



CITY OF ASPEN

# Aspen Arbor Guide

Your Guide for the Selection, Planting & Maintenance  
of Aspen's Community Forest.

Volume III

## Consider these before selecting your tree.

- What is the average mature size of the tree, and does the planting site have that space available?
- Are there any special site characteristics that you should consider, like overhead or underground utilities, poor soil, or a nearby concrete structure?
- Can you improve the diversity of your local forest?
- What are the basic requirements of the tree?
- Does the tree prefer a moist or a dry site?
- Does the tree thrive in full sun or shade?
- Will the tree create the visual effect that is desired?

For more information visit the City of Aspen's forestry pages.



<https://www.aspen.gov/721/Forestry>



### Ponderosa Pine

*Pinus ponderosa*  
Mature Height: 60-80'  
Mature Spread: 30-40'  
Flower Color: N/A  
Sun: Sun Flower Season: N/A  
Water Use: Low



Larger

*Long, slender, light green, often yellowish needles are loosely arranged on open, spreading branches to form a large pyramidal crown. Thick plated bark is cinnamon red to dark brown. Broad, ovoid cones are shiny, reddish-brown, and prickly.*



### Douglas Fir

*Pseudotsuga menziesii*  
Mature Height: 50-80'  
Mature Spread: 15-25'  
Flower Color: N/A Season: N/A  
Sun: Sun to Filtered Shade  
Water Use: Medium



Larger

*Horizontal, downswept branches with short, flat, bright green needles form a narrow, soft textured pyramidal crown. Drooping, oval cones are light brown with feather-like projections emerging from beneath each scale.*



### Western Hackberry

*Celtis occidentalis*  
Mature Height: 50-60'  
Mature Spread: 40-50'  
Flower Color: N/A  
Sun: Sun  
Water Use: Low



Larger

*Upright branches arch to create a high canopy of rounded habit. Blocky bark is light gray with knobby ridges. The bright green, serrated leaves turn yellow in autumn. Fleshy, orange-red to deep purple fruit ripen in fall.*



### Silver Maple Hybrids

*Acer SPP.*  
Mature Height: 40-50'  
Mature Spread: 30-40'  
Flower Color: N/A  
Sun: Sun  
Water Use: Medium



Larger

*This hybrid between Silver and Red Maple has the hardiness of the Silver Maple with the brilliant fall color of the Red Maple Varieties: Sienna Glen*





### White Fir

*Abies concolor*  
Mature Height: 40-60'  
Mature Spread: 20-30'  
Flower Color: N/A Sun: Sun  
Water Use: Medium



Larger

*Horizontally-tiered branches with smooth gray bark and soft, flat, bluish-green needles create an elegant, pyramidal crown.*



### Peach Leaf Willow

*Salix amygdaloides*  
Mature Height: 30-40'  
Mature Spread: 25-30'  
Flower Color: Yellow  
Flower Season: Mid to Late Spring  
Sun: Sun Water Use: Medium



Larger

*A rapid growing, upright, but often irregular form of willow, having lance-like leaves similar to those of a peach tree. Found along stream beds and lake margins.*



### Norway Maple

*Acer platanoides*  
Mature Height: 40-50'  
Mature Spread: 30-40'  
Flower Color: Greenish-Yellow  
Sun: Sun Flower Season: Spring  
Water Use: Medium



Larger

*Thick five-lobed leaves unfold in spring with a slight reddish cast becoming bright green as they mature into summer. Stout branches angle upward to form a dense upright crown with oval habit. Fall color is bright yellow. Varieties: Emerald Queen, Deborah, Emerald Luster.*



### Manchurian Ash

*Fraxinus manschurica*  
Mature Height: 40-60'  
Mature Spread: 20-30'  
Flower Color: N/A  
Sun: Sun  
Water Use: Medium



Larger

*Large, deep green, oblong-oval leaflets turn golden in fall. Thick upward curving branches form a uniform, upright, oval crown. This hardy tree is a great choice for a shade tree on smaller home properties.*



### Subalpine Fir

*Abies lasiocarpa*  
Mature Height: 50-70'  
Mature Spread: 15-25'  
Flower Color: N/A  
Sun: Sun  
Water Use: Medium



Larger

*A tall, almost cylindrical fir with a conical crown and smooth, gray bark when young. Deep blue-green needles curve at the base away from the lower sides of the twigs, giving the branches a definite two-sided appearance. Grows best at high elevations, starting at approximately 8,500'.*



### Lodgepole Pine

*Pinus contorta latifolia*  
Mature Height: 50-70'  
Mature Spread: 10-15'  
Flower Color: N/A  
Sun: Sun to Filtered Shade  
Water Use: Low



Larger

*A slender, pyramidal, 3-needled pine with stout branches. Dark reddish-brown bark forms small scaly plates as it matures. Needles are light green. Cones are light yellowish-brown and may persist on the tree for many years.*



### Southwestern White Pine

*Pinus strobiformis*  
Mature Height: 40-50'  
Mature Spread: 20-30'  
Flower Color: N/A  
Sun: Sun Water Needs: Low



Larger

*A conical to rounded crown with layered, spreading branches consisting of soft textured, green needles. Ashy gray bark becomes rough, blackish-gray as it ages. Oval, light brown cones are distinguished by the curled lip of each scale.*



### Colorado Spruce

*Picea pungens*  
Mature Height: 40-60'  
Mature Spread: 20-30'  
Flower Color: N/A  
Sun: Sun to Filtered Shade  
Water Use: Medium



Larger

*Deeply grooved, grayish-brown bark and stout horizontal branches clothed by short, stiff needles ranging from green to silvery blue create a dense, broad pyramidal conifer. Oblong oval cones are pale green ripening to light brown.*





### Quaking Aspen

Populus tremuloides  
Mature Height: 20-50'  
Mature Spread: 20-30'  
Flower Color: Silvery Gray  
Sun: Sun Water Use: Medium



Larger

*Slender, twiggy branches create an open oval tree that suckers into dense colonies. Waxy white to greenish bark is smooth becoming brownish-black as it matures. Green, triangular leaves turn golden in fall.*



### Serviceberry

Amelanchier x grandiflora  
'Autumn Brilliance'  
Mature Height: 15-25'  
Mature Spread: 15-20'  
Flower Color: White Season: Spring  
Sun: Sun Water Use: Low



Medium

*Upright branches create a vase shaped large shrub or small tree. Clusters of white flowers appear in early spring. Oval leaves unfold coppery red, becoming rich green followed by fall color ranging from yellow to orange to red. Produces sweet, purplish-black fruit.*



### Narrowleaf Cottonwood

Populus angustifolia  
Mature Height: 60-80'  
Mature Spread: 20-30'  
Flower Color: N/A Season: N/A  
Sun: Sun Water Use: Medium



Larger

*Slender branches form a dense, oval to pyramidal tree. Will sucker in most situations. Willow-like leaves are bright green, and turn to rich yellow during autumn. Narrowleaf Cottonwood is the most tested larger stature street tree in Aspen.*



### Ohio Buckeye

Aesculus glabra  
Mature Height: 30-40'  
Mature Spread: 20-30'  
Flower Color: Yellow Season: Spring  
Sun: Sun  
Water Use: Medium



Medium

*Stout branches form a broad oval to rounded tree. Palmate leaves with oblong oval leaflets are pale green. Clusters of pyramidal trumpet-like flowers appear in May. Fall colors are orange, yellow, and red.*



### Amur Chokecherry

Prunus maackii  
Mature Height: 20-30'  
Mature Spread: 20-25'  
Flower Color: White Season: Spring  
Sun: Sun to Filtered Shade  
Water Use: Medium



Medium

*Cinnamon-brown to yellowish bark is thin and peeling to present a shaggy appearance along the trunk. Branches form a broad conical to rounded crown. Clusters of showy white flowers in spring produce black fruit in summer.*



### Sensation Boxelder

Acer negundo 'Sensation'  
Mature Height: 25-30'  
Mature Spread: 20-25'  
Flower Color: Yellowish-Green  
Season: Early Spring Sun: Sun  
Water Use: Low



Medium

*Low-forming, wide spreading branches sweep upwards to create a broad, rounded crown. Medium green, serrated leaflets turn red in the fall.*



### Linden

Tilia cordata/americana  
Mature Height: 35-50'  
Mature Spread: 20-35'  
Flower: Fragrant yellow blooms in June  
Sun: Full Sun to Partial Shade  
Water Use: Low



Medium

*Linden is an excellent urban street tree or park tree which is hardy and performs well in Aspen. It's form is formal and foliage provides dense shade. Varieties: Tilia americana 'Redmond' -Larger North American native linden with larger leaves, Tilia cordata 'Greenspire' – smaller mature stature and smaller leaves.*



### Bristlecone Pine

Pinus aristata  
Mature Height: 20-40'  
Mature Spread:Varies  
Sun: Sun to Shade  
Water Use: Low



Medium

*A rounded to pyramidal, often shrubby evergreen with dark gray bark and irregular spreading branches. Short needles are dark green with specks of white resin that form on the undersides. Egg-shaped cones are shiny and dark brown.*





### Shubert or Canada Red Chokecherry

Prunus Virginian 'Shubert'  
Mature Height: 20-30'  
Mature Spread: 15-25'  
Flower Color: White Sun: Sun  
Season: Spring Water: Adaptable to Dry



Medium

A pyramidal rounded, suckering tree or large shrub with dense, slender branches. Elliptic leaves emerge rich green, becoming burgundy as they mature. Narrow clusters of small flowers appear in spring, followed by purplish-red fruit in summer.



### Mayday Tree

Prunus padus  
Mature Height: 20-30'  
Mature Spread: 8-12'  
Flower: Purple Season: Spring  
Sun: Adaptable  
Water: Medium



Medium

Slender, nodding clusters of single flowers with an almond fragrance appear in spring producing glossy fruits ripening in summer. Oval, green leaves turn yellow with orange in fall. Branching structure creates a pyramidal to rounded outline.



### Spring Snow Crabapple

Malus 'Spring Snow'  
Mature Height: 20-25'  
Mature Spread: 20-25'  
Flower Color: White Sun: Sun  
Season: Spring  
Water: Adaptable



Medium

A dense, upright oval tree with bright green, oblong-oval leaves turning to yellow in the fall. Fragrant, single white flowers occur during mid-spring. Considered sterile. Fruit bearing trees are not recommended because of bear feeding issues.



### Birch

Betula SPP. Mature Height: 15-35'  
Mature Spread: 15-25'  
Flower Color: Catkins  
Season: Late Spring  
Sun: Sun to Filtered Shade  
Water Use: Medium



Medium

A large shrub or multi-stemmed tree with a rounded, spreading habit consisting of arching branches with attractive cinnamon-brown bark. Rounded, bright green leaves change to golden yellow in autumn. Varieties: White Birch, Paper Birch, Native River Birch.



### Gambel Oak

Quercus gambelii  
Mature Height: 8-20'  
Mature Spread: 6-12'  
Flower Color: N/A  
Sun: Sun to Filtered Shade  
Water Use: Very Low



Smaller

A large shrub or small tree often occurring in dense thickets of stout, irregularly spreading branches. Shiny dark green leaves have rounded lobes of irregular depths, sometimes nearly dipping back to the midrib. Tan acorns appear in a scaly cup.



### Kentucky Coffee Tree

Gymnocladus dioicus  
Mature Height: 40-50'  
Mature Spread: 35-40'  
Flower: Greenish White  
Season: Spring Sun: Sun  
Water Use: Medium



Medium

The Kentucky coffee tree is a moderately fast-growing tree, and male trees are often grown in parks and along city streets for ornamental purposes. The tree is typically fairly short-lived, healthy trees living from 100 to 150 years.



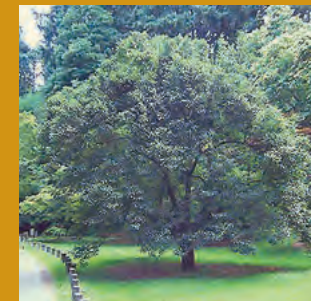
### Tatarian Maple

Acer tataricum  
Mature Height: 15-20'  
Mature Spread: 15-25'  
Flower Color: Greenish White  
Season: Spring Sun: Sun  
Water Use: Medium



Smaller

Tatarian maple trees grow so fast that they attain their full height in a few years, which isn't very tall. They are relatively short trees with wide, rounded canopies, and excellent fall-color trees for small backyards.



### Hawthorn

Crataegus SPP.  
Mature Height: 15-25'  
Mature Spread: 15-20'  
Flower Color: White  
Season: Spring Sun: Sun  
Water Use: Low



Smaller

Thornless branches form a small tree or large shrub. Single flowers in flat-topped clusters appear shortly after the dark green, oblong leaves have unfolded. Dark red fruits ripen in summer and persist into late fall.

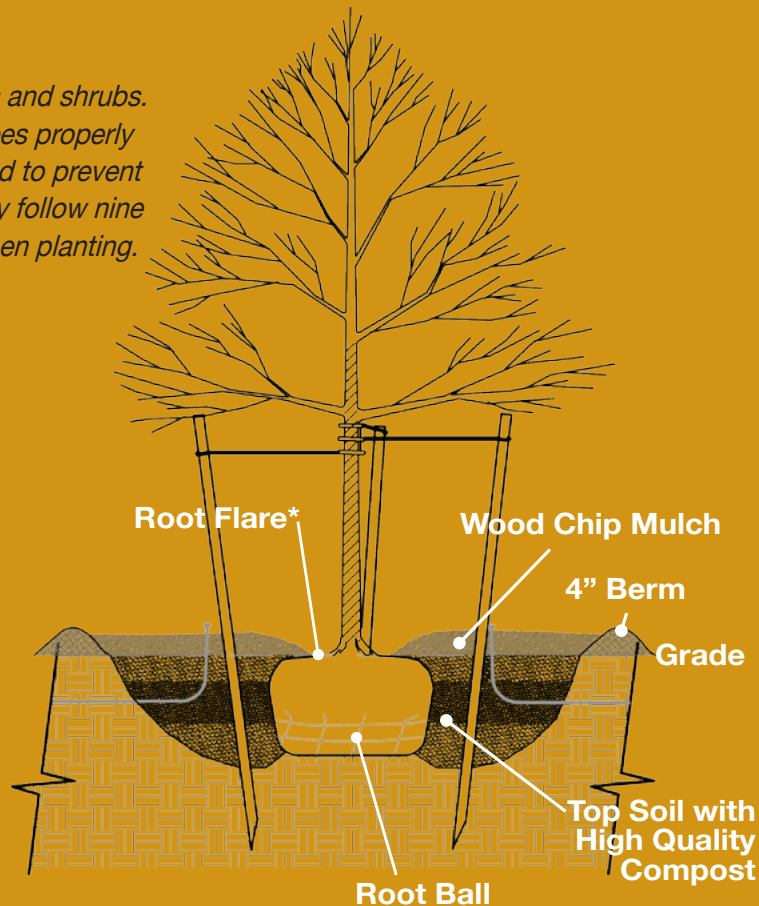


# Give Your Trees a Great Start.

## Installation

After selecting the right tree consider the ideal time to plant trees and shrubs. Usually the dormant season and fall after leaf drop is best but trees properly cared for in the nursery or garden center and carefully transported to prevent damage can be planted throughout the growing season. Carefully follow nine simple steps which can reduce the stress on plants and trees when planting.

- Dig a shallow, broad planting hole.
- Identify the trunk flare at the roots and base.
- Remove tree container if applicable.
- Place the tree in the hole at the proper height as measured from bottom of root flare\* to the bottom of the root ball. This may require probing with a screwdriver to find roots or cutting windows in the burlaps and carefully digging down.
- Straighten the tree in the hole.
- Remove twine wire basket and burlap.
- Fill the hole gently but firmly.
- Mulch the base of the tree and water.
- Water per recommendations on the following page and maintain a 3" layer of mulch.



# Three Planting Tips.

## 1. Don't Plant Too Deep.

The most common mistake when planting trees is planting them too deep. When this happens the tree's root systems are starved for the oxygen that they require and there is an increased risk for decay within the root system and at the tree's base.

Measure the height and the width of the soil within the container or the height and width of the root ball if you are installing a larger tree. The depth of the hole should be equal to or 1-2 inches less than the height of the soil within the container. The width of the hole should be 1.5 to 2 times the measured width of the soil within the container. Place the container inside the planting hole to ensure that the hole is not too deep.

## 2. Use Good Soil.

Now it is time to look at the material that will be used as backfill. If the material lacks organic matter (very sandy or high concentrations of gravel) it is crucial that high quality compost or an organic peat is added. A ratio of 2 parts native soil to 1 part topsoil with high organic matter is generally adequate. The compost should be thoroughly incorporated into the native soil before backfilling begins.

When using a containerized tree, place the tree on its side and gently tap the sides of the container to loosen the tree and the roots from the side of the container. Remove the tree by rocking it from side to side while slipping the container off the root ball. If planting balled and burlaped tree, remove wire basket and burlap once the tree is placed in hole. When the backfill is level with the surrounding soil, slowly water the planting site.

## 3. Create a "Watering Berm".

The final step is to construct a "watering berm" around the tree. Using the excess backfill material to construct a 4" high ridge of soil around the planting hole. Fill the area inside the ridge with a wood mulch product. Fill this area with water to the top of the "watering berm." Remember to monitor the moisture levels throughout the year; most trees will thrive when the soil is moist but not saturated.



For the full City of Aspen planting detail.



# Maintenance: Watering Tips

## Water Within The Drip Zone.

Tree root systems can spread two to three times wider than the height of the tree. Most of the tree's absorbing roots are in the top twelve inches of the soil. Water should be applied within the drip line, that is the area below the branches. Water Deeply and Slowly.

Apply water so it moistens the critical root zone to a depth of twelve inches. Methods for watering include a deep root fork or needle, soaker hose or soft spray wand. Apply water to many locations under drip line. If a deep root fork or needle is used, insert the device no deeper than eight inches into the soil.

## Consistent Moisture is Essential.

Maintaining consistent soil moisture allows for better root water absorption. Stressed trees are more vulnerable to disease and insect infestation and branch die back.

## When Should I Water?

Trees in regularly watered turf areas should not need supplemental water. If watering restrictions prohibit turf watering or trees are not in turf areas, water small trees four times per month, medium trees three times per month and large trees two times per month.

## How Much Water?

The amount of water is based on tree size (trunk diameter) and monthly frequency. Use a ruler to measure your tree's diameter and then refer to the enclosed schedule.

## Mulch Conserves Soil Moisture.

Mulch is critical to conserve soil moisture. Apply organic mulch within the drip line, at a depth of four inches. It's best to eliminate turf prior to adding mulch. Leave a six inch space between the mulch and the trunk of trees. Mulch materials may include wood chips, bark, leaves and evergreen needles.

Sprinkler Type	Tree Trunk Diameter	Small Trees			Medium Trees			Large Trees					
		WEEKLY 10 Gal/inch	1"	2"	3"	3X per MONTH 10 Gal/inch	4"	6"	8"	2X per MONTH 15 Gal/inch	10"	12"	14"
Deep Root Fork 2 gal/min		5	10	15	20	30	40	75	90	105	Minutes		
Deep Root Needle 2 gal/min		5	10	15	20	30	40	75	90	105	Minutes		
Soft Spray Wand 4 gal/min		3	5	8	10	15	20	38	45	53	Minutes		
Soaker Hose 2 gal/min		5	10	15	20	30	40	75	90	105	Minutes		



For more information, contact the city forester, landscape or nursery professional or visit: [www.treesaregood.org](http://www.treesaregood.org)



# Plant Care, Monitoring and Pruning Tips

**Tree Care** Proper tree care begins once the right tree for the right place has been selected and planted. Following a proper watering schedule is possibly the most important step in maintaining a healthy tree. In addition, protecting the base of the tree from mechanical injury such as string trimmers and lawn mowers is critical. Trunk protection can be accomplished by applying a mulch layer around the base of the tree as described in the watering tips section. Fertilization should be done after soil samples are analyzed to determine specific nutrient deficiencies. Leaf discoloration is the tree's most typical indicator of fertilization needs. Certified arborists are the best resource to help ensure the long-lasting success of your trees.

**Insects and Disease** There are many different insects and diseases that impact trees. It is important to note which of these are beneficial and which are harmful to the health of the tree. Make sure the insect and/or disease has been positively identified prior to treatment. Insect and disease issues vary from year to year depending upon weather patterns, temperatures, and tree health. Having trees inspected at minimum twice per year by a certified arborist is the most effective way to identify and treat insect and disease issues before they negatively impact the health of your trees. A mix of cultural, biological, mechanical, and chemical methods for control is recommended.



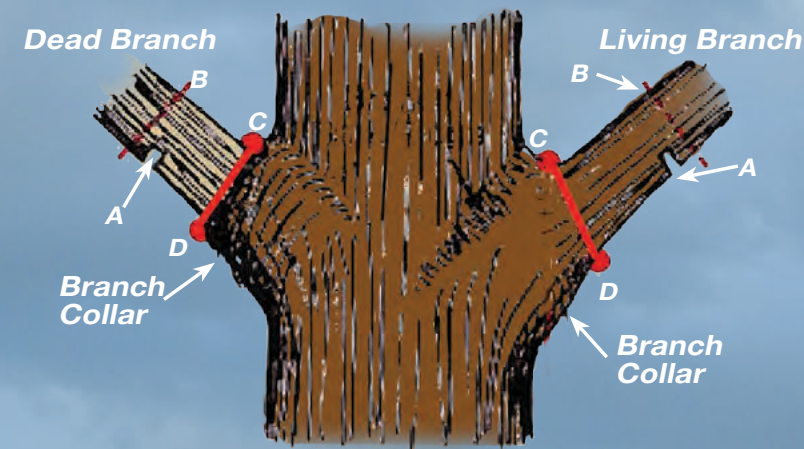
More planting tips here!

**Pruning** Proper pruning is essential in developing a tree with a strong structure and desirable form. Trees that receive the appropriate pruning measures while they are young will require less corrective pruning as they mature. Keep these four simple principles in mind before pruning a tree:

- Always have a purpose in mind before making a cut. Each cut has the potential to change the growth of the tree.
- Poor pruning can cause damage that lasts for the life of the tree. Learn where and how to make the cuts before picking up the pruning tools.
- Trees do not heal the way people do. When a tree is wounded, it must grow over the damage. As a result, the wound is contained within the tree forever.
- Small cuts do less damage to the tree than large cuts. Correcting issues when a tree is young will reduce the need for more drastic and expensive pruning later. Pruning of newly planted trees should be limited to the removal of dead or broken branches. All other pruning should be withheld until the second or third year, when the tree has recovered from the stress of transplanting.

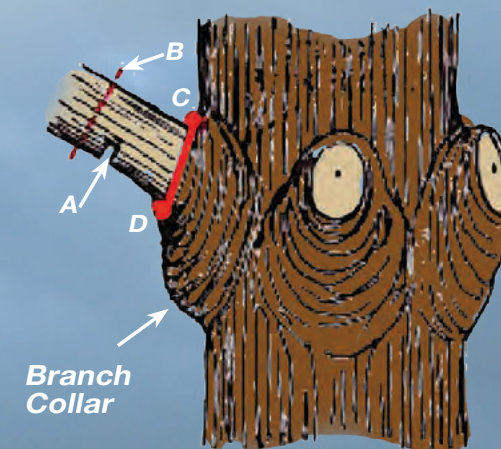
# Proper Pruning Principles

- Cut a notch A
- Trim off branch at B
- Make the final cut between C ---- D



Hardwoods

- Cut a notch A
- Trim off branch at B
- Make the final cut between C ---- D



Conifers







CITY OF ASPEN



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# Aspen Arbor Guide

The City of Aspen's Forestry program has ISA (International Society of Arboriculture) Certified Arborists on staff and has been accredited by the Society of Municipal Arborists.

