

STATE FOREST NURSERY SEEDLING CATALOG

PROVIDING CONSERVATION SEEDLINGS FOR IOWANS SINCE THE 1930s

800.865.2477 | 515.233.1161 | F: 515.233.1131 |
WWW.IOWADNR.GOV/NURSERY
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AMES, IOWA 50010 8037



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The State Forest Nursery

welcomes the opportunity to help you with your tree planting needs. Our goal is to provide low cost, native seedlings to help make your tree planting successful and affordable. We strive to produce the best stock in the industry, and our staff will do everything they can to help you achieve your planting goals. Native, affordable seedlings are available to help make your planting successful, so please let us know how we can help! You can contact us by calling **1-800-865-2477** or visiting **www.iowadnr.gov/nursery**

By planting trees today you will leave a legacy for your children and grandchildren, as well as a legacy for your home state, its people and its habitat. Let us help you leave your mark on the state you love- your children and grandchildren will thank you!

Forest Nursery Staff

Paul Tauke, Forestry Bureau Chief
Aron Flickinger, Nursery Manager
Kandy Weigel, Administrative Assistant
Kevin Barker, Nursery Technician
Ashley Balmer, Nursery Technician
Lee Goldsmith, Nursery Technician

To Order

CALL 800-865-2477 | FAX 515-233-1131
Current order form and pricing are available at
WWW.IOWADNR.GOV/NURSERY

PLACE ORDERS August 1 - May 31

Please DO NOT SEND MONEY with your mail order- we will bill you at a later date.
Checks, VISA, MasterCard and Discover are accepted.

State Nursery stock must be:

- Used on the property described. Stock with roots still attached may NOT be resold or given away to any person, firm, corporation or agency, and may NOT be used for farmstead windbreaks, shade, or ornamental purposes;
- Used for establishing or improving existing forests, erosion control, game or water conservation;
- Protected from fire and domestic livestock grazing;
- Forfeited for destruction if used in violation of the above restrictions.

SHIPPING

Shipping charges per 100 plants are \$5 for 8"-16" and \$10 for 17" and larger. You can pick the week you would like to have your order shipped. Once a date is confirmed on your invoice, we will do everything possible to ship your order that week. Please leave a note for the shipper where to leave trees so they will not be in the sun. Fall shipments start the last week of October. Spring shipments start the first week of April. Weeks in April will become full as we can only physically ship a limited quantity each week.

**Out of state orders may require additional shipping charges.*

PICKUP

You may also choose the week to pick up your order from the nursery in Ames. Please call 48 hours before picking up your trees to confirm that your order is ready.

Orders must be paid in full before they are shipped or picked up.

GIFT CERTIFICATES

Buy SPECIALTY PACKETS or other trees as a gift! You will receive a gift certificate to sign and give, and the plants will be shipped directly to the recipient's address for planting.

SUCCESSFUL TREE PLANTING TIPS

Before ordering, take time to plan. For assistance contact your DNR District Forester. (Page 19)

- Select tree and shrub species that will do well on your site and meet your objectives.
- Determine tree and shrub spacing and the quantity needed.
- Place your order early to insure that seedlings are available.
- Consider existing ground cover and the steps needed to insure your trees will not succumb to weeds. You may need to eliminate or reduce competing vegetation before planting.
- Consider what you will need to do to prepare the site.
- Decide if the site should be machine planted or hand planted.
- Decide if you can do the work yourself or if you need to hire a contractor.
- Small trees (8-16") may be better for hand planting projects and those new to planting trees.
- Large trees (17-24") may be better for more experienced tree planters and for contractors using equipment to help with properly planting the bigger root systems usually associated with these trees.

SITE PREPARATION

The objective of site preparation is to control competing vegetation and to insure good soil to root contact for the newly planted seedlings. An ideal site is well tilled and free of weeds. However, the steepness of slope, rocks and other impediments and the need to control soil erosion often limit the degree of site preparation that can be considered practical.

Eliminate all vegetation in a strip 3-5' wide where the trees will be planted by cultivating or using herbicides. If the site needs protection from erosion, do all work on the contour.

SEEDLING CARE PRIOR TO PLANTING

The planting seasons in Iowa are generally from the end of October until the ground freezes for fall and April 1st through May for spring. To get the best survival rate, plant the seedlings as soon as you receive them. If you need to store the seedlings, leave them in the packaging bags and keep them as cool as possible in an environment that does not allow freezing and thawing until you are ready to plant. Seedlings lose their vigor if stored for long periods.

ARE GRASSES & WEEDS REALLY A PROBLEM?

Grass and weeds are a problem because they grow faster and are often taller than young seedlings. Grass is a problem because: **1)** it competes for water and quickly dries out the soil, **2)** it competes for nutrients, **3)** it can have allelopathic properties that stunt the growth of seedlings (reeds canary grass and brome are two good examples) and **4)** it creates cover for wildlife such as rabbits and voles.

The primary reason for failed tree plantings in Iowa is poor control of grass and weed competition.

The only way to avoid these problems is to control the grass and weeds that cause them.

Keep weeds from growing in a 3-5' zone around your seedlings. Mow the area between rows in the fall to reduce hiding places for rabbits and rodents during the winter. This gives the seedlings space to start growing without competition.

SEEDLING CARE DURING PLANTING

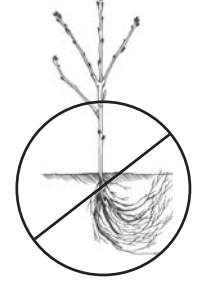
- An hour before you plant, place trees in a bucket with water covering the roots until they are planted.
- Keep unplanted and packaged trees out of direct sunlight.
- Plant seedling root collar slightly below ground. Trees may not survive with exposed roots.
- Plant seedlings with the main root straight down. Avoid doubled or sharply bent roots. Seedlings planted with "U-shaped" roots grow poorly. It is better to trim extremely long roots.
- Plant seedlings upright and firmly pack soil around the roots, leaving no air pockets.



Keep roots moist.



CORRECT planting position.



INCORRECT planting position.

SEEDLING CARE AFTER PLANTING

- Give seedlings an inch of water once each week.
- Control grass and weeds around seedlings to prevent animal damage.
- Use tree shelters to reduce animal damage.

HOW MANY TREES DO I NEED? WHAT IS THE RECOMMENDED SPACING?

Recommended spacing for trees is 8' between plants with 8' between rows or 10' between plants with 6' between rows (700 trees per acre). Spacing for shrubs is 4' between plants with 8' between rows (1400 shrubs per acre) or 5' between plants with 10' between rows (900 shrubs per acre).

For no additional cost, contact your DNR District Forester for additional questions (Page 19).

For more information about a species, such as its native range, please refer to the USDA plants database: <http://plants.usda.gov/checklist.html>.

EXTRA CARE PRODUCES HARDY NURSERY SEEDLINGS

Top pruning: We top prune certain seedlings to maintain a balance between above ground shoots and the available root system. This practice helps the seedlings concentrate energy at the root level which increases the survival rate. It also aids in packaging, allowing the bags to be sealed well so the roots stay moist.

Root pruning: Almost all of our hardwood and evergreen trees are root pruned. This practice helps develop more lateral roots and controls top growth, improving the seedlings' balance and survival with a larger root system and shorter top.



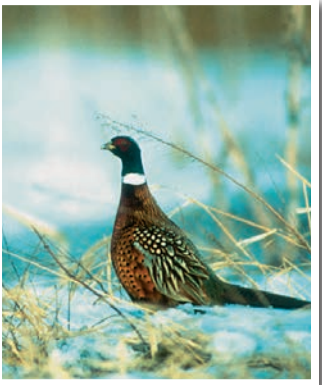
CREATE-A-PACKET

This packet of 200 trees and shrubs provides habitat to various wildlife. Birds will nest in the foliage in the spring, critters will gather seeds and nuts in the fall and find shelter in the winter. Packet includes 50 each of the 4 species of YOUR CHOICE.



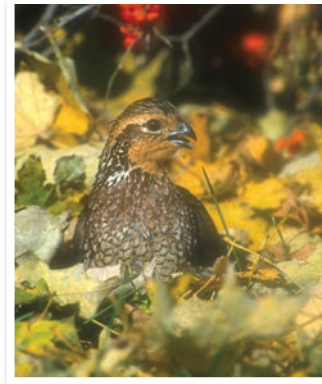
TURKEY PACKET

This packet of 200 trees and shrubs will improve your area for wild turkey food and cover. Packet includes 50 each of Bur Oak, White Oak, Pin Oak and Gray Dogwood. Recommended by the Iowa Chapter of the National Wild Turkey Federation.



PHEASANT PACKET

You can provide important winter cover with this packet of 200 trees and shrubs selected for pheasants and quail. Packet includes 50 each of Norway Spruce, Wild Plum, Ninebark and Gray Dogwood. Recommended by Iowa Pheasants Forever chapters.



QUAIL PACKET

Build a covey “headquarters” to provide the natural shelter quail need to survive. Plant shrubs 2-3 feet apart by species to form groups or multiple short rows to create groups. Packet includes 100 Wild Plum and 100 Gray Dogwood. Recommended by the DNR Wildlife Bureau.



POLLINATOR PACKET

The species chosen for this packet are some of the best trees and shrubs Iowa has to offer the migrating butterflies and other pollinators as they pass thru the state. Each packet will include 50 Buttonbush, 50 Chokecherry, 50 Redosier Dogwood and 50 Bur Oak.



SONGBIRD PACKET

This packet includes 16 favorite shrubs and 4 trees. These species will attract a variety of songbirds year round: 2 Bur Oak, 2 White Pine, 4 Wild Plum, 4 Chokecherry, 4 Gray Dogwood and 4 Serviceberry. Recommended by Iowa Audubon Society.



Black Cherry (*Prunus serotina*)
Height: 50-60' | **Rate of growth:** medium
Soils: prefers moist and well-drained
 Full sun to partial shade
 Fall color: yellow
 Valuable wood products, small cherries make good jelly and wine and are excellent bird and wildlife food, excellent firewood.



Black Walnut (*Juglans nigra*)
Height: 50-80' | **Rate of growth:** medium
Soils: deep, moist and well-drained
 Requires full sun
 Fall color: yellow
 Valuable wood products, nuts are edible for humans and animals, excellent firewood.



Cottonwood (*Populus deltoides*)
 (available as 14" cuttings or 12" rooted cuttings)
Height: 60-100' | **Rate of growth:** fast
Soils: wet to well-drained
 Requires full sun
 Fall color: yellow
 Valuable for fuel-wood plantations, very adaptable tree.



Hackberry (*Celtis occidentalis*)
Height: 50-70' | **Rate of growth:** medium
Soils: moist to well-drained
 Full sun to partial shade
 Fall color: yellow
 Host plant for several butterflies, including Emperor, Question Mark and American Snout. The fruit is highly sought after by a number of bird and mammal species. A good substitute for ash in a tree planting; good for biomass plantings and firewood.



Hickory, Shagbark (*Carya ovata*)
Height: 60-80' | **Rate of growth:** slow
Soils: well-drained
 Full sun to partial shade
 Fall color: yellow
 Nuts are edible to people and wildlife, excellent firewood, shaggy bark provides bat nesting sites. Usually found on uplands with oaks.



Hickory, Shellbark (*Carya laciniosa*)
Height: 60-80' | **Rate of growth:** slow
Soils: adaptable to moist soils
 Full sun to partial shade
 Fall color: yellow
 Nuts are edible to people and wildlife, excellent firewood. Usually found within riparian areas.



Hybrid Poplar (*Populus deltoides X Populus nigra*)
 (available as 14" cuttings or 12" rooted cuttings)
Height: 40-60' | **Rate of growth:** very fast
Soils: moist to well-drained
 Requires full sun
 Fall color: yellow
 Seedless mix of cottonwood and black poplar, valuable for trainer trees and fuel-wood trees.



Hybrid Willow (*Salix ssp.*)
 (available in 14" cuttings or 12" rooted cuttings)
Height: 30-40' | **Rate of growth:** very fast
Soils: wet to well-drained
 Requires full sun
 Fall color: yellow
 Good for streamside plantings for erosion control, rapidly establishes cover and windbreak for wildlife. Host plant for Viceroy butterfly.



Kentucky Coffeetree (*Gymnocladus dioicus*)
Height: 60-75' | **Rate of growth:** medium
Soils: moist to well-drained
Full sun to partial shade
Fall color: yellow
Very disease tolerant, leaves and seeds are toxic to sheep, cattle, horses.



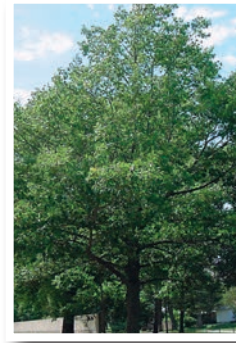
Maple, Silver (*Acer saccharinum*)
Height: 60-80' | **Rate of growth:** fast
Soils: prefers moist or moderately drained soils
Full sun to partial shade
Fall color: yellow
Valuable wood products, good firewood. Seeds used by songbirds and small mammals. Commonly grows along rivers.



Maple, Sugar (*Acer saccharum*)
Height: 60-75' | **Rate of growth:** slow
Soils: prefers moist and well-drained
Sun or shade
Fall color: brilliant orange, red or yellow
Valuable wood products, excellent firewood, used for maple syrup production.



Northern Pecan (*Carya illinoensis*)
Height: 70-100' | **Rate of growth:** medium
Soils: deep, moist, well-drained
Full sun
Fall color: yellow
Nuts are edible for people and wildlife.



Oak, Black (*Quercus velutina*)
Height: 50-70' | **Rate of growth:** medium
Soils: moist to well-drained, can survive on poor, dry and sandy sites
Requires full sun
Fall color: red to red-brown
Acorns provide good wildlife food, excellent firewood.



Oak, Bur (*Quercus macrocarpa*)
Height: 50-80' | **Rate of growth:** medium
Soils: moist to well-drained, adaptable to a variety of conditions
Requires full sun
Fall color: yellow-brown
Branches have great character; excellent firewood; acorns eaten by turkey, blue jay, grouse, deer and wood duck.



Oak, Pin (*Quercus palustris*)
Height: 60-80' | **Rate of growth:** medium
Soils: moist to well-drained and pH below 7; tolerates poorly drained wet sites
Requires full sun
Fall color: bright red
Pyramidal shape, small acorns offer good wildlife food, excellent firewood.



Oak, Red (*Quercus rubra*)
Height: 60-80' | **Rate of growth:** fast
Soils: moist and well-drained
Requires full sun
Fall color: red to red-brown
Valuable wood products, acorns provide good wildlife food, excellent firewood.



Oak, Swamp White (*Quercus bicolor*)
Height: 50-60' | **Rate of growth:** medium
Soils: prefers wet but will grow in well-drained and prefers pH below 7
 Requires full sun
 Fall color: yellow-brown
 Acorns provide excellent wildlife food, excellent firewood.



Oak, White (*Quercus alba*)
Height: 50-80' | **Rate of growth:** slow
Soils: prefers moist, well-drained upland soils
 Requires full sun
 Fall color: purplish-red
 Valuable wood products, acorns provide excellent wildlife food, excellent firewood. Provides important habitat for colorful spring warblers.



River Birch (*Betula nigra*)
Height: 40-70' | **Rate of growth:** medium to fast
Soils: prefers moist soils
 Full sun to partial shade
 Fall color: yellow
 Peeling bark exposes reddish brown inner bark. Grows along rivers and drainages. Provides important habitat for colorful spring warblers.



Sycamore (*Platanus occidentalis*)
Height: 70-100' | **Rate of growth:** fast
Soils: moist to well-drained; tolerates poorly drained soils
 Requires full sun
 Fall color: yellow-brown
 Enormous leaves, interesting bark on upper branches peels away to lighter colors. Provides important nesting habitat for Northern Parula and Yellow-throated Warbler.

EVERGREENS

Only available for spring plantings



Bald Cypress (*Taxodium distichum*)
Height: 80-100' | **Rate of growth:** medium
Soils: wet to moderately dry
 Full sun to partial shade
 This tree loses needles every fall and grows new ones in the spring. Very long lived tree, seed is good wildlife food, provides good wildlife cover. Wood is very decay resistant.



Concolor Fir (*Abies concolor*)
Height: 40-60' | **Rate of growth:** slow
Soils: moist to well-drained, does well on gravelly sites.
 Requires full sun
 Soft needles with a blue-green color, very few serious diseases, more tolerant to deer than pines, good wildlife cover.



Norway Spruce (*Picea abies*)
Height: 40-60' | **Rate of growth:** medium
Soils: moist to well-drained
 Can grow in partial shade
 Hardy, dense draping branches, more tolerant to deer than pines, good wildlife cover. Cones are favored by Red-breasted Nuthatch.



White Spruce (*Picea glauca*)
Height: 40-60' | **Rate of growth:** medium
Soils: moist to well-drained, gravelly sites.
 Can grow in partial shade
 Hardy, tolerant of hot dry summers, more tolerant to deer than pines, good wildlife cover. Attracts colorful winter finches.



Eastern White Pine (*Pinus strobus*)

Height: 50-75' | **Rate of growth:** medium
Soils: rich, moist or moist sandy loams
Requires full sun
Soft, beautiful tree, good wildlife habitat, intolerant of air pollutants and ice storms, good wood products tree, widely used for Christmas trees. Provides roosting habitat for Eastern Screech Owl and other owls.



Jack Pine (*Pinus banksiana*)

Height: 30-50' | **Rate of growth:** fast
Soils: well-drained, very hardy on dry, sandy sites
Requires full sun
Somewhat open and loose appearing, tolerant to deer, good wildlife cover and erosion control.



Red Pine (*Pinus resinosa*)

Height: 50-80' | **Rate of growth:** medium
Soils: moist to well-drained
Requires full sun
Does not tolerate hot, dry winds, prefers a cool, protected site. Good wildlife cover, good lumber tree. Seeds used by songbirds and small mammals.



Scotch Pine (*Pinus sylvestris*) \$25 / \$40

Height: 30-60' | **Rate of growth:** fast
Soils: moist to well-drained
Requires full sun
Good wildlife cover, widely used for Christmas trees, should be considered for short term plantings as tree may not live past 20 years.

SMALL TREES & SHRUBS



Aroniberry

(*Aronia melanocarpa*, variety "McKenzie")
Height: 4-10' | **Rate of growth:** fast
Soils: wet to drier soils
Sun or shade
Fall color: bright red
Berries are high in vitamins, minerals and antioxidants and are edible for people and animals. White flowers in May and bears blackish purple fruit. Good wildlife food and cover.



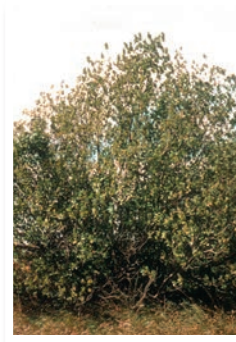
Arrowwood (*Viburnum recognitum*)

Height: 8-15' | **Rate of growth:** medium
Soils: dry to wet
Sun or partial shade
Fall color: yellow to red-purple
White flowers in late May followed by bluish-black berries in the fall. Good bird and wildlife food and cover. Found in open woods, along forest edges and stream banks.



Buttonbush

(*Cephalanthus occidentalis*)
Height: 3-6' | **Rate of growth:** medium
Soils: wet to moist
Requires full sun
Fall color: yellow
Produces white button-shaped flowers in late summer and bears seed that benefits wildlife. Flowers are great nectar source for butterflies



Chokecherry (*Prunus virginiana*)

Height: 10-25' | **Rate of growth:** fast
Soils: rich, moist to well-drained
Full sun to slight shade
Fall color: yellow
Similar to black cherry tree but smaller. Bears red fruit that is good for many birds and mammals. Good wildlife cover.



Dogwood, Gray (*Cornus racemosa*)

Height: 10-15' | **Rate of growth:** fast
Soils: prefers moist to well-drained; adaptable to tough sites like poor fertility, dry, compacted sites
Grows best with full sun or partial shade
Fall color: yellow
Forms a large plant colony from the original, produces cream flowers followed by white berries. Fruit eaten by pheasants and grouse and provides good winter cover. Great habitat for migrant songbirds- especially warblers.



Dogwood, Redosier (*Cornus stolonifera*)

Height: 10-15' | **Rate of growth:** fast
Soils: wet to well-drained; very adaptable
Grows best with full sun or partial shade
Fall color: yellow
Has attractive bright red stems, produces cream flowers followed by white berries, forms a large plant colony. Good wildlife food and cover. All dogwoods are host plants for Azure butterflies and food plants for many butterfly species.



Elderberry (*Sambucus canadensis*)

Height: 5-12' | **Rate of growth:** fast
Soils: moist to well-drained
Full sun to partial shade
Fall color : yellow
Showy white, flat-topped flowers in June, produces berries edible for people and animals in fall that are good for jams and jellies. Good wildlife food and cover.



Hazelnut (*Corylus americana*)

Height: 8-10' | **Rate of growth:** medium
Soils: well-drained
Full sun to slight shade
Fall color: yellow-brown
Produces nuts edible for people, squirrels, chipmunks, deer, grouse, quail, pheasants, blue jays. Provides excellent browse and shelter for deer and other wildlife.



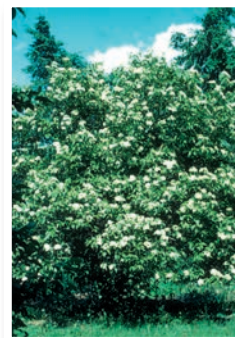
Highbush Cranberry (*Viburnum trilobum*)

Height: 8-12' | **Rate of growth:** medium
Soils: deep, moist to well-drained
Full sun to partial shade
Fall color: red to purple
Showy flat clusters of white flowers followed by large bright red berries that hold on all winter. Excellent wildlife food and cover. Habitat includes stream banks and low moist ground. Host plants for Azure butterflies and food plants for many butterflies.



Lilac, Common (*Syringa vulgaris*)

Height: 8-15' | **Rate of growth:** medium
Soils: rich, well-drained
Requires full sun
Fragrant purple flowers usually in May. Great for border, screens, or groupings. Suckers around the base to produce a thicket. Good for wildlife cover.



Nannyberry (*Viburnum lentago*)

Height: 15-18' | **Rate of growth:** fast
Soils: dry, well-drained, or moist sites
Sun or partial shade
Fall color: purple-red
White flowers in early May with bluish-black berries in the fall. Good bird and wildlife food and cover. Host plant for Azure butterflies and food plants for many butterflies.



Ninebark (*Physocarpus opulifolius*)

Height: 5-9' | **Rate of growth:** fast
Soils: moist to moderately dry
Full sun to partial shade
Fall color: yellow-brown
Hardy, dense, compact grower. Has small foliage, produces clusters of white flowers in May followed by numerous red pods. Good wildlife food and cover.



Redbud (*Cercis canadensis*)

Height: 15-25' | **Rate of growth:** medium
Soils: moist to well-drained
 Sun or shade
 Fall color: yellow
 Small tree with low, horizontal branching on umbrella-like spreading crown. Very showy tree in the spring, producing lavender to pink flowers along the branches. Doesn't grow well above Hwy 20. Host plant for Henry's Elfin butterfly.



Serviceberry (*Amelanchier arborea*)

Height: 6-20' | **Rate of growth:** medium
Soils: moist to well-drained
 Prefers partial shade
 Fall color: yellow, orange or red
 Small, single to multi-stemmed tree, also known as Juneberry. Produces white flowers in early spring and bears edible purple berries in June. Good songbird and wildlife food. Fruit is especially important for robins, flickers, and waxwings.



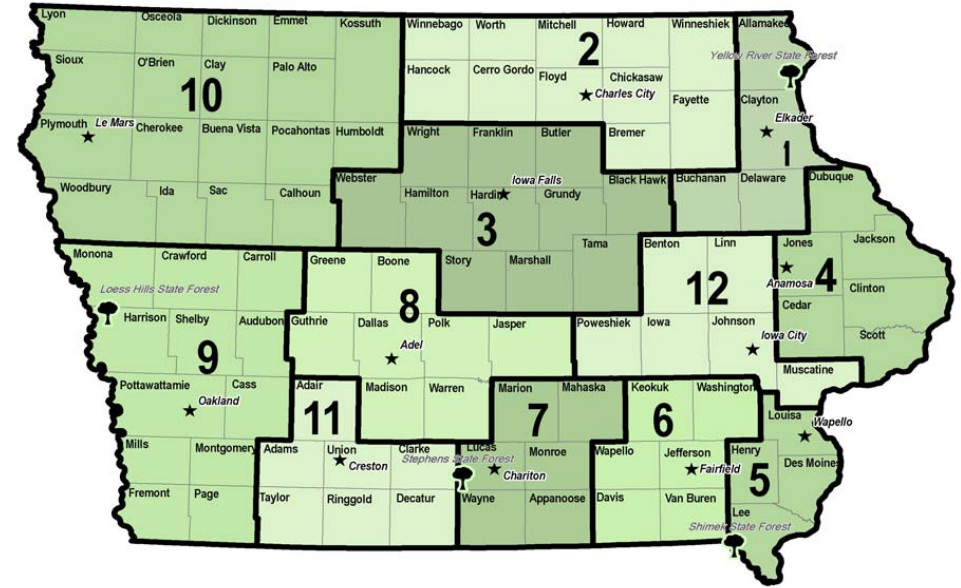
Wild Plum (*Prunus americana*)

Height: 10-15' | **Rate of growth:** fast
Soils: rich, moist to well-drained
 Full sun to slight shade
 Fall color: reddish to yellow
 This small tree forms thickets and has small soft thorns. White flowers appear in April followed by purple, edible fruit good for jams and jellies. Good wildlife food and cover. Especially good nesting habitat for rarer songbirds like Yellow-breasted Chat and Bell's Vireo. Provides food for bees and many butterfly species, including Tiger Swallowtail.

TO ORDER:
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WWW.IOWADNR.GOV/NURSERY

PRIVATE LANDS SECTION & DISTRICT MAP

For information contact the State Forest Nursery at 800-865-2477 or your district forester.



DNR District Forester	Phone	Address
1. DAVE ASCHE & JEFF SEAGO	563-245-1891	500 Gunder Rd Elkader, IA 52043
2. GREG HEIDEBRINK & JASON WALKER	641-228-6611	621 Beck St Charles City, IA 50616
3. JOE HERRING	641-648-6304	524 Lawler St Iowa Falls, IA 50126
4. STEVE SWINCONOS & DAVID BRIDGES	319-462-2768	300 Chamber Dr Anamosa, IA 52205
5. LISA LOUCK	319-523-2216	260 Mulberry St Suite 4 Wapello, IA 52653
6. RAY LEHN	641-472-2370	Box 568-605 S. 23 rd St Fairfield, IA 52556
7. JEREMY COCHRAN	641-774-8733	1111 N. 8 th St Chariton, IA 50049
8. AARON WRIGHT	515-993-4133	1918 Greene St Adel, IA 50003
9. LINDSEY BARNEY	712-482-6245	Box 189 - 712 S Hwy 6 Oakland, IA 51560
10. JOE SCHWARTZ	712-546-5161	1100A 12 th St SW. LeMars, IA 51031
11. RANDY GOERNDT	641-782-6761	904 E. Taylor Creston, IA 50801
12. MARK VITOSH	319-351-8886	3109 Old Hwy 218 S. Iowa City, IA 52246