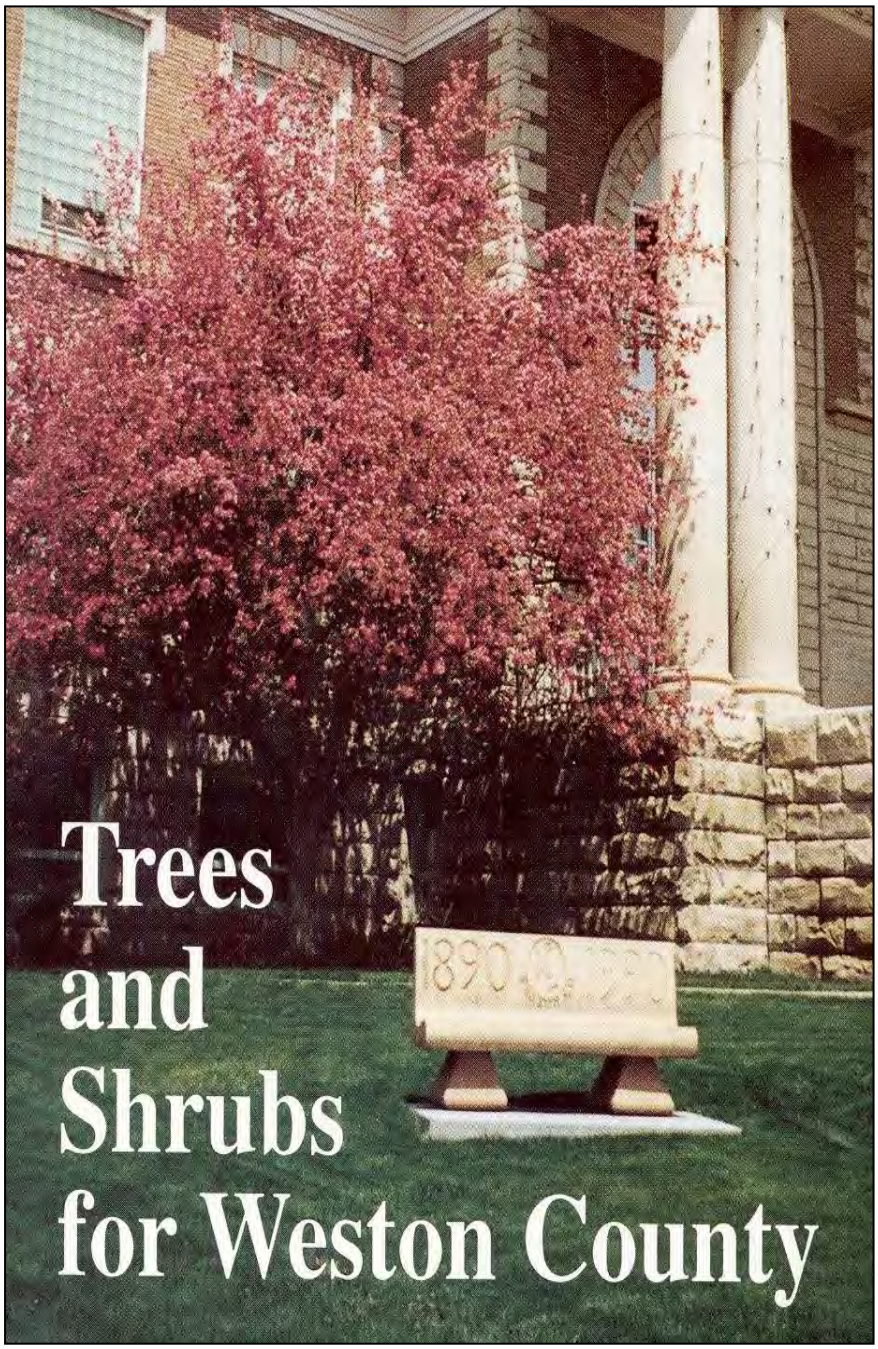

Trees and Shrubs for Weston County

Special Thanks to :

Newcastle Tree Board, Weston County Natural Resource District, City of Newcastle, and Wyoming State Forestry Division for developing and publishing this guide.

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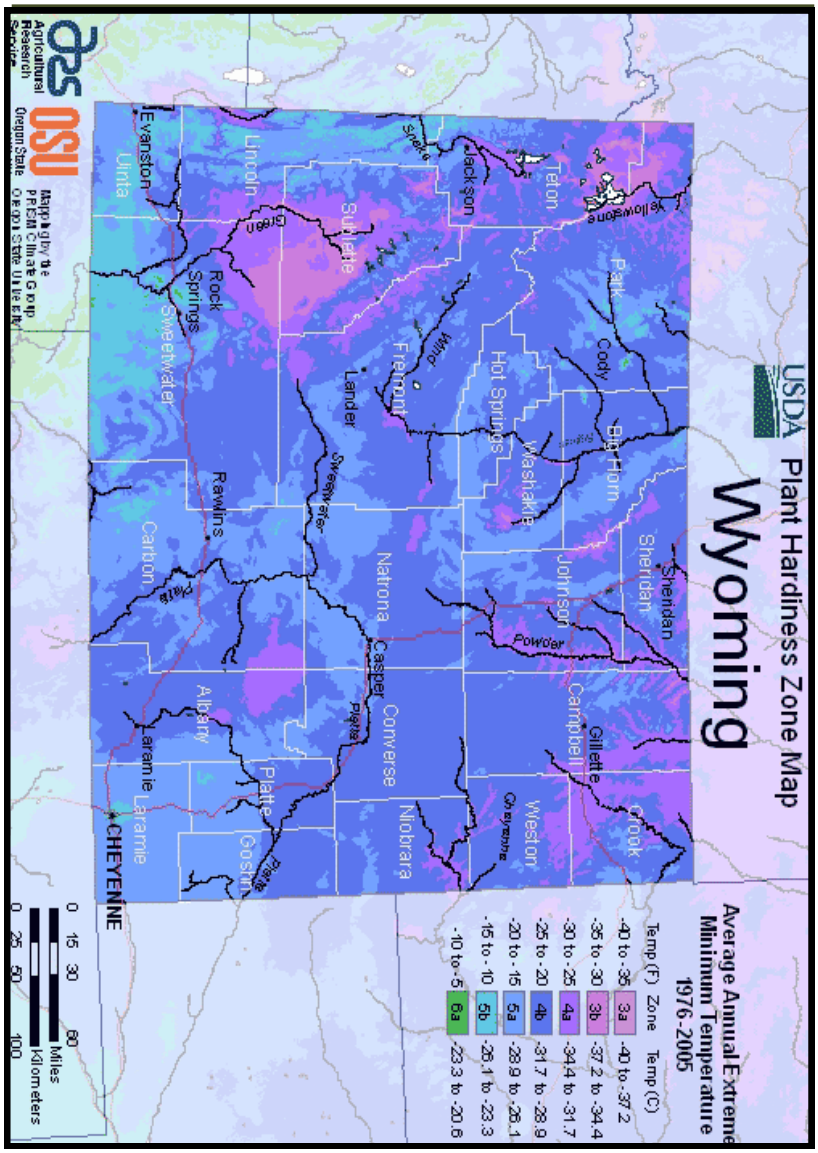
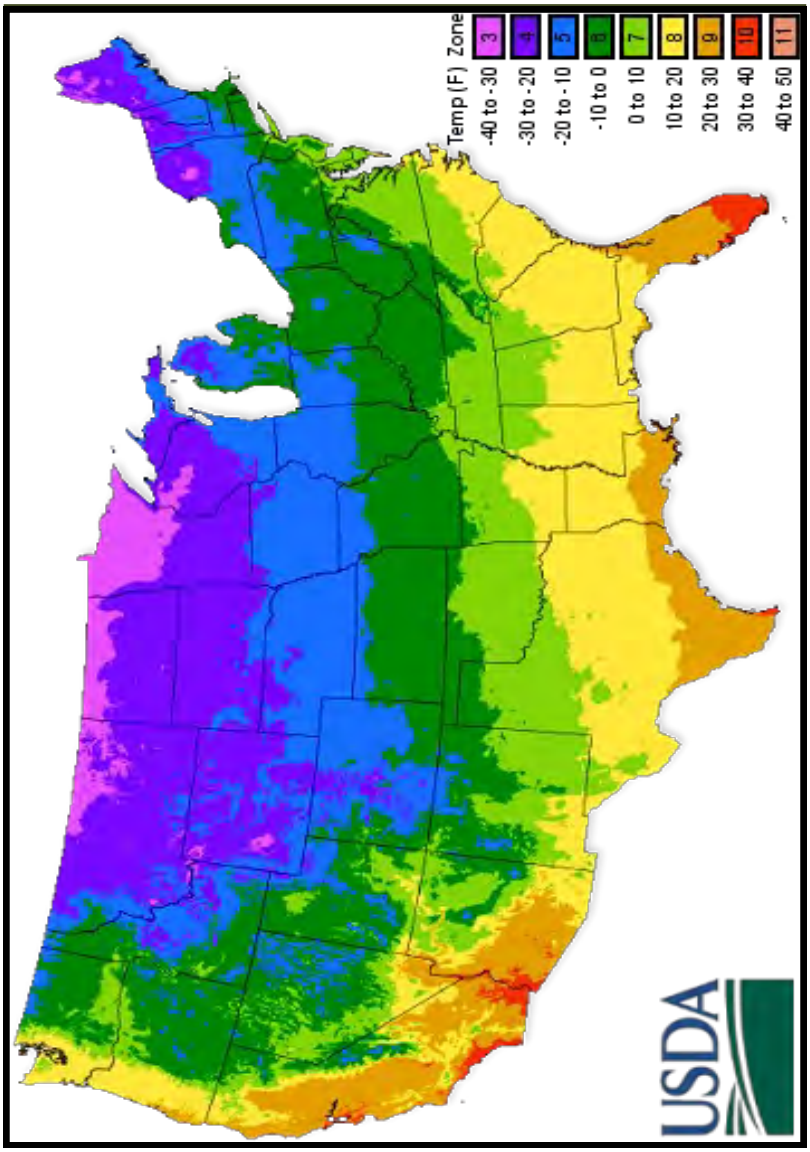
ZONE HARDINESS MAP: WYOMING



ZONE HARDINESS MAP: UNITED STATES



Important Precautions!

WARNING: To reduce the risk of personal injury or permanent damage to your tree, read and follow these precautions:

- Do not dig until you are sure there are no buried utilities. **CALL BEFORE YOU DIG! 811 in WY or 1-800-849-2476 .** Call at least two days before you dig.

- Never prune around utility lines, call your local utility company.

- Do not tie anything around your tree that might restrict growth.

- Do not top your trees

- Check with your city or town to see if there are any regulations regarding planting and pruning.

- If you can not prune your tree with both feet on the ground, hire a professional arborist

Photo Credit

Many of the photos in this booklet came from Colorado State Forest Service and we appreciate their generosity in letting us use their photos. Several photos also came from the USDA-NRCS PLANTS Database. Other contributors include Tom Heald of Casper, Linda Hamilton of Hyattville, Caryn Agee of Worland, Carol Nicholls, Willis Franz, Keith Culver and Tracy Pinter of Newcastle. We also offer sincere appreciation to Judy Sedbrook of the Denver Master Gardeners for use of many of her tree and shrub photos and to Al Schneider at www.swcoloradowildflowers.com

Where possible, we have included photos of trees that are growing locally in our area. Of course, pictures cannot do many of these trees justice! Instead, we hope that you will seek out examples of the trees listed in this booklet and visit and inspect them visually yourself where possible.

City Ordinance Guidelines for Tree Spacing

Spacing of Street Trees:

Small Trees	20 feet
Medium Trees	30 feet
Large Trees	40 feet

Distance from Curb and Sidewalks:

Small Trees	2 feet
Medium Trees	3 feet
Large Trees	4 feet

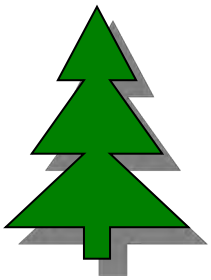
Distance from Street Corner 30 feet

Distance from Fire Hydrant/Street Lights 10 feet

No street trees other than small trees may be planted under or within ten (10) lateral feet of any underground water line, sewer line, transmission line or other utility

Always consider the tree's mature form and the desired effect of the planting and modify the spacing accordingly.

General Guidelines for Trees



Trees listed in this guide have been approved by the Newcastle Tree Board. Approval is based primarily on first hand experience with a tree that has lived or is currently living and doing well in this area.

Experimentation with uncommon species is encouraged, though be aware of the limitations of the species planted as well as the planting area.

Growth rate and height estimates often assume growth in ideal conditions. Many of the tree and shrub species included here are native to milder climates and may not attain the growth rates and heights listed. Also, although some species listed may be 'very' drought tolerant, keep in mind that this applies to mature trees. Young or newly planted trees will need a good supply of water in the first couple years in order to get established.

Varieties and cultivars are too numerous to include in this publication. Consult your local Mater Gardener and nurseries for information on varieties and cultivars suited to this area.

Only the most common insect and disease problems known to be associated with locally grown tree and shrub species are mentioned here. Consult your local County Extension Agent or a state or federal pathologist for further information on insect and disease problems.

This guide has attempted to include as many 'native' species as possible. 'Native' is loosely defined in this guide as a species known to grow wild in Weston County or surrounding Wyoming counties.

The Newcastle Tree Board is interested in hearing of trees or shrubs that are doing well in Weston County and are not included in this guide. Contact a Tree Board member if you know of such trees or shrubs. Members can be contacted through the City of Newcastle.

Choosing a Tree to Purchase

- Make sure the tree has an adequately sized root ball
- Check to see that the tree is free of mechanical wounds and wounds from incorrect pruning
- Look for a strong form with well-spaced, firmly attached branches
- Remove all tags, wires, twine and ropes from tree or root ball before planting
- If placed in a windy site, stake the tree (loosely) for only one year
- Generally, it is not recommended to fertilize the tree the first year. Wait until the tree is acclimated to its new site.
- Protect from damage by animals, mowers, weed eaters and cars
- Mulch with weed barrier or bark chips to retain moisture, prevent competition from weeds and protect from lawnmower and string trimmer damage

Where to Place Your Tree

Trees have basic needs which differ with each species. Moisture and light requirements and soil characteristics must all be taken into consideration. It is strongly recommended that you have a soil sample taken in your yard or on your property where you intend to locate a tree. Many trees have specific soil requirements and it is best to be knowledgeable about your soil prior to purchasing any trees.

Be familiar with the local tree ordinances and the location of underground utilities and overhead lines. Can you get water to it? Will the tree block a view or turn a sunny room into a dark one?

Consider the mature size and shape of the tree. Large trees should never be 'topped' to fit a space. Plant a smaller tree instead, particularly beneath utility lines. Check with the utility company before planting under a power line. Pyramidal trees such as spruce with branches at ground level should be planted well away from sidewalks and walls.

Trees provide different benefits and perform different functions. Select trees which are cold hardy down to at least Zone 4. Match the tree's purpose (wind protection, shade, fall color, flowers, etc.) to its characteristics. Trees can have negative characteristics as well as positive ones. Consider such factors as susceptibility to disease, thorns, poor form or potential to 'escape' and become a problem.

Trees and turf have different and often contrary needs. Lawn mowers and herbicides, while beneficial to lawns, have killed or damaged many trees. Mulching an area around each tree or group of trees, which will separate the trees from the turf, is probably the single best thing a homeowner can do for a tree.

Shallow, frequent water for yards may not be appropriate for long term survival of trees which benefit from infrequent, deep waterings.

Planting Containerized Trees

Trees planted and grown in containers can be found in most nurseries. Price is usually determined by container size which is measured in gallons. One and five gallon containers are the most common sizes, but 15 gallons and larger are sometimes available.

Container grown trees offer the homeowner some distinct advantages such as a larger more developed root system, easier transportation and handling, and an improved survival rate.

Beware of purchasing a bare root tree that was recently potted. Trees should be in a container for at least one growing season before being sold.

Tips:

- Dig a hole twice as wide and the same depth as the root ball. This technique puts the aerated backfill soil where the new roots will grow and leaves a base of naturally firm soil for the root ball to rest on, which won't settle when watered.
- Avoid the 'clay pot syndrome'. Roughen the sides of your planting hole with a pick or shovel so that root tips can penetrate the native soil. Smooth walls are like cement to root tips.
- Be gentle but firm when removing the container, making sure to protect the foliage, lay the tree on its side with the container end near the planting hole. Loose the root ball carefully.

Check the root ball for circling roots. If circling roots are found, gently separate them, shorten exceptionally long roots using clean cuts and guide them downward or outward. Remember that tiny root tips die off quickly when exposed to light and air, so don't waste time!

Planting Containerized Trees continued

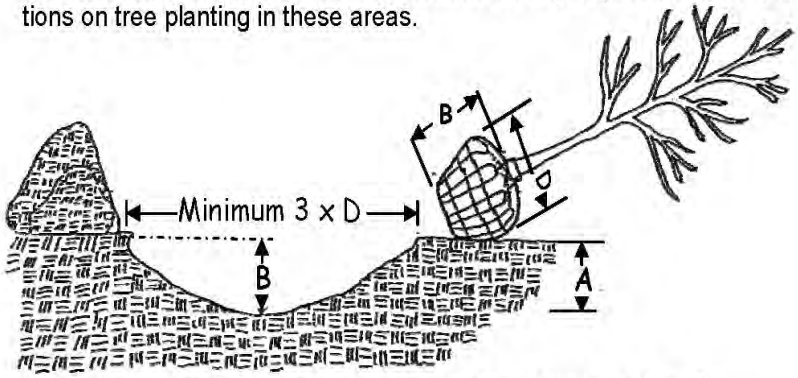
- Aim to have the top of the root ball about one half to one inch above the surrounding soil surface, making sure not to cover it with soil unless roots are exposed.
- Once the tree is in the hole, stand back and make sure the tree is standing upright. If necessary, backfill under and around the tree to make it stand straight.
- Water as you backfill. Putting water into the soil will get rid of any air pockets and will help stabilize the tree. Water thoroughly after planting.
- Do not pack the soil with your feet or a tool! This compacts the soil and makes it difficult for roots to properly grow and spread.
- Regular watering is especially important during the first few growing seasons.

Wyoming State
Forestry Division

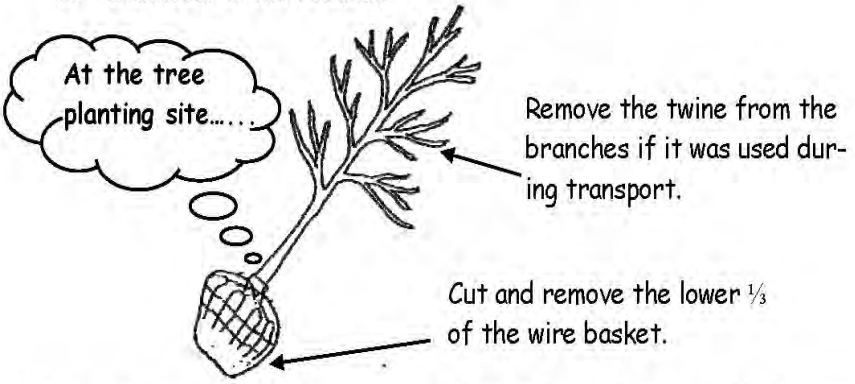
Proper Tree Planting
The BEST Way

Preparing the Site

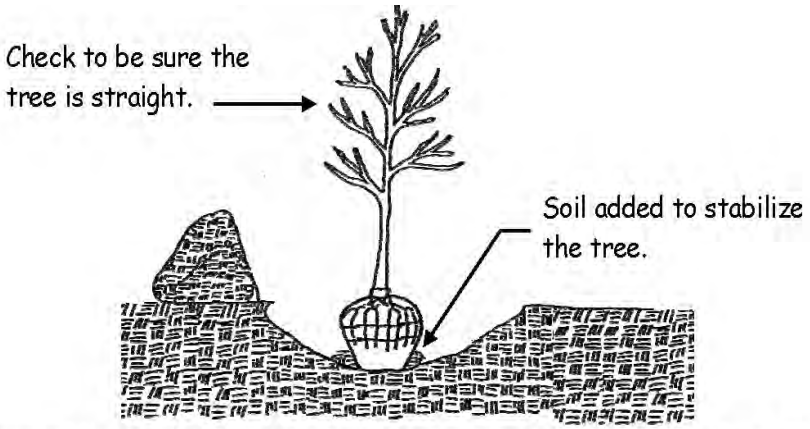
Check for underground and overhead utilities or obstructions. Be sure there will be sufficient clearance to sidewalks, driveways, buildings, etc. when the tree is of mature size. If you are planting along a street or near an intersection check with local authorities on any requirements or limitations on tree planting in these areas.



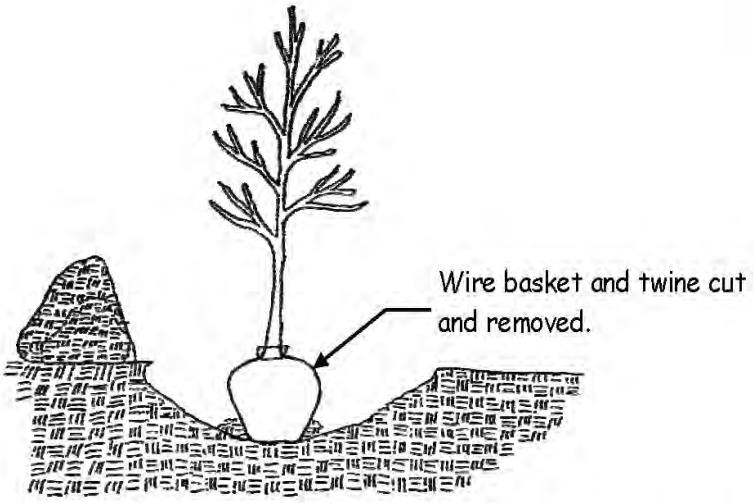
A = 8—12 inches depth for prepared site (Minimum 3 x 'D')
B = Height of rootball—DO NOT dig deeper than 'B"
D = Diameter of the rootball



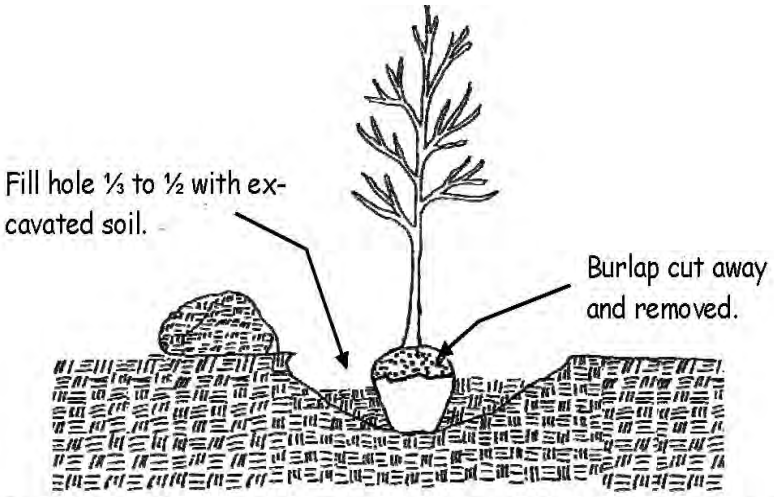
Once the tree is at the site, remove the lower ⅓ of the wire basket before placing the tree into the planting site. Use wire or bolt cutters. If twine was used to tie up the branches during transport it should also be removed during this step.



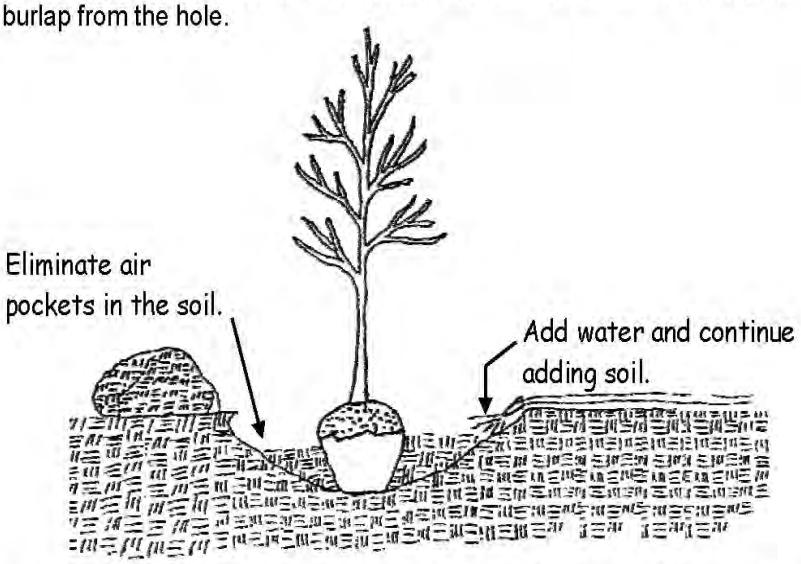
Handling the tree by the rootball only and not the trunk, lower it into the center of the planting site. This may be accomplished by rolling the rootball rather than lifting the tree. Take care not to drop the tree because it can break the rootball and damage roots. Be sure the tree is upright and straight. You may need to add some soil at the base of the rootball to stabilize the tree.



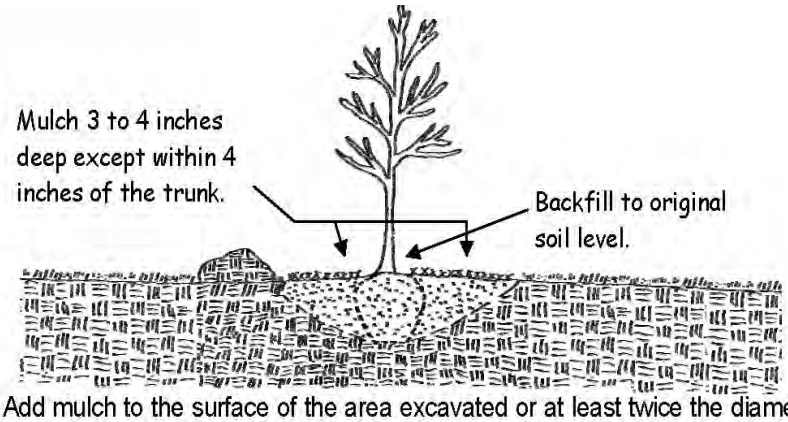
Clip the sides of the wire basket; cut the twine; and remove both from the rootball. Be careful not to damage the trunk with your knife when cutting the twine or the basket as you remove it.



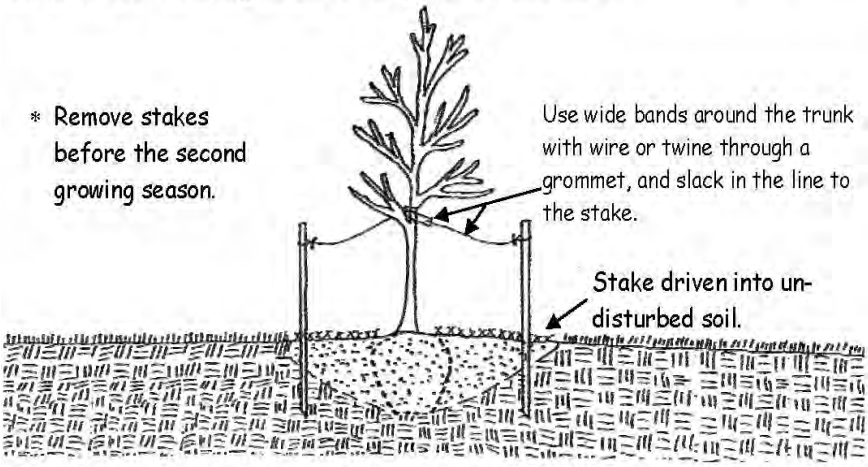
Fill the hole ⅓ to ½ full with the excavated soil. Using a utility or pocket knife, cut away as much of the burlap as you can without having the rootball break apart. This may be only a few inches to a foot or more. Start at the top near the trunk and work down and around the side of the rootball. Remove the burlap from the hole.



Add water as you continue to add soil in the hole. Continue adding soil and water until the soil is level with the surrounding soil and the original soil level of the rootball.



Add mulch to the surface of the area excavated or at least twice the diameter of the rootball. Mulch should be 3 to 4 inches deep except no mulch should be placed within 4 inches of the trunk of the tree. Synthetic or fabric mulches can also be used. The mulch helps reduce weeds and conserve moisture, and keeps lawnmowers and string trimmers away from the tree trunk.



Stake only if the tree is in a windy area and the rootball needs to be stabilized during the first year. Stakes should be removed the next spring. Proper staking requires 1 or 2 inch wide material bands with holes or grommets in each end. Place the band around the tree and slide the wire or twine through the holes only... not around the tree. Two stakes driven into undisturbed soil on opposite sides of the tree should be sufficient for most trees. Run the wire or twine from the band to the stake and tie. DO NOT PULL TAUT. There should be a little slack to allow the top of the tree some movement. Remember to remove the materials the next spring.

PRUNING 101

Tools:

Clean tools between use with disinfectant spray or soap & water!

- ☐ **Bypass lopper**
- ☐ **Small hand clipper**
- ☐ **Hedge shear**
- ☐ **Tree pruner, NEVER A CHAINSAW!**

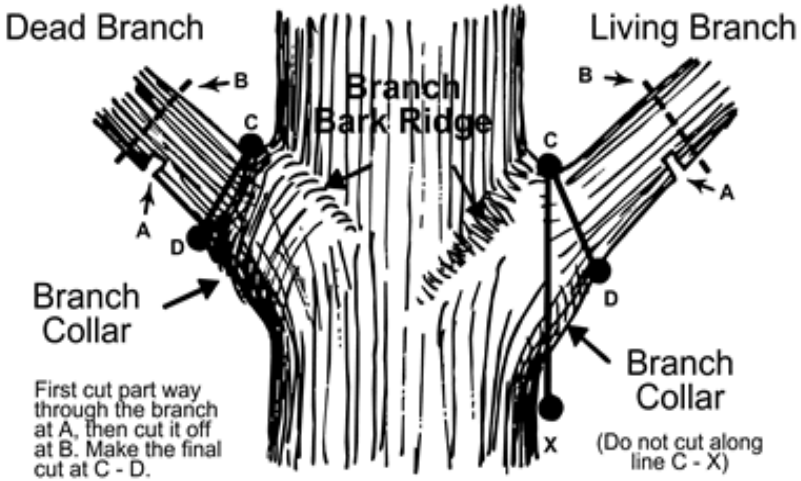
When to prune:

- ☐ **Major pruning should be done when tree or shrub is in its dormant stage. (Winter-BEFORE plant buds out)**

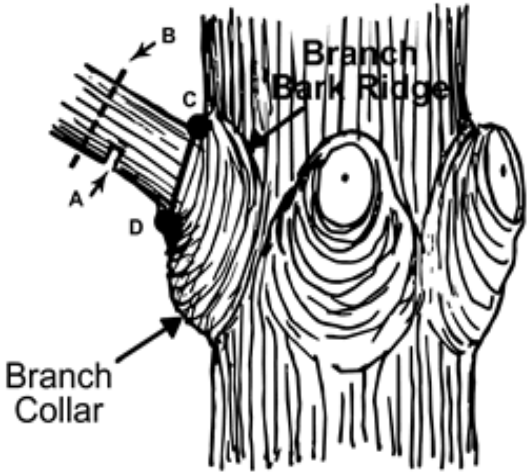
Structural Pruning:

- ☐ **Develop and maintain a central leader.**
- ☐ **Identify the lowest branches in what will be the "crown"**
- ☐ **Do NOT let branches below the crown grow larger than half the trunk diameter.**
- ☐ **Space main branches along central leader.**
- ☐ **Reduce upright stems.**

Proper Pruning Principles



Hardwoods



Conifers

Arbor Day Foundation®

BROADLEAF TREES

Ash, Green
Fraxinus pennsylvanica

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 35-75 feet

Diseases and Pests: Ash borer; Ash bark beetle and scales; oyster shell scale, ash sawfly

Planting location: Full sun

Hardiness Zone: 3-9

A native, hardy, upright tree with golden~yellow fall foliage. Tolerant of alkaline soil. Recommended cultivars that are seedless and more resistant to borers are 'Patmore' and 'Kindred'. Substitute Black Ash on better sites to increase community diversity. Ash yellows is a growing problem in the Great Plains states that causes dieback. Requires periodic trimming to keep

BROADLEAF TREES

Aspen, Quaking
Populus tremuloides

Drought Resistance: Poor

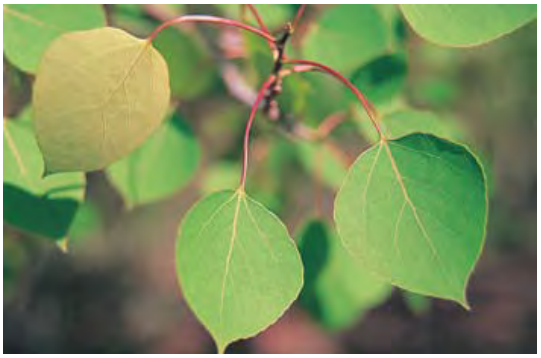
Growth Rate: Rapid

Height: 35-50 feet

Diseases and Pests: Hypoxylon and cytospora cankers; leaf spot

Planting location: Full sun to part shade

Hardiness Zone: 2-6



This native tree has thin foliage. The bark is whitish, smooth, then becoming gray on larger trunks. Leaves are shiny above and dull green underneath, yellow in fall. Trees are fragrant during flowering. Usually planted in clumps. Roots produce suckers. Avoid planting in high public use areas due to its thin bark. Does best in cool, moist north exposure.

BROADLEAF TREES

Birch, European (Weeping)
Betula pendula var.

Drought Resistance: Moderate to Poor

Growth Rate: Rapid

Height: 35-75 feet

Diseases and Pests: Bronze birch borer infestation in our area

Planting location: Prefers full sun

Hardiness Zone: 2-6

This birch has thin white bark, developing dark, rugged cracks at the base with age. Pendulous branching. Glossy dark leaves turning yellow in fall. Flowers in catkins in early spring. Nice yard tree. Requires winter watering before the ground freezes. Does best in well-drained soil. Protect thin-barked trees from deer. Stressed trees will attract bronze birch borers.

BROADLEAF TREES

Birch, Paper
Betula papyrifera

Drought Resistance: Poor

Growth Rate: Moderate to rapid

Height: 30-40 feet

Diseases and Pests: Bronze birch borer infestation in our area

Planting location: Full sun to part shade

Hardiness Zone: 2-6

This native tree is adapted to colder climates. Branches are close to the ground unless limbed up. Single or multi-stemmed. The bark is white, peeling in thin layers. Flowers in early spring with catkins. Prefers moist, well-drained, slightly acidic soils. Requires winter watering before ground freezes. Does best in cool, moist, north exposure.

BROADLEAF TREES

Birch, Water
Betula occidentalis

Drought Resistance: Poor

Growth Rate: Rapid

Height: 10-25 feet

Diseases and Pests:

Planting location: Full sun to part shade

Hardiness Zone: 3

Water birch occurs on the wet to moist, nutrient-rich soils of streambanks, forests, and marshes. It is important in wetland ecosystems and those near water, where it provides important habitat for many birds and other animals. A native, small multi-stemmed tree or large shrub with a broad, open crown. The bark is reddish-brown. Prefers moist soil.

BROADLEAF TREES

Boxelder
Acer negundo

Drought Resistance: Excellent

Growth Rate: Rapid for first 15-20 years, then slows

Height: 45-60 feet

Diseases and Pests: Stem decay

Planting location: Prefers full sun

Hardiness Zone: 2-9

A native, very hardy, short-lived tree. The bark is gray-brown and smooth. Flowers are yellow-green hanging, tassel-like clusters in spring before or with leaves in early spring. There are seedless male clones that do not attract the boxelder bug. Can withstand periodic flooding. Older trees are good wildlife den trees. Very susceptible to broadleaf weed herbicides used in yards and can be susceptible to breakage, insects and diseases. Tolerant of alkaline soils.

BROADLEAF TREES

Buckeye, Ohio
Aesculus glabra

Drought Resistance: Fair

Growth Rate: Moderate

Height: 20-40 feet

Diseases and Pests: Mildew, leaf blight, scorch

Planting location: Full sun

Hardiness Zone: 3-7

A globe-shaped tree with branches bending down toward the ground then arching back up at the ends. Dense dark green foliage in summer. Large greenish-yellow flowers appear in spring followed by prickly seed pods. Reduced growth and leaf scorch may occur on drier sites. Good small tree that likes sun and prefers moist soil. 1997 Arbor Day tree planted at Newcastle Chamber of Commerce building. Seeds are poisonous, so take care to avoid planting in areas where small children frequent.

BROADLEAF TREES

Catalpa, Northern
Catalpa speciosa

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 35-75 feet

Diseases and Pests:

Planting location: Full sun or part shade

Hardiness Zone: 4-8

This tree should grow well
here as it is tough and adaptable. It has very large leaves, foot long slender pods and 2”-3” white, frilly flowers that produce messy fruit. Tolerant of different soil conditions. Withstands wet or dry and alkaline conditions.

BROADLEAF TREES

Cherry, Canada Red
Prunus virginiana

Drought Resistance: Good

Growth Rate: Moderate to rapid

Height: 20-30 feet

Diseases and Pests: Black Knot disease

Planting location: Full sun

Hardiness Zone: 2-6

The Canada Red Cherry is a cultivar of the Common Chokecherry (see page 132). The tree has foliage that emerges shiny green, but matures to a deep red or purple, with white flowers in the spring. Red to orange fall color. Fruit begins red in color, turning to black later in the season. The fruit is very attractive to birds. Seed is poisonous if ingested. Very hardy ornamental. Suckers.

BROADLEAF TREES

Coffeetree, Kentucky
Gymnocladus dioicus

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 50-70 feet

Diseases and Pests: No serious disease or insect problems

Planting location: Full sun to part shade

Hardiness Zone: 3-8

Large tree has rough, dark brown bark. Whitish, fragrant flowers in late spring to early summer. Fruit is a large leathery, red-brown hanging pod (female trees only). Leaves are dark green above and bluish underneath. Bare limbs in winter. Adaptable to wide range of conditions but prefers full sun. Tolerant of alkaline soils.

BROADLEAF TREES

Cottonwood, Narrowleaf
Populus angustifolia

Drought Resistance: Poor

Growth Rate: Rapid

Height: 50-60 feet

Diseases and Pests: Bacterial wetwood

Planting location: Full sun

Hardiness Zone: 2-6

Native. Leaves resemble the Peachleaf willow. Short-lived and very hardy. Prefers moist soil. Extensive root system. If trees are purchased in containers, score the roots deeply with knife to avoid girdling roots. Suckers to form groves. Hybridizes with Plains cottonwood to become Lanceleaf cottonwood, a native to the area. Grows at elevations from 5,000 to 9,500 feet.

BROADLEAF TREES

Cottonwood, Plains
Populus sargentii

Drought Resistance: Poor

Growth Rate: Rapid

Height: 60-90 feet

Diseases and Pests: Canker and winterkill; mite galls

Planting location: Full sun

Hardiness Zone: 2-9

Wyoming's state tree. Native. Prefers moist soil but tolerates slightly to moderately dry and saline conditions. It is a short-lived tree (declines after 70 years). Considered somewhat messy because of dropped leaves, cotton and branches during winds. Deep and wide-spreading roots. May clog sewer systems. Requires ample room for growth. There are cottonless varieties available.

BROADLEAF TREES

Elm, American
Ulmus americana

Drought Resistance: Good

Growth Rate: Moderate to rapid

Height: 50-70 feet

Diseases and Pests: Dutch Elm Disease

Planting location: Full sun to part shade

Hardiness Zone: 2-9

Native. No longer recommended due to susceptibility to Dutch elm disease. Disease resistant strains are being developed and should be more accessible in the future.

'New Harmony' is a resistant variety that may grow here (prefers zone 5, but might tolerate zone 4). The tree is easy to transplant and is tolerant of a wide range of soils and pH. Two new successful varieties for Wyoming are Accolade Elm and Discovery Elm.

BROADLEAF TREES

Elm, Siberian
Ulmus pumila

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 40-50 feet

Diseases and Pests: Banded elm bark beetle

Planting location: Full sun to part shade

Hardiness Zone: 3

Often confused with the Chinese elm which is not hardy in Weston County. This tree has been overplanted in our area. This tree is subject to breakage and winter die back. Very susceptible to broadleaf weed herbicides used on lawns. It is not recommended for a shade tree, but can be used in harsh environments where other trees won't grow. It is resistant to Dutch Elm disease, but suffers major damage from the elm leaf beetle.

BROADLEAF TREES

Photo from Ohio Department of Natural Resources

Elm, Slippery
Ulmus rubra Muhl.

Drought Resistance: Good

Growth Rate: Moderate to rapid

Height: 40-60 feet

Diseases and Pests: Dutch elm disease

Planting location: Full sun to part shade

Hardiness Zone: 3-9

Paul Wray, Iowa State Univ., Bugwood.org

Native to South Dakota. Found along streams and low hillsides. Similar to American elm. The name 'slippery' comes from the slimy inner bark which was chewed by pioneers to quench thirst.

BROADLEAF TREES

Hackberry, Common
Celtis occidentalis

Drought Resistance: Good

Growth Rate: Moderate

Height: 50-60 feet

Diseases and Pests: Hackberry nipple gall

Planting location: Full sun

Hardiness Zone: 2-9

Native hardy shade tree with dense foliage. Bark is gray and smooth in young trees, becoming furrowed and corky with age. Flowers in spring producing a rounded orange-red to purple berry in late summer that is a great bird attractant. 'Sweat' before planting bareroot. Tolerant of a variety of soil conditions including heavy soils. Yellow foliage in the fall. Nursery stock derived from trees in more southern areas may not do well here. Protect from deer until limbs grow out of reach. Nipple gall will not harm the tree.

BROADLEAF TREES

Hawthorn
Crataegus sp.

Drought Resistance: Fair (prefers moist soil)

Growth Rate: Slow to moderate

Height: 15-20 feet

Diseases and Pests: Cedar apple rust

Planting location: Full sun

Hardiness Zone: 3-7

Crataegus chrysocarpa and *C. Columbiana* are two native species. Cockspur Hawthorn is often found at nurseries, has abundant white flowers, dark green foliage and bright red fruit. The variety inermis may lack thorns. Tolerant of many soils. Smelly flowers. Avoid planting varieties with thorns in areas used by small children. Good tree for naturalized areas and 'traffic control'.

BROADLEAF TREES

Honeylocust, Common
Gleditsia triacanthos var.

Drought Resistance: Good

Growth Rate: Rapid

Height: 30-50 feet

Diseases and Pests: webworms, mites, galls and cankers

Planting location: Full sun only

Hardiness Zone: 3-9

Podless and thornless varieties are available. Thick bark. Care needs to be taken when mowing close to the tree. Provides very nice golden color in the fall. Susceptible to some diseases and insects. Adapted to a wide variety of soils. Alkaline and saline (salt) tolerant. The lacy foliage allows shade tolerant grass and perennials to grow under the tree.

BROADLEAF TREES

Hop Hornbeam, American (Ironwood)
Ostrya virginiana

Drought Resistance: Poor

Growth Rate: Rapid

Height: 10-25 feet

Diseases and Pests: No serious problems

Planting location: Full sun to part shade

Hardiness Zone: 3-9

Native short-lived tree. Can grow in a variety of soils from moist and fertile to sandy, dry, acid and higher pH. Intolerant of salt. Flowers in yellow, drooping, 1.5 inch catkins in spring producing a nut encased in a bladder-like creamy husk. Retains coppery-tan leaves late into winter. Root spread is less than height, good for planting on boulevards with narrow berms. The tree also has attractive 'peeling' bark.

BROADLEAF TREES

Locust, Black
Robinia pseudoacacia

Drought Resistance: Poor

Growth Rate: Rapid

Height: 30-50 feet

Diseases and Pests: Borers

Planting location: Full sun

Hardiness Zone: 3-8

Spines on branches. Bark is thick, deeply furrowed into long, rough, forking ridges that deepen with age. Flowers with white petals in late spring, very fragrant. Fruit is 2”-4” dark brown pods. Spreads by sprouts. Transplants easily. Extremely adaptable to varied soils and climates. Has ability to fix atmospheric nitrogen. Not a good yard tree, since it tends to drop seeds and establish new trees, but it has a place in difficult areas, such as areas with poor soil. Brittle branches can break in strong winds

BROADLEAF TREES

Lilac, Japanese Tree

Syringa reticulata

Drought Resistance: Moderate

Growth Rate: Moderate

Height: 20-25 feet

Planting location: Full sun

Hardiness Zone: 3-6

An outstanding small to medium-sized tree known for its beautiful flowers. It has a broad canopy, somewhat shrubby in appearance, but easily pruned in a tree form.

Cultivars: 'Chantilly Lace', 'China Gold', 'Ivory Silk', 'Regent', 'Summer Snow',

BROADLEAF TREES

Linden, American (Basswood)
Tilia americana

Drought Resistance: Poor

Growth Rate: Moderate

Height: 45-55 feet

Diseases and Pests: Japanese beetles

Planting location: Full sun

Hardiness Zone: 2-8

Good shade tree with large heart-shaped leaves. Flowers in midsummer with pale yellow-green fragrant flowers. Attractive to bees, makes good honey. Bark is brown to gray, cracked into long scaly ridges as the tree ages. Fall foliage color is yellow-green. Many cultivars available. Very alkaline tolerant and pH adaptable, and prefers moist, well drained soils.

BROADLEAF TREES

Linden, Littleleaf
Tilia cordata

Drought Resistance: Poor

Growth Rate: Moderate

Height: 45-60 feet

Diseases and Pests: Japanese beetles, aphids, sooty mold

Planting location: Full sun

Hardiness Zone: 3-7

Much smaller leaves than the American Linden and more commonly planted. Bark is gray and smooth when young, becoming gray-brown and furrowed with age. Flowers in midsummer with fragrant pale yellow flowers that attract many bees. Excellent tree for lawn, parks, streets and planters. Tolerant of alkaline, higher pH and heavy clay soils. 'Greenspire' is a common cultivar though many others exist.

BROADLEAF TREES

Maple, Amur
Acer ginnala

Drought Resistance: Poor

Growth Rate: Moderate to rapid

Height: 15-20 feet

Diseases and Pests:

Planting location: Full sun to part shade

Hardiness Zone: 2-6

Smooth, grayish-brown bark. One of the earliest trees to leaf out in the spring and produces fragrant, white flowers. Fall color can be bright yellow-green to orange to red. Cultivars 'Flame' and 'Red Wing' produce consistent fall color and red samaras (winged fruit) respectively. Does well in a wide variety of soils but prefers moist, well-drained soils and full sun. May become chlorotic in highly alkaline soils. Very cold hardy.

BROADLEAF TREES

Maple, Norway
Acer platanoides

Drought Resistance: Poor

Growth Rate: Moderate

Height: 50-60 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 3-7

Large, dense shade tree with smooth gray bark. Small, profuse clusters of bright yellow-green flowers in spring, which usually appear before the leaves. Bright green five-lobed leaves turning yellow and sometimes red in fall. It requires plenty of water. Prefers acidic soil. Will tolerate sand, clay and calcareous soils. Withstands hot, dry conditions. Weather extremes may cause branch dieback, split trunks and premature death. Several cultivars. Some people consider this tree overplanted in urban areas.

BROADLEAF TREES

Maple, Rocky Mountain
Acer glabrum

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 8-10 feet

Diseases and Pests:

Planting location: Full sun to part shade

Hardiness Zone: 3

Native. A healthy specimen was seen growing along Cottonwood Creek in the Hat Creek Breaks, Niobrara County. Large shrub or small tree. Light-gray bark. Light green leaves turning yellow in the fall.

BROADLEAF TREES

Maple, Silver
Acer saccharinum

Drought Resistance: Poor

Growth Rate: Rapid

Height: 50-60 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 3-7

Fast growing, large, wide branching tree. Requires ample water. Bark is gray and smooth when young then usually breaks into long, out-curvy plates with age. Light green leaves have five lobes that turn yellow in autumn. Be careful in a site selection, since the vigorous root system will cause sidewalks to buckle and limbs and branches can be prone to breakage during storms. Transplants well. Tolerates several weeks in standing water. Cultivated trees will do well in dry soils. Prefers acid soil. Not adapted to saline (salt) alkaline soils.

BROADLEAF TREES

Maple, Tartarian
Acer tataricum

Drought Resistance: Moderate

Growth Rate: Rapid

Height: 15-25 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 3-8

This tree is a good choice for residential planting due to its small size. Nice fall foliage color. Has good tolerance for dry soils and high pH soils. Very similar to the Amur Maple, but fall foliage is not as attractive. Produces red samaras that are ornamental and last several weeks in summer and fall.

BROADLEAF TREES

Mountain-Ash
Sorbus scopulina

Drought Resistance: Poor

Growth Rate: Moderate

Height: 10-30 feet

Diseases and Pests: Fireblight, galls, cankers, rusts, borers, scales

Planting location: Full sun

Hardiness Zone: 3-6

Native. White flowers. Red-orange fruit. Deep green leaves turn orange -red in fall. Known to grow wild in the Black Hills. There are several varieties including Greene, European and Oak Leaf. Oak Leaf is the variety shown in the photos above.

BROADLEAF TREES

Photo by Daigal; Korea

Mulberry, White or Common
Morus alba

Drought Resistance: Poor

Growth Rate: Rapid

Height: 30-50 feet

Diseases and Pests:

Planting location: Full sun to part shade

Hardiness Zone: 4-8

Photo by D.J. Moorhead, Univ. of Georgia, Bugwood.org

A dense, round-topped tree of tight-knit slender branches. Bark is orange-brown. Leaves are bright green, turning yellow in fall. It transplants readily and is adaptable to any soil including dry, higher pH and saline soils. One inch long purplish fruit is good food for birds, but creates a mess and stains on nearby objects. Due to the messiness of the tree with fruit and its ability to invade landscapes and outcompete native species, gardeners should seek out only seedless or sterile varieties such as 'Chaparral', 'Urbana' which are 'weeping' and 'Mapleleaf' and 'Stribling' which are fast growing. Native to Asia.

BROADLEAF TREES

Oak, Bur
Quercus macrocarpa

Drought Resistance: Good

Growth Rate: Slow

Height: 40-60 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 2-8

Native. Acorns are important food for deer, squirrels, turkeys and rabbits. Young trees planted locally appear to be doing well, though the tree is difficult to transplant due to long tap root. Leaves can grow to 10 or 12 inches long. Durable, long-lived tree capable of growing in a wide range of soils. Limestone soils are favored. Does well even in dry, clay soils. 'Sweat' before planting bare root.

BROADLEAF TREES

Oak, Chinkapin
Quercus muehlenbergii

Drought Resistance: High

Growth Rate: Moderate

Height: 40-50 feet

Planting location: Full sun

Hardiness Zone: 4-7

Native to most of the eastern half of the U.S. east of the Great Plains. Typically found on dry, wooded sites.

Intermediate shade tolerance.

Fall color varies from yellow to orange-brown to brown.

Adapts to many soil conditions.

Yields 1" round acorns that mature in the first year.

BROADLEAF TREES

The Dow Gardens Archive, Dow Gardens, Bugwood.org

Oak, Northern Red
Quercus rubra

Drought Resistance: Poor

Growth Rate: Slow

Height: 50-70 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 4

Photo by Paul Wray, Iowa State University, Bugwood.org

Large, broad-spreading tree with open crown. The leaves are medium green with seven to eleven lobes and turn russet to brick-red in the fall. Bark is gray when young, becoming furrowed with age. Yellowish-green drooping catkins in late spring. The fruit is an acorn that ripens earlier than most other oaks, providing good food for wildlife. Prefers well-drained acid soils and will likely develop chlorosis in alkaline soils. Generally easy

BROADLEAF TREES

Oak, Pin
Quercus palustris

Drought Resistance: Poor

Growth Rate: Slow

Height: 55-65 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 4-8

The Pin Oak has a dominate central leader with upright upper branches and descending lower branches. Has smooth dark gray bark that becomes fissured with age. Beautiful large tree with yellow-orange leaves that commonly persist through the winter. Shallow fibrous root system. Prefers moist, rich, acid, well-drained soil and is intolerant of high pH (alkaline) soils. Iron chlorosis can be a significant problem. This tree has been widely planted due to its ease of transplanting. It requires some maintenance, as the lower branches need to be pruned to allow access under the tree.

BROADLEAF TREES

Dave Powell, USDA Forest Service, Bugwood.org

Poplar, Balsam (Black Cottonwood)
Populus balsamifera

Drought Resistance: Poor

Growth Rate: Rapid

Height: 10-25 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 3

Bill Cook, Michigan State Univ., Bugwood.org

Native. Also called balm-of-Gilead. Very cold hardy. Short-lived. Suckers. Long straight trunk. Buds covered with a fragrant, gummy balsam. Leaves dark green above, paler below. Prefers moist, sandy soils. Squirrels, rabbits, deer, grouse and songbirds eat buds and twigs.

BROADLEAF TREES

Poplar, Bolleana
Populus alba
'Pyramidalis'

Drought Resistance: Poor

Growth Rate: Rapid

Height: 10-25 feet

Diseases and Pests: Cankers, oyster shell scale and fungal leaf spots

Planting location: Full sun

Hardiness Zone: 3

Columnar tree that is wider than the Lombardy and richer in foliage color. Forms a screen or boundary line in a hurry. Will tolerate dry soils, but will live longer and be healthier when kept in moist soil. Wood is brittle, dropping large amounts of branches and leaves. Roots will clog drains, sewers and water channels.

BROADLEAF TREES

Poplar, Lombardy
Populus nigra 'Italica'

Drought Resistance: Poor

Growth Rate: Rapid

Height: 30-50 feet

Diseases and Pests: Cankers, Oyster shell scale; Dothichiza populea

Planting location: Full sun

Hardiness Zone: 3-9

Generally short-lived. Not recommended for street or yard tree. Used as a screen tree. Requires plenty of water. Subject to winterkill. Due to the short life and many problems, this tree is generally not recommended. 'Theves' poplar is a substitute, though somewhat broader.

BROADLEAF TREES

Poplar, White
Populus alba

Drought Resistance: Good

Growth Rate: Rapid

Height: 40-45 feet

Diseases and Pests: Cankers

Planting location: Full sun

Hardiness Zone: 3-8

Often mistakenly called a Silver Maple. Large spreading tree with chalky-white bark when young becoming deep-furrowed and black with age. Leaves are dark green above with a hairy, silver underside. Gray fissured bark. Requires ample room to grow. Roots prone to surface in lawn. Problem with suckering. Clay to sandy soils. Cold hardy. Weak-wooded and limbs can break in storms. Easy to grow, but prone to disease. pH adaptable.

BROADLEAF TREES

Smoketree, Common
Cotinus coggygria

Drought Resistance: Poor

Growth Rate: Moderate

Height: 10-15 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 4-8

Pink to purple hairs on flower stalks give an interesting 'smoky' appearance in July and August, making it an interesting, attractive addition to a landscape. Fibrous rooted, readily transplanted. Adapted to a wide range of soils and pH ranges. Dry and rocky soils. Colorado State University recommends 'King Crimson' cultivar. Does not like wet soils. The tree is usually left unpruned so that it develops a rounded appearance.

BROADLEAF TREES

Walnut, Black
Juglans nigra

Drought Resistance: Poor

Growth Rate: Slow

Height: 35-60 feet

Diseases and Pests:

Planting location: Full sun or part shade

Hardiness Zone: 4

Nice ornamental tree with deeply fissured brown bark and dark green leaves. Rich edible nuts, prized for candies and baked goods, ripen in the fall and may create a mess. Black walnut is a prized source of hardwood. Tap rooting tree. Attracts birds and squirrels. Roots and decaying plant parts release a toxic compound, juglone, which inhibits growth of some other plants. It does best in moist, well drained soils and can be prone to dropping leaves when stressed by drought.

BROADLEAF TREES

Willow, Bebb
Salix bebbiana Sargent

Drought Resistance: Poor

Growth Rate: Rapid

Height: 10-30 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 1-5

Native. Short-lived. Readily moves into cleared areas where moisture is sufficient. Good winter food for deer, grouse and rabbits. Bark smooth gray, becoming rough and furrowed with age. In Alaska, these trees are the main source of a decorative wood called 'diamond willow', diamond-shaped depressions on the trunks are caused by the attack of a fungus. Wood is used for canes.

BROADLEAF TREES

Willow, Crack
Salix fragilis

Drought Resistance: Poor

Growth Rate: Rapid

Height: 65 feet

Diseases and Pests:

Planting location: Full sun or part shade

Hardiness Zone: 2-7

Introduced from Eurasia and naturalized locally. Leaves lance-shaped (long and narrow) dark green above, pale green on underside. Short-lived. Brittle branches. Requires a lot of water.

BROADLEAF TREES

Willow, Golden
Salix alba x Salix fragilis

Drought Resistance: Poor

Growth Rate: Rapid

Height: 40-50 feet

Diseases and Pests: Oyster shell scale; winterkill; aphids

Planting location: Full sun to part shade

Hardiness Zone: 2

Naturalized and widespread from the plantings of cuttings (sprigs). Medium green, slender leaves and golden bark that is showy in winter. Branches are drooping. Yellow fall color. Fibrous root system. High maintenance tree. Sheds branches in wind. Prefers moist soils. The trees along Cambria Creek in Newcastle are likely this hybrid or the native Crack Willow.

BROADLEAF TREES

Willow, Peachleaf
Salix amygdaloides

Drought Resistance: Poor

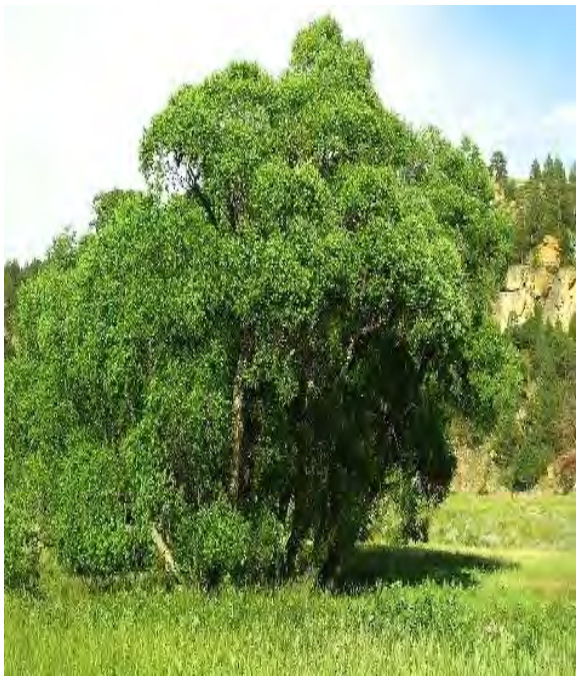
Growth Rate: Rapid

Height: 20-65 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 4-5



Native. The branches often droop slightly giving a 'weeping' effect. Prefers moist soils. Pioneer species that forms 'young forests'. Plains willow, another native, is similar but generally smaller.

BROADLEAF TREES

Willow, Scouler (Fire Willow)
Salix scouleriana

Drought Resistance: Poor

Growth Rate: Rapid

Height: 25-60' feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 4

Photos by Susan McDougal @ USDA-NRCS PLANTS Database

Native. Grows in moist areas as well as drier upland areas. Rapidly colonizes fire devastated areas. Develops a straight trunk that branches relatively high up into a rounded or narrow crown.

BROADLEAF TREES

Willow, Weeping
Salix alba var *tristis*

Drought Resistance: Poor

Growth Rate: Rapid

Height: 30-40 feet

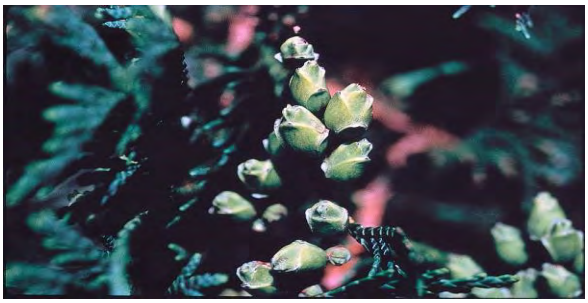
Diseases and Pests: Oystershell scale

Planting location: Full sun

Hardiness Zone: 2-8

This can be a beautiful yard tree, but care in site selection should be taken since the tree constantly drops twigs and small branches. Leafs out early in the spring and retains the leaves late into fall. Prefers moist soils. Mistakenly believed to be the biblical willows of Babylon, which were actually poplars. Bright green leaves. Rough gray bark.

EVERGREEN TREES



Cedar, White (Eastern Arborvitae)
Thuja occidentalis

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 10-20 feet

Diseases and Pests:

Planting location: Part shade

Hardiness Zone: 2-8

Can be used as a landscape tree or in a hedge row. Cold hardy. Tolerant of alkaline soils. Protect from winter sun and wind. Cultivars are available with superior winter color. Browsed by deer.

EVERGREEN TREES

Douglas-fir
Pseudotsuga menziesii

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 40-50 feet

Diseases and Pests: Spruce budworm, Douglas-fir bark beetle, strawberry root weevil

Planting location: Full sun

Hardiness Zone: 3-6

Large, long-lived tree of ornamental value. Shaped similar to a Colorado Blue Spruce. Bushy growth, needles bluish green. Red-brown hanging cones to 4”. Best in moist, well-drained, deep loamy, slightly acid soils. Rocky Mountain variety is hardier than the coastal variety. May be difficult to grow locally, due to our lower elevation, shallow soils and dry air. Prone to wind damage.

EVERGREEN TREES

Fir, White (Concolor)
Abies concolor

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 30-50 feet

Diseases and Pests: No serious problems

Planting location: Full sun to part shade

Hardiness Zone: 3-7

Beautiful foliage with 1 1/2" to 2 1/2" long soft bluish-green needles. Could well replace the spruces in the landscape design. Does not perform well in heavy soils; prefers well-drained soil. Produces a cylindrical upright 4" cone. 'Violacea' is a nice variety, featuring silver-blue foliage. This tree is a good substitute for Colorado blue spruce, due to its better disease resistance.

EVERGREEN TREES

Juniper, Rocky Mountain (Cedar)
Juniperus scopulorum

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 20-35 feet

Diseases and Pests: Cedar-apple rust

Planting location: Full sun

Hardiness Zone: 3-7

Native. Often called "cedar" locally. Narrow, pyramidal tree. Foliage is green to bluish-green. Adaptable to a wide range of soil and moisture conditions. The American Robin is a bird often seen eating the berries during the winter. This tree can be seen locally in many of the county's "Living Snow Fences".

EVERGREEN TREES

Pine, Austrian
Pinus nigra

Drought Resistance: Poor

Growth Rate: Moderate

Height: 40-50 feet

Diseases and Pests: No serious problems

Planting location: Full sun

Hardiness Zone: 4-8

Densely pyramidal when young becoming flat-topped with a short trunk and low, stout, spreading branches. Bark with dark brown furrows, usually with gray-brown ridges. Appearance similar to that of ponderosa pine which is recommended in this area due to its proven hardiness. Transplants easily and is adaptable to heavy clays and high soil pH.

EVERGREEN TREES

Pine, Limber
Pinus flexilis

Drought Resistance: Poor

Growth Rate: Slow

Height: 30-50 feet

Diseases and Pests: White pine blister rust

Planting location: Sun or part shade

Hardiness Zone: 3-7

Native. Twisting blue-green needles in bundles of 5. Smooth slivery-gray bark when young, deeply fissured when older. Long-lived. Seeds are used by birds. Tolerant of rocky soils and transplants easily. Wind and drought tolerant. Requires moist, well-drained soils. Grows best at higher elevations up to 11,000 feet.

EVERGREEN TREES

Pine, Lodgepole
Pinus contorta

Drought Resistance: Poor

Growth Rate: Moderate

Height: 30-50 feet

Diseases and Pests: Dwarf mistletoe; mountain pine beetle; pine engraver beetle

Planting location: Full sun

Hardiness Zone: 2-5

Native to Wyoming. Two forms include tall straight and short shrubby. Variety of soils including gravelly and rocky. Best in deep, well-drained soils. Long-lived.

EVERGREEN TREES

Pine, Mugo
Pinus mugo var.

Drought Resistance: Poor

Growth Rate: Slow

Height: 6-15 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 2-7

This is considered a tree though a variety discussed in the evergreen shrub section of this guide is much smaller. Multi-stemmed evergreen with upright branches. Stiff, dark green needles. Cones 1-2 inches long. Easy to transplant. Prefers deep moist loam.

EVERGREEN TREES

Pine, Pinyon
Pinus edulis

Drought Resistance: Good

Growth Rate: Slow

Height: 15-20 feet

Diseases and Pests: Dwarf mistletoe; mountain pine beetle; pine engraver beetle

Planting location: Full sun

Hardiness Zone: 4-7

Small bushy pine. Native to southwest Wyoming. Will grow in dry rocky soils. Will become stressed if overwatered. Long-lived. Best in areas sheltered from wind. Seeds important to wildlife. Three nice specimens are on the west side of the Catholic Church in Newcastle.

EVERGREEN TREES

Pine, Ponderosa (Yellow or Bull Pine)
Pinus ponderosa

Drought Resistance: Good

Growth Rate: Moderate

Height: 50-70 feet

Diseases and Pests: Western gall rust, shoestring root rot; needle cast fungus; mountain pine beetle; pine engraver beetle

Planting location: Full sun to part shade

Hardiness Zone:3-6

Native. There are two varieties that grow locally. 'Ponderosa', the Pacific Ponderosa Pine and 'Scopulorum', the Rocky Mountain variety. Saline (salt) and alkaline tolerant. Very long-lived tree (over 300 years). Medium to yellow-green needles. Cinnamon to orange-ish, very thick bark with fragrance of vanilla. Prefers areas with good drainage. Can be difficult to transplant unless 3' or less.

EVERGREEN TREES

Pine, Scotch (Scots Pine)
Pinus sylvestris

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 30-50 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 2-8

Pyramidal in youth, becoming irregular as lower branches die as the tree ages. Stiff blue-green 1 1/2”-3” long needles and gray to reddish-brown cones. Bark orange-brown, thin, peeling off in papery flakes; thicker towards the base. Grows on poor, dry sites. Variety of soils but prefers well-drained slightly acid. One of the most popular Christmas trees.

EVERGREEN TREES

Redcedar, Eastern
Juniperus virginiana

Drought Resistance: Good

Growth Rate: Moderate

Height: 15-25 feet

Diseases and Pests:

Planting location: Full sun

Hardiness Zone: 2-9

Appearance nearly identical to that of Rocky Mountain Juniper. A spreading to upright evergreen that is useful for windbreaks, shelter belts and hedges. Medium green summer foliage turns dusty-green to russet in winter. Tolerates a wide range of soils and climatic conditions. Invasive in some Great Plains states.

EVERGREEN TREES

Spruce, Black Hills
Picea glauca var. *densata*

Drought Resistance: Poor

Growth Rate: Moderate

Height: 40-60 feet

Diseases and Pests: Dwarf mistletoe; mountain pine beetle; pine engraver beetle; Lirula needle blight

Planting location: Full sun to part shade

Native. A dense pyramidal tree with short, dark-green needles. Generally tolerant of alkaline soils. Likes to be kept moist. Use as a yard tree, mass hedge, or windbreak. Withstands wind, heat, cold, and crowding.

EVERGREEN TREES

Spruce, Colorado
Picea pungens

Drought Resistance: Poor

Growth Rate: Slow to moderate

Height: 40-80 feet

Diseases and Pests: Spruce gall; aphid; spider mite; spruce bud worm

Planting location: Full sun

Hardiness Zone: 2-7

Very symmetrical, pyramidal evergreen. Sharp, stiff needles. Needle color may vary from bluish to green to silvery to dark green. Will grow in a variety of soils, except for excessively moist soil. Some consider this tree overused. Prune to maintain a single terminal leader. A double-leader, (or forked top) can be a hazard as the tree matures.

BROADLEAF SHRUBS

Japanese Barberry
Berberis thunbergii

Drought Resistance: Good

Growth Rate: Moderate

Height: 3-6'

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 4-8

Showy reddish~purple foliage with small yellow flowers which appear in spring followed by red fruit that persists into winter. Often with spiny branches. Good hedge or barrier plant. Withstands dry conditions. Will not withstand extremely moist conditions. May develop chlorosis in alkaline soils. Browsed by deer.

BROADLEAF SHRUBS

Bitterbrush
Purshia tridentata

Drought Resistance: Excellent

Growth Rate: Slow to Moderate

Height: 3-4'

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 3

Native. Semi-evergreen, small, dark-green three-lobed leaves. Simple with tomentose (wooly) undersides. Rose-like pale yellow flowers appear in late spring. Small pointed fruit pods are very bitter.

BROADLEAF SHRUBS

Buckthorn, Alderleaf
Rhamnus alnifolia

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 4-8'

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 3

Native. Bark on twigs smooth, red-brown to gray-brown. Some twigs tipped with short spine. Berry-like black fruit. Bark acrid, bitter. R. smithii is native to southwestern and north-central Colorado, is similar with glossy dark green leaves and golden-yellow fall color. Tolerant of dry conditions.

BROADLEAF SHRUBS

Buckthorn, Common
Rhamnus cathartica

Drought Resistance: Excellent

Growth Rate: Slow to Moderate

Height: 18-25"

Wildlife Value: Good

Planting location:

Hardiness Zone: 3

Photo by Richard Webb, Self-Employed Horticulturist, Bugwood.org

Jan Samanek, State Phytosanitary Administration, Bugwood.org

Dark glossy green foliage in summer and small yellow flowers in spring. Leaves often curl under at the tips. Birds like the chokecherry size fall fruit. Tough, durable tree adapted to difficult conditions. Sharp thorns often located at the ends of twigs. Choose site location carefully as they are difficult to remove, once established.

Jan Samanek, State Phytosanitary Administration, Bugwood.org

BROADLEAF SHRUBS

Buffaloberry, Silver
Shepherdia argentea

Drought Resistance: Good

Growth Rate: Moderate

Height: 8-12"

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 2-6

Native. Tree-like shrub with silvery scales on both sides of the foliage. Yellowish-white flower. Branch tips are generally thorny. Its edible orange-red berries can be used to make jelly or left as a treat for the birds. Fruit becomes sweeter after first frost. Needs male and female plants to produce fruit. S. Canadensis, another native does not have thorns and is a smaller bush. Subject to canker diseases. Tolerates dry, infertile, alkaline soil.

BROADLEAF SHRUBS

Caragana (Siberian Peashrub)
Caragana arborescens

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 8-15'

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 4-8

Pinnately compound bright green leaves emerge on copper-green branches in spring. Showy yellow pea-like flowers appear in spring followed by pea-like pods. Excellent as a screen, hedge or windbreak, but will become open at base as plant ages. Prune heavily at the end of each season to prevent straggly growth. Tolerant of a wide variety of soils and will grow in very difficult conditions. Fixes atmospheric nitrogen. The long fruits make a 'popping sound when they open in summer.

BROADLEAF SHRUBS

Ceanothus, Fendler
Ceanothus fendleri

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 1-2'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 4

All photos by Al Schneider www.swcoloradowildflowers.com

Native. Leaves less than one inch long, simple, ovate. Grayish-green, spiny twigs. Fruit a berry or capsule with receptacle persistent into winter. Used for food by deer, elk and livestock.

BROADLEAF SHRUBS

Cinquefoil, Shrubby
Potentilla sp.

Drought Resistance: Good

Growth Rate: Slow

Height: 1-4'

Wildlife Value: Good

Planting location: Full sun

Hardiness Zone: 3-6

Native. Nice yellow, long lasting flowers June through first frost. Leafs out early. Very cold hardy. No ornamental fall color. Transplants well. Withstands a range of soils from wet to dry and heavy clay to sandy, but avoid permanently wet soils. Nursery varieties with yellow, orange and white flowers are larger. Good substitute for roses. Long blooming. Full sun for best flowers. Makes nice accent or groundcover plant.

BROADLEAF SHRUBS

Cotoneaster
Cotoneaster actifolia

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 5-7'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 2-5

Ornamental shrub with arching branches. Summer leaf color is an attractive, glossy dark green. Fall color can be striking combination of yellow, orange and red. Small pink flowers hidden behind leaves in late spring. Black fruit. Useful as a screen or large hedge. Can be pruned for a more formal look. Liked by birds. Browsed by deer. Good alkaline tolerance.

BROADLEAF SHRUBS

Dogwood, Red-osier
Cornus sericea

Drought Resistance: Poor

Growth Rate: Rapid

Height: 7-9'

Wildlife Value: Excellent

Planting location: Full sun to part shade

Hardiness Zone: 2-7

Native. Brilliant red multi-stemmed shrub with showy white flowers and white berries. Does best in moist soil. Provides beautiful red color in the garden in winter and when framed by snow. Prune after flowering to encourage new growth. Tolerant of a wide variety of soil conditions. Suckers.

BROADLEAF SHRUBS

Photo by Ted Bodner @ USDA-NRCS PLANTS Database

Euonymus, American (Hearts-a-Burstin)
Euonymus americanus

Drought Resistance: Excellent

Growth Rate: Slow

Height: 4-6'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 5-9

Photo by Richard A. Howard Image Collection, courtesy Smithsonian Institution

Photo by Jeff McMillian @ USDA-NRCS PLANTS Database

Also called 'strawberry bush'. Inconspicuous yellow flowers in spring with striking red fruit opening September-October to display scarlet showy seeds. Enjoyed by birds and browsed by deer. A very eye-catching shrub. Suckers. Grows best in part shade and dry soil. Scale can be a major pest of the plant.

BROADLEAF SHRUBS

Euonymus, Winged
Euonymus alatus

Drought Resistance: Excellent

Growth Rate: Slow

Height: 10-15'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 4-8

Interesting winged stems and a dense form. Dark green leaves turning a radiant, show-stopping crimson in fall, and earlier in the summer if drought conditions are present. The spectacular color gives the shrub its nickname, burning bush. Browsed by deer. Easily transplanted. Looks best in groupings or mass plantings and achieves its best form when left unpruned. Inconspicuous flowers in spring followed by orange-red berries.

BROADLEAF SHRUBS

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Filbert, American (Hazelnut)
Corylus americana

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 8-10'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 4-9

Stefan Bloodworth, Lady Bird Johnson Wildflower Center

Native to adjacent South Dakota. Multi-stemmed shrub. Suckers from roots and needs thinning to maintain respectable appearance. Can quickly overgrow its original planting site, so choose a location carefully. Best reserved for naturalizing disturbed areas or other non-formal uses. Yellow-brown catkins and fruit provide seasonal interest. Edible nuts. pH adaptable.

Filbert, Beaked
Corylus cornuta Marsh.

Drought Resistance: Excellent

Growth Rate: Moderate to Rapid

Height: 4-8'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 4-8

Photo by John Seiler, Virginia Polytechnic Institute and State University, Bugwood.org

Dave Powell, USDA Forest Service, Bugwood.org

Native. Interesting beaked fruit. Dark bark. Leaves ovate with serrations (similar to Paper Birch). Needs full sun for best flowering, and moist, but well drained soil. Is a dense and compact shrub. Use as described under American Filbert.

BROADLEAF SHRUBS

Honeysuckle
Lonicera dioica L.

Drought Resistance: Good

Growth Rate: Moderate to Rapid

Height: Variable; up to 8'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 3

Native. Climbing or scrambling vine or shrub. Leaves simple. Stem appears to pass through leaf (perfoliate) at base of leaf. Flower yellow, purplish or reddish. Fruit red. Good for mass plantings and hedges. Good alkaline tolerance. 'Blue Velvet' honeysuckle (shown in photos) is highly recommended and makes a very good windbreak when planted in mass.

BROADLEAF SHRUBS

Honeysuckle, Arnold Red Tartarian
Lonicera tatarica

Drought Resistance: Excellent

Growth Rate: Rapid

Height: 8-10'

Wildlife Value: Good

Planting location: Full sun to part shade

Hardiness Zone: 3

Attractive dark blue-green foliage on graceful branches. Profuse flower display of fragrant dark-red blooms in May, followed by large bright red berries. Works well for borders or hedges. Seedlings may become 'weedy' and spread. Susceptible to aphids, though 'Arnold Red' variety is said to be resistant to Russian aphids.

BROADLEAF SHRUBS

Hydrangea, Annabelle
Hydrangea arborescens "Annabelle"

Drought Resistance: Poor

Growth Rate: Rapid

Height: 3-5'

Planting location: Full sun or part shade

Hardiness Zone: 3-9

Dense, dark green leaves. Large, showy, globe-shaped white flower clusters July through September. Generally dies to the ground and should be pruned just above the soil in late fall or early spring. Lightly fertilize in spring. pH adaptable. Fibrous rooted. Roots well with cuttings. Prefers well-drained soil and plenty of water. Plant in an area protected from harsh winds. Flowers best when planted in moderately fertile, humus-rich soil. Yellowing of leaves can occur when soil conditions are poor.

BROADLEAF SHRUBS

Indigobush
Amorpha fruticosa

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 6-12'

Planting location: Full sun

Hardiness Zone: 4-9

Native. Fixes nitrogen from the atmosphere. Leaves are bright green in summer, yellowish in fall. Purplish-blue flowers. Transplants readily. Propagates by cuttings. Does extremely well in poor, sandy soils. pH adaptable (acid or alkaline). Used in North Dakota in riparian plantings along with willows.

BROADLEAF SHRUBS

Lead Plant
Amorpha canescens

Drought Resistance: Good

Growth Rate: Rapid

Height: 2-4'

Planting location: Full sun

Hardiness Zone: 2-4

Native. Nitrogen fixer. Pinnately compound leaves having small, oval gray-green leaflets. Showy spikes of purple flowers appearing mid to late summer can be up to six inches long. Can be propogated by cuttings. Tolerates dry soils. Good for erosion control.

BROADLEAF SHRUBS

Lilac, Common
Syringa vulgaris

Drought Resistance: Good

Growth Rate: Moderate

Height: 10-14'

Planting location: Full sun

Hardiness Zone: 2-7

Hardy, easy to grow. Showy purple flowers in May or early June. Old flowers should be cut off as soon as flowers fade. Great for an informal hedge, screen or border. Susceptible to the lilac borer. A suggested cultivar is the 'Persian' which reaches 8'~10' with a spread of 5'~10'. Foliage is dark green. There are many cultivars, featuring a range of colors from purple to pink to white.. Tolerant of alkaline soil.

BROADLEAF SHRUBS

Matrimony Vine
(Box thorn)
Lycium halimifolium

Drought Resistance: Good

Growth Rate: Unknown

Height: Unknown

Planting location: Full sun to part shade

Hardiness Zone: 3

Purplish or blue flowers in May or June. Fruit is a red berry. Suckers and has an extensive root system, so it is good for stabilizing eroding areas. Self-sows, so remove dead flowers if you want to avoid spreading. Has thorns, and parts of the plant are poisonous if ingested

All photos by Jan Samanek, State Phytosanitary Admin., Bugwood.org

BROADLEAF SHRUBS

Mock Orange
Philadelphus pubescens

Drought Resistance: Good

Growth Rate: Unknown

Height: 5-10'

Planting location: Full sun to part shade

Hardiness Zone: 3

Harry Cliffe, Lady Bird Johnson Wildflower Center

Found growing wild along Sand Creek, Crook County, probably from an early introduction. White flowers. P. lewisii has pure white flowers that appear in early summer. Sweet fragrance. Extensive root system. Not particularly attractive out of flower. Not particular as to soil. Requires little care.

BROADLEAF SHRUBS

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Mountain Mahogany, True Leaf
Cercocarpus montanus

Drought Resistance: Good

Growth Rate: Moderate

Height: 4-9'

Planting location: Full sun

Hardiness Zone: 2

Cambell and Lynn Loughmiller, Lady Bird Johnson Wildflower Center

Native shrub with dark gray-green leaves. Inconspicuous flowers produce fuzzy twisted "seed tails" in fall and soft, fuzzy hairs cover the top and bottom of leaves. Can tolerate heavy browsing by deer. It fixes nitrogen and can be good for controlling erosion. Very adaptable and tolerates a wide variety of soils. Can be seen growing east of Newcastle on the north side of Hwy 16 past the entrance to LAK Reservoir.

BROADLEAF SHRUBS

Ninebark, Mountain
Physocarpus monogynus

Drought Resistance: Good

Growth Rate: Moderate

Height: 3-4'

Planting location: Full sun or part shade

Hardiness Zone: 3-7

Photos by Dave Powell, USDA Forest Service, Bugwood.org

Photo by William Ciesla, Forest Health Mgt. International, Bugwood.org

Native. Medium green foliage. Clusters of white flowers, tinged with rose, appear in late May to early June. Bark on old stem has loose, papery strips. Good for massing or low hedging. P. opulifolius, another native, has similar characteristics though somewhat larger and more hardy. Easily transplanted. Resembles *Spirea* in character. Withstands acid and alkaline soils. Prune after flowering to maintain size and shape. Renew overgrown specimens by cutting to ground in early spring.

BROADLEAF SHRUBS

Rabbitbrush
Chrysothamnus nauseosus

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 2-4'

Planting location: Full sun

Hardiness Zone: 3

Native. Semi-evergreen. Thin silvery-green leaves. Golden-yellow flowers in fall. Tolerates poor soils and grows on very dry sites. Limit water to prevent 'leggy' growth. Several examples can be seen near Gray Addition in Newcastle and along the highway bypass.

BROADLEAF SHRUBS

Rose, Austrian Copper
Rosa foetida 'bicolor'

Drought Resistance: Good

Growth Rate: Unknown

Height: 4-6'

Planting location: Full sun

Hardiness Zone: 4

Common bright-yellow or red-copper flowered rose found in plantings throughout Newcastle. Developed in an Austrian Monastery garden in 1540. Blooms in June. Leaves drop soon after flowering. Short-lived.

BROADLEAF SHRUBS

Rose of China (Flowering Plum)
Prunus triloba

Drought Resistance: Good

Growth Rate: Moderate

Height: 5-10'

Planting location: Full sun to part shade

Hardiness Zone: 3-6

Also called Flowering Almond. Beautiful double pink flowers in May, opening before the leaves. Foliage is medium green in summer turning yellow to bronze in fall. Not known for fruit. Flowers may be hurt by a late freeze. Is adaptable, but needs to be planted in full sun to get best flower production. Good for mass plantings or shrub borders.

BROADLEAF SHRUBS

Rose, Woods
Rosa woodsii

Drought Resistance: Good

Growth Rate: Moderate

Height: 3-5'

Planting location: Full sun

Hardiness Zone: 3

Native. Prickly branches. Single pink flowers in June and July followed by red 'rose hips' that hold on into winter. Spreads to form dense thickets. Develops an orange to red fall color. Alkaline and drought tolerant. Browsed by deer.

BROADLEAF SHRUBS

Serviceberry, Saskatoon
Amelanchier alnifolia

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 10-20'

Planting location: Full sun to part shade

Hardiness Zone: 2

Native. Billowy clusters of white flowers in spring followed by purple edible fruit. Green foliage turns yellow to red in fall. Good plant for attracting birds. Can be grown as a large shrub or multi-stemmed small tree. Susceptible to cedar-apple rust which causes yellow leaf spots. Tolerates harsh climates and alkaline soil. Suckers. Should be pruned regularly and planted in full sun for best performance.

BROADLEAF SHRUBS

Shadscale (Spiny Saltbush)
Atriplex confertifolia

Drought Resistance: Good

Growth Rate: Unknown

Height: 1-3'

Planting location: Full sun

Hardiness Zone: 3

Native. Thrives in moderately alkaline soils. Grows well in heavy clay to sandy, gravelly soils. Stems are woody, stiff and stout with spiny points. Useful for soil stabilization. 'Four-wing saltbush' (*Atriplex canescens*), which may be more appropriate for our area, has dark gray-green foliage, an upright spreading shape and a four-winged fruit that appears in late summer and may take on a rose tint for fall (shown in photos above).

BROADLEAF SHRUBS

Photos by J.S. Peterson @ USDA-NRCS PLANTS Database

Smokebush, Royal Purple
Cotinus coggygria
'Royal Purple'

Drought Resistance: Fair

Growth Rate: Moderate

Height: 8-10'

Planting location: Full sun

Hardiness Zone: 5

Large multi-stemmed shrub with handsome, oval purple leaves all summer and silvery-purple 'clouds' of flowers and seed heads in fall . Prefers moist soils. Best in protected location. Tolerant of a wide variety of soil conditions. Can prune in winter to maintain the compact shape.

BROADLEAF SHRUBS

Snowberry, Common
Symphoricarpos albus

Drought Resistance: Good

Growth Rate: Rapid

Height: 3-5'

Planting location: Full sun to part shade

Hardiness Zone: 3-7

Native. Pink flowers in spring followed by attractive, ornamental white fruit in the fall. Very tolerant of any soil. Suckers profusely. Good shrub for stabilizing banks. Produces best when planted in full sun. Berries can be mildly toxic if ingested.

BROADLEAF SHRUBS

Spiraea
Spiraea sp.

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 2-8'

Planting location: Full sun to part shade

Hardiness Zone: 3-8

Native species include: *S. alba* and *S. betulifolia* (white flowers) and *S. densiflora* (pink or rose flowers). Very large group of shrubs that produce showy flowers. Some good nursery varieties include: *S. bumalda* (pink or red flowers), *S. thunbergii* and *S. vanhouttei* (white flowers). May become chlorotic in alkaline soils.

BROADLEAF SHRUBS

Sumac, Staghorn
Rhus typhina

Drought Resistance: Good

Growth Rate: Moderate to rapid

Height: 15-20'

Planting location: Full sun

Hardiness Zone: 3

Large compound leaves give this plant a tropical look. Clusters of velvet crimson fruits appear in late August and persist into winter. Branches are covered with dense, velvety hair. Fall color is a brilliant red. Spreads aggressively by suckers. Prefers full sun and well-drained, drier soils. Lower branches are lost, giving the plant a long trunk with branches clumped at the top.

BROADLEAF SHRUBS

Sumac, Three-leaf (Skunkbush)
Rhus trilobata

Drought Resistance: Excellent

Growth Rate: Moderate

Height: 5-10'

Planting location: Full sun

Hardiness Zone: 4-6

Native. Long-lived. Three-lobed dark green leaves that turn red in the fall. The red fruit is good for songbirds. Would work good in roadside plantings or windbreaks. Highly resistant to insects and disease. Twigs have an unpleasant odor when crushed. Tolerates high pH soils and alkaline soils.

BROADLEAF SHRUBS

Sumac, Smooth
Rhus glabra

Drought Resistance: Good

Growth Rate: Moderate to rapid

Height: 5-15'

Planting location: Full sun

Hardiness Zone: 2

David K. Northington, Lady Bird Johnson Wildflower Center

Samuel Jones Jr., Lady Bird Johnson Wildflower Center

Sally and Andy Wasowski, Lady Bird Johnson Wildflower Center

Native. Short-lived. Fruits in September and October. Turkey, grouse and songbirds use the fruit. Tolerates alkaline soils. Aggressively suckering shrub well suited to group plantings where there is ample space to spread. Plant to stabilize steep banks. Very attractive fall color. Only species native to all lower 48 states.

BROADLEAF SHRUBS

Weigela, Red Prince
Weigela florida 'Red Prince'

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 4-6'

Planting location: Part shade

Hardiness Zone: 4-8

Almost as wide as it is tall. Dark green leaves on slender stems. Coarse winter texture. Rosy-pink to red flowers in late summer. Useful in mass plantings or a background plant in a shrub border. Grows well in full sun or part shade and prefers well-drained soils. Branches arch or curve downward due to the weight of flowers. Needs to be pruned after flowering to maintain size and shape and it will often re-bloom in later summer. Can spread to nine feet wide. Canadian cultivar 'Minuet' grows to only two feet tall.

BROADLEAF SHRUBS

Willow, Coyote
Salix exigua

Drought Resistance: Poor

Growth Rate: Rapid

Height: 8-25'

Planting location: Full sun

Hardiness Zone: 3

Native. Silvery-gray narrow leaves that maintain color through the summer. Prefers moist soils. It is possible to propogate by cuttings (springs). Suckers profusely and may become a problem in moist and wet areas, though also useful for stabilizing stream banks. Livestock will graze it.

BROADLEAF SHRUBS

Winterfat
Ceratoides lanata

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 1-3'

Planting location: Full sun

Hardiness Zone: 4

Native. Woolly, blade-like foliage with silvery gray-green color. Dark gray to red-brown stems. White flowers with green stripe, intermittent through summer (female plant must have male plant nearby to flower). Cottony fruits. Prefers sandy, dry soils. Now in the genus Krasheninnikovia. Great winter food source for grazing animals. Tolerates alkaline soil. Prune in early spring to keep it bushy.

EVERGREEN SHRUBS

Ceanothus, Snowbrush (Mountain Balm)
Ceanothus velutinus

Drought Resistance: Good

Growth Rate: Unknown

Height: 2-4'

Planting location: Full sun to part shade

Hardiness Zone: 3

Photos by Dave Powell, USDA Forest Service, Bugwood.org

Native. Leaves are 2 to 3 inches long, leathery, shiny dark green above; sweet odor and pleasant taste. Seeds remain viable for a few hundred years. Browsed by deer and elk. Fragrant. Will become spindly if it does not have enough sun.

Albert Vick, Lady Bird Johnson Wildflower Center

EVERGREEN SHRUBS

Juniper, Common
Juniperus communis

Drought Resistance: Good

Growth Rate: Slow

Height: 4-6'

Planting location: Full sun to part shade

Hardiness Zone: 2-6

Native. Good shrub for a wide range of uses including bank stabilization and yard settings. Grows in sand or clay. Tolerates neutral or acid soils. Adaptable to heat, wind and dry conditions. Transplants well. Spider mites can be a problem. Browsed by deer. Best in moist, northern exposure.

EVERGREEN SHRUBS

Juniper, Creeping
Juniperus horizontalis

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 1-2'

Planting location: Full sun

Hardiness Zone: 3-9

Native. Long trailing branches forming large mats up to eight feet long. Foliage green to whitish turning reddish-purple in winter. Adaptable to sandy, clay or rocky soils. Tolerates hot, dry, sunny locations. Used for slope stabilization, facer evergreens, ground covers, masses, foundations, rock gardens and in containers. Prefers slightly alkaline, stony soils. Transplants well. Browsed by deer.

EVERGREEN SHRUBS

Photo by Joy Viola, Northeastern Univ., Bugwood.org

Kinnikinnick
Arctostaphylos uva-ursi

Drought Resistance: Good

Growth Rate: Slow

Height: 6-12'

Planting location: Part shade

Hardiness Zone: 2-5

Photos by Dave Powell, USDA Forest Service, Bugwood.org

Native. Ground spreading with glossy bright green, 1/2 inch roundish leaves, turning reddish in winter. Light pink, small urn-shaped flowers in spring followed by 1/4 to 1/3 inch round, red fruit. Prefers sandy well-drained, neutral to acidic soils. Excellent ground cover that works as a 'living mulch'. Saline tolerant.

EVERGREEN SHRUBS

Pine, Mugo (Dwarf varieties)
Pinus mugo var.

Drought Resistance: Excellent

Growth Rate: Slow

Height: 2-8'

Planting location: Full sun

Hardiness Zone: 2-7

Dwarf cultivars of *Pinus mugo* can be used as foundation plantings, massing or groupings. Easy to transplant. 'Mughus' is a recommended variety. Can be pruned annually to thicken plant and keep dwarf habit. ('Mops' variety is said to require no pruning). Prefers deep, moist, loam soil. Tolerant of calcareous soils.

EVERGREEN SHRUBS

Sagebrush, Big
Artemesia tridentata

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 2-10'

Planting location: Full sun

Hardiness Zone: 2-4

Native. Long-lived (up to 100 years by one report). Leaves have a silvery-gray color. Leaves 1 inch long with 3 shallow lobes. Aromatic. Yellow flowers in late August. Trunks with brown, stringy bark. May be difficult to transplant. Browsed by deer.

EVERGREEN SHRUBS

Sage, Fringed
Artemesia frigida

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 6-18"

Planting location: Full sun to part shade

Hardiness Zone: 3

Native. Silver-green aromatic leaves. Upright stems produce small yellow flowers in August. Young plants are compact and may form a dense, soft mat. Cut back if plants become rangy. Gravelly soils. Browsed by deer.

EVERGREEN SHRUBS

Sage, Russian

Drought Resistance: Good

Growth Rate: Moderate

Height: 3-4'

Planting location: Full sun

Hardiness Zone: 4-9

Large delicate clouds of long-lasting violet-blue flowers from mid-summer until early fall. Silvery foliage. Ideal for borders and rock gardens. Drought tolerant.

EVERGREEN SHRUBS

Sagebrush, Silver
Artemesia cana

Drought Resistance: Excellent

Growth Rate: Unknown

Height: 2-6'

Planting location: Full sun

Hardiness Zone: 2-4

.Native. Leaves are lance-shaped and covered with a fine hair giving them a silver color. Flowers (inconspicuous) in August and September. Aromatic. Grows well in sandy soils. Resprouts when top growth is destroyed. Browsed by deer.

EVERGREEN SHRUBS

Yucca, Soapweed
Yucca glauca

Drought Resistance: Good

Growth Rate: Unknown

Height: 2-3'

Planting location: Full sun

Hardiness Zone: 4-8

Native. Sharp-pointed, narrow 'sword-shaped' leaves, 1 to 2 feet long. Dull, greenish-white flowers occur in June on a raceme or 'straight stem' arising from the center of the leaves.

FRUIT TREES

Apple Trees
Malus sp.

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 12-30'

Planting location: Full sun

Hardiness Zone: 3-5

There are several recommended varieties of apples for our area:
Beacon—Produces early summer red apples for eating and cooking
Cortland—Has very white flesh and makes a good baking apple. Heavy bearer of fruit.
Gala—Have crisp texture and excellent taste;. Good for snacking and for baking. Ripens in September
Haralson—Medium-sized bright red winter apple that keeps well. Tart and juicy. Hardy apples that starts bearing younger than most. Ripens in October. Needs a pollinator for best fruit production.
Honeycrisp—Produces sweet, crisp and juicy apples that ripen September to October. Needs a pollinator. Apples store well.
Jonathan—Bright red medium sized apple with fine flavor. Trees bear heavily. Ripens September to October. Ideal cooking apple. More susceptible to fire blight than other varieties. Needs a pollinator.
Sweet 16—Dark red fruit with unusual aromatic flavor. Excellent eating apple. Tree has good resistance to fire blight. Needs a pollinator. Ripens mid-September.
Wealthy—A favorite for eating and cooking. Produces red, sweet and juicy apples.
Wild—Introduced. Tree or shrub. Dark brown-gray bark broken into irregular flaky plates. Branchlets stout, densely hairy. Thick dark green leaves, smooth above, hairy beneath. Flowers white to pink, 1" to 3"' in diameter, found in clusters. Fruit 1" to 3" in diameter, green, yellow or red, often sour. Easily mistaken for native crabapples but can be easily recognized by hairy leafstalks and the absence of spines. Wildlife depend heavily on this tree for food, nesting and protection.

FRUIT TREES

Apricot Trees
Prunus sp.

Drought Resistance: Good

Growth Rate: Unknown

Height: 10-15'

Planting location: Full sun

Hardiness Zone: 4-5

Recommended varieties for our area include:

Goldcot—Cold hardy. Sets fruit in mid-July. Very good for canning. Best to plant two or more trees together.
Manchurian—This is a very pretty tree with apricot flowers. Because of our climate, fruit production is poor.
Scout—This tree has white flowers and can bear more fruit than the Manchurian.

FRUIT TREES

Cherry Trees
Prunus var.

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 6-10'

Planting location: Full sun

Hardiness Zone: 3-5

Recommended trees for our area include:

Meteor—Bright red sour fruit with clear yellow flesh, good for pies, sauces or jellies. Fruit ripens in mid-summer. Hardy, vigorous dwarf tree. Prefers well-drained soils. Disease free foliage. Self pollinating. Full sun.

North Star—Attractive, hardy, vigorous small tree. Dark red fruit of excellent quality. Dependable fruit producer. Does well on well-drained soils. Self pollinating. Full sun.

Mesabi—Cherries are semi-sweet and begin to ripen in mid-July. Self-pollinating. Full sun. Low to moderate watering.

Bali—Nice ornamental introduced from Canada. Very hardy. Self-pollinating tree that grows to 8'.

FRUIT TREES

Crab Apples
Malus sp.

Drought Resistance: Good

Growth Rate: Unknown

Height: 10-15'

Planting location: Full sun

Hardiness Zone: 3-8

Dolgo—Blooms in early spring with white flowers. Brilliant crimson fruits are commonly used for jellies. Fruits ripen in mid-September. Bears at a young age. Very hardy and disease resistant.

Whitney—Prolific producer of firm, flavorful green-gold fruits striped with

FRUIT TREES

Pear Trees
Pyrus sp.

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 12-30'

Planting location: Full sun

Hardiness Zone: 3-5

Recommended trees for our area include:
Bradford—Blooms showy white flower, but produces very little fruit. Silvery-green foliage that turns reddish-purple in fall. Some reports of weak wood and fire blight problems.
Golden Spice—This is a very prolific producer. The pears are not quite as big as those you buy in the store, but they are still very good quality.
Honeysweet—Self pollinating. Super sweet fruit with a rich, spicy flavor. Fruit keeps well in storage.
'*McDermand' Ussurian*—Very hardy. Use in windbreaks, wildlife habitat or yard. Attractive flowers. Fruit not considered edible. Yellow-orange autumn color. Will grow in most soil types except heavy, poorly drained and high lime.
Parker—Vigorous and upright grower. Large yellow-bronze fruit.

Pipestone—Large sized red fruit. Very hardy. Good for fresh eating or jams and jellies

Tecumseh—A short-lived, very hardy attractive tree. Produces good tasting fruit.

Toka—Known for reddish-bronze fruit and blue blooms. Heavy bearer of fruit. Fruit has rich, spicy flavor.

Waneta—Lots of large fruit that ripens earlier than some others. Plums are good for eating fresh or canning.

Plum Trees
Prunus var.

Drought Resistance: Good

Growth Rate: Slow to moderate

Height: 12-30'

Planting location: Full sun

Hardiness Zone: Varies

FRUIT SHRUBS

Blackberry, Dwarf
Rubus pubescens

Drought Resistance: Good

Growth Rate: Unknown

Height: Unknown

Planting location: Part sun

Hardiness Zone: 3

Native. Similar to red raspberry but without thorns or prickles. Leaves are compound with three leaflets, somewhat like strawberries. One to three flowers form at the ends of stems, each about 1/2 inch across. Fruits are red to purple, 1/2 inch across, raspberry-like and sharp-tasting. Likes moist, rocky areas.

Cherry, Nanking
Prunus tomentosa

Drought Resistance: Good

Growth Rate: Moderate

Height: 8-10'

Planting location: Full sun

Hardiness Zone: 2

Short-lived. Densely branched large shrub with dark green leaves that are hairy underneath. Showy pinkish-white flowers in late April are followed by edible red fruit that attracts birds. Bark is tan to red-brown. Nice for mass plantings or shrub borders. Adaptable to a variety of soils. Pruning lower limbs will show off the reddish bark.

FRUIT SHRUBS

Cherry, Pin
Prunus pensylvanica

Drought Resistance: Good

Growth Rate: Rapid

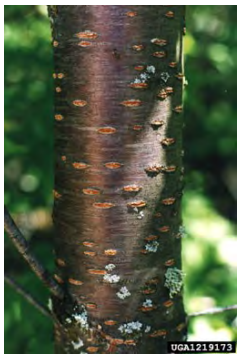
Height: 5-30'

Planting location: Full sun

Hardiness Zone: 2-5

W.M. Cook, Michigan State Univ., Bugwood.org

Native. Similar to wild plum (P. Americana) though without spine-tipped branches. Small, slender shrub or small tree. Quickly develops in abandoned areas. Leaves are toothed to base, deep green changing to yellow or red in fall. Flowers are white and in flat clusters. Fruit is 1/4 inch in diameter, light red and sour to taste. Moist or dry soils.



W. M. Ciesla, Forest Health Management International, Bugwood.org

Low growing, spreading, sprawling without spine-tipped branches. Leaves are not toothed to base.

Cherry, Sand
Prunus pumila

Drought Resistance: Good

Growth Rate: Moderate

Height: 2-4'

Planting location: Full sun

Hardiness Zone: 3

FRUIT SHRUBS

Cherry, Western Sand
Prunus besseyi

Drought Resistance: Good

Growth Rate: Moderate

Height: 5-6'

Planting location: Full sun

Hardiness Zone: 2

Native. Glossy silvery-green foliage turning a soft red in fall. Single white flowers in spring followed by edible purple-black fruit in late July. Prefers hot, dry conditions and can develop powdery mildew in overly moist conditions. Short lived. Black knot and fireblight can be problems. Suckers.

Chokecherry
Prunus virginiana

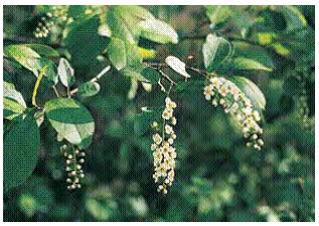
Drought Resistance: Good

Growth Rate: Rapid

Height: 15-25'

Planting location: Full sun to part shade

Hardiness Zone: 2



Native. Tall tree-like shrub that has bright green leaves that turn dark maroon as the leaves mature. Fragrant white long flower clusters appear in late May. The tart, but edible fruit ripens to black in late summer. Fruit is often used for jams, syrups and wine. Susceptible to tent caterpillar and black knot. 'Canada Red' is a good cultivar. Excellent for wildlife. Tolerant of high soil pH and clay soils.

FRUIT SHRUBS

Cranberry, High-bush
Viburnum opulus L.

Drought Resistance: Good

Growth Rate: Moderate

Height: 8-10'

Planting location: Full sun but will stand part shade

Hardiness Zone: 3-8

Native. Multi-stemmed. Leaves are lobed. Berry-like drupe, bright red, ripening in September-October, persisting into winter. Showy flowers. Adaptable to extremes of soil. pH adaptable. Aphid and borer problems reported. Browsed by deer. Nursery stock may not be as well adapted as native plants.

Currant, Clove
Ribes odoratum

Drought Resistance: Good

Growth Rate: Moderate

Height: 1-5'

Planting location: Full sun to part shade

Hardiness Zone: 4-6

Foliage is bluish-green in summer, yellow-red in fall. Yellow flowers in spring have a fragrant odor of cloves. Fruit is a black berry that ripens in mid-July with a sweet spicy flavor. Male and female plants must be present to produce berries. Good border shrub. Suckers. Tolerates a variety of soils but prefers well-drained soils.

FRUIT SHRUBS

Currant, Golden (Gooseberry)
Ribes aureum

Drought Resistance: Poor

Growth Rate: Unknown

Height: 5-6'

Planting location: Full sun

Hardiness Zone: 2

Native. Bright, spicy scented, yellow flowers in spring, followed by edible black fruits in late summer. Spines (prickles) lacking. Leaves turn scarlet in fall. Likes moist sites, but very adaptable to a variety of conditions.

Currant, Wax (Gooseberry)
Ribes cereum

Drought Resistance: Good

Growth Rate: Moderate

Height: 2-4'

Planting location: Full sun

Hardiness Zone: 2

Native. Gray-green, rounded or bluntly pointed leaves. Spines lacking. Clusters of pink, bell-shaped flowers. Bright red fruit ripens in late summer and is very attractive to birds. Minimal fall color. Useful in mass

FRUIT SHRUBS

Elderberry, American
Sambucus canadensis

Drought Resistance: Good

Growth Rate: Rapid

Height: 5-10'

Planting location: Full sun to part shade

Hardiness Zone: 3-8

Native. Bright green leaves, 5~7 leaflets. Creamy white flowers wider than long, occurring in flat clusters to 8 inches across in late June. Blue-black berries are used by wildlife and are good for preserves and wine. Suckers. Acid or alkaline tolerant. Best in moist soils but tolerates dry. Good choice to naturalize stream banks, fast screening and color contrast. S. racemose is another native with similar characteristics except that flowers are as long or longer, than wide.

Nannyberry
Viburnum lentago

Drought Resistance: Good

Growth Rate: Moderate

Height: 10-15'

Planting location: Full sun or part shade

Hardiness Zone: 2-8

Native. Leaves not lobed (simple). Ideal shrub for naturalizing. Background or shrub plant. Good winter food for songbirds. Fibrous root system, transplants easily. Suckers. Adaptable to a wide range of conditions. Moist or dry soils. No serious insect or disease problems. Plant in an area with good air circulation to deter mildew. Browsed by deer.

FRUIT SHRUBS

Plum, American (Wild Plum)
Prunus americana

Drought Resistance: Good

Growth Rate: Rapid

Height: 8-12'

Planting location: Full sun

Hardiness Zone: 3-8

Native. Very hardy shrub or small tree that grows in a variety of soils. Fragrant white or pink flowers open before the leaves and produce 1 inch diameter round edible fruit. Spine tipped branches. Good wildlife tree. Good for stabilizing erosion-prone areas due to spreading root system.

Raspberry Red
Rubus idaeus

Drought Resistance: Good

Growth Rate: Rapid

Height: 2-3'

Planting location: Full sun to part shade

Hardiness Zone: 3

Native. White flowers (few). Prickles or thorns. Leaves compound with prickles underneath. Fruit yellowish or red, edible. Grows well in rocky areas, wet or dry. R. pubescens is the other native raspberry and does not have thorns or prickles.

FRUIT SHRUBS

Thimbleberry
Rubus parviflorus

Drought Resistance: Good

Growth Rate: Moderate

Height: 2-4'

Planting location: Full sun to part shade

Hardiness Zone: 2-8

Native. Large, white single flowers. Large, "maple" shaped leaves. Not containing significant thorns. Small dark, red, raspberry-like edible fruit.

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CONTACTS

There are several agencies and organizations in our area that are willing to help residents and landowners with questions related to tree planting, tree care, tree pests and diseases and other issues.

Weston County Natural Resource District and Natural Resources Conservation Service
1225 Washington Boulevard Suite 3
Newcastle, WY 82701
307-746-3264

Newcastle Tree Board
c/o Newcastle City Office
10 West Warwick
Newcastle, WY 82701
307-746-3535

Wyoming State Forestry
431 Delaware Avenue
Newcastle, WY 82701
307-746-4261

University of Wyoming
Cooperative Extension
1225 Washington Boulevard Suite 4
Newcastle, WY 82701
307-746-3531

United State Forest Service
1225 Washington Boulevard
Newcastle, WY 82701
307-746-2482

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