

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.

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, wide spreading 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; hoofed 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 2/3rd 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 (*Quercus 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.

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.

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.

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 • 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.

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.

Chokecherry (*Prunus virginiana*) – Fast growth • small suckering tree or large shrub with crooked branches and slender twigs forming an oval-rounded crown • Height 20-30' with 18-25' spread • Flowers are white 1/3 to 2/5" across and aromatic (sweet and almond-like), late April-May in 3 to 6' long 1" wide cylindrical racemes • fruit is red, finally dark purple, 1/3" across, a couple months after flowering • Full sun • Tolerates many soils textures and pH, except heavy clay soils • Chokeberry is important to wildlife: fruit – birds, rabbits, hares and bear, branches – deer browse source in winter; cover and nesting habitat for a variety of birds; early spring flowers are an important source of nectar for butterflies and honeybees • fruit has been used for making jams, jellies, pies, sauces and wine (cherry pits can be poisonous) • Native Newfoundland to Saskatchewan, North Dakota, Nebraska, south to North Carolina, Missouri and Kansas.

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.

Raspberry (*Rubus spp. –everbearing variety*) – fast growth • erect, semi-erect, or training, generally thorny shrubs, producing renewal shoots from the ground called "canes" • Height 4-8', Spread 4-6' - generally established by training and pruning • Full sun to partial shade • soil — adaptable from sand to clay loams with good drainage and pH of 5-7 • white to pink flowers (1" diameter) borne terminally of several-flowered cymes on current season's growth • self-fruitful and do not require pollinizers • fruit begins in second year —everbearing varieties typically fruit in early summer and again in early fall • fruit is favored by many species of gamebirds, songbirds and, large and small mammals; the thorny brambles have much value as cover for wildlife • Native to North America.

American Beech (*Fagus grandifolia*) – Slow growth • Sturdy tree with a short trunk and wide spreading crown • Height 50-70' • Moist, well-drained, acid soil, will not withstand wet or compacted soils • The three-winged nut is edible • Native from New Brunswick to Ontario, south to Florida and Texas.

Pin Oak – also called Swamp Oak - (*Quercus palustris*) – Fast growth • strongly pyramidal with a central leader • Height 60-70' up to 100', with 25-40' spread • Full sun • prefers moist, rich, acid, well-drained soil; tolerates wet soil; very intolerant of high pH soils • Somewhat tolerant of city conditions; tolerant of sulfur dioxide • small acorns are an important winter food source for wildlife – typically near ponds and streams for ducks • Although the wood is strong, heavy, and closely grained, pin oak has limited use for furniture-making because the wood warps and cracks badly in drying. Some is used for pallets and in general construction, because the straight trunks do make good poles and pilings. In some areas the wood is used for fuel • Native from Massachusetts to Delaware, west to Wisconsin and Arkansas.

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