruffled red-violet falls have small white signals that fan out blue to fine white edging. 2–3 blooms per stem. ME Grown. NEW!

L7687 A: 1 for \$13.50 **B**: 3 for \$37.50

I. s. 'Harpswell Happiness' 32" tall. Bred by Currier McEwen, legendary Maine hybridizer, 1983. Early midseason to late.

Ruffled creamy white standards are yellow-green at the base. Falls creamy white with buttery yellow signals and yellow-green veining. Won the Royal Horticultural Society's Award of Garden Merit, 1996. ME Grown. NEW!

L7688 A: 1 for \$13.50

B: 3 for \$37.50

I. s. 'Orville Fay' 36" tall. McEwen, 1970. Mid-late. The first tetraploid cultivar. Bright violet-blue 5"+ blooms. Signals are yellow fanning to white with maroon edging at the base; blue veins down the falls. Sweet and simple, an elegant companion to the other two Siberian irises we are offering. ME Grown. NEW!

L7689 A: 1 for \$13.50

B: 3 for \$37.50

Iris versicolor Northern Blue Flag

Organic 30-36" tall. Northeastern native species carries gorgeous blue-violet flowers with bold purple veining and a white and lemonyellow blaze. Tall slender blue-green arching lance-shaped leaves offer a strong vertical feature to the landscape. Requires consistently moist soil and prefers 2–4" of shallow standing water. Ours seem to perform well in moderately moist soil. Plant 12–24" apart in full sun to part shade. Early bloom time.

L7690 A: 3 for \$24.00

Kniphofia uvaria 'High Roller' Red Hot Poker 24" tall. As the climate continues to warm, northern gardeners are making the best of it and daring to dream of fields of red hot poker in their own backyards. A bicolor tropical-looking riot of fiery red-orange fading to coral and soft white triple programs from the coral and soft white triple programs.

white tubular inflorescences, from top to bottom, along the spectacular 8" spikes. Breathtaking and playful. Blooms July to September and makes an unusual accent in cutflower arrangements. Clump-forming narrow-bladed foliage. Plant 18–24" apart in full sun in warm well-drained soil. For overwintering, mulch to protect the crowns from moisture and heaving. Native to South Africa. Z5/6. NEW!

L7691

A: 1 for \$12.00 **B**: 3 for \$33.00



Planting Zone-Pushers

As our climate warms, we've started playing around with "zone-pushers," plants that are on the edge of cold hardiness for our region. While many of these iffy species will get established over time, they may require extra patience and care to survive in our gardens.

In November 2023, the USDA issued a revised hardiness zone map, bumping many areas into warmer zones. Hardiness zone is calculated by averaging the coldest yearly temperatures in an area over the previous 30 years. Your area's zone is a decent way to predict whether a plant will overwinter in your garden, but because zone is based on an average of cold temps, it doesn't reflect weather extremes. For example, a peach tree that is considered hardy in your area will still suffer in an extreme cold event, like the -20° temps and 50 mph winds much of Maine experienced in the winter of 2023. Or a plant that is hardy in your area but sensitive to too much moisture, like lavender, might die back in a very wet winter.

Here in central Maine we've had a few recent successes with zonepushing plants in our gardens. We were about to throw in the towel on our Northern Spicebushes—one summer they'd be healthy and thriving; the next they were reduced to brittle twigs. But underground, the roots were getting established, and after five years our spicebushes now seem woody enough to survive winter and build upon the previous year's growth. This spring we had our first blossoms on this elusive woodland plant!

Similarly, after years of winter injury and deadwood, our Eastern Redbuds are burgeoning into full-sized trees, and this year made their first show of abundant pink spring blossoms.

Changes to our climate could present opportunities for growing fruits like apricots, paw paws and figs in the Northeast. (Check our website for apricots—we may offer a limited supply this year.)

apricots—we may offer a limited supply this year.)

Herbaceous perennials like Red Hot Poker (above) may be worth trying in your area and are smaller investments of space and time than fruit trees and shrubs. With the right planting site and extra mulch for winter, you might have luck! If you've got the space, give it a try.

Liatris Blazing Star Also called Gayfeather. Stiff dense "bottlebrush" flower spikes tower above fine grass-like foliage, attracts bees all day long. Adds elegant structure to the perennial border and mixed bouquets. For cutflowers be sure to leave at least 1/3 of the stem on each plant for best results. Blooms from July to September. Tolerates a broad range of growing conditions, but not drought. Plant in full sun, 3" deep, 8–12" apart, in well-drained fertile soil. Both species native to eastern North America. Z3. (11/4–11/2" corms)

L. pycnostachya Prairie Blazing Star - Organic 48" tall. North American native with tall brilliant purple wands loved by butterflies. Mainers: If you find yourself on Route 3 heading west toward Augusta, keep your eyes peeled for a massive field this flower in midsummer! Z3. ME Grown.

L7692 A: 3 for \$23.75

L. spicata Floristan White Dreamy white

flower wands grow 30–36" tall. **L7693** A: 10 for \$6.50 B: 20 for \$10.75

L. s. **Purple Blazing Star** Magical magentapurple flower wands grow 20–30" tall.

C: 50 for \$22.50

L7694 A: 10 for \$6.50 **B**: 20 for \$10.75 **C**: 50 for \$22.50

Lilium Asiatic and Oriental Lilies Queens of the perennial border, fabulously showy and surprisingly easy to grow. Good as single specimens or in masses. Great cutflowers, with 3–5 flowers per stem.

Our lily mixes contain 5 varieties. If a variety we list in the description becomes unavailable, we'll substitute a similarly wonderful variety.

Asiatic lilies tend to be slightly shorter than Oriental lilies, 24–36" tall on average. Flowers face upward and bloom mid-June to July. Not much fragrance.

Oriental lilies easily grow 30–48" tall by their second season. Blooms tend to face outward or slightly down and bloom in August. Very fragrant!

Light shade prolongs summer blooms and keeps the bulbs cool. Plant bulbs 6–8" deep, 6" apart, in rich, slightly acid, welldrained soil. Z3.

Can't Gild This - Asiatic
Lily Mix Fedco exclusive!
24-36" with a few up
to 48" tall. Tropical, hot and
spicy collection of pure orange,
solid yellow, solid purple-black, plus
bicolors and tricolors that blend orangepurple-yellow, and yellow with red stripes
and freckles. Jaw-dropping beauty with dramatic
outlines and edging that add flare and fiesta to your garden. Blooms
mid-June through July. Mix contains 5 varieties: Brunello, Conca d'Or,
Forever Susan, Landini and Viva la Vida. NEW!

L7695 A: 5 bulbs for \$20.00 **B**: 10 bulbs for \$30.00

Here's Looking at You Kid - Oriental Lily Mix Fedco exclusive! 30-48" tall. While we disagree that classic film is improved by colorization, this flower collection jumps off the silver screen into technicolor with style! Enduringly beautiful with soft brushstrokes that span the classic palette of solid pinks, solid whites, stunning bicolors, sophisticated tricolors—some with spots, stripes, highlights, shadowy beauty and a hint of gold. A lovely set that could melt even the most cynical, seemingly lost protagonists who could turn from heartless profiteering to assisting the Resistance. Blooms in August. Each fragrant mix contains 5 varieties: the well-known varieties Casa Blanca and Stargazer, plus lesser-known Tarrango, The Edge and Tricolor. NEW!

L7696 A: 5 bulbs for \$20.00 **B**: 10 bulbs for \$30.00

Nepeta faassenii 'Walker's Low' Catmint 2-3' tall. Aromatic greygreen foliage with long arching stems topped by lavender-blue flowers provides an eye-catching show of color nearly all summer. Creates a strong dependable low-growing hedge along any garden path. Flowers attract bees, butterflies, hummingbirds and human admiration, and the occasional feline interloper. Cut back in midsummer to encourage steady blooms. Likes hot and dry, but will grow in any well-drained soil. Plant

18–24" apart in full sun to part shade. Z3. **L7698** A: 1 for \$10.50

B: 3 for \$24.75

Oligoneuron rigidum Stiff Goldenrod - Organic 2-5' tall. Also called Rigida. Formerly classified as a member of the *Solidago* genus and recently reclassified as an *Oligoneuron*. Grower Gene Ripley said it best: "Rigida displays the gorgeous yellow-gold vibrancy of goldenrod, but packed into a dense, showy, flat-topped cluster, with attractive lush slate-green foliage that you'd never recognize as a goldenrod. The pollinators absolutely love it, like all goldenrods, but Rigida draws them in without looking weedy or common." Excellent cutflower. Plant in full sun to part shade in rich well-drained soil. Native to eastern North America. Z3. ME Grown.

L7699 A: 1 for \$8.00 **B**: 3 for \$21.00

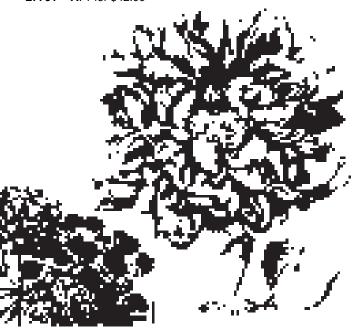
Paeonia (Itoh) Peony 30-36" tall. Also known as Intersectional Hybrid Peonies, Itoh Peonies are a cross between herbaceous garden peonies and tree peonies and feature the best of both. Giant blossoms (like the ones on tree peonies) open just after the garden peonies have faded. The growth habit is similar to garden peonies with attractive mounded foliage that dies back in the winter. Don't cut it back to the ground in fall. Leave at least 6" of hardwood stems above the ground—next year's buds need room to develop on the lower stems. Full planting and pruning instructions will be included with your order. Z3. (Stock has 3–5 eyes.)

P. (Itoh) x 'Cora Louise' 28-30" tall. Semi-double 10" white blooms with a splash of color at the center that some describe as purple, cranberry or lavender. We'd say a mix of all three! The white surrounding petals reflect a shadow of these hues around the center like a tie-dyed halo. Bright yellow stamens. **NEW!**

L7700 A: 1 for \$35.00

P. (Itoh) x 'Julia Rose' 30-36" tall. Cherry-red buds open to 8" fragrant semi-double orange-apricot-pink flowers with subtle purple edging. Blossoms eventually fade to yellow. All five colors can be seen on one plant at the same time. **BACK!**

L7701 A: 1 for \$42.00



Paeonia lactiflora Garden Peony Also called **Chinese Peony**. Red shoots appear in spring and form a bushy clump of lustrous dark green deeply lobed foliage. Spherical buds

on sturdy stems above the foliage gradually open into large beautiful flowers from late spring to early summer. Ants may help the buds open so don't discourage their presence. May take 3 to 5 years to establish before blooming. Wait several years until the plants have many stems (therefore many eyes) before dividing. Z3. (Stock has 3–5 eyes.)



P. I. 'Coral Sunset' Early. 28" tall. Semi-double type. Intense sunset coral with rose overtones and fluffy golden stamens. Light fragrance and long vase life. BACK!

L7702 A: 1 for \$20.00 B: 2 for \$37.00 C: 3 for \$49.50

P. I. 'Festiva Maxima' Early. 36" tall. Double type. Introduced in 1851. Heavenly scented large white flowers with a light crimson drizzle upon the central petals. Leave this one to adorn the garden; less rigid stems so not one for the vase.

L7704 A: 1 for \$14.50 B: 2 for \$26.00 C: 3 for \$33.00

P. I. 'Highlight' Late midseason. 34" tall. Fully double type. Auten/Wild & Son, 1952. Dark sensational burgundy red is a highlight in the garden. Unusual and arresting. Pairs well with any color. Sturdy stems make a great cutflower. Heirloom! **NEW!**

L7705 A: 1 for \$20.00 B: 2 for \$37.00 C: 3 for \$49.50

P. I. 'Nippon Beauty' Late. 30" tall. Japanese type. Auten, 1927. Scarlet-red guard petals surround fringed red and gold petaloid centers. It's a stunner. Similar to anemone types but different in that in the place of anthers we see frilly overlapping (imbricated) petal-like filaments. An heirloom, rare in the trade. BACK!

L7706 A: 1 for \$16.00 **B**: 2 for \$29.00 **C**: 3 for \$37.50

P. I. 'Sarah Bernhardt' Late. 36" tall. Fully double type. Introduced in 1906. Fragrant flowers open with narrow red lines shot onto light rose-pink. Matures to delicate pink with a slight creamy-silvery edge. Can a pink be both warm and silvery? This one is. One of our favorites with exactly the right amount of doubling—appears richly full but not crammed. BACK!

L7707 A: 1 for \$12.50 **B**: 2 for \$22.00 **C**: 3 for \$27.00

P. I. 'Top Brass' Midseason. 28" tall. Double bomb type. C.G. Klehm, 1968. Pure white guard petals under a tuft of bright yellow petals topped with pink-white petaloids. Jazzy and dazzling. Mild fragrance. **NEW!**

L7708 A: 1 for \$19.00 B: 2 for \$35.00 C: 3 for \$46.50

Growing Garden Peonies

- Peonies prefer: full sun to part shade, and rich fertile well-drained soil
- Recommended soil amendments: compost, bone meal, Azomite
- After danger of frost, transplant 2-3 apart with the eyes no more than $1^{1}/2^{"}$ below the soil.
- **Peonies require support** to prevent heavy flowers from flopping.
- Autumn plant care: Cut back to just above ground level to allow a fresh start in spring. Amend soil with compost around the base of the plant.



Papaver orientale Oriental Poppy Breathtaking clump-forming perennial features finely cut bristly frosty-green leaves and shimmering crepe-paper blossoms that give way to unique signature seedpods that are an essential component in late-season bouquets and dried arrangements. The entire plant goes summer-dormant—don't be alarmed when the leaves turn brown in early summer and disappear almost entirely by August. Basal mats of new leaves will appear in the fall. Oriental poppies form a taproot, so loosen soil deeply before planting so roots can reach the cool soil with ease. Requires full to part sun and neutral well-drained soil. Overwatering, particularly during dormancy, is the most common cause of failure. Winter mulch is recommended to prevent heaving. Z3.

P. o. 'Aglaya' 20-30" tall. Ethereal light coral or salmon-pink frilled semi-double petals with dark centers. Royal Horticultural Society's Award of Garden Merit. Surely named after one of the three Greek Graces, Aglaea, which means something like 'festive radiance.' **NEW!** L7709 A: 3 for \$20.00 B: 6 for \$34.00 P. o. 'Little Patty's Plum' 10-15" tall. Dusky damsonplum-colored blossoms. A short version of the original Patty's Plum poppy, a compost-pile surprise discovered in the 1990s by gardener Sandra Pope. Named for plantswoman Patricia Marrow, owner of the famous Kingsdon Nursery in Somerset, England. BACK!

Penstemon Beardtongue North American native plants with spires of tubular bell-shaped flowers will beckon the birds and bees to your garden. Plant 8–14" apart in full sun to part shade in fertile medium-dry well-drained soil. Will self sow and develop a nice stand over time. Deer resistant. Z3.

P. digitalis Foxglove
Beardtongue - Organic
3' tall. Airy clusters of white
to light pink 1" bell-shaped
flowers top rigid stems in early
summer. ME Grown.

L7710 A: 3 for \$20.00

B: 6 for \$34.00

L7711 A: 1 for \$9.00 **B**: 3 for \$24.00

P. hirsutus Hairy Beardtongue - Organic 16-30" tall. Shorter than P. digitalis, with fuzzy stems

topped by clusters of slender tubular nodding 1" lavender flowers with arching white lips. **ME Grown**.

L7712 A: 1 for \$9.00 **B**: 3 for \$24.00

I owe much of my homestead's beautiful landscape to the hundreds of plants I have ordered from you over the last 12 years.

 Josh from Pattersonville, NY



Phlox divaritica Woodland Phlox Compact selections of our native woodland phlox featuring fragrant 5-petaled flowers held above semi-evergreen lanceshaped foliage. Blooms in April and May and spreads by shallow underground rhizomes and layered shoots to create a light ambling groundcover, politely popping up in small colorful patches. Thrives near stream banks and moist woodland meadows but will tolerate drier soils. Plant with Jackin-the-Pulpit, lungwort and wild columbine for a spring show. Attracts long-tongued pollinators like bumblebees, swallowtails and sphinx moths. Not to be confused with the low-growing moss phlox, *P. subulata*, that creeps around old New England cemeteries. Plant 12" apart in moist rich woodland soil with good airflow. Full shade to part sun. Z3. (2¹/₂" plug stock)

P. d. 'Blue Moon' 12-18" tall. Sweet lavender-blue florets that will make you wonder where they've been all your life. Selected by Bill Cullina when he worked at the New England Wildflower Society's Garden in the Woods. Bill put our Coastal Maine Botanical Gardens on the map and set a trend for organic gardening in public spaces. **BACK!**

L7713 A: 1 for \$6.50 **B**: 3 for \$16.50

P. d. 'May Breeze' 12-15" tall. Loose clusters of cool pale bluish-white or white washed with blue florets. Selected in the Netherlands for its compactness, fragrance and refreshing color that makes you want to drink from the blossoms on a hot day. **NEW!**

L7714 A: 1 for \$5.50 **B**: 3 for \$13.50

Pulmonaria 'Mrs. Moon' Lungwort 9-12" tall and eventually up to 2' wide. Brighten up your shade garden with boldly textured periwinkle-blue buds that open to charming pink flowers—a striking effect when both colors appear at once. Large ovate slate-green leaves are dressed in vivid silver-white splotches. A brilliant early season contrast to blooming daffodils and emerging hostas and ferns. Ours are nestled at the base of lilacs pruned to arch over the lungwort. Plant 1–2' apart in moist soil and full to partial shade.

Won't thrive in the deepest shade. Z3. **L7716 A**: 1 for \$5.75 **B**: 3 for \$14.25



Salvia azurea Blue Sage - Organic

3-5' tall. North American native displays delicate spires of sky-blue tubular double-lipped flowers in whorls on long square stems. Incredible in mixed bouquets. Humans generally love the sweetly scented foliage, while deer tend to avoid it. Blooms from August to October. Pollinators love this plant. Prefers poor soil. If the site you choose is too rich, plants may lodge without support. In full sun and well-drained sandy or light gravelly soil, they're likely to stand strong. Z4. ME Grown.

L7717 A: 1 for \$9.00 **B**: 3 for \$24.00

S. yangii Russian Sage 36-48" tall. Formerly called *Perovskia atriplicifolia*. Elegant slender spires of small lavender-blue tubular flowers in midsummer have a misty appearance from a distance. Finely divided grey-green leaves are aromatic when crushed. Among the longest blooming of any blue-flowered plant. Semi-woody shrub emerges slowly in spring; cut back after frost. Tolerates drought, loves heat and full sun, can't bear standing water. Likes to spread out once it gets established—we think it deserves every foot of space it can get! Plant 24–36" apart. Native to central Asia. We suspect Zone 4 reports of winterkill are from poor drainage rather than cold, so a cautious Z4.

L7718 A: 1 for \$10.50

B: 3 for \$25.50

Sempervivum Hens and Chicks Mix If you've got boulders in the back forty or a rocky sandy sun-drenched spot in the dooryard, you have the makings for an amazing cascading Sempervivum display. Sempervivum means 'always alive.' Low-growing rosette-forming succulents produce runners and babies by the boatload. Drought and heat tolerant, and cold hardy, too! They offer a fun

way to learn about fractals —plant them in a strawberry pot with the kids for an easy-to-care-for project, or go whole hog and build a mini-boulder palace all decked out in Hens and Chicks and mosses. Performs best in super-drained gravelly soil with lots of sun and dappled shade. We're offering a mix of varieties including reds, greens and purples. Z3. (2¹/₂" pots)

L7719 A: 3 for \$16.50 B: 6 for \$27.50

Symphyotrichum Aster Also known as Starwort or Frost Flower. Native wildflowers with freely branching sprays of brightly colored flowers decorate the autumn landscape throughout the

Northeast. Asters add hardy grace to the back of the wild border and will naturalize on banks or in the meadow—or just about anywhere there is a patch of receptive soil. Cut back slightly in early to mid June to induce an abundance of 11/2–2" rayed blooms from late August into October. Deer usually don't eat them. Asters provide important late-season nectar to hungry pollinators and a stunning color show for the eyes. Plant 12–18" apart in light moist humusy soil in full sun with good air circulation.

S. laeve Smooth Blue Aster - Organic 3-4' tall. Loose clusters of lavender-blue blossoms with yellow eyes. Smooth blue-green foliage. Z3. **ME Grown.**

L7720 A: 1 for \$9.00 **B:** 3 for \$24.00

S. novae-angliae New England Aster - Organic 4-6' tall. Blooms range from blue-purple to lavender-pink with yellow eyes. Z3. ME Grown.

L7721 A: 1 for \$9.00 B: 3 for \$24.00

Trollius Globeflower Sunshine Mix 24" tall. We are crazy about Trollius, which are like enormous fancy buttercups. Spherical to bowl-shaped orange and yellow double flowers bloom in late spring, around the time of late tulips, on stems above the foliage. Excellent for cutting. The snazzy petal-filled flowers seem miraculous blooming so early in the season. Palmately lobed, then further divided and toothed (buttercup-like) leaves form a mound. Ideal for a moist border, streamside, or naturalizing in a damp meadow though ours are thriving in well-drained garden soil. This mix may contain the bright orange T. chinensis Golden Queen with her distinctive coronet of petal-like sepals: lemon-vellow rose-like T. europaeus Superbus; and the soft creamy

part shade. Z3. **L7722** A: 3 for \$16.75 **B**: 6 for \$29.00

yellow T. x cultorum New Moon. Plant

8-12" apart in moist heavy soil, full sun to

Verbena stricta Hoary Vervain - Organic 12-48" tall. North American native. Long-lasting steeples of blue-violet blossoms held on square reddish-purple stems with fuzzy slate-green leaves. Attracts scads of pollinators, most notably the Buckeye butterfly. Birds will devour the seeds! In 1911, Eloise Butler wrote of hoary vervain growing in a neglected lot: "Large, downy leaves thickly clothe the stem. The flower spikes are long and slender, having close rows of seed pods at the base with a ring of bright blue flowers above and tapering at the tip with the still unopened buds. The garden Verbena, unlike this weed, has the lazy habit of lying with its elbows on the ground and getting covered with dirt." Spreads by seed and will form nice clumps, even in dry soil. Plant 18" apart in full sun in well-drained soil. Blooms June through August. (For blue vervain, see page 65.) Z3. ME Grown.

L7723 A: 1 for \$9.00

B: 3 for \$24.00



Culinary and Medicinal Herbs

The following plants have long histories of traditional medicinal or culinary use. It's up to you to educate yourself about the safety and efficacy of using plants for medicinal purposes. The statements in our catalog regarding traditional medicinal uses of plants have not been evaluated by the FDA. The plants we sell are not intended to diagnose, treat, cure, or prevent any disease.

Plants may take a year or more to establish before they flower; roots often take several years to reach harvestable maturity.

Achillea millefolium Yarrow - Organic

24" tall. White flat-topped flower clusters bloom June through September.
Excellent orchard companion and beautiful addition to the perennial border, meadow, herb or moon garden. Named for its use by Achilles to staunch battle wounds, has a centuries-old tradition of use as an external styptic. A natural anti-inflammatory, yarrow has been used to regulate the menstrual cycle and combined with other herbs as a cold remedy and to reduce fever. Infusion of flowering tops stimulates healthy digestion and improves circulation. Plant 18–24" apart in full sun and well-drained soil. Species introduced to North American by early European settlers. Z3. ME Grown.

L7724 A: 1 for \$9.00 **B**: 3 for \$24.00

Acorus americanus Sweetflag 24-36" tall. Hardy herbaceous water-loving bog plant forms striking stands of broad sword-like foliage that smells sweetly of citrus and vanilla when crushed. A spathe-less yellow-green spadix the length of a finger pokes out in early summer and eventually develops into fleshy berries containing two to three seeds. Dried roots have been traditionally used as an aromatic bitter for digestive upsets. Spreads vigorously by rhizomes in quiet shallow waters, wet open marshes, and along the shoreline. Can also be grown in consistently moist garden soil, 12–18" apart in full sun or light shade. Not to be confused with the similar European species, A. calamus. Sustainably grown. Native across northern U.S. and southern Canada. Z3. ME Grown.

L7725 A: 3 for \$28.00

Allium cernuum Nodding Onion

Organic 12" tall. Starry umbels of loosely clustered lavender-pink and sometimes white blossoms hang downward or "nod" toward the ground, June through August. Flat narrow leaf blades. Use in the kitchen like chives. Plant 12–18" apart in full to part sun. Will naturalize. Native in rocky soils NY to MI and south. Z4. ME Grown. NEW!

L7726 A: 3 for \$22.00

A. schoenoprasum Chives - Organic

12" tall. Edible spreading groundcover has a layman's reputation for warding off scab on fruit when planted around the tree. Is thought to act as an aromatic

pest confuser, emitting bitter aromas that deter critters from grazing in the garden. Chives are good to eat from early spring to heavy frost. Add greens and starry purple blossoms to omelets for subtle savory onion flavor. Plant 12–18" apart in full to part sun. Z3. **ME Grown**. (1-2" clump)

L7727 A: 3 for \$22.00

Althaea officinalis Marshmallow - Organic 5-8' tall. Small delicate 1" lavender-white flowers with darker lavender stamens bloom along the stalks of this beautiful towering medicinal plant. We've been drawn to marshmallow ever since we saw herbalist Deb Soule rub

its soft velvet leaf against her cheek and explain how much the ruby-throated hummingbird appreciates the nectar of marshmallow flowers.

The leaf, flower and mucilaginous roots are traditionally used to soothe the mucous membrane linings of the lungs and digestive tract, and to calm the lining of the

urinary tract. Leaf is best used fresh for tea, and the dried roots are best when soaked overnight in cool water for tea. Harvest 4-year-old roots for medicinal use. Wonderful in a hedgerow and magnificent planted with black cohosh as they often blossom together in late July and into August. Readily self-sows. Plant 1–2' apart in light moist soil, part sun, part shade. Native to Europe and Asia. Z4. ME Grown.

L7728 A: 1 for \$9.00 **B**: 3 for \$24.00

Arnica chamissonis - Organic 8-12" tall. Low spreading groundcover with bright yellow daisy-like flowers used externally in oils and salves to treat bruises, sprains and inflammation. Never take internally except in homeopathic preparations. In the right conditions a few plants will develop into a dense long-lived patch. Beneficial insect attractor. Blooms in July. Grows successfully in our climate and is a generally accepted medicinal substitute for A. montana. Plant in full sun 1' apart in moist well-drained soil. Native to western North America. Z3. ME Grown.

BACK! **L7729 A**: 1 for \$8.50 **B**: 3 for \$22.50

Astragalus membranaceus Chinese Milk Vetch - Organic

18-36" tall. Important Chinese medicinal known as huang qi. Deep-rooted leguminous plant forms an upright bush with many stems, each thickly covered with tiny pinnate leaves and small arching racemes bearing rows of whitish-yellow flowers. When used over many months, is known to rebuild the immune system while combating exhaustion. Longterm tonic use is believed to increase stamina and improve resistance to cold temperatures. Harvest 4- to 6-year-old roots in fall. Plant in full sun, 12" apart in deep gravelly well-drained soil. Z4. ME Grown.

L7730 A: 1 for \$9.00 **B**: 3 for \$24.00



Echinacea Coneflower 3-5' tall. Echinos means 'spiny' and coneflower's spiny seedheads are beautiful surrounded by a single row of reflexed petals. These North American native plants are often over-harvested in the wild. Medicinal benefits vary among the different species. E. purpurea and angustifolia are considered the standard for making medicinal tincture. E. paradoxa shares some of the immune-stimulating compounds as purpurea but in our opinion is best planted for the birds and the bees as a complement to your purpurea patch. Tolerates wind, heat and drought once established. Will reseed. Plant 20–30" apart in full sun and light sandy soil. Z3.

E. paradoxa Yellow Coneflower - OrganicBright pure-yellow flowers with drooping petals surround spiky dark brown seed cones—irresistible to

gobbling goldfinches! Native to the Ozark Mountains and surrounding areas. **ME Grown**.

L7731 A: 1 for \$8.00 **B**: 3 for \$21.00

E. purpurea Purple Coneflower Reflexed lavender-purple petals surround the coppery yellow-brown seed cone. Attracts butterflies and other beneficial insects. Tincture roots of 3-year-old plants for a remedy that boosts the immune system; use it when you feel a cold or flu coming on. Native to eastern and central U.S. Sustainably grown. ME Grown.

L7732 A: 1 for 9.00 **B**: 3 for \$24.00

Eupatorium perfoliatum Boneset -Organic 5-7' tall. Also called Thoroughwort. Majestic native with flat-topped clusters of creamy-white to milky-lavender flowerheads atop fuzzy upright stems with deeply veined dark green diamond-shaped perfoliate leaves. Traditionally used to alleviate the symptoms of "breakbone fever," now known as dengue fever. Tincture of the flowering tops and leaves induces sweating, stimulates the immune system and acts as a mild anti-inflammatory. Traditionally used as a tea during flu epidemics. Peak bloom is mid to late August, providing a generous late-season supply of nectar for adult butterflies and other pollinating insects. A practical and fetching addition to the wilder part of the orchard and perennial border. Plant 3' apart in moist soil and full sun to dappled shade.

America. Z3. ME Grown. L7733 A: 1 for 9.00 B: 3 for \$24.00

Readily self-sows. Native to eastern North

Lavandula angustifolia 'Munstead' Lavender

16-18" tall. Considered the hardiest lavender, with light lavender flowers. Sweetscented flower spikes extend above aromatic silvery-green lanceolate leaves. Makes a nice border, rockery, slope or specimen plant. Compact habit lends itself to edging walkways. Deadhead spent flowers for blooms all summer. Traditionally used to calm nervous excitability and relieve muscle tension. Plant 12-24" apart in full sun, in moist welldrained soil. Mulch to prevent winter heaving. Z4.

L7734 A: 1 for \$10.50

Native Plants & The Wild Seed Project

The Maine-based non-profit **Wild Seed Project** is a great place to learn about growing native plants from seed and incorporating them into the landscape. Wild Seed Project works to increase the use of native plants in all settings in order to conserve biodiversity, encourage plant adaptation in the face of climate change, safeguard wildlife habitat and create pollination and migration corridors for insects and birds. As we at Fedco seek to provide ethically sourced plants to our customers, we've been deeply appreciative of guidance from Wild Seed in helping us determine which plants are at-risk of being pillaged in the wild.

If you want to support this important work, become a Wild Seed Project member. Go to wildseedproject.net.

Melissa officinalis Lemon Balm - Organic 24" tall.

The Greek word *melissa* means 'honeybee'—the plant in flower attracts them. Yellow-green scalloped lemony leaves are delicious in teas, salads, with fruit, or dried for sachets. Infuse leaves in oil for making potent lemony antiviral topical creams and salves. Plant in full sun in rich well-drained soil. Some say Zone 4, but our clump in Zone 3 has been coming back strong for 13 years, even after our Grammy Ethel

Lewis mowed it repeatedly with her John Deere! Native to Europe and Asia. ME Grown.

L7735 A: 1 for \$8.50 **B**: 3 for \$22.50

Mentha piperita Chocolate Mint - Organic 18-24" tall. Our favorite mint! Bright sweet refreshing peppermint-patty flavor is a

must-have for any winter dried-herb supply. Freshen your breath, settle your stomach, brighten up fruit desserts, garnish ice cream, flavor your favorite meat dish, or scent soaps and salves. We grow chocolate mint to enjoy during our warehouse crew tea breaks and to add to the communal hot cocoa pot. Harvest the leaves before it goes to flower. As with any mint, plant it where you want it forever. Plant in full sun in any decent garden soil. We've seen it thrive in part shade as a living mulch around our crabapples. Some say Z5, although many of us have unstoppable patches in Z4. ME Grown.

L7736 A: 1 for \$8.50 **B**: 3 for \$22.50

Monarda Bee Balm Also called Bergamot or Oswego Tea. Beloved by bees, butterflies and one of the best hummingbird magnets nature has to offer! Wild and wily flowers form with tubular petals on pincushion heads borne above colorful bracts in July and August. Aromatic foliage. Good for borders, for wet areas and for cutting. Infusion of the aerial parts can be used to improve digestion by reducing flatulence.

and for cutting, infusion of the aerial parts can be used to improve digestion by reducing flatulence. Delicious used as tea or added to meat and bean dishes. Plant 16–20" apart in light shade in moist soil. Thrives in full sun if given adequate moisture or mulched with leaf mold; tolerates most conditions. Z3.

M. didyma 'Panorama Reds'
Organic 3-4' tall. Fabulous blooms
in a diverse range of red shades
destined to attract scads of butterflies
and hummingbirds for your cats and
kids to chase in vain. ME Grown.

L7737 A: 1 for \$8.50 **B**: 3 for \$22.50

M. fistulosa Wild Bergamot - Organic

2-4' tall. Our native North American wildflower species with aromatic lavender blossoms. This is the species most commonly used for medicinal purposes. **ME Grown**.

L7738 A: 1 for \$8.50 **B**: 3 for \$22.50

Origanum vulgare Oregano
- Organic 18" tall. Low-growing
perennial with fragrant green and
purple leaves and white flowers. This
is the culinary oregano—dry the
leaves and sprinkle them on pizza
all winter. If given plenty of space in
full sun, it will sprawl and attract a plethora
of pollinators. Plant 24" apart in medium
garden soil. Survives some winters in
Zone 3, but we can safely say Z4.

ME Grown.

L7739 A: 1 for \$8.75



Pycanthemum virginianum Mountain Mint

- Organic 30" tall. Feed your local pollinators with this densely flowered native. White to light lavender flowers with tiny purple spots bloom July to August. Wispy upright branching foliage smells intensely minty when crushed. A strong infusion of the aerial parts makes a tasty minty tea, traditionally used to settle indigestion. (Avoid during pregnancy.) Spreads by shallow underground rhizomes and will ramble around if you let it, so choose planting location wisely! Prefers moist soil and will do well in full sun to part shade. Once established, it will grow well in a wide range of soils. Tolerates clay, heat and drought. Try growing it along the woodland edge—deer are not fond of this plant. Native to eastern U.S. from Maine to Michigan and south to Georgia and Texas. Z4. ME Grown.

L7740 A: 1 for \$9.00 **B**: 3 for \$24.00

Symphytum Comfrey 24-48" tall. Also called Knitbone. Clusters of bell-like pinkish purple flowers dangle above the deep green bristled foliage. A bumblebee favorite. We scythe and gather up the leaves for mulch, or to add to compost piles or compost teas—it is rich in silica, nitrogen, magnesium, calcium, potassium and iron. Easy-to-grow vigorous plant can be invasive; be careful where you plant it and control with regular harvest. Choose a site that will never see a rototiller or you will live to regret it! Plant 16–24" apart in well-drained soil, sun or shade. Native to Europe and Asia. Z3.

S. officinale Comfrey Well known for its skin-soothing properties. Contains allantoin, promotes healing of skin and bone; also demulcent for lung and throat. Most herbalists agree that this species is the one to use medicinally. ME Grown.

L7741 A: 1 for \$8.75 **B**: 3 for \$22.50 **C**: 6 for \$39.00

S. x uplandicum 'Bocking 14' Russian Comfrey - Organic Similar to *S. officinale* (above), Russian comfrey is thought to have a higher pyrrolizidine alkaloid content. *Avoid internal use*. Highly recommended as an orchard companion and a living mulch around fruit trees. **ME Grown**.

L7742 A: 3 root cuttings for \$22.50

Thymus vulgaris German Winter Thyme - Organic 10-15" tall. Fragrant sprawling perennial brings depth of flavor to soups, gravies, casseroles. Said to calm the nerves and soothe headaches. As good in salad dressings as it is in sore-throat remedies. Bees love its short lavender flower spikes. Likes well-drained light dry alkaline soil. Plant 18" apart, full sun, in light sandy or

Z4. ME Grown. **L7743** A: 1 for \$9.00

loamy well-drained soil. Native to Europe.

B: 3 for \$24.00

Urtica dioica Stinging Nettle - Organic 3-6' tall. The benefits of this plant outweigh the risk of a short-lived sting. Biodynamic gardeners use the dark green nettles to increase potency of neighboring herbs and to stimulate humus formation. Young shoots are high in minerals—the leaves are delicious steamed as early spring greens or dried and brewed as tea. Handle fresh and dry herb with gloves. Cooking removes the sting. Choose your planting site carefully; nettles spread readily, and both the rhizomes and leaves sting. An indicator of super-fertile soil where it volunteers. Plant in damp rich soil with high nitrogen content; thrives beside manure piles or the leaky side of your compost bin. Z2. ME Grown.

L7744 A: 1 for \$8.25

B: 3 for \$22.00

Verbena hastata Blue Vervain - Organic 5-7' tall. Elegant tall branching spikes of vibrant blue-purple flowers. Honeybees mingle amongst the blossoms all day. Used as a nervous-system tonic and mild sedative. Tincture of the fresh flowering tops is said to ease stress-induced neck tension, as well as help women to navigate premenstrual, perimenopausal and menopausal waters. Grows wild along streambeds and marshes but will happily grow in ordinary garden soil. Readily self-sows. Plant 1–2' apart in full sun. Native to North America. Z3. **ME Grown**.

L7745 A: 1 for \$9.00

B: 3 for \$24.00

Viola sororia Common Blue Violet - Organic 6-10" tall. North American native with cheery blue-purple flowers in May and attractive heart-shaped dark green leaves, all edible. Traditionally used as medicinal tonic for the heart. Cook the leaves as you would spinach, or eat them raw in salads for a nice dose of vitamins A and C. If you really want to get fancy, use the blossoms to make a beautiful bright purple syrup. Larval host plant for multiple species of butterflies. We love it as a groundcover in our perennial gardens. Happily spreads. Plant 12" apart in full sun to part shade in average garden soil. Z3. ME Grown.

L7746 A: 1 for \$7.50 **B**: 3 for \$21.00

Tender Summer Bulbs

Spring-planted bulbs offer wonderful variety to the cutflower market and are a staple in old-fashioned gardens. The bulbs we offer here are (mostly) not hardy to northern winters. Smart and thrifty people lift and store them over the winter; the rest of us treat them as annuals.

Begonia x tuberhybrida Tuberous Begonia

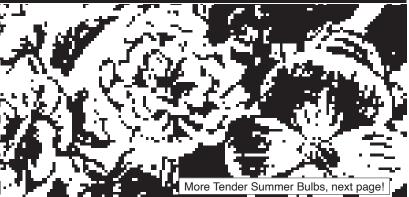
We know what you're thinking. Who plants begonias, besides my Midwestern grandma?! If you live in the woods with limited sunlight, or your balcony is shaded, or you miss your grandma, tuberous begonias offer lush textures, intense colors and a tropical aura with retro glimpses of old-fashioned summers on the cool patio. Velvety flowers bloom all summer, drooping languidly amidst red-tinted foliage. Excellent bedding or container plants.

B. x t. 'Fimbriata Red' 12" tall with an upright form. Deep true red carnation-like fringed double blossoms. Deep green serrated foliage. Upright stems make it a good candidate for the garden border. NEW!

L7747 A: 4 for \$14.25 **B**: 8 for \$24.75 **C**: 12 for \$44.25

B. x t. 'Splendide Ballerina Apricot' 10-12" tall and cascading. Fluffy double blooms of warm apricot with soft coral and yellow notes in varying degrees of saturation. Medium-green serrated decorative leaves. Cascading form, recommended for containers. NEW!

L7748 A: 4 for \$14.25 **B**: 8 for \$24.75 **C**: 12 for \$44.25



Growing Tuberous Begonias

- After last frost, plant 2" deep, 8–12" apart, in rich moist but not soggy well-drained soil. Place the knobby concave side facing upwards, rounded side down.
- For window boxes, plant 3–5" apart.
- Grows best in a cool spot with indirect sunlight and good air circulation.
- We drench ours with water every other day, feed them weekly and stand back to ooh and ahh!



more Tender Summer Bulbs

Crocosmia x crocosmiiflora 'Lucifer' 24-36" tall. Glows in the garden! Midsummer sprays of bright red flowers open from bottom to top on long arching bronze stems, like bursts of flame above gladiolus-like foliage. Lucifer is Dutch for 'match.' Frequented by the rubythroated hummer all day long. Grows well in pots. Makes a long-lasting cutflower if you can harden yourself enough to steal them from the birds. Plant in full sun, 3" deep, 3" apart in moist well-drained soil. Ours is multiplying and overwintering with no protection in Zone 5. Colder zones should treat these as annuals.

L7749 A: 10 for \$11.50 **B**: 20 for \$20.00 **C**: 50 for \$45.00



Dahlia There's a dahlia out there for you, even if you think you hate dahlias. If you've only seen the flashy lurid ones (no judgment) and you think that's all there is, look again. A must-have for late summer and fall bouquets. So easy to grow that you cannot fail at them. Pompontype dahlias have petite spheres of fully double blossoms that are nearly perfect in shape and form. Cactus types are pointy with space between the petals.

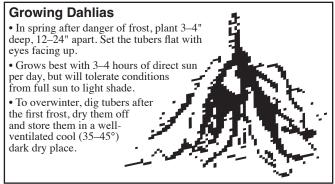
Native to hot parts of the Americas and first developed as a food crop, ornamental dahlias are descended from years of breeding and crossing \hat{D} . pinnata and D. juarezi.

Moonlight Mix 24-30" tall. For those who want to be bathed in a softer glow as you orbit your garden. Whites, creamy light yellows and the slightest whiff of apricot-pink. This is a mix of pompon and cactus forms. Makes an elegant bouquet. NEW!

L7750 A: 3 tubers for \$19.00 **B**: 6 tubers for \$32.75

Solar Flare Mix 32-40" tall. Pompon blooms of deep burgundy-wine red, and bicolor semi-cactus blooms of pink-coral-orange with surging yellow centers. We hope you saved your eclipse-viewing glasses. Plant with Moonlight Blend and get ready to cross into another path of totality! NEW!

L7751 A: 3 tubers for \$19.00 **B**: 6 tubers for \$32.75



Gladiolus Sword Lily Showy summer bloomer excels as a cutflower. Each stalk is covered with 10 or more open funnel-shaped flowers that bloom from bottom to top. Named for their sword-like leaves; a gladiolus is a small Roman sword. Each stalk blooms for about a week, roughly 8 weeks after planting.

Large-Flowering Glad Mix 36" tall. A mercurial mix of colors, stripes, stipples, bicolors, tricolors—what fun!

L7752 A: 10 for \$7.25 **C**: 50 for \$25.75 B: 20 for \$12.75

Nanus Glad Mix 24" tall. Marvelous miniature glads in mixed colors, bicolors and butterfly types. Very satisfying clumped in a bed or as cuts. They're just darling! Some suppliers offer these as Hardy Glads, supposedly hardy in Zone 5. This is optimistic unless you have very good snow cover or winter mulch. Even with mulch, we'd say Z6.

L7753 A: 12 for \$10.25 B: 24 for \$17.00

G. murielae Fragrant Gladiolus 12-18" tall. Also called Acidanthera. Nothing like the common glad, this sword-like foliage is topped by wonderfully scented star-shaped 2" white flowers with mahogany-purple centers on arching stems. Elegant in the garden or as a cutflower; another name is Peacock Orchid. Culture like gladiolus, but blooms slightly later. Z7. **L7754 A**: 20 for \$11.25 **B**: 40

B: 40 for \$19.50 C: 60 for \$26.00

Growing Gladiolus

- After the last spring frost, plant corms in full sun 5" deep and 8" apart. Stagger plantings for a long season of blooms: First planting in early to mid-May, then again every two weeks through mid June. This schedule will keep the flowers coming July through August.
- Hill or stake the corms at planting time to keep the plants from keeling over when the foliage and flower spikes get top heavy.
- Mulch with straw to retain even moisture and prevent weeds.
- Cut the stalks when 2–3 blossoms have opened, taking care to spare the leaves, which feed the developing corm.
- To overwinter, dig corms after the tops have died, discard the old one, clean the new one, allow it to dry off, and store them in paper bags in a well-ventilated cool (35–45°) dark dry place.

Ranunculus Persian Buttercup 12-16" tall. Writer Carrie Tatro summed it up best in an online article this past January: "What's nervewracking at a spelling bee but beloved by bees, hard to say three times really fast, poison if you eat it, a former cure for leprosy and oh-sogobsmacking in a bridal bouquet? Answer: ranunculus, ranunculus, ranunculus." Giant double buttercups on steroids with a multitude of thin petals arranged in a quartered rose-like fashion. Blooms from late spring into summer. Good for borders, pots and cutting. Fern-like foliage.

Aviv Pastel Mix A combination of creamy whites soft yellows and picotee-type bicolor creamyyellows dipped in rose. A scrumptious bouquet so beautiful it almost hurts to behold. NEW!

L7755 A: 10 for \$15.00 B: 20 for \$25.00 C: 50 for \$50.00

Aviv Pink All pink as a stand-alone set, or to mix with the pure whites, or any bunch of garden flowers. Folks will ask where you bought your arrangement. NEW!

L7756 A: 10 for \$15.00 **B**: 20 for \$25.00 C: 50 for \$50.00

Aviv White Just white. Mix with pinks or as an elegant snowy stand-alone set. Brings romance to any mixed bouquet from your garden. Are you short on romance? Not anymore! NEW!

L7757 A: 10 for \$15.00 **B**: 20 for \$25.00 C: 50 for \$50.00

Growing Ranunculus



- To sprout, tubers require 4 to 6 weeks of cool nights (40–50°) with daytime temps between 60–75°. If it's too warm they will stay dormant. Zones 4-10, plant in spring. Zones 8-11, plant in fall.
- Before planting, soak tubers in water for 12-48 hours.
- Plant 2-4" deep, 6" apart, claw side down. Plant in full sun, in moist well-drained soil.

Guide to Planting and Care

When you get your order: Immediate Care DO NOT ALLOW ROOTS TO DRY OUT AT ALL!!!

When your new trees and shrubs arrive, they need to be planted as soon as possible. Don't be deterred by snow. If you can dig a shovel into the ground, plant your trees. If you wait until spring is in full swing, your plants might become stressed and have a hard time recovering.

If frozen ground makes immediate planting impossible, follow the instructions below and all will be well. Why do we send plants even when there is snow on the ground? The weather may be fickle but we must be steady. Bare-root plants need to move out of storage and travel to their permanent homes before or as they are breaking dormancy, but not much later. For our system to work, we must follow a tight shipping schedule regardless of regional weather conditions. We begin shipping late March and finish early May, sending orders by climate zones, warmest region first.

If you can't plant immediately and are unable to store or heel in plants as instructed below, ordering bare-root plants may not be right for you.

If You Can Plant Woodies Within 48 Hours (Ideal)

Leave the plastic wrapping around the root ball. Add some water to remoisten the packing material and store your trees and shrubs in a cool shaded place like a shed, barn or cellar. Avoid heat and sunlight.

If You Cannot Plant Within 48 Hours

You can keep plants for a week or two by following one of these temporary measures and continuing to water as needed:

- Open your package and inspect for damage. Fold the plastic back from around the tops of trees and shrubs. Keep the damp shredded newspaper around the roots and re-wrap the plastic around the root ball, packing firmly to eliminate air pockets. Water as needed to keep the roots moist, but don't let them stand in water. Keep the trees in a cool shaded or dark place like a shed, barn, cellar or garage, but don't allow the plants to freeze before you get them in the ground. Avoid heat and sunlight.
 You could also "heel in" your trees in a protected cool shady spot.
- You could also "heel in" your trees in a protected cool shady spot. Dig a trench or turn back an appropriate amount of earth and bury the roots; tamp firmly to remove air pockets. Water thoroughly. Plant in final location as soon as possible.

Caring for Other Plants Until Planting Time

Asparagus

Store asparagus roots dry and uncovered in a cool shaded place.

Hops

Refrigerate slightly moistened rhizomes in a plastic bag until planting.

Horseradish & Rhubarb

Open package slightly to allow the plants to breathe. They should be fine left in their packaging and kept in a cool place (ideally 35–50°). Keep them moist but not wet.

Mushroom Spawn

Refrigerate in packaging until ready to use.

Strawberries

We ship with the roots slightly on the dry side. If it's going to be a while until planting, mist the roots and re-cover. Refrigerate until you are ready to plant. When it's time to plant, do so in the evening or on a cloudy day.

Herbaceous Perennials

Open bags and check the stock immediately. Roots and crowns should be firm and pliable, not squishy or brittle. Surface mold is harmless and will not affect the plant's future performance. Store plants in their packaging in a cool (35–40°) location until you are ready to plant. If it's going to be awhile, you can pot up your perennials. See page 56 for more detailed perennial planting instructions.

The Perfect Tree Label

Commercially available garden labels do not last. Permanent marker fades. Aluminum tears off in the wind.
And so on. We make our own using vinyl siding. It works so well, we should remove it from all the houses and make it all into plant labels! It's inexpensive, or easily salvaged, and you can make dozens from a single piece of siding. Cut siding into strips using a utility knife. Snip strips to length using hand pruners. Drill a hole at one end. Attach with wire. Write on labels with pencil, NOT a marker. Pencil will last for decades.

The basics of tree care outlined here are meant to get you started. Obviously, we can't tell you everything you need to know in a few pages. Some specific information, like location or soil preferences of particular plants, is in the item descriptions. A soil test is useful in determining the specific needs of your site. Fedco's Organic Growers Supply offers a soil testing and fertilization recommendation service. Learn more at fedcoseeds.com/ogs.

Reading, observation, trial and error, and talking with other growers and extension agents can expand your knowledge of trees and shrubs. Consult the OGS book list for recommended reference books. Also, find useful links at our website, fedcoseeds.com/trees.

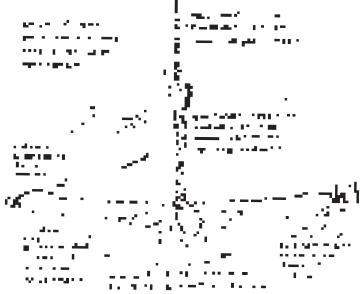
General Planting Directions for Trees and Shrubs

The best way to ensure your plants will thrive is to follow our cultural requirements. Choose the right site for the plant. Add soil amendments only as needed. Many native plants don't require any fertilization. Fruit trees may need more. (See next page for fruit tree fertilization recommendations.)

To reduce transplant shock, plant on cool cloudy days in the early morning or late afternoon. Soak roots of deciduous trees and shrubs for up to 24 hours before planting, but not longer. Keep the roots from drying out; even a few minutes in the sun and breeze can damage a tree or shrub. Keep them watered and covered until the moment you set them in their planting holes!

Follow these steps for planting:

- 1. Dig a large hole, at least twice as wide and about as deep as the root system. Most roots grow laterally and need plenty of room to spread out. Your trees will benefit if the hole is at least 3' wide.
- **2.** Loosen up the soil at the bottom of the hole and especially around the sides. For fruit trees, if you haven't used our *Deluxe Fall Preparation Method* (next page), you may add a 3-lb bag of **Fedco's Hole-istic Spring Planting Mix** (available in our Seeds & Supplies catalog, or at fedcoseeds.com/ogs), or well-aged compost and mineral fertilizers like rock phosphate or Azomite, but *not* raw manure or other nitrogen sources. Incorporate into the soil, then make a mound at the bottom of the hole over which to spread the roots.
- 3. Examine the plant for a "dirt line" or a change in bark color indicating nursery depth. (This is different from the graft line.) Generally, you should plant trees and shrubs at the same depth they grew in the nursery. Set the plant in the hole and spread the roots out around the mound. Make sure the roots are not circling in the hole. It's better to trim roots a bit than coil them. Hold the plant at the right depth as you backfill the soil around it. Tamp firmly to remove air pockets.
- **4. Water immediately.** Don't skimp on the initial watering; make sure there's plenty to settle in all the loosened soil. Wiggle the trunk as the water seeps in to ensure no air pockets remain around the roots. Leave a berm around each tree so water will not run off. Keep trees well watered throughout the first summer. They require the equivalent of 1–2" rain per week. Longer deeper soakings are effective; frequent sprinklings are not.
- **5.** To remember which varieties you planted, paint a map of the orchard on your wall, or replace the plastic Fedco plant tags with permanent vinyl tags. See below left.



Choosing a Site for Fruit Trees and Berries

The best sites for fruit crops have well-drained fertile soils, protection from wind, good air drainage and full sun. A gentle slope and 6–8 hours of full sun per day is ideal. Good air flow will moderate frosts and fungal disease. If possible, avoid "frost pockets."

Sunny south- or west-facing slopes are not advisable for less hardy varieties. These slopes tend to warm up before the danger of frost has passed. Trees may flower prematurely and then be damaged by frost, causing loss of fruit. South and west slopes may also have widely fluctuating early spring temperatures that can damage less hardy trees.

Soil pH for fruit trees should be between 5.5 and 8.0, toward the lower end for apples, the higher end for peaches, and in the middle for others.

Fruit species have optimal space requirements. See chart, next page. Do not plant trees where power lines will interfere with them.

Fall Preparation or Spring Initial Feeding for Fruit Trees

If you're interested in preparing locations for your trees this fall, or for feeding newly planted fruit trees, the following amendment recipe should address most sites in the eastern U.S., which tend to be acidic and moderate to low in calcium and phosphorus. You'll also find all the amendments below at fedcoseeds.com/ogs.

Deluxe Fall Preparation Method

- Without digging the hole, cover an area 4-6' in diameter with:
 - 5 lb gypsum or Hi-Cal lime
 - 5 lb colloidal phosphate (short-term calcium and phosphorus)
 - 5 lb Azomite (long-term minerals and trace minerals)
 - 5 lb granite meal (for improved soil texture)
- 2-3 lb Hum-Amend Max (aids mineral and rock-powder breakdown)
- For building high levels of humus, also add: 2 lb alfalfa meal

 - 2 lb bone char
 - 2 lb kelp meal
 - 2 lb blood meal
 - 100 lb compost (1/8 yard)

· Or skip those recipes and use Fedco's Fall Fruit Tree Prep

Mix, one 32-lb bag per planting hole, available at fedcoseeds.com/ogs.

Cover with a 3-4" mulch of lawn clippings, leaves or wood chips, which will smother the sod, conserve moisture, prevent leaching and provide a habitat for soil organisms to break down the recipe. In the spring, pull back the mulch and dig your tree hole, incorporating the mineral supplements and compost into the

If you didn't get around to fall prep, you can apply this same mix as a mulch to your newly planted tree in the spring.

Simpler Method

Forgo the soil amendments and simply pile 1–2 wheelbarrows of compost on each planting-hole site. If you live by the ocean, add a couple wheelbarrows of seaweed. Then cover with mulch. In the spring, pull back the mulch and plant your fruit tree, incorporating the compost into the hole as you dig.

Feeding Older Fruit Trees

Cover the surface of the ground out to the tree's drip line with the same materials listed above, or with Fedco's Fruition Mix. For larger trees (five years and older) increase the mineral amount to 10–15 lb each.

For ancient trees you can use up to 25 lb of each mineral, or **Fedco's** Ancients Rise Mix, in a ring beneath the drip line. Mulch as described

All Fedco-formulated mixes are found in our Seeds & Supplies catalog, or at fedcoseeds.com/ogs.



Initial Pruning at Planting Time

All Trees and Shrubs

Prune any branches that were broken during shipping. Sometimes we need to prune a central leader in order to fit a tree into a shipping box; don't worry—a new leader will grow from the topmost bud. Prune all dead or injured branches and roots. Further pruning of most trees is not necessary at planting time.

Do not prune tops or prune or bend tap roots of nut or oak trees unless necessary.

Find information on pruning flowering shrubs on p. 46.

Conifers (p. 42); roses (p. 47-48); and lilacs (p. 50) benefit from special pruning especially in later stages of growth.

All Fruit Trees

Avoid excessive pruning on young trees, as it can delay bearing. It's okay to cut off extra trunks and lateral branches to establish the tree's basic shape, but keep in mind that every time you prune potential leaf-bearing branches from a young tree, you set it back. The tree will grow quickly and fruit sooner if you allow it to maximize photosynthesis. Once it begins to fruit, you can prune annually. Always

remove suckers or root shoots.

On peaches and plums, the trees may want to develop 2-4 leaders, or an openvase shape. Always prune just above a good strong bud that faces a direction you'd like your branch to grow. On pple and pear trees, you may choose to either leave the central leader alone and let it grow or cut it back according to the instructions below. Either way is acceptable; it's a matter of personal preference.

Apple Trees

Apple trees will almost always benefit from light initial pruning to establish shape. After that, refrain from pruning until the tree begins to fruit.

• Year one (initial planting time): If the tree is a branch-less "whip," you may cut the top back to a strong bud about 3–4' from the ground. This will encourage branching. If the new tree arrives with branches, prune off all but 3-4 branches at the height you'd like for your first tier, about 3-4' from the ground, or higher if you prefer. The lowest scaffold (branch

layer) should be very wide to collect as much sun as possible. If too low, these long branches will rest on the ground under the weight of fruit, and the deer will have a field day. Also, it becomes difficult to mow under and to mulch around the base.

Some folks choose not to prune at the time of planting and wait to shape the tree in subsequent years. This method is fine, too.

• Year two: Trim off root suckers or other odd branches that come up from around the base. Otherwise, leave the tree alone and let it grow.

• The next few years: If something looks really crowded, broken or dead, prune it. Otherwise, leave your tree alone and let it grow. If you don't fuss over it too much, you'll get fruit sooner!

Pruning Established Fruit Trees

Once your fruit tree begins to bear, you should prune annually. Good pruning brings sunlight to all parts of your tree. Maximum sunlight encourages more and higher-quality fruit. Sunlight also encourages fruit buds to form for next year's crop. Good airflow discourages fungal diseases and promotes greater spray penetration. There's an old saying that a bird should be able to fly through your fruit tree. A well-pruned tree will produce larger fruit and will tend toward more annual bearing.

Most pruning should be done in late winter or early spring. We recommend a goodquality pair of hand shears and a lightweight pruning saw. You may also wish to invest in long-handled loppers, a pole pruner or a pole saw. Keep your pruning tools sharp for smooth clean cuts.

Any good book on growing fruit trees will have the information you need. Consider attending a local pruning workshop-MOFGA in Unity, ME, offers workshops in late winter. Pruning is not difficult and will make a huge difference.



Mulch

Keep weeds and especially grass away from new trees and shrubs. Apply a 2–4" mulch of composted material—leaves or wood chips—out as far as the drip line. Avoid mulching trees with hay, a preferred vole habitat. A ½–1" topdressing of alfalfa meal beneath the mulch may substantially reduce transplant shock. Keep mulch back several inches from the tree trunk. We lay down cardboard or newspaper and spread mulch on top of it. Mulch encourages earthworms, holds moisture, keeps down weeds, insulates against excess heat and cold, aerates and loosens soils, builds humus and fertilizes feeder roots, 90% of which are within 6" of the surface.

Staking & Crooked Trees

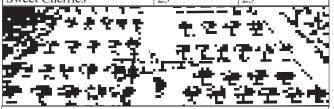
Newly planted standard-sized and semi-dwarf fruit trees and ornamental trees seldom need staking. If your tree is in a very windy site or develops a leaning habit, staking may help.

Dwarf apple trees do require staking. Drive a stout post near the tree. Wrap the tree trunk with a scrap of burlap or rubber to protect against abrasion. Secure the wrapped part of the tree to the post with string or wire. Tie the tree somewhat loosely, as a slight rocking motion will encourage rooting. Once roots are well anchored, the stake may not be needed. Mark small trees with a stake with ribbons to warn operators of lawn mowers, tractors, cars and skidders.

Some tree varieties naturally tend to grow a little crooked (like Redfield apple!) and they won't grow straight no matter how much room we give them in the nursery. To mitigate this issue, you may try staking. You may also try planting the crooked tree so the roots are at a slight angle and the top is more upward-pointing, as if to split the difference. Most trees do not grow perfectly straight. Retraining your eye to appreciate a tree's unique form may be easier than fighting nature.

学	- -
4	

Spacing of Fruit Trees, Nut Trees & Berries					
	between plants	between rows			
Apples, Dwarf	5-10'	15'			
Apples, Semi-dwarf	15–20'	15'			
Apples, Standard	20-25'	20–25'			
Asparagus	1–2'	4'			
Blackberries	3–4'	6–12'			
Blueberries & Saskatoons	3–6'	8-10'			
Grapes	8'	8-10'			
Hazelnut	4–6'	hedge			
Nut trees - orchard	35'	35'			
Nut trees - forest	20'	20'			
Pears, Asian Pears, Quince	15–20'	20'			
Raspberries	2'	6–12'			
Stone Fruit	15–20'	15–20'			
Strawberries	see instructions, p. 30				
Sweet Cherries 25' 25'					



Orchard Ladders: Sturdy lightweight traditionally shaped wooden orchard ladders have wide bottoms for stability and narrow tops for easy handling and placement. Contact the manufacturer:

Peter Baldwin, (207) 322-5291 baldwinpetert@gmail.com baldwinappleladders.com

Beware the Apple Borer!

In many parts of central and northern New England the roundheaded appletree borer, *Saperda candida*, is the number one enemy of young apple, crabapple and quince trees. If you are growing young apple trees in these locations, you must protect your trees from this pest. Farther south and north the borer may not be an issue. If you don't know if they are a problem in your area, check with any grower near you: they'll know. Otherwise, err on the side of caution. Borers also feed on other members of the rose family, such as pear, hawthorn, Aronia and Amelanchier.

Borer beetles lay eggs under the bark near the base of the tree. The developing larvae tunnel through the wood, weakening the tree until it eventually falls over. The trouble sign is small deposits of orange sawdust, called frass, at the base of the tree. Check lower trunks for frass and tunneling in late May, and again in September. Left unchecked, borers usually mean death for young trees.

Here are our strategies for controlling borers:

Coat the trunks with Neem or Paint

• With Neem Oil We have been experimenting with several methods for treating borers using neem oil. It's easy and effective. All you need is a paintbrush and undiluted neem oil warmed to liquefy. Paint neem on young tree trunks from the soil line up 12". We apply one time only around July 1. If applied in May or early June, the neem dries and becomes ineffective.

Note: We have noticed that the adventitious root bumps of M111 show some sensitivity to undiluted neem. We're having good results spraying a 2% neem solution on the trunks of M111 and other clonal rootstocks.

• With Paint After neem oil, paint is likely the best deterrent. It's easy and requires no hard-to-find ingredients. Do not apply paint until trees have been in the ground for 3–5 years. Until then, be sure to continue monitoring them for signs of borer.

Recipe: Mix white interior latex paint with joint compound. (The stuff you smear on sheet rock joints and nail holes—you can buy a small tub at any hardware store. Make sure to use *interior* paint, as some exterior paint formulations contain ingredients that can harm the tree's phloem.) The consistency should be thick but still quite easy to paint, not glob on.

Repaint as needed. This mix will help deter borers and also make detection of infestations easier. Once you locate a borer hole, you'll have to cut or blast it out (see below). Look for the orange frass!

Cut lt Out Once you've identified a hole or soft spot in the trunk, insert a wire and dig around until you locate and kill the larva. Cut away soft spongy pockets with a knife. Even serious carving is less harmful to the tree than leaving the larvae alive inside. We've found that a little neem oil brushed on the wound after borer hunting can prevent further infestation or fungal growth, and may even speed up the development of callus tissue.

Blasted Borers When you discover a soft spot or hole in the tree, get yourself a can of compressed air (for cleaning computers). Put the long skinny tube nozzle up to the hole and give it a blast. Should do the trick.

The Polyculture Deterrent Borer beetles thrive in shady moist warm environments. Keep grass back at least 6" from the tree base. Trials in our "functional" orchard suggest that a mixed polyculture environment may disguise the apple trees and fool the borers. We plant woody and herbaceous perennials around the trees, keeping them back 12" or so. Borers are lazy opportunists. If there are a lot of apple trees within easy reach, they will attack. Otherwise, you may never see them. The polyculture orchard may present too much work for them.

Soil testing & organic fertilizer recommendation service

Which soil amendments do you choose and how much do you apply? Don't guess—test! Fedco can help. We'll send you a soil test kit and sampling instructions, plus a postage-paid box to return your soil sample and test form to the Maine State Soil Lab. Once your results are in, we'll offer customized recommendations for how to correct any deficiencies or imbalances in your soil. Cost is \$56.50. Learn more about this service in our Seeds & Supplies catalog, or at fedcoseeds.com/ogs.

Scab in the apple orchard

Apple scab (*Venturia unaequalis*) may be the most challenging disease for the New England apple grower. Scab is a fungus, spread by spores that overwinter in fallen fruit and leaf litter, rising up in rainy spring weather to cause grief all over again. It appears as small rough black patches on the fruit or foliage. A bit of scab is not a bad thing. It won't hurt you or your tree or fruit. Some growers actually believe that a small amount of scab triggers a beneficial self-protection response in the apple. But a lot of scab can destroy the fruit and even kill the tree. Severity of infection can vary depending on the year, the site, and the variety.

With organic or conventional fungicides as a last resort, what can you do to avoid or minimize scab damage in your trees?

• Avoid susceptible varieties. Although nearly all apples are susceptible to some extent, certain varieties are especially vulnerable to scab. In particular, McIntosh and its relatives are scab magnets. These include Cortland, Fameuse and Macoun. If you grow these, you'll probably struggle with scab in your orchard. If you can avoid these varieties, you may be able to keep scab to a tolerable level without spraying fungicides. Most heirlooms can be susceptible but should be quite tolerant as long as the more highly susceptible varieties are kept away.

In 1945, Purdue, Rutgers and the University of Illinois began a collaboration to develop scab-immune varieties. Many of these have PRI in their names. (Prima, Pristine, Williams Pride, etc.) They bred the varieties using *Malus floribunda* as a parent. It contains a gene that imparts scab immunity to the fruit. By crossing and recrossing, they were able to isolate and include this gene in the final introduction. We've offered some of these varieties, including GoldRush from the PRI program, and Liberty from the associated New York breeding program. If you like the fruit from these varieties, growing them can be a good strategy for avoiding scab.

• Thin the fruit. In late spring or early summer, we thin all our tree fruit, removing enough fruitlets that the mature fruits won't touch. You want air circulation. Insects also like those places where fruits rub against each other.

• Clean up drops and fallen leaves. Scab lives in the fallen fruit, as do insects. Eat the drops, make them into cider, feed them to your livestock or compost them—just don't leave them at the base of your trees. Some farmers let livestock in the orchard to eat the drops. Also rake up leaves in the fall. Burn, compost or mow them. By practicing good hygiene in the orchard, some growers have been able to grow good McIntosh and other disease-prone varieties organically.

Find Top-Quality Orchard and Horticultural Supplies Year-round at Fedco's Organic Growers Supply!

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Fedco's **Organic Growers Supply** warehouse is open for walk-in sales and pre-order pickups 688 Bellsqueeze Road in Clinton, ME Tuesday–Thursday, 9am–3pm, year-round

or order online at fedcoseeds.com/ogs

Protecting Trees from Mice and Voles

Fruit trees and ornamentals are sometimes girdled by mice or voles eating the bark. Girdling will usually kill the tree or shrub. The danger is greatest in winter. Stomp around the trunks after each fresh snowfall to create a packed-ice barrier that will prevent mice from traveling beneath the snow. Keep the grass mowed in the fall and remove large mulch piles from near the trunks. Rodents like to nest in hay more than in wood chip mulches. A wrap of hardware cloth or a plastic spiral tree guard can protect your tree from being girdled.

If you use screening or plastic spiral tree guards on apple, quince or crabapple trees, be sure to remove them from April to October, as they attract borers if left on the tree in the summer.

Our trials show that a mulch of wood chips surrounding young trees greatly reduces the chance of summer vole damage. Tall grasses invite them in. The polyculture model may provide cover for the voles and can result in summer vole damage. So keep the tall perennials back about 12" from the tree.

Also, make your orchard hawk friendly.

Voles Don't Like Narcissus!

For many years we've been planting daffodils around the base of some of our apple trees. No particular reason; it just looks great. Come to find out that you can beautify your orchard and deter voles at the same time. Plant daffodils in a circle a foot or two away from the base. The tunneling voles don't like the bulbs and will veer away.

Caterpillars

Most caterpillars will not damage healthy plants and are important members of the environment. However, a few kinds, such as tent caterpillars and browntail moth caterpillars, are extremely destructive to fruit trees. You'll know when you see them—they hatch in large crowds and rapidly defoliate plants. Vigilant daily observation, manual collection and disposal are necessary from mid-summer to fall. Be careful handling browntail nests. They can cause a severe rash.

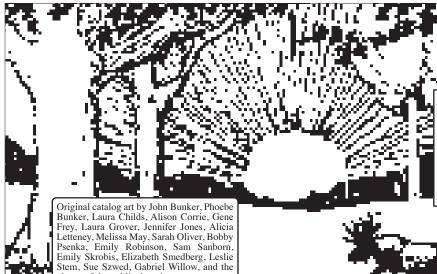
Aphids and ants

Aphids can do a lot of damage to apple trees and they make the young leaves look gross. Often when you see aphids you will see ants climbing up and down the tree feeding them. Here's an easy solution. Wrap a piece of stiff paper about 6" wide around the trunk about a foot or two off the ground. Tape this sleeve to itself but not to the tree. Smear Tanglefoot (available in our Seeds & Supplies catalog) on the paper. Ants will not cross the barrier and, without the ants, the aphids will die. In a day or two no more aphids.



Oh Dear, Deer!

The best deer protection is a dog in the yard. If you don't have one or if your orchard is too far from the house, an 8-foot deer fence will work. Some people have good luck with electric fences. Small protective enclosures for individual trees can be made by circling your tree with a cylinder of chicken wire or other fencing with t-posts to stabilize the cage.



ghosts of the public domain.

Cover Art: Maine artist Bobby Psenka collaborated with our catalog team to craft this vision. To plant a tree is an act of hope, patience, and sometimes rebellion against the odds. The crescent shadows? Did you see that solar eclipse?! Maine was fortunate to be in the Path of Totality on April 8, 2024. It was an awe-inspiring event, and we all gaped in wonder at the shadow of the moon. For a few minutes, we forgot our differences. The little bat? We found her this summer in Fedco's staff kitchen, hanging under our heat pump. She arrived through a hole in the ceiling of the catalog-production room. Our warehouse superhero Soren fixed the ceiling, and plucky Jen Ries freed the bat!

Tools and books are in our Fedco Seeds & Supplies catalog, or at fedcoseeds.com/ogs

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