

Using and ordering this guide

This book was developed by the USDA Natural Resources Conservation Service as an aid in identifying trees and shrubs and to aid in their use for conservation purposes.

Many of the trees and shrubs are growing at or near one of more of the plant materials centers operated by the Natural Resources Conservation Service nationwide. These centers develop plants for conservation uses and release to commercial growers for public use. Some of the tree or shrub cultivars that have been developed and released by the Natural Resources Conservation Service are named in this guide.

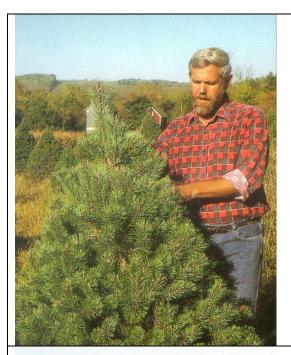
Natural Resources Conservation Service foresters and plant materials specialists helped compile the information in this guide.

Help available

Advice on tree and shrub planting, care and conservation uses is available at no cost. The Natural Resources Conservation Service, the Extension Service, state forestry agencies, conservation districts and private nurseries have specific information. Information is also available from the USDA Forest Service.

In many cases, at least partial funding is available to plant trees and shrubs for conservation purposes. Local offices of the agencies listed above have details.

Ten ways to use trees



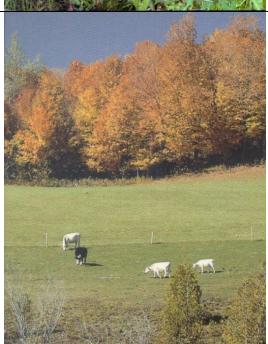
- Cut soil erosion Rows of trees break the wind on flatter lands and healthy forests protect soil from water erosion on hillsides.
- 2. Improve air & water quality A forest floor of leaves and decaying wood acts as a giant sponge by absorbing, holding and filtering water; one acre of trees provides fresh, clean oxygen for seven people and will clean the air polluted by eight cars operated for 12 hours.
- **3. Increase income** Properly managed trees can provide excellent sources of income, such as the sale of trees or wood products.



- 4. Save energy Recent studies show windbreaks can reduce winter fuel consumption by 10 to 30 percent. Trees also save energy by shading -- one tree has the cooling effect of five air conditioners.
- 5. Protect livestock Trees reduce the wind and can significantly reduce animal stress. Livestock not only need less feed, but their gains are higher. Shade provided by trees is also helpful to animals on very hot summer days.



- 6. Sound barrier Trees and windbreaks reduce noise from high-speed traffic and other sounds. Plant leaves, branches and twigs all absorb sounds of different frequencies.
- 7. Home for wildlife Wooded areas make valuable cover, nesting and breeding areas for upland game and songbirds. In winter, when all other food is blanketed with snow, seeds and fruits of trees and shrubs provide food for nonmigratory species.



- 8. Living snow fence In snow country, properly locating a living fence of trees and shrubs parallel to your driveway or highway helps hold snow on the fields and off the roads.
- 9. Improve crop yields Soil particles blown by strong winds frequently damage small crops. Yields also may be lowered by the effects of hot winds. Trees protect against these hazards.
- 10. Beautify the countryside Well-kept wooded areas, windbreaks and other tree plantings undeniably enhance the aesthetic value of individual farms and the countryside.

Care of trees and shrubs

- Fence from livestock
- Water in early morning hours as necessary during early growth
- Cultivate, mulch or spray to control weeds
- Protect small trees from rodents
- Thin weaker trees from old plantings
- Prune only damaged limbs
- Correctly identify specific insect or disease problems before treatment

Planting a seedling

- 1. Keep roots moist at all times.
- 2. Dig a hole as deep and twice as wide as the roots.
- 3. Place the seedling in the center of the hole.
- 4. Fill the hole with moist soil, firming the soil around the roots by hand. Be sure there are no air pockets.

A word about windbreaks

Windbreaks — rows of trees and shrubs — slow the wind to protect farmsteads, crops, livestock and homes. A windbreak on three sides of a building can cut annual fuel bills by as much as 30 percent, reducing wind chill in winter and making shade in the summer. Livestock are similarly protected; young crops in fields are protected from hot, dry winds and the sand blasting effects of blowing soil.

Tree and shrub windbreaks are habitat for wildlife. They beautify the landscape, stop blowing snow, screen out noise and dust and serve as living privacy fences.

Using the Hardiness Zone Map

The Plant Hardiness Zone Map below was drawn from one issued by the US Department of Agriculture in 1990. Adapted from earlier versions, the map's zones represent average annual minimum temperature ranges.

Trees and shrubs in this guide list a hardiness zone, the coldest zone in which the tree or shrub normally succeeds. No effort was made to identify southernmost zones for heat adaptability or for range of adaptability

The Plant "Cold" Hardiness Zone is an indicator, and should not be used as the sole source to determine whether a particular tree or shrub will survive in a specific location.

USDA Plant Hardiness Zone Map Zone 1 Zone 2 Zone 3 Zone 6 Zone 7 Zone 8 Zone 9 Zone 10 Zone 11

Trees and Shrubs in this guide

Deciduous Trees Alnus glutinosa European Alder



Ash





European Alder Alnus glutinosa

About this tree:

Prefers moist to wet soils Grows 50 to 70 feet tall Hardiness zone 3

Identification Tips:

<u>Leaves:</u> 1 1/2 to 4 inches long, 1 to 2 1/2 inches wide; elliptical, doubly sawtoothed; shiny dark green

<u>Fruit:</u> Cone; 3/4 inches long; clusters of 3 to 5

<u>Twig:</u> Gummy when young; 3-angled pith

Bark: Brown, smooth, becoming furrowed

Green Ash *Fraxinus pennsylvanica* (native)

About this tree:

Seeds eaten by wood duck, Bobwhite quail, purple finch

Prefers deep moist to drought resistant soils

Grows 50 to 75 feet tall Hardiness zone 2 Cultivars: Cardan

Identification Tips:

Leaves: Opposite; pinnately

compound; 6 to 10 inches long; 5 to 9 leaflets 2 to 5 inches long, 1 to 1 1/2 inches wide

<u>Fruit:</u> 1 1/4 to 2 1/4 inches long; yellowish, hanging in clusters
<u>Bark:</u> Gray; furrowed scaly ridges,

reddish inner layer



About this tree:

Seeds and bark eaten by cottontail rabbit

Prefers moist soils Grows 60 to 100 feet tall Hardiness zone 2

Identification Tips:

<u>Leaves:</u> In 2 rows; 3 to 6 inches long and almost as wide; long, pointed at tip; coarsely saw-toothed; palmately veined; dark green

<u>Fruit:</u> 3/8-inch in diameter; nutlike; elliptical or rounded; gray; attached to a leafy bract

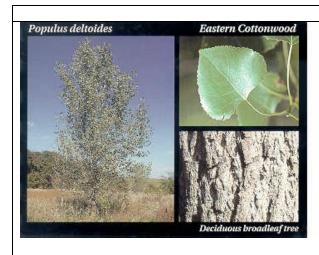
<u>Twig:</u> Reddish or green; slender;

slightly zigzag

Bark: Dark gray; smooth, becoming







Malus sp.



furrowed into narrow scaly ridges Eastern Cottonwood *Populus* deltoides (native) *

About this tree:

Buds eaten by ruffed grouse and prairie chicken; bark eaten by beaver Grows over 100 feet tall

Hardiness zone 2

Cultivars: Mighty Moe, Ohio Red,

Platte, Walker **Identification Tips:**

Leaves: 3 to 7 inches long; triangular; long-pointed, curved, coarse teeth; shiny green; leafstalks long, flattened Fruit: 3/8-inch elliptical capsules; splitting into 3 to 4 parts; cottony seeds Bark: Yellowish-green and smooth, becoming light gray, rough Twig: Coarse, large; pointed buds

Crabapple Malus sp.

About this tree:

Fruit is eaten by deer, pheasant, turkey and other birds

Prefers moist to dry soils Grows 15 to 20 feet tall Hardiness zone 3

Cultivars: Midwest, Roselow, Magenta

Identification Tips:

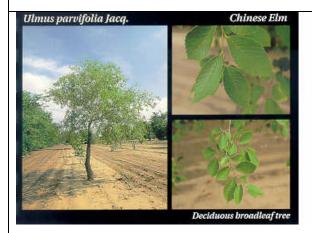
Leaves: Alternate; 2 to 4 inches long; blunt jointed tip; coarsely toothed edge Fruit: 1 to 1 1/2 inches in diameter;

apple; yellow-green

Twig: Stout; spreading; sometimes spines on short side branches; new growth is hairy

Bark: Lengthwise furrows and ridges:

reddish-brown scales





Chinese Elm Ulmus parvifolia *

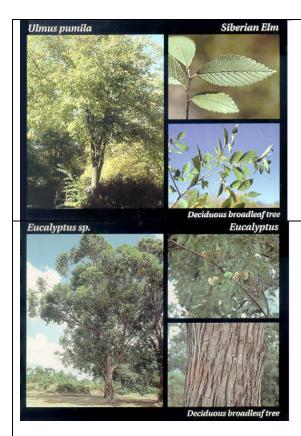
About this tree:

Seeds eaten by purple finch, redbreasted grosbeak and cottontail rabbit Prefers moist soils Grows 40 to 50 feet tall

Hardiness zone 4

Identification Tips:

Leaves: In 2 rows; 3/4 to 2 inches long, 3/8 to 3/4 inch wide; elliptical; unequal at base; saw-toothed; shiny above Fruit: 3/8 inch long; elliptical, flat 1seeded; with broad pale yellow wing Bark: Mottled brown; smooth; shedding in irregular, thin flakes





Siberian Elm Ulmus pumila *

About this tree:

Prefers dry to moist soils

Grows 60 feet tall Hardiness zone 3

Cultivars: Chinkota **Identification Tips:**

Leaves: 3/4 to 2 inches long, 1/2 to 1 inch wide; narrowly elliptical; blunt-

based; saw-toothed

Fruit: 3/8 to 5/8 inch long; clustered; circular with seed in the center

Bark: Gray or brown; rough, furrowed

Eucalyptus Eucalyptus sp. *

(depending on the species)

About this tree:

Wood used for furniture, homes Medicinal use for oil from leaves Used both as timber and ornamental tree

Can grow up to 10 to 15 feet per year and 150 feet tall Hardiness zone 8

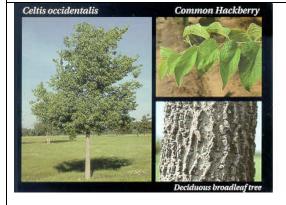
Identification Tips:

Leaves: Alternate; usually flattened vellowish leafstalks; blades lanceshaped, 3 to 12 inches long, 1/2 to 2 inches wide; usually dull green on both sides; thick and leathery

Fruit: Seed capsules 4-angled, about 1inch long; or egg shaped or cylindrical, about 1/4 to 3/4 inch long

Flower: Flower or flowers at leaf base; numerous spreading white or creamcolored stamens

Bark: Usually smooth, mottled gray, white, brown or greenish; sheds; brown, furrowed and non-shedding on Robusta Eucalyptus





Common Hackberry Celtis occidentalis (native)

About this tree:

Fruit eaten by robin, yellow-bellied sapsucker and cedar waxwing Can grow on moist to dry soils; tolerates high pH

Grows 75 to 100 feet tall Hardiness zone 2

Cultivars: Oahe **Identification Tips:**

Leaves: Alternate; 2 to 5 inches long;

sharp-toothed; blue-green

Fruit: 1/4 to 3/8 inch berry, purple-

brown

Twig: Gray-brown, zigzag shape





About this tree: Fruit eaten by wild turkey, bluebird, cedar waxwing

Bark: Ridged, irregular wart-like knobs American Holly *llex opaca* (native)

Prefers wet to moist, well drained soils Grows 40 to 70 feet tall Hardiness zone 5

Identification Tips:

Leaves: Evergreen; spreading in 2 rows; 2 to 4 inches long, 3/4 to 1 1/20 inches wide; elliptical; spiny-pointed; coarsely spiny-toothed; leathery Fruit: 1/4 to 3/8 inches in diameter; berrylike; bright red

Twigs: Brown or gray; stout

Bark: Light gray; thin

Black Locust Robinia pseudoacacia (native)

About this tree:

Seeds eaten by bobwhite quail and squirrel

Prefers moist to dry soils Grows 40 to 80 feet tall Hardiness zone 3 Cultivars: Steiner

Identification Tips:

Leaves: Alternate pinnately compound; 6 to 12 inches long; 7 to 19 leaflets, 1 to 1.75 inches long, 1/2 to 3/4 inches wide; paired

Fruit: 2 to 4 inches long; narrowly oblong flat pod; dark brown Twig: Dark brown, with stout paired spines 1/4 to 1/2 inch long at nodes Bark: Reddish brown to almost black:

thick: deeply furrowed into long rough

forking ridges



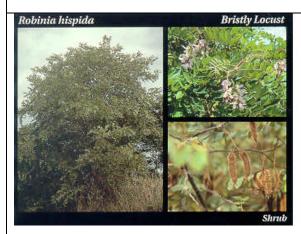
About this tree:

Sweetish pulp edible for humans Grows 50 to 75 feet tall Hardiness zone 3

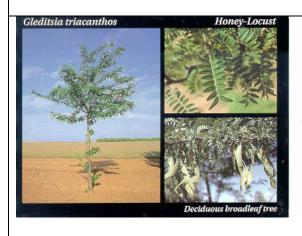
Identification Tips:

Leaves: Alternate; pinnately or bipinnately compound; yellow-green; 6 to 8 inches long; 20 to 30 oblong leaflets 3/4 to 1 1/2 inches long Fruit: Red-brown to purple; twisting; 6 to 18 inches long; bean-like pod with seeds

Twig: Shiny; zigzag; stout; red-brown; 3-branched (1 to 3 inches); thorns 3branched 2 to 3 inches long





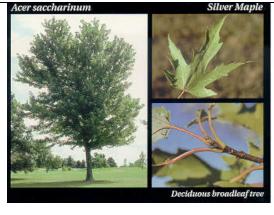


















lenticels Silver Maple Acer saccharinum (native)

Twig: Shiny red; numerous small

orange and yellow in autumn

Bark: Grayish brown-black; long;

Red Maple Acer rubrum (native)

Grows well on a wide range of soil

Fast growing; grows 50 to 70 feet tall

Leaves: Opposite; broadly ovate with 3 shallow short-pointed lobes turning red,

Fruit: Paired single-winged seeds form

irregular; vertical plates

About this tree:

Hardiness zone 3 **Identification Tips:**

types

About this tree:

Seeds used by songbirds and small mammals

Prefers moist or moderately drained

Grows 60 to 80 feet tall; 1 to 3 feet per year

Hardiness zone 3

Identification Tips:

Leaves: Deeply separated into 5 doubly-toothed lobes; opposite, simple, silvery below

Fruit: Pair of wide, curved single winged seeds joined at base to form a

Bark: Light gray; on older trees plates separated by narrow fissures

Sugar Maple Acer saccharum (native)

About this tree:

Good wildlife value

Prefers moderately well to well drained soils; high shade tolerance; poor drought tolerance

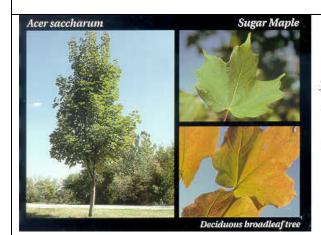
Grows 60 to 100 feet tall

Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Opposite; simple; 3 to 5 lobed; pointed; slightly coarsely toothed Bark: Grayish brown to black; deeply furrowed into hard scaly ridges Fruit: Pair of single winged seeds join

at base to form a 'V'









Russian Mulberry Morus alba var. tatarica *

About this tree:

Hardy variety of white mulberry Wood is hard and durable Grows to 50 feet tall Wide zone of hardiness

Identification Tips:

Leaves: Alternate, heart-shaped and lobed; 2 to 4 inches long and half as wide

Fruit: White to dark red; less than 1 inch long and juicy

Flower: Catkins, drooping; up to 1 inch long

Twig: Red-brown when young; gray on

older trees





Bur Oak Quercus macrocarpa (native)

About this tree:

Acorns eaten by turkey, blue jay, grouse and wood duck Prefers dry uplands to moist floodplains Grows 50 to 80 feet tall Hardiness zone 2

Identification Tips:

Leaves: 4 to 10 inches long, 2 to 5 inches wide; obovate, lower half deeply divided into 2 to 3 lobes on each side; dark green

Fruit: Large acorns; broadly elliptical, enclosed by large deep fringed cup with conspicuous fringe

Bark: Light gray; thick, rough, deeply

furrowed into scaly ridges





Northern Red Oak Quercus rubra (native)

About this tree:

Acorns eaten by turkey, blue jay and ruffed grouse Prefers dry uplands

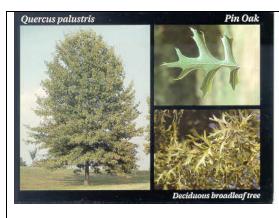
Grows 75 to 100 feet tall Hardiness zone 3

Identification Tips:

Leaves: Alternate; simple; pinnately (7-11) lobed; dark green; 4 to 9 inches long

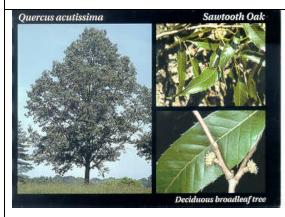
Fruit: Egg-shaped, brown acorn; 1/3 enclosed by shallow cup; dark margin on cup scales

Bark: Dark gray-black, shallow, wideflat ridges











Quercus shumardii



Pin Oak Quercus palustris (native)

About this tree:

Acorn eaten by turkey, wood duck, grouse and blue jay Tolerates poorly drained, wet sites Grows 50 to 90 feet tall

Hardiness zone 3

Identification Tips:

Leaves: 3 to 5 inches long, 2 to 4 inches wide; 5 to 7 deep lobes nearly to midvein

Fruit: 1/2 inch long; nearly round; acorn; 1/4 to 1/3 enclosed by thin saucer-shaped cup

Sawtooth Oak Quercus acutissima

About this tree:

Excellent for wildlife

Prefers moderately to well drained soils; poor shade tolerance; fair drought tolerance

Grows 35 to 70 feet tall; medium growth

Hardiness zone 5 Cultivars: Gobbler **Identification Tips:**

Leaves: Shiny; 3 to 8 inches long with

bristle-like teeth

Fruit: Small acorns; long, spreading scales enclose two-thirds of the nut Bark: Gray brown; deeply ridged

Shumard Oak Quercus shumardii (native)

About this tree:

Acorn eaten by turkey, wood duck and

Prefers moist, well drained soils Grows 60 to 90 feet tall Hardiness zone 4

Identification Tips:

Leaves: 3 to 7 inches long, 2 1/2 to 5 inches wide; usually deeply divided nearly to midvein into 5 to 9 lobes; shiny dark green above, paler below with tufts of hair at base of veins

Fruit: 5/8 to 1 inch long, egg-shaped; 1/4 to 1/3 enclosed by shallow cup

Twig: Hairs on the buds













White Oak Quercus alba (native)

About this tree:

Acorns eaten by turkey, blue jay and ruffed grouse

Prefers moist, well drained upland soils Grows 80 to 100 feet tall

Hardiness zone 3

Identification Tips:

Leaves: 4 to 9 inches long; 2 to 4 inches wide; elliptical; 5 to 9 lobed; bright green above, whitish or gray-

green below

Fruit: 3/8 to 1 1/4 inches long; eggshaped; about 1/4 enclosed by shallow warty cup

Bark: Light gray; shallowly fissured

Russian-Olive Elaeagnus angustifolia *

About this tree:

Fruit eaten by cedar waxwings, robins, grosbeaks and pheasants

Can grow on moist to dry soils Grows 20 to 30 feet tall

Hardiness zone 3 Cultivars: King Red **Identification Tips:**

Leaves: 1 1/2 to 3 1/4 inches long; lance-shaped; dull; gray-green above,

silver below

Fruit: Berry-like; 3/8 to 1/2 inch in

diameter; yellow to brown

Twig: Silvery; often ending in short

spine

Bark: Gray-brown; fissured; shedding

in long strips

Osage-Orange Maclura pomifera

(native)

About this tree:

Seeds eaten by quail and squirrels

Grows 35 to 50 feet tall

Excellent fuel wood

Hardiness zone 4

Identification Tips:

Leaves: Alternate; simple; 3 to 5 inches

long; glossy bright green; leaf margins

entire

Fruit: Large; yellow-green; 3 to 5

inches in diameter

Twig: Stout; orange-brown; zigzag

shape; 1/4 to 1/2 inch spines

Bark: Deeply furrowed; yellow-orange-

brown















Pecan Carya illinoensis (native)

About this tree:

Edible fruit

Prefers moist, well drained, bottomland soils

Grows to 100 feet tall

Hardiness zone 4

Identification Tips:

Leaves: Pinnately compound; 20 to 22 inches long; 11 to 17 leaflets, each 2 to 7 inches long; finely saw-toothed margin: alternate

Fruit: Nut; oblong; 1 to 2 inches long;

pointed at tip, both ends

Bark: Light brown to gray; deeply,

irregularly furrowed

Pomegranate Punica granatum

About this tree:

Cultivated for its attractive flowers Tolerates heat and alkaline soils Grows to 20 feet tall Hardiness zone 7

Identification Tips:

Leaves: Simple; blades 1 to 3 1/2 inches long; oval to elliptical to lanceolate; margin entire; surface bright green

Fruit: Berry 2 to 4 inches in diameter; thick, leathery, reddish yellow rind; juicy

Flower: Showy; red to orange; 5 to 7

petals

Bark: Gray to brown on older limbs

Hybrid Poplar Populus sp.

About this tree:

Grows very fast, upright, not as spreading as cottonwoods Disease resistant Crossbred specifically in many cases for fast growth in windbreaks Cultivars: Northwest, Norway, Imperial, Robusta

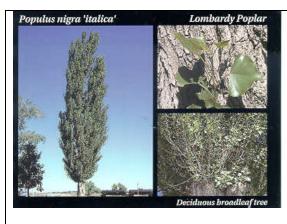
Identification Tips:

Leaves: Variable but usually triangular; 2 to 5 inches long and wide; usually green above, light green below; toothed margin; flattened leafstalks

Twig: Short; hairless

Bark: Smooth gray to off-white; deeply

furrowed in old trees





Lombardy Poplar *Populus nigra* 'italica'

About this tree:

Prefers moist soil

Tree grows rapidly but is short-lived in more humid regions

Roots are invasive and may sucker profusely

Grows to 100 feet tall

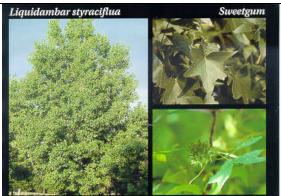
Hardiness zone 4

Identification Tips:

<u>Leaves:</u> 2 to 4 inches long and wide; triangular; wavy sawtoothed; green above, light green below; flattened leafstalks

<u>Twigs:</u> Stout; hairless; orange, turning gray

<u>Bark:</u> Gray to whitish; smooth on young trees and dark deep furrows on old trees





Sweetgum *Liquidambar styraciflua* (native)

About this tree:

Grows 60 to 100 feet tall; 2 to 3 feet per year

Excellent fall color

Tolerates a wide range of soils

Hardiness zone 6

Identification Tips:

<u>Leaves</u>: Alternate; star-shaped with pointed lobes; brilliant fall colors <u>Fruit</u>: Globe-shaped, tight cluster of capsules persist on tree over winter <u>Twig</u>: Moderately stout with corky wing-like ridges; buds large and shiny <u>Other</u>: Strongly pyramidal growth form

Other: Strongly pyramidal growth for American Sycamore *Plantanus* occidentalis (native)

About this tree:

Seed eaten by purple finch
Prefers moist bottomland soils; tolerates
poorly drained soils

Grows 75 to 100 feet tall

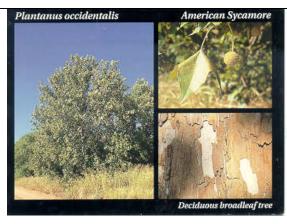
Hardiness zone 4

Identification Tips:

<u>Leaves:</u> 4 to 8 inches long and wide; broadly ovate; 3 or 5 shallow, broad, short-pointed lobes

<u>Fruit:</u> 1 inch in diameter; usually 1 brown ball hanging on long stalk; composed of narrow nutlets with hair tufts

<u>Bark:</u> Smooth, whitish and brown mottled; peeling off in large thin flakes



















Black Walnut Juglans nigra (native)

About this tree:

Nuts eaten by squirrel, red and gray fox Prefers moist, well drained soils Grows 70 to 90 feet tall Hardiness zone 3

Identification Tips:

Leaves: Pinnately compound; 12 to 24 inches long; 15 to 23 leaflets up to 5 inches long

Fruit: Single or paired, about 2 inches in diameter; thick green or brown husk Twig: Brown; stout; with buff colored chambered pith

Bark: Dark brown; deeply furrowed ridges

Black Willow Salix nigra (native)

About this tree:

Prefers wet soils

Grows 60 to 100 feet tall

Hardiness zone 3

Identification Tips:

Leaves: 3 to 5 inches long, narrowly lance-shaped; shiny green on both sides

Fruit: 3/16 inch long; reddish-brown

capsules; hairless

Twig: Brownish; easily detached at base

Bark: Dark brown or blackish; deeply furrowed into scaly, forking ridges

Golden Willow Salix alba var. vitellina

About this tree:

Rapid growth rate with no suckering Good winter density for a deciduous hardwood

Tolerates wide range of soils Grows to 60 feet tall

Hardiness zone 3

Identification Tips:

Leaves: Narrow lance-shaped; finely

toothed; 4 to 6 inches long

Flower: Male catkins 1 to 2 inches long

with females 2 to 3 inches long Twig: Bright yellow to orange Buds: Covered by a single non-

resinous scale





Purpleosier Willow Salix purpurea

About this tree:

Fair wildlife value

Tolerates poorly drained soils; good shade tolerance; poor drought tolerance Grows 10 to 20 feet tall

Hardiness zones 3 to 8 Cultivars: Streamco

Identification Tips:

Leaves: In pairs, not quite opposite; smooth tongue shaped; finely-toothed near the tip only; blue-green above and pale below; 2 to 4 inches long Catkins: Small, arise in almost opposite pairs, and mature in early spring before the leaves come out

Coniferous Trees





Casuarina Casuarina sp. *

About this tree:

Provides perching and nesting for birds Tolerates dry or wet soil, salinity, heat and wind

Grows 50 to 100 feet tall; grows up to 8 to 10 feet per year Hardiness zone 8

Identification Tips:

Leaves: Scale-like; 1/8 inch long Fruit: Light brown, warty ball

Bark: Light gray brown; smoothish on small trees, later becoming furrowed





Northern White Cedar (Arborvitae) Thuja occidentalis (native)

About this tree:

Foliage, twigs eaten by White-tailed deer, fruit eaten by various birds Prefers neutral to alkaline soils, limestone origin Grows 40 to 70 feet tall

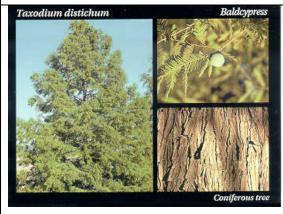
Hardiness zone 2 **Identification Tips:**

Leaves: Evergreen; opposite; 1/16 to 1/8 inch long; scalelike; dull yellowgreen; foliage sprays fanlike

Fruit: Cone; 3/8 inch long; elliptical; upright from short curved stalk Bark: Light red-brown; thin; fibrous









Arizona Cypress *Cupressus* arizonica (native)

About this tree:

Used for erosion control, windbreaks, urban landscaping, posts, stakes and corral poles

Prefers moist gravelly soils on slopes and benches

Grows 40 to 60 feet

Hardiness zone 6

Identification Tips:

<u>Leaves:</u> Minute blue-green to graygreen; scale-like; sharp pointed; finely toothed on the margins; shunlike odor when bruised

<u>Fruit:</u> Dark reddish brown cones about one inch long that remain on the tree for many years, become gray with age <u>Bark:</u> Reddish brown with irregular, narrow, thin, curling scales that peel; on older tree's, bark becomes furrowed

Baldcypress *Taxodium distichum* (native)

About this tree:

Well adapted to wet sites, but can be planted on dry sites; wood very resistant to decay; develops 'knees' under saturated conditions Grows 60 to 100 feet tall Hardiness zone 4

Identification Tips:

<u>Leaves:</u> Needle-like; delicate; arranged in 2 ranks in a feather-like fashion along small branchlets; branchlets with fine needles fall in the autumn

<u>Fruit:</u> Globe-shaped, woody cone, 1 inch in diameter; cones disintegrate at maturity

<u>Twig:</u> Reddish-brown; rough, with several short peg-like branches <u>Bark:</u> Dark reddish-brown with long loose shreddy ridges



Abies concolor



About this tree:

Used as Christmas trees, hedgerows, windbreaks and landscaping Adapted to a wide range of soil textures; prefers moist, well drained soils

Grows 60 to 70 feet tall Hardiness zone 5

Identification Tips:

<u>Leaves:</u> Blue-green to gray-green needles, 1/8 inch long; acute; appressed with the apices of the lateral pairs often free

Fruit: Cone, 1/2 to 3/4 inch in diameter with 8 scales; each scale contains approximately 5 seeds per scale Bark: Reddish-brown and scaly

Concolor Fir Abies concolor (native)

About this tree:

Provides winter cover for wildlife Prefers dry to moist soils Grows 75 to 100 feet tall Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Needles; slat; linear; 2-ranked; blue-green; 1 1/2 to 2 1/2 inches long <u>Fruit:</u> Cone; erect; olive brown; cylindrical; 3 to 5 inches long <u>Twig:</u> Stout; yellow-green with clustered blunt, red-brown resinous buds

<u>Bark:</u> Ash, gray-brown color; flattened ridges



Pre Gro Hai Ide

Douglas-Fir *Pseudotsuga menziesii* (native)

About this tree:

Winter cover for wildlife Prefers well drained, loamy soils Grows 80 to 200 feet tall Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Needles; flexible; flattened; light green-bluegreen; blunt tip; 3/4 to 1 1/4 inch long

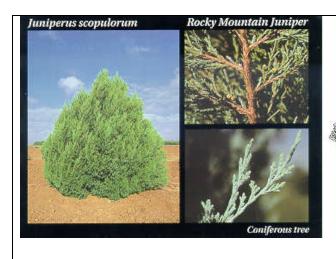
<u>Fruit:</u> Cone, tan-brown; 2 to 3 inches long; clustered pairs; 3 points;

protruding bracts

Twig: Slender; gray-brown; long; sharp-

pointed buds

Bark: Reddish brown; deep furrows





About this tree:

Foliage and fruit eaten by mammals and birds

Can grow on dry to moist soils Grows 25 to 50 feet tall Hardiness zone 3

Identification Tips:

Leaves: Small; scale-like; opposite; smooth edges; 1 to 2 inches long Fruit: Small; fleshy; berry-like; 2 to 3 inches in diameter; bright blue Twig: Slender, 4-sided; becoming rounded with age Bark: Thin; reddish-brown; weathering

to grayish





Austrian Pine Pinus nigra

About this tree:

Prefers dry, drought resistant soils Grows 75 to 100 feet tall Hardiness zone 3

Identification Tips:

Leaves: Evergreen, 3 1/2 to 6 inches long; 2 in bundle; stiff; shiny dark green; silvery white buds

Fruit: Cone, 2 to 3 inches long, 1 to 1 1/4 inches wide; egg-shaped; shiny, vellow-brown; almost stalkless Bark: Dark brown; thick; rough; furrowed into irregular scaly plates

Buds: Large, silvery buds

Eastern White Pine Pinus strobus (native)



Prefers sandy-loam soils; avoid clay-

Grows 60 to 100 feet tall, 50 to 80 feet wide; growth rate is 3 to 5 feet per year Hardiness zone 3

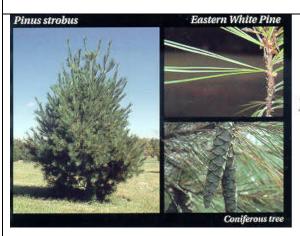
Identification Tips:

Leaves: Needles in bundles of 5; 3 to 5 inches long; slender; flexible Fruit: Cones; 4 to 8 inches long;

cylindrical; often curved Twig: Orange brown

Bark: Dark grayish brown; deeply furrowed on older trees; 1 to 2 inches

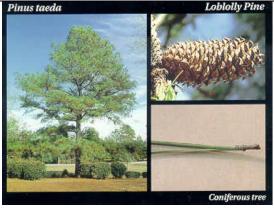
thick with ridges



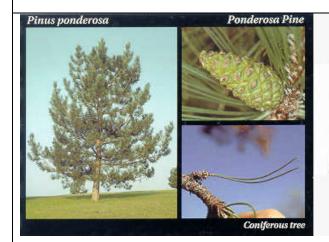












Eldarica Pine Pinus eldarica

About this tree:

Prefers fine sands, silt loams to silty clay loams, and very well drained to moderately well drained soils Fast growth if irrigated

Hardiness zone 7

Identification Tips:

<u>Leaves:</u> Needles 4 to 6 inches long borne in bundles of 2 or rarely 3; new growth blue-green, older growth darker green

<u>Fruit:</u> Cones; reddish brown to brown; borne singly or in whorls of 3 to 6; cones are ovate-conic, approximately 4 inches in length; unarmed <u>Bark:</u> Silvery gray and shiny when young; becoming reddish brown; fissured and scaly on older trunks

Loblolly pine *Pinus taeda* (native)

About this tree:

Seeds eaten by Bobwhite quail and mourning dove

Tolerates poorly drained to well drained soils

Grows 80 to 100 feet tall

Hardiness zone 7

Identification Tips:

<u>Leaves:</u> Needles; 5 to 9 inches long; 3 in bundle; stout, stiff, often twisted <u>Fruit:</u> 3 to 5 inches long; conical <u>Bark:</u> Blackish-gray; thick, deeply furrowed into scaly ridges exposing brown inner layers

Ponderosa Pine *Pinus ponderosa* (native)

About this tree:

Seeds eaten by birds, mammals Can grow on dry soils Grows 75 to 100 feet tall Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Needles; stout; flexible; yellowgreen; 5 to 10 inches long; clusters of 2 or 3

Fruit: Cone, tan-brown; 3 to 6 inches

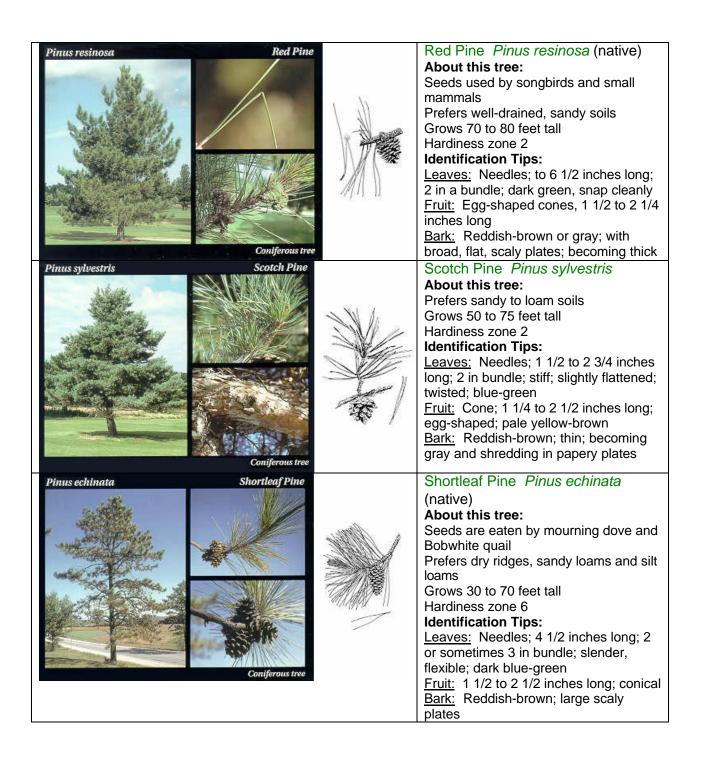
long: scales with prickles

Twig: Stout; orange-brown; turpentine

odor when broken

Black, yellow-orange (old); wide,

shallow-furrowed; flaky plates







Slash Pine Pinus elliottii (native)

About this tree:

Seeds eaten by Bobwhite quail and mourning dove

Prefers poorly drained sandy soils Grows 60 to 100 feet tall Hardiness zone 7

Identification Tips:

<u>Leaves:</u> Needles; 7 to 10 inches long; 2 and 3 in bundle; stout; stiff; shiny green <u>Fruit:</u> 2 1/2 to 6 inches long; narrowly

shaped: shinv dark brown

Bark: Purplish-brown; flattened, scaly

plates; rough and furrowed





Virginia Pine *Pinus virginiana* (native)

About this tree:

Good wildlife value Prefers well drained soils Poor shade tolerance Good drought tolerance Grows 30 to 40 feet tall Hardiness zone 4

Identification Tips:

<u>Leaves:</u> Needles, 1 1/2 to 3 inches long; stout; gray-green; in bundles of

two; twisted

Fruit: Dark reddish-brown; ovoid; lustrous; 1 1/2 to 2 1/2 inches long, with a sharp spine at the end of each scale Bark: Shallow fissures; dark brown

loose scales





Eastern Redcedar Juniperus virginiana (native)

About this tree:

One of the best conifers for wildlife habitat

Well adapted to most soils Grows 25 to 60 feet tall Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Two types, usually on the same tree -- scale-like and awl shaped <u>Fruit:</u> Blue berrylike cone, 1/4 to 1/3

inch in diameter

Twig: 4-sided





Colorado Blue Spruce *Picea pungens* (native)

About this tree:

Winter cover for wildlife Prefers upland dry soils Grows 75 to 100 feet tall Hardiness zone 2

Identification Tips:

<u>Leaves:</u> Needles; stiff; spirally arranged; 4-sided; 3/4 to 1 1/2 inches long; very prickly; sharp pointed <u>Fruit:</u> Cone, oblong; tan-brown; cylindrical; 3 to 4 inches long; papery scales

Twig: Stout; orange to gray-brown

Bark: Silvery gray-brown



About this tree:

Foliage, twigs eaten by White-tailed deer; needles eaten by grouse; winter cover for many species
Prefers moist soil

Grows 75 to 100 feet tall

Hardiness zone 2

Identification Tips:

<u>Leaves:</u> Needles; 1/2 to 1 inch long; stiff; 4-angled; sharp-pointed; shiny, dark green with whitish lines; drooping foliage

<u>Fruit:</u> Cones; 4 to 6 inches long; cylindrical; light brown; hanging down <u>Bark:</u> Reddish-brown; scaly

White Spruce Picea glauca (native)

About this tree:

Foliage, twigs eaten by White-tailed deer; needles eaten by grouse; winter cover for many species
Prefers moist, sandy loam soils

Grows 50 to 60 feet tall; 1 to 3 feet per year

Grows 3 to 6 feet tall

Identification Tips:

<u>Leaves:</u> Needles 1/2 to 3/4 inches long; stiff; 4-angled, sharp pointed; blue-

green, with whitish lines

Fruit: Cones, 1 to 2 inches long

Twig: Orange-brown; slender; peglike

bases

Bark: Gray or brown; inner bark whitish













Silver Buffaloberry Shepherdia argentea (native)

About this shrub:

Fruit eaten by chipmunk and brown thrasher

Grows well on dry, well drained, or moist sites; will tolerate alkaline soils Grows 10 feet tall; 8 feet wide

Hardiness zone 2 Cultivars: Saka Kawae Identification Tips:

<u>Leaves:</u> Opposite; entire leaf silver on

both surfaces

Fruit: Fleshy with an inner seed

(peach); yellowish-red

<u>Twig:</u> Branches may have thorny

projections





Nanking Cherry Prunus tomentosa

About this shrub:

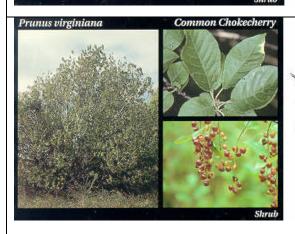
Fruit eaten by woodpecker, bluejay, catbird, brown thrasher, robin, cedar waxwing and cardinal Grows 8 feet tall; 8 feet wide

Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Alternate; simple; elliptical; 2 to 3 inches long; dark green edges; toothed; densely hairy beneath <u>Fruit:</u> Red berry, 1/2 inch in diameter

Stem: Slender; hairy





Common Chokecherry *Prunus* virginiana (native) *

About this shrub:

Fruit eaten by many birds and mammals such as raccoon Prefers moderately well to well drained sites

Grows 30 feet tall; 20 feet wide

Hardiness zone 2 **Identification Tips:**

Leaves: Alternate; simple with 2 glands

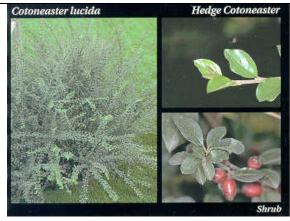
at base of petriole

Fruit: Fleshy with an inner seed

(peach); reddish-black

<u>Twig:</u> Twigs have bitter almond

fragrance when crushed





Hedge Cotoneaster Cotoneaster lucida

About this shrub:

Good density; provides cover to several species of birds and mammals Tolerates poor soils; prefers cool, moist site

Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Hairy; shiny; approximately 2 inches long

<u>Fruit:</u> Large black berry 1/3 inch in diameter

<u>Twig:</u> Includes buds; covered by 2-bud scales

<u>Bark:</u> Often peeling in strips; buff to light brown







Highbush Cranberry *Viburnum trilobum* (native)

About this shrub:

Fruit eaten by birds Grows on well drained, moist soils Grows 6 to 15 feet tall Hardiness zone 2

Identification Tips:

<u>Leaves:</u> Opposite; simple; 3-lobed; bright green; 2 to 5 inches long <u>Fruit:</u> Berry, 1/4 to 3/8 inch diameter; scarlet-red; drooping clusters <u>Twig:</u> Gray-brown, hairless, red-brown buds

Bark: Dark gray; corky appearance

Golden Currant Ribes aureum

About this shrub:

Edible fruit

Excellent ornamental

Tolerates wide range of soil conditions

Grows up to 10 feet tall

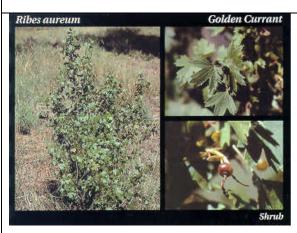
Identification Tips:

<u>Leaves:</u> Alternate or clustered, 3/4 to 2 inches wide; usually deeply 3-lobed; bright green; 1/2 to 4 inches long <u>Fruit:</u> Currants ripen to black color in summer; 1/4 inch across

Flower: Fragrant; golden yellow; bell-

like

Twig: Hairy, thornless









Gray Dogwood Cornus racemosa (native)

About this shrub:

Fruit eaten by ringnecked pheasant, ruffed grouse and sharptail grouse Grows well in poor soil conditions Grows 8 feet tall; 5 feet wide Hardiness zone 3

Identification Tips:

Leaves: Opposite; smooth edges; 3 to 5 veins that tend to follow leaf edges towards tip

Fruit: White berry on reddish stem Twig: Light brown with brownish pith





Redosier Dogwood Curnus stolonifera (native)

About this shrub:

Fruit eaten by cardinal, ruffed and sharptail grouse

Prefers sandy to clay soils; does well on moderately wet soils

Grows 7 to 10 feet tall; 6 to 8 feet wide Hardiness zone 3

Cultivars: Mason, Ruby **Identification Tips:**

<u>Leaves</u>: Opposite with venation parallel

to edge

Fruit: White berry

Twig: Red in winter; white pith

Elderberry Sambucus canadensis (native)

About this shrub:

Fruit eaten by birds, squirrels and other rodents

Prefers rich, moist lowlands Grows 6 to 8 feet tall Hardiness zone 3

Identification Tips:

Leaves: Opposite; pinnately compound; 5 to 7 leaflets; sharply

toothed margins

Fruit: Large clusters; deep purple; berry-like; 2/10 inch in diameter Twig: Stout; light brown to grav: conspicuous shield-shaped leaf scars Bark: Thick, roughened and furrowed with age; yellowish-brown to brown













About this shrub: Readily eaten by so jays, deer, grouse,

Readily eaten by squirrels, chipmunks, jays, deer, grouse, quail and pheasant Grows 10 to 20 feet tall

Hardiness zone 5

Identification Tips:

Hazelnut Corylus sp.

<u>Leaves:</u> Alternate; simple; somewhat heart-shaped; edges coarse, doubly toothed

<u>Fruit:</u> Edible nuts enclosed in thin, flattened, hairy ragged-edged papery husks; commercially called 'filberts' <u>Twig:</u> Slender; tan; covered with stiff hairs

Bark: Strongly multistemmed

Deciduous Holly *Ilex decidua* (native)

About this shrub:

Fruit eaten by opossums, raccoons, other mammals, songbirds and gamebirds

Grows 10 to 20 feet tall; has a spreading crown

Hardiness zone 5

Identification Tips:

<u>Leaves:</u> Alternate; simple; elliptical to spoon-shaped; clustered on short spur

twigs; loses leaves each fall

Fruit: Red-orange, berry-like; persisting

over winter

<u>Twig:</u> Light gray, slender with numerous short spur shoots

Amur Honeysuckle Lonicera maackii *

About this shrub:

Fruit eaten by many birds; dense foliage used as cover by animals Grows well on many soils Moderately resistant to honeysuckle aphid

Hardiness zone 2

Cultivars: Rem Red, Cling-red

Identification Tips:

Leaves: Opposite; simple; 2 to 3 inches

long

Fruit: Red berry

Twig: Older stems hollow, no pith













Common Lilac Syringa vulgaris

About this shrub:

Good density provides cover for many birds and mammals

Best on moist to dry soils; needs full

sunlight

Grows 20 feet tall; 15 feet wide

Hardiness zone 3 **Identification Tips:**

<u>Leaves:</u> Opposite arrangement; dark,

blue-green in color Fruit: Capsule Twig: No pith

Flower: Extremely fragrant

Bristly Locust Robinia hispida

(native)

About this shrub:

Fair wildlife value

Excellent drought tolerance; prefers well

drained soil; needs full sun

Grows up to 10 feet tall; matures in 3 to

5 years

Hardiness zones 4 to 8

Cultivars: Arnot **Identification Tips:**

<u>Leaves:</u> Alternate; compound; bright green on bristle-covered branches Fruit: Seed pods covered with red-

brown bristles

 $\underline{ \textbf{Flower:}} \;\; \textbf{Large; attractive; rose-purple}$

color

Amur Maple Acer ginnala *

About this shrub:

Prefers moist, well drained sites; tolerates wide variety of sites Grows 20 feet tall; 20 feet wide

Hardiness zone 2 Cultivars: Flame Identification Tips:

Leaves: Opposite; 3 lobed; 1 1/2 to 3

inches long

<u>Fruit:</u> Pair of wide, curved single winged seeds joint at base to form a 'V'

Twig: Hairless; slender; gray

Bark: Smooth; gray





Common Ninebark *Physocarpus* opulifolius (native)

About this shrub:

Provides good cover for wildlife Prefers well drained to moist site; sun to partial shade

Grows 8 feet tall; 8 feet wide

Hardiness zone 2

Identification Tips:

Leaves: 3-lobed; round-toothed;

hairless

<u>Fruit:</u> Small, hollow covering over seed <u>Twig:</u> Older bark papery, appears to be

shredded





Oleander Nerium oleander

About this shrub:

Requires little care

Tolerates wide range of soil conditions
Thrives in heat and sun
All parts of plant are poisonous

Moderate to fast growth rate up to 15 feet tall

Hardiness zone 7

Identification Tips:

<u>Leaves:</u> Opposite and evergreen; linear to elliptic and narrow; margin entire; dark green above, paler beneath; 4 to 12 inches long at end

Fruit: Two ovaries forming nearly erect

follicles, 4 to 8 inches long; seeds twisted

<u>Flower:</u> Various colors; often double forms; 5 stamens; 5 sepals; odorless





Autumn-Olive Elaeagnus umbellata

About this shrub:

Fruit eaten by catbird, brown thrasher, robin, and cedar waxwing Prefers moist to dry soils; sun to partial

shade

Grows 20 feet tall Hardiness zone 4

Cultivars: Cardinal, Elsberry, Redwing,

Ellagood

Identification Tips:

<u>Leaves:</u> Alternate arrangement on stem; dark green top; light silver-green bottom

Fruit: Red berry

Twig: Occasional thorn-like projections

along branches





Dwarf Willow Salix cottetii

About this shrub:

Poor to fair wildlife value Poor drought tolerance; moderate shade tolerance; tolerates poorly drained soils

Grows 6 feet tall; 6 feet wide; matures

in 3 to 4 years Cultivars: Bankers **Identification Tips:** Leaves: Light green

Twig: Semi-prostrate stems that rarely

exceed 1/2 inch in diameter





Desert Willow *Chilopsis linearis* (native)

About this shrub:

Adapted to desert washes and streambeds

Propagates easily from cuttings Grows to 20 feet tall

Hardiness zone 7 Identification Tips:

<u>Leaves:</u> Simple; opposite or scattered; 5 to 12 inches long, 1/3 inch wide; margins entire; light green; thin <u>Fruit:</u> Slender capsule, 7 to 12 inches long and 1/4 inch thick; numerous seeds; persists through winter <u>Flower:</u> Showy and trumpet-shaped; appear in spring and often through fall <u>Twig:</u> Slender; light brown

Nannyberry *Viburnum lentago* (native)

About this shrub:

Fruit eaten by ruffed grouse, ringnecked pheasant, cottontail rabbit and gray squirrel

Grows in dry, well drained or moist sites Grows 20 feet tall; 10 feet wide

Hardiness zone 2

Identification Tips:

<u>Leaves:</u> Opposite; 2 to 5 inches long; fine toothed edges; long-pointed tip;

winged leaf stalk

Fruit: Blue-black, berry-like











Skunkbush Sumac Rhus trilobata (native)

About this shrub:

Fruit eaten by many birds Prefers well drained to dry soils: tolerates alkaline and drought conditions

Grows 6 feet tall; 5 feet wide Hardiness zone 3

Cultivars: Bighorn **Identification Tips:**

Leaves: Alternate; compound; 3

leaflets

Fruit: Red; berry-like; covered with soft,

dense hair



Used for landscaping and wildlife habitat

Prefers moderately well to drained soils Hardiness zone 4

Identification Tips:

Leaves: Pinnately compound, alternate with 9 to 21 lanceolate leaflets: smooth shiny dark green above, hairy and pale below; leaves turn crimson in fall Fruit: Small globular bright red berry in dense erect spikes 4 to 8 inches tall Twig: Red; stout with very large leaf

scars

Bark: Silvery-gray smooth with raised distinct lenticels; becomes scaly on older shrubs





Four-Winged Saltbush Atriplex canescens (native)

About this shrub:

Used for wildlife habitat, windbreaks and landscape plantings

Prefers high pH soils, tolerates heavy white or black alkali: tolerates clavev to sandy soils

Hardiness zone 4

Cultivars: Marana, Rincon, Santa Rita

Identification Tips:

Leaves: Gray-green; alternate; linearspatulate to narrowly oblong; 1/2 to 2 inches long with margins somewhat enrolled; evergreen in the southern range; deciduous in the northern range Fruit: A dry seed with 4 distinct, broadly dilated but variable wings

Twig: Slender; gray-scurfy; rigid; slightly spinescent; not angled at the nodes





Rose, Bush-type Rosa sp. *

About this shrub:

Fruit eaten by many wild animals and birds

Use bush type forms

Adapted to wide variety of soils Grows up to 10 feet tall

Identification Tips:

<u>Leaves:</u> Alternate and compound, 5 to 11 parted; toothed; 3 to 7 leaflets per leaf

<u>Fruit:</u> Red; fleshy; covering numerous small seeds; usually remain on plants all winter

<u>Flower:</u> Usually large and showy; pink to deep rose in color

Twig: Mostly green or reds, usually







Amur Privet Ligustrum amurense *

About this shrub:

Density provides cover for wildlife Prefers moist soils Grows 12 feet tall; 6 feet wide Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Opposite; non-toothed; hairy beneath along midrib; 1 to 2 inches long Fruit: Small black berry; dull color

Twig: Densely hairy





Rainbow Plum Prunus sp.

About this shrub:

Excellent cover for small animals and game birds as well as nesting sites for song birds

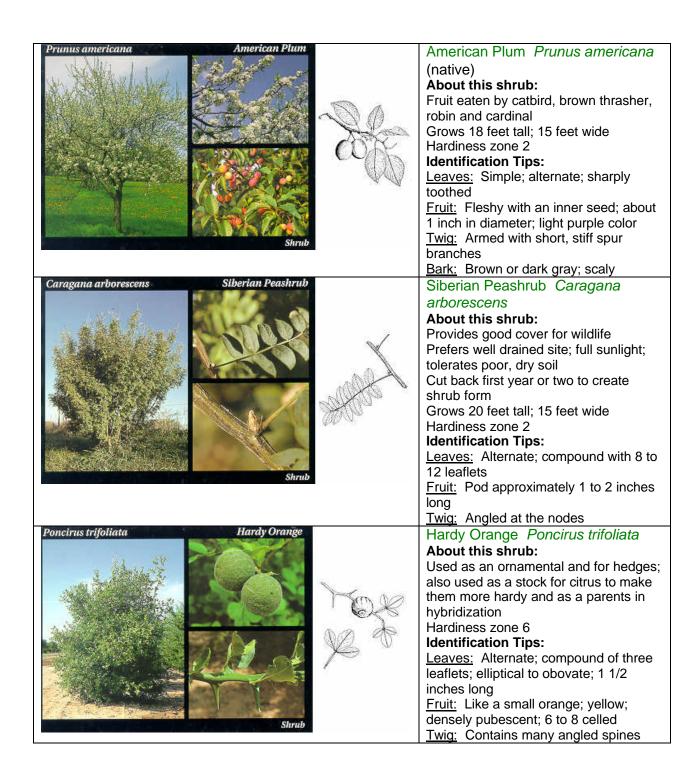
Adapted to wide range of soil types; prefers moderately well drained soils Hardiness zone 3

Identification Tips:

<u>Leaves:</u> Simple, deciduous, 1 to 2 inches long; alternate; lanceolate or oblong-lanceolate; sharply serrated small glandular teeth

<u>Fruit:</u> 1/2 to 3/4 inch in diameter; varicolored fruit, deep yellow to bright red

<u>Twig:</u> Reddish-brown; lustrous; hair at first, glabrous later; slender; zigzag often with spinescent spurlike lateral divisions; lenticels horizontal and orange colored



* indicates the plant may be considered weedy or invasive in some parts of the US and may not be appropriate for conservation uses in certain areas. Check with your local Conservation District or state department of natural resources for more information on weediness and recommendations for use. This guide in primarily intended as an identification tool. Persons intending to use these plants for conservation or landscape should consult additional sources of information for use, establishment, and management of the species.

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