

---

## 2005 Conservation Tree & Shrub Seedling Program

### Description and Information

---

#### Evergreens / Conifers

**American Arborvitae / White Cedar** (*Thuja occidentalis*) – Slow to moderate growth • Slender, columnar in shape when young, losing lower branches unless managed as a hedge • Single trees can grow to 40 – 50' with a 10-15' spread. • Full sun • Tolerates wet, boggy sites, grows best in high lime, moist, sandy soils • Uses include shingles, rails & posts • Winged seeds are eaten by pine siskin in the NE; foliage and twigs are useful to white-tailed deer • Native to Eastern N. America: Nova Scotia to Manitoba, south to North Carolina, Tennessee and Illinois.

**Austrian Pine** (*Pinus nigra*) – Moderate growth • Densely pyramidal when young, becomes a large, flat-topped tree with a rough, short trunk and low, stout, spreading branches • Mature height 50-100' with 20-40' spread • Withstands city conditions better than most other pines • Tolerates a wide range of soil conditions, heat, drought, and wind • Good for wildlife cover and seeds are eaten by songbirds and small mammals • Native of Europe, from Austria to central Italy, Greece and Yugoslavia.

**Red Pine** (*Pinus resinosa*) – Fast growth • When grown in open trunk is short and develops heavily-branched crown • Mature height 50-80' with variable spread • Requires full sun, is extremely cold tolerant • Prefers dry acid, sandy or gravelly soils, good on exposed or sterile soils • Useful for lumber and pulpwood • Provides cover for wildlife when young • Native to Newfoundland and Manitoba, south to the mountains of Penn., west to Michigan.

**Scotch Pine** (*Pinus sylvestris*) – Fast irregular pyramidal growth in youth, maturing to open, wide-spreading, flat or round-topped form • Height 30-90' with 30-40' spread • Full sun • Prefers well drained acidic soils • Useful on wastelands; not suitable for underplanting or shelterbelts • Wildlife cover and seed source for songbirds and small mammals • Popular Christmas tree • Native to: Europe, W. Asia and NE Siberia

**White Pine** (*Pinus strobus*) – Fast growth • Symmetrically pyramidal with soft appearance in youth, middle to old age distinctive plume-like outline • Height 50-75' with 20-40' spread – can reach 150' in height • Full sun, can tolerate some shade • Prefers fertile, moist, well-drained soils • Many lumber uses; Christmas tree, Red-breasted nuthatches, black-capped chickadees, red crossbills, squirrels, chipmunks, and mice feed on seeds. Beavers, porcupines, and white tailed deer browse on twigs and foliage • Native to Newfoundland to Manitoba, south to Georgia; Illinois and Iowa

**Blue Spruce** (*Picea pungens glauca*) – Moderate to slow growth • Broad, dense, pyramidal in youth, opening with age, retains lower branches • Height 40-60' with 10-20' spread • Full sun • Rich, moist soil is drought tolerant • Provides food and cover for birds and small mammals • Uses: windbreaks, screens & Christmas Trees • Native to Southwest United States, Rocky Mtns. from Colorado to Utah to New Mexico and Wyoming.

**Norway Spruce** (*Picea abies*) – Fast growth • Pyramidal with drooping branches; stiff when young to graceful when mature • Height 40-60' with 25-30' spread – can reach 100'+ in height • Full sun • Rich, moist soil • Food and cover for birds and small mammals • Uses: Lumber, Christmas trees, windbreaks • Native to North & Central Europe

**White Spruce** (*Picea glauca*) – Fast growth • Broad densely-pyramidal in youth to tall narrow dense spire with upturned branches • Height 40-60' with 10-20' spread • Full sun – light shade • Moist Loam or alluvial soils • Withstands: heat, wind, drought, crowding • Uses: streambanks, lakeshores, adjacent banks, lumber, pulpwood, windbreaks, Christmas tree • Wildlife cover, deer browse & rabbit, ruffed grouse • Native from Alaska to Montana, Minnesota, and New York.

**Balsam Fir** (*Abies balsamea*) – Moderate growth • Slender, dense, pyramidal shape • Mature height 45-75' with 20-25' spread • Full sun - More shade tolerant than other firs, will not tolerate polluted areas • Well drained, slightly acid, moist soils, tolerates wet soil conditions • Popular Christmas Tree; wildlife cover, songbirds' nesting sites, and browse for deer; squirrels, chipmunks and several songbirds eat the seeds • Native over a wide part of N. America, esp. in the higher altitudes from Labrador to Alberta to Pennsylvania.

**Concolor Fir/ White Fir** (*Abies concolor*) – Slow growth • Conical, densely branched shape with upper branches tending to turn upward while lower branches remain horizontal or deflect downward as trees mature • Mature height 30-100' with 15-30' spread • Full sun • Deep, rich, moist, well drained, gravelly or sandy loam soils; dislikes heavy clay • Drought, heat, cold tolerant • Numerous uses for wildlife: cover and nesting, winged seeds eaten by songbirds, squirrels, and chipmunks • Popular Christmas tree • Native: Colorado to Southern California, Northern Mexico and New Mexico

**Douglas Fir** (*Pseudotsuga menziesii*) – Moderate growth • Spirey pyramidal, densely branched in youth to more open in maturity, upper branches tend to ascend while lower branches drop • Height 40-100' with 12-20' spread • Full Sun • Neutral/slightly acid soils, well-drained and moist, fails on poor soils • Subject to wind damage • Uses: lumber and Christmas tree • Heavily browsed by deer • Native to the Rocky Mountains and Pacific Coast.

**Fraser Fir** (*Abies fraseri*) – Moderate growth • Dense, pyramidal shape with stiff horizontal branches, opening up with age • Height 30-40' up to 70' with 20-25' spread • Full sun or partial shade • Cool, moist, well-drained loamy soil • Suffers in hot dry weather or on heavy, wet clay soils • Uses: Christmas tree, wildlife • Native: Appalachian Mountains of VA, NC, and TN

**Hemlock, Eastern** (*Tsuga canadensis*) – Moderate growth • Softly pyramidal in youth and maturity • Height 40-70' up to 100'+ with 25-35' spread • Prefers shade tolerates full sun with moist well-drained organic rich soil, does not tolerate wind or drought • Moist, well-drained, acid soils, rocky bluffs or sandy soils • Uses: hedges, screening • Winter cover for many species, Favored for nesting by several kinds of northern birds, food for pine siskin, crossbills, chickadees, blue grouse, squirrels, and deer • Native to Nova Scotia to Minnesota south along the mountains to Alabama and Georgia

**Larch, Japanese** (*Larix kaempferi*) – Moderate to fast growth • Very open and pyramidal shape • Height 70-90' with 25-40' spread • Full sun • Moist, well-drained soils but tolerates shallow acid soils • Intolerant of shade, chalk soils. Susceptible to drought, damage from pollution • Uses: poles, fence posts, railroad ties, interior paneling, pallets and flooring • Spring/Summer cover for Wildlife • Native to Japan.

## Conservation Shrubs

**Sargent Crabapple** (*Malus sargentii*) – Moderate growth • Mounded, dense branching, wide spreading • Height 6-8' • Single ¾ -1" flowers: red in bud, opening white, fragrant • Full sun • Soil: well-drained, moist, acid; adaptable • Small, bright red, ¼" diameter apples • Fruit is popular with ruffed grouse, ring-necked pheasant, songbirds, and white-tailed deer.

**Redosier Dogwood** (*Cornus sericea*) – Fast, vigorous growth • Broad-spreading, loose, rounded, multistemmed shrub with horizontal branches base, stoloniferous (spreads by underground stems) • Height 7-9' with 10'+ spread • Creamy white flowers, borne 1 ½ - 2 ½ clusters late May to early June • White round fleshy fruits in late summer persisting through fall into winter • Full sun to partial shade • Extremely adaptable to wide range of soil and climatic conditions, best in moist soil – found in wet swampy situations • Used for soil stabilization on stream banks; fruits are favored by many songbirds and gamebirds • Native from Newfoundland to Manitoba, south to Virginia, Kentucky & Nebraska.

**American Elderberry** (*Sambucus canadensis*) – Fast growth • Multistemmed shrub, often broad and rounded with branches spreading and arching, suckers profusely • Variable height 5-12' various spread • Creamy white 6-10" wide flat-topped flower clusters in June-July; fruit is purple-black in August-September, berry-like, ¼" diameter • Full sun • Moist soils, will tolerate dry soils, thrives under acid or alkaline conditions • Fruits are popular for wine, pies, & jellies; fruits are summer food for songbirds, gamebirds, and squirrels, several kinds of browsers feed on the fruits and foliage • Native from Nova Scotia to Manitoba to Florida & Texas.

**Hazelnut (American Filbert)** (*Corylus americana*) – Moderate growth • Multistemmed shrub forming a rounded top with an open base, widespreading stems • Height 8-15' • Male catkins showy in spring, female catkins inconspicuous • Full sun or light shade • ½" long nut maturing in September-October • Well drained, loamy soil, pH adaptable • Good hedgerow or wood border plant • Squirrels, deer, and wild turkey may harvest these nuts (also call filberts) before you do • Native from New England to Saskatchewan and south to Florida.

**Rugosa Rose** (*Rosa rugosa*) – Fast growth • Sprawling, thorny-stemmed shrub spread by stout underground stems • Height 4-6' by 4-6' wide • Perfect, fragrant rose-purple to white blooms, 2 ½" – 3 ½" across June through August • Full sun to light shade • Fertile, slightly acid, sandy loam soils; drought and salt tolerant • Produces (rose)hips, 1" across, lustrous brick-red; maturing in August though fall • Useful for difficult and saline environments including roadsides, banks, cuts, fills, and dunes • Wildlife cover and food for game birds and hoofed browsers • Native to Japan

**Shadblow Serviceberry** (*Amelanchier canadensis*) – Moderate growth • Upright multistemmed large shrub or small tree with a rounded crown of many small branches • Height 6-20' with erect stems • White flowers occur in erect 2-3" long racemes in early spring • Full to partial shade • Moist, well-drained, acid soil – will tolerate wide range of soil conditions • Grows in many different habitats • Sweet, black, edible fruit ripens in early summer • Thrushes and many other songbirds, squirrels, chipmunks, & bears relish the fruits • Native from Maine to South Carolina.

**Streamco Willow** (*Salix purpurea*) – Fast growth • Rounded, dense, finely branched, forming thickets of many smooth, thin, tough branches • Height 12-15' by 10-12" wide • Full sun – partial or full shade • Slightly acid, damp soils • Excellent choice for stabilizing streambanks or pond margins; suckers and layers producing dense mats that resist erosion • Provides shelter for water birds, aquatic life and small mammals used in basket weaving • Native to Europe, northern Africa to Central Asia and Japan.

## Broadleaf Deciduous

**River Birch** (*Betula nigra*) – Fast growth • Pyramidal to oval-headed in youth, often rounded at maturity; trunk usually divides into several arched branches close to the ground • Height 30-40' • Full - partial sun • Makes best growth on sandy, poor, boggy, preferably wet and acid (pH 6.5 or below) soils • Suffers from iron chlorosis on soils of high pH • Fine choice for periodically wet or flooded locations which may be quite dry in summer and fall • Catkins, buds, seeds, and wood may provide food for some animals • Native from Massachusetts to Florida, west to Minnesota and Kansas.

**Paper (White) Birch** (*Betula papyrifera*) – Moderate to fast growth • Generally multi-stemmed forming an oval or rounded crown • Height 50-70' with spread equal to 1/2 or 2/3 of height • Full sun • Prefers well-drained, acid, moist, sandy or silty loam soils; adapted

to a wide variety of soils • Creamy-white bark in third to fourth year; peels freely to expose a reddish orange inner bark • Catkins, nuts good for upland game birds, songbirds • Native from Labrador to British Columbia and Washington south to Pennsylvania, Michigan, Nebraska, and Montana.

**Black Cherry** (*Prunus serotina*) – Moderate growth • Pyramidal to conical in youth, maturing with oval crown, drooping branches • Height 50-60' rarely to 100' • White flowers, 1/3" across, born in ¾", pendulous clusters • Full sun • Deep, moist, fertile soils can adapt to dry, gravelly or sandy upland soils • Cherries, 1/3" across ripen in August & September • Used for lumber, wine, and jellies • Flowers attract pollinators (e.g. Bees); fruits feed gamebirds, songbirds, small mammals, and game animals; hooved browsers & rabbits feed on twigs, foliage, and bark • Native from Ontario to N. Dakota, Texas, and Florida.

**Red Maple** (*Acer rubrum*) – Fast growth • Pyramidal or elliptical growth, developing upturned branches; crown matures to irregular oval or rounded shape • Height 40-60' with equal or lesser spread; can reach 100-120' • Full sun to light shade • Prefers slightly acid, moist soils but tolerates almost all • Fall color can vary from greenish-yellow to yellow to brilliant red • Seeds, buds, flowers provide food for many kinds of birds and other animals • Native from Newfoundland to Florida, west to Minnesota, Oklahoma, and Texas.

**Sugar Maple** (*Acer saccharum*) – Slow growth hard wood • Grows upright, oval crown with dense foliage • Height 60-75' up to 100-120', with spread to 2/3<sup>rd</sup> of height • Full sun – partial shade • Prefers well-drained, moderately moist fertile soil; no pH preference, but growth may be greater in slightly acid soil • Tolerates shade well but is susceptible to salt damage; intolerant of air pollution and restricted growing areas • Uses: lumber and maple syrup/sugar production; seeds, buds, flowers provide food for many kinds of birds and other animals • Native from Canada to Georgia, Alabama, Mississippi and Texas.

**Northern Red Oak** (*Quarks rubella*) – Moderate – fast growth • Largest, fastest-growing of native N.Y. oaks; usually symmetrical, round-topped at all ages • Height 60-75' up to 100'+, with 60-75' spread • Full sun • Prefers well-drained, slightly acid, sandy loams • Withstands urban pollution • Uses: furniture, pilings, interior finish, ties, general construction purposes; acorns are an important winter food source for wildlife • Native from Nova Scotia to Pennsylvania to Minnesota and Iowa.

**White Oak** (*Quercus alba*) – Moderate to slow growth • Pyramidal youth grows into upright-rounded crown with spreading branches at maturity • Height 50-80' with similar spread, can reach 100'+ in height • Full to filtered sun • Moist, well-drained, deep acid soils, will grow on many soils; not tolerant of compaction • White Oak lumber has many household uses for lumber including veneers, furniture, and wine barrels • Acorns are one of the preferred food sources for wildlife especially during winter months; acorns, foliage, and twigs are utilized for food shelter, and nesting by many songbirds, gamebirds, and game mammals • Native from Maine to Florida west to Minnesota and Texas.

**Hybrid Poplar** (*Populus deltoides x nigra*) – Exceptionally fast growth • Forms a tall, narrow, vertical spire with upright branches • Height 40-50', spreads to 10-15' • Full Sun • Moist, well-drained silty or loamy soils preferred • Adapted to a wide variety of situations, soils, and growing conditions • Fast shade or windbreak; lumber, stabilization of steep banks, pits, landfills and other disturbed areas, can wick-up water in wet areas.

**Sycamore** (*Platanus occidentalis*) – Moderate to fast growth • Large massive, mottled color trunk and wide-spreading open crown of massive, crooked branches, irregular • Full sun to light shade • Prefers deep, moist, rich soils • Used for furniture, boxes, crates and butcher's blocks • Purple Finch may consume pendent seed balls • Native from Maine to Ontario and Minnesota, south to Florida and Texas.

**Tuliptree (Yellow Poplar)** (*Liriodendron tulipifera*) – Fast growth • In open-grown situations matures to an oval-rounded with several large sinuous branches constituting the framework • Height 70-90' can get to 150'+, with 35-50' spread • Greenish-yellow color flowers in May-June in 6-10 year old trees • Full sun • Deep, moist, well-drained loam, slightly acid but pH adaptable • fruit is a cone-like aggregate of samaras (winged seeds), 2-3' long • Used for furniture • Seeds consumed by Purple Finch, Cardinals, and squirrels • Native from Massachusetts to Wisconsin, south to Florida and Mississippi.

**Black Walnut** (*Juglans nigra*) – Fast growth • Full, well formed trunk which is devoid of branches ½ to 2/3 the distance from the ground, crown is oval to rounded and somewhat open • Height 50-75' to a max of 150', 50-75' spread when open grown • prefers deep, rich, moist soil; difficult to transplant due to extensive taproot • Nuts are 1 ½ - 2", round, hairless, light green • Wood is used for lumber, veneer, furniture, cabinets, and gunstocks; nuts are a food source for squirrels • Native from Massachusetts to Florida, west to Minnesota and Texas.

**Wildlife Attracting Seedling Packs** Species that are already listed will not be repeated in this section.

**Butterfly Bush** (*Buddleia davidii*) – Fast growth • Herbaceous perennial which typically dies back to ground in winter; succulent caned, arching growth; flowers on new growth so should be pruned to ground each spring then easily reaches 5-8' in height by fall • Flowers vary in color, fragrant, 4-10" long upright or nodding panicles from June through frost • Full sun • Well-drained, fertile soils • Attracts many butterflies and pollinators • Native to China.

**Butternut** (*Juglans cinerea*) – Slow growth • Round topped tree with short, forked or crooked trunk with open, wide spreading crown • Height 40-60' with 30-50' spread • Prefer moist, rich, deep soils although it grows well in drier, rocky soils • Full sun • The seeds are sweet and edible. Important timber tree. Naïve from New Brunswick to Georgia, and west to the Dakotas and Arkansas.

**Common Lilac** (*Syringa vulgaris*) – Moderate growth • Upright leggy shrub of irregular outline but usually devoid of lower branches after time and forming a cloud-like head of foliage • Height 8-20' with 6-15' spread • Flowers are lilac colored, extremely fragrant, early to mid-May in 4-8" panicles • Full sun • Neutral organic soil • Nectar attracts butterflies • Native to Southern Europe.

**High Bush Blueberry** (*Vaccinium corymbosum*) (Jersey) – Slow growth • Upright, multi-stemmed, rounded shrub with spreading branches • Height 6-12' • Full sun to partial shade • Moist, acid, organic well-drained soil • Later blooming, white flowers mature into 1/4-1/2" edible berries • Established cultivar can survive bad winters and late-spring frost.

**Sassafras, Common** (*Sassafras albidum*) – Medium to fast growth • Pyramidal, irregular tree or shrub in youth, with many short, stout, contorted branches which spread to form a flat topped, irregular, round-oblong head at maturity; often sprouts from roots • Height 30-60' with 25-40' spread • Handsome yellow flowers, weakly fragrant born in 1-2" terminal racemes in April • Full sun or light shade • Moist, loamy, acid well drained soil • Fruit is a drupe of glossy berries, 1/2" long, dark blue, ripening in September but quickly falling or devoured by birds; the fruit stalk is scarlet and very attractive • Native from Maine to Ontario and Michigan, south to Florida and Texas • Berries are eaten by birds.

**Sawtooth Oak** (*Quercus acutissima*) – Moderate growth • Dense, broad pyramidal form in youth matures to oval-round to broad-rounded crown with low-slung, wide-spreading branches • Height 35-45' • Male flowers, borne in long, slender golden catkins late March-April • Full to partial sun • Prefers acid, well-drained soils; adaptable and drought-tolerant • Acorns are one of the preferred food sources for wildlife especially during winter months; a favorite of wild turkey; acorns, foliage, and twigs are utilized for food, shelter and nesting by many songbirds, gamebirds, and game mammals • Native to Japan, Korea, China, and Himilaya.

### **American Chestnut (*Castanea dentata*)**

Moderate growth • Mature trees are characterized by massive trunks and branches supporting dense, irregular and wide-spread crowns • Specimens surviving to maturity can reach 70-90' with trunk diameters of 3 to 4 feet • Full sun and open location are preferred • Moist sandy soil • Transplant seedlings are grown from seeds of rare healthy, pure-strain Michigan trees. Not fully resistant to chestnut blight but may have some resistance • Wood used as valuable hardwood lumber, nuts are desired food for people and wildlife; planted in plantations to maintain chestnut populations and to try to produce a more blight resistant tree • Originally native from southern Maine to Michigan, south to Alabama and Mississippi.

### **References:**

- Cope, J. A., and F.E. Winch. 1985. *Know your trees*. 4-H Bulletin No. 85. Cooperative Extension, Cornell University, College of Agriculture and Life Sciences. 72pp.
- Cox, Jeff and Marilyn. 1985. *The Perennial Garden - Color Harmonies through the Seasons*. Rodale Press, Inc., Emmaus, Pennsylvania. 304pp.
- Dirr, M. A. 1983. *Manual of woody landscape plants: their identification, ornamental characteristics culture, propagation, and uses*. Third Edition. Stipes Publishing Company, Champaign, Illinois. 826pp.
- Little, E. L. 1979. *Forest trees of the United States and Canada, and how to identify them*. Dover Publications, Inc., New York, New York. 70pp.
- Martin, A. C., H. S. Zim, and A. L. Nelson. 1961. *American wildlife & plants: a guide to wildlife food habits*. Dover Publications, Inc., New York, New York. 500pp.
- Neelands, R. W. 1979. *Important trees of eastern forests*. USDA Forest Service. 112pp.
- Owens, D. W., W.L. Pittman, J. P. Wulforst, W. E. Hanna. 1986. *Soil survey of Erie County*, New York. USDA Soil Conservation Service in cooperation with Cornell University, Ithaca, New York. 384pp. plus maps
- Sharp, W. C. 1977. *Conservation plants for the northeast*. USDA Soil Conservation Service, Program Aid No. 1154. U.S. Government Printing Office, Washington, D.C. 40pp.