

## **Trees Across Erie**

### **Description of trees for April, 2012**

Trees are listed in alphabetical order by Latin name.

References are Michel Dirr, Manual of Woody Landscape Plants, Fifth edition; Colorado Tree Coalition web page archive of Trees of the Month at [www.coloradotrees.org](http://www.coloradotrees.org) , the Colorado State University Extension Service Gardening Series No 7.229 found at <http://www.ext.colostate.edu/pubs/Garden/07229.html>; Drought-Tolerant Trees for Colorado Landscapes at <http://csfs.colostate.edu/pdfs/droughttrees.pdf> as well as web sites listed under specific trees.

**DROUGHT TOLERANCE:** All newly transplanted trees require careful watering in all seasons. Colorado's dry winters are very hard on trees. Once established (**three to four years after planting**) many of the trees on the 2011 list are considered drought tolerant, so please check the information below.

**HEIGHT AND WIDTH OF TREES** are estimated and adjusted for this zone, and thus may differ from figures given in sources based on other areas.

#### **Tatarian Maple (*Acer tataricum*) B&B**

This small rounded to wide spreading tree reaches a height of 15 to 20 feet with equal width. It has an open, rounded form. The red samara (fruit) appear in July, ¾ to 1 inch long, with almost parallel wings. Sometimes the color of the samaras is such a vivid red that when set against the green summer leaves, the tree almost appears to be in flower. Its summer leaves are medium green, with irregular fall color: yellow, orange or red to reddish brown.

It will tolerate drought and alkaline soils better than Amur Maple (*Acer ginnala*) to which its leaves, size and shape are often similar, although Tatarian Maples are more uniform in shape. It is listed as a moderately low water demand tree, once established.

Sources: Dirr; CSU Gardening Series No. 7.229

#### **Horsechestnut (*Aesculus hippocastanum*) Large tree, balled and burlaped weighing 50-100 lbs**

This large tree grows at a medium rate to 50 – 60 feet high and almost as wide with an upright to oval outline. Its palmately compound leaves have 7 leaflets and are light green turning dark green in the summer to brown-yellow in the fall. Its large showy white flowers are 5 – 12 inches long appearing in May or June. It will tolerate alkaline soils and prefers full sun or light shade. It prefers moist, well-drained soils and is only somewhat drought tolerant.

Its fruit is one to three rich brown shiny nuts, covered by a leathery spiny husk 2 – 2 ¼ inches in diameter that mature in September and October. Although moderately toxic to humans, the nuts were fed to horses in the East.

Sources: Dirr, CTC web page

#### **Shadblow Serviceberry ‘Rainbow Pillar’ (*Amelanchier Canadensis* ‘Glenform’) Balled and Burlaped weighing 50 – 100 lbs**

This is the tree form of an upright erect shrub cultivated as a single stem tree that reaches up to 15 feet tall and with an equal width in a columnar, compact rounded shape. The white flowers emerge before the leaves which are green in the summer and turn yellow sometimes mixed with orange in the fall. Although this tree prefers moist, well-drained, acid soil, it will tolerate alkaline conditions, and will grow in full sun to shade. Its small black fruit is juicy and sweet. It has few pest problems.

Sources: Dirr, University of Illinois Extension

**Fastigate European Hornbeam** (*Carpinus betulus* 'Fastigiata') Balled and burlaped weighing 50-75 lbs  
This hornbeam cultivar grows to 30 – 40 feet tall, 20 to 30 feet wide with an oval vase shape. The dark green leaves fade to yellow in the fall. A relatively slow grower, this tree has very hard strong wood that was used by American pioneers for oxen yokes. It has distinct fan-ribbed branches without a central leader with foliage growing all along the branches. It makes a good screen summer and winter because of the dense, close-knit ascending branches. The tiny hard brown fruit attract birds and are not a litter problem. European Hornbeams are relatively free of insect and disease problems, tolerate a wide range of soil conditions from light to heavy, acid to alkaline, but prefer good draining soil and are drought tolerant. They require little pruning.

Source: Dirr; University of Florida IFAS Extension: <http://edis.ifas.ufl.edu/st119>

**Western or Northern Catalpa** (*Catalpa speciosa*) Balled & burlaped weighing 50-100 lbs.  
This large tree (40-60 ft in height with a 20 to 40 foot spread) grows fairly quickly to an upright, coarse and distinct form that provides interesting winter character. Its large leaves (6 – 12 inches long, 3 – 8 inches wide) are bright green in summer, turning yellow-green to brown but often falling before turning. It showy, large white flowers appear in May to June followed by seed pods 8 – 12 inches long that persist into fall and winter. This tree should be pruned for strong branches because its brittle wood can break in early or late snow storms or high wind.

It tolerates different soil types and handles alkaline soil and has few insect and disease problems. It is on the list of moderately low water-use trees.

Sources: Dirr; CTC web page; CSU Gardening Series No. 7.229

**Hackberry** (*Celtis occidentalis*) Balled & burlaped weighing 50-100 lbs.  
The open appearance of this large rounded tree results from widely spread branches and medium to bright green foliage that turns yellow-green in the fall. It is hardy in all areas and in all soils, including difficult alkaline soil conditions. The trunk bark on a mature tree is corky. It will reach a mature height of 50-60 feet and 30-35 feet in width.

Hackberry trees grow in wet to very dry areas once established. It is listed as a low water use tree. The growth rate is moderate to rapid and in its first ten years, the pruning of the scattered branch growth can direct a central trunk and encourage good shape. Some cities are using Hackberries to replace American Elms because they are hardy and relatively disease resistant.

The tiny berries of this tree are flavored like dates and relished by birds. The leaves can be disfigured by nipple-gall, small bullet-like appendages under the leaves that are not visible except close up and do not affect the growth of the tree or leaves.

Sources: Dirr; CTC web page; CSU Gardening Series No. 7.229

**Redbud** (*Cersis Canadensis*) Balled & burlaped weighing 50-100 lbs.  
This spring flowering tree reaches a height of 25 feet and equal width with a spreading to flat-topped crown, sometimes requiring pruning to maintain a tree form. The flowers bloom along the stems in April and are perfect reddish purple in bud and open into a rosy pink with a purplish tinge, lasting two to three weeks depending on the weather. It does best planted in a protected area and thrives in shade. Although it prefers well drained soils, it can adapt to our alkaline conditions. In Colorado, it has few insect and disease problems.

Sources: Dirr; CTC web page

**American Yellowwood** (*Cladrastis lutea*) also known as *Cladrastus kentukea* **Kentucky Yellowwood**  
Balled & burlaped

This tree has a broad rounded crown reaching 25-30' in Colorado with upright spreading branches. It has a very smooth light gray bark and is subject to winter sunscald and sunburn so it should be planted in the winter shade of other trees or buildings. The leaves open yellowish green, turning bright green in the summer sometimes with an almost bluish tinge and yellow to golden yellow in the fall. It has fragrant pendulous white flowers (similar to Wisteria) that bloom in June heavily every 2 to 3 years followed with a small papery pod. It tolerates high pH as well as acid soils and likes full sun. Prune only in summer as the tree bleeds profusely

if pruned in winter or spring. This tree has very few insect problems. It gets its name from the yellow heartwood.

Source: Dirr, US Dept of Agriculture web page: <http://plants.usda.gov/java/charProfile?symbol=CLKE> and <http://www.hort.uconn.edu/plants/c/claken/claken1.html>

**Turkish Filbert or Hazelnut** (*Corylus colurna*) Balled and burlaped weighing 50-100 pounds.

One of the top street tree selections in Europe, this tree has a strong broad pyramidal form, clean foliage and tolerance to alkaline urban conditions. It grows to 40-50 feet tall and 25-30 feet wide. The insect free leaves are handsome dark green in the summer in spite of heat, sometimes turning yellow and persist late into fall. The nuts are ½ - 5/8 inches in diameter and are edible in the fall.

Turkish Filberts thrive in hot summers and cold winters and although a well-drained soil is preferable, they tolerate both acid and alkaline soils but won't do well in heavy clay that remains saturated.

When first establishing the tree, do not over-water it. It will probably leaf sparsely the first year: **DO NOT ASSUME THAT MORE WATER WILL HELP IT.** The first few summers it needs careful watering, but once established, it is quite drought tolerant.

Sources: Dirr, CTC web page

**Hardy Rubber Tree** (*Eucommia ulmoides*) Balled and burlaped weighing 50-75 pounds.

This native from China reaches 40-60 feet in height with an equal spread in a broad rounded spreading shape. The handsome dark green summer leaves are 3"-6" long and when torn, exude a rubbery substance. Before dropping in the fall, the leaves may turn a yellowish green or just drop when green. Although the tree can produce rubber, extraction is very difficult. It transplants easily, is pH adaptable, tolerates drought and prefers full sun unless growing in compacted soil. Denver and Fort Collins forestry staff reported that their Hardy Rubber Trees withstood the sudden Oct, 2009 Front Range freeze when the temperatures dropped to the mid-teens.

Sources: Dirr; Front Range Urban Forestry Council meeting, July 22, 2010 Oct 2011

**Ginkgo** (*Ginkgo biloba*) "Maidenhair Tree" Balled & burlaped weighing 50-75 lbs.

This slow growing narrow to pyramidal tree gets wider with age, reaching a height of 30-50 feet with a variable spread, sometimes as wide as the height. Adequate water and fertilizer can make this tree grow quite fast. Ginkgo trees are among the oldest on earth and were native in North America at one time. They prefer sandy, deep, moderately moist soil but will grow in almost any soil situation and are very pH adaptable. In Colorado, they should be planted out of full sun but do not tolerate hard cold. There are a few beautiful mature specimens in Denver, one at East High School. They are extremely free of pests.

The leaf color is bright green on both surfaces in summer turning to a beautiful yellow in the fall. Frost can cause the leaves to drop almost overnight whether they have changed color or not.

Sources: Dirr; CTC Web page

**Kentucky Coffeetree** (*Gymnocladus dioicus*) Balled & burlaped weighing 50-75 lbs.

This unusual tree goes through a transition of textures, very light, graceful and airy in summer, changing to a stark, very coarse picturesque tree in winter. At maturity, they reach 50-60 feet in height and 35-40 feet in width. Kentucky Coffeetrees greatly increase in beauty with age, starting out looking very sticklike. They tolerate higher alkaline soils and are low water use trees, once established. They have no serious disease or insect problems.

The bi-pinnately compound leaves with pointed leaflets 1 ½" long come out late in spring with new leaves tinged pink to purplish, gradually changing to dark green almost dark bluish green in summer and then yellowish in fall. The shade of this tree is filtered because of the open shape and small leaflets. The only drawback of this tree are the brown pods on the female tree, 5-10" long, in the fall. They hang on into winter and give the tree an even more interesting winter appearance. Early Kentucky settlers made coffee from the pods which if eaten raw in large numbers may cause illness.

Sources: Dirr, CTC web page, CSU Gardening Series No. 7.229

**Goldenraintree** (*Koelreuteria paniculata*) balled & burlaped weighing 50-75 lbs.

This smallish tree reaches 30 feet in height and width. It has a regular rounded outline with spreading, ascending branches. Adaptable to a wide range of soils, it will tolerate our high alkaline soil as well as drought, wind and air pollutants. It is considered a moderately low water use tree. It prefers full sun.

The leaves unfold purplish red, turning bright green in the summer. Fall leaf color varies from yellow to golden yellow to orange-yellow. New leaves may be injured by late spring frosts.

The tree flowers in July, ½ inch wide yellow flowers on a 12"-15" panicle that is very showy, and when the flowers drop, the ground appears to be covered with golden rain.

The fruit appears in August, a papery, 3-valved capsule 1 to 1 ½ inches long, changing from green to yellow to brown and looks like a Japanese lantern. There is a small black, hard seed about the size of a pea inside.

Goldenraintrees have no serious disease or insect problems.

Sources: Dirr; CTC web page, CSU Gardening Series No. 7.229

**Amur Maackia** (*Maackia amurensis*) Balled and burlaped weighing 50-75 pounds

This small, round-headed, slow growing tree with upright-arching-spreading branches reaches 20-30 feet in height with equal width. The bark, at maturity, is a rich, shining amber to brown to copper, peeling with a curly consistency. It has white flower clusters 4-6 inches tall that smell like new mown grass or alfalfa, and appear in June to July followed by 2-3 inch long, dark brown pods. The leaves consist of 1 ½ - 3 ½ inch long leaflets, 7 -11 on an 8 – 12 inch long rachis. The leaves are dark green in the summer with little or no change in the fall.

This tree grows best in loose, well drained soil, tolerating acid or alkaline soil and does best in sunny locations. It has no serious pest or disease problems. It is a quite adaptable tree and fixes atmospheric nitrogen.

Dr. James Klett from CSU at the March, 2011 Eastern Colorado Community Forestry Conference in Windsor recommended this tree among unusual (locally) woody plants that had been successful in 2 or more Front Range communities.

Sources: Dirr

**Coralburst Crabapple** (*Malus 'coralcole'*) B&B weighing 50-75 lbs

This small low growing rounded tree reaches a height of 10 to 15 feet with a bushy head. It has coral pink buds that open to double rose pink flowers in early May in Colorado. The small dark green foliage turns yellow in the fall. The infrequent ½ inch fruit is bronze reddish orange. It is drought tolerant and resistant to most problems affecting crabapples.

Sources: Dirr; CSU Extension <http://www.ext.colostate.edu/pubs/garden/07424.html>

**Radiant crabapple** (*Malus 'Radiant'*) B&B weighing 50-75 pounds

This small tree grows to 20 to 25 feet with a compact, round crown. The single flowers start as deep red buds, open into deep pink that fade into lavender. The leaves are reddish when they first come out and then turn green. The bright red fruit is ½' in diameter and persists into winter. Although susceptible to scab, it has been a very popular tree in some metro Denver communities.

All crabapples are considered moderately low water use trees.

Source: Dirr, <http://www.ext.colostate.edu/pubs/garden/07424.html>

**American Hophornbeam** (*Ostrya virginiana*) also known as Ironwood. Balled and burlaped weighing 50-75 pounds. Zones 3b to 9.

This graceful, small to medium tree reaches 25-40 feet in height and 20 to 30 feet wide with many horizontal drooping branches usually forming a rounded outline. Its dark green leaves turn yellow in the fall and drop early. It has a 1/3 inch long nutlet encased in a ¾ to 1 inch long sac resembling the fruit of hops, thus the name Hophornbeam. Its strong wood was used for the "beam" of the yoke of "horned" beasts of burden. Slow to reestablish after transplanting, once it takes hold it grows well, doing best in a cool, moist, well-drained, slightly acid soil, but has also grown in dry, alkaline soils with a slower growth rate. In the wild it grows on rather dry, gravelly or rocky hillsides in full sun or partial shade. It has no serious pest or insect problems.

Source: Dirr; [http://www.dnr.state.oh.us/Home/trees/hophorn\\_am/tabid/5377/Default.aspx](http://www.dnr.state.oh.us/Home/trees/hophorn_am/tabid/5377/Default.aspx).

**Aristocrat Pear** (*Pyrus calleryana* 'Aristocrat') Balled & burlaped weighing 50-75 lbs

This thornless flowering pear reaches a height up to 40 feet with a pyramidal to broad pyramidal shape. It has a strong central leader with wider branch crotches that help prevent wind and snow breakage. Its white flowers are 1" across and appear in clusters in March, often later than some other pears. It produces small, insignificant although edible fruit. The lustrous dark green leaves have a wavy edge and turn a deep red in the fall. It will tolerate drought, poor drainage, any soils including alkaline, moderate winds, smog and extreme temperatures. Sources: Dirr; [coopext.colostate.edu/4dmg/trees/arstpear.htm](http://coopext.colostate.edu/4dmg/trees/arstpear.htm)

**White Oak** (*Quercus alba*) Balled & burlaped, weighing 50- 75 lbs.

This handsome, broad spreading tree grows to a height of 50-80 feet tall and almost as wide. It adapts to many soil types but does best in deep, moist, well-drained acid soils, but does grow in all soil types and prefers full sun. It is a durable, long-lived tree with a strong, bold appearance.

White Oak leaves unfold with a grayish and pinkish color turning almost dark blue-green in the summer. Fall color develops late and varies from brown to rich red to wine color and lasts a long time. The nuts are single or paired, ¾-1" long. It is listed as a moderately low water use tree has some pests but none significant.

It should be transplanted as a small tree but grows at a slow to medium rate into one of the most handsome oaks. It is the state tree of Illinois.

Sources: Dirr, CTC web page

**Swamp White Oak** (*Quercus bicolor*) Balled and burlaped, weighing 50- 75 pounds.

This very rugged and hardy oak has a much better drought tolerance than the name implies. It is listed as a moderately low water use tree, once established. It grows to 60 – 80 feet tall with an equal spread, forming a broad, open, round-topped crown.

Swamp White Oaks tolerate a wide variety of soils and growing conditions.

The summer leaves are a lustrous dark green on top with a velvety whitish-silver underside resulting in a bicolor affect in the breeze, hence the name *Quercus bicolor*. In fall the leaves usually turn yellow, but sometimes reddish bronze, and usually do not hold on into winter. Its 1" long acorn is usually paired.

Sources: Dirr; CTC web page; [watersaver.org](http://watersaver.org),

**Gambel Oak** (*Quercus gambelii*) Balled and burlaped weighing 50-75 pounds

This slow growing small Colorado native, although often a shrub, is also cultivated as a single-stem tree and can reach 20 feet tall, 6-12 feet wide, although supplemental watering increases the height. It is very cold hardy, tolerates dry alkaline conditions, and produces acorns that are a source of food for wildlife. Its foliage becomes glossy with age, keeping a bright green color even in extreme summer heat. In fall the leaves turn bright yellow to orange to red.

Sources: CTC web page; Recommended Tree Species under Forestry on [Bouldercolorado.gov](http://Bouldercolorado.gov) web page; [coopext.colostate.edu/4dmg/trees/gamble.htm](http://coopext.colostate.edu/4dmg/trees/gamble.htm); [byu.edu/tree\\_culture.aspx:tour\\_order=82](http://byu.edu/tree_culture.aspx:tour_order=82) Oct 2011

**Bur Oak** (*Quercus macrocarpa*) Balled and burlaped weighing 50-75 lbs.

A fine, large specimen tree, also called Mossycup Oak (from its acorn), has been called inspiring because of its size and hardiness. Bur Oaks reach 60' in height and width. The weakly pyramidal to oval shape becomes a broad crown with stout branches at maturity. The rough dark gray to gray-brown bark becomes deep ridged and furrowed. It is believed that the thick bark helped Bur Oaks survive the heat of prairie fires.

Bur Oaks are difficult to transplant but once established, grow well in various soil types and are very adaptable to city heat and pollutants, tolerating high pH soils. Regular watering (don't drown it!) increases the growth rate, although Bur Oak are drought tolerant, low water-demand trees, once established.

Bur Oaks have lustrous green leaves in summer that turn yellow-green, yellow, and finally yellow-brown in fall.

Sources: Dirr, CTC web page, CSU Gardening Series No. 7.229

**Chinkapin Oak** (*Quercus muehlenbergii*) Balled and burlaped weighing 50-75 lbs. Zones 4-7

This tree reaches 50-60 feet tall and an equal width, growing at a medium rate but slowing as it reaches an open, rounded crown at maturity. The leaves are a lustrous, dark forest green on the upper side with a white and slightly fuzzy underside in summer, varying in the fall from yellow to orangish-brown to brown. The acorn, favored by wildlife for its sweet flavor, is about 1 inch long, elliptically shaped about half covered by a cap. Like many oaks, they are somewhat difficult to transplant. In the wild they grow on dry limestone outcrops and are considered a moderately low water demand tree. They have no serious pest problems.

Sources: Dirr; CTC web page; CSU Gardening Series No. 7.229

**English Oak** (*Quercus robur*) Balled and burlaped, weighing 50- 75 lbs.

English Oaks tolerate a wide range of soils, including high pH, but prefer well-draining soil in full sun and are listed as moderately low water demand trees. They develop stately, broad round topped, open crowns with stout spreading branches, reaching a height and width of 45-55 feet in this area. It is one of the faster growing oaks and is extremely long lived.

English Oak leaves are dark green to almost blue green above and palish blue-green on the underside in the summer and brown in the fall, and may hang on into winter. The acorns are quite small.

Sources: Dirr,

**Red Oak** (*Quercus rubra*); Balled & burlaped weighing 50-75 lbs.

This relatively fast growing oak prefers well-drained sandy soils and withstands urban pollution, but may develop chlorosis in high pH soils with outer branches dying back. It has a rounded form when young, becoming round-topped when older and reaching a mature height of 50-70 feet and 50-60 feet in width. Its unfolding leaves are pinkish to reddish, turning lustrous dark green in summer and then russet to bright red in fall. Its acorns mature and fall early.

Red Oaks are basically free of insects and disease and transplant readily.

Sources: Dirr, CTC web page

**Shumard Oak** also known as Southern Red Oak (*Quercus shumardii*) Balled & burlaped weighing 50-75 lbs

This rapid growing oak grows to 40' to 60' feet tall with almost equal spread from a pyramidal shape to more spreading as it matures. Although native to creek sides and river bottom ground, it is very adaptable and tolerates drought and high pH soils. It transplants easily, has few insect or disease problems and is recommended for wind breaks in Kansas where it has withstood the cold in western Kansas. It is more tolerant of clay soils and marginal sites than red oak. Its leaves, 6-8" long, 3-4" wide, have 7 (usually) to 9 pointed lobes with sinuses cut deep to the midrib, are lustrous and leathery on top and smooth with hairy tufts on the underside, and usually turn russet red in the fall. The acorn has a shallow cap and the nut is striated with brown-black lines.

Shumard Oak was recommended at the Eastern Colorado Community Forestry conference in Windsor in March, 2011, by Dr. James Klett of CSU as one of the less usual trees that has been successfully grown in at least 2 Denver Front Range communities.

Sources: Dirr (6<sup>th</sup> edition); [www.kansasforests.org/conservation/deciduous/shumardoak.shtml](http://www.kansasforests.org/conservation/deciduous/shumardoak.shtml)

**Glenleven Linden** (*Tilia cordata* 'Glenleven') (also called littleleaf lime tree): bareroot so must be ordered in multiples of 5 by groups/cities.

This linden develops an extremely straight trunk and has larger leaves, more open branching and faster growth than other littleleaf lindens. Its inconspicuous yellowish, mid-summer flowers are very fragrant. Lindens are pH adaptable and pollution tolerant but prefer good draining soil. The dark green summer leaves turn yellow in fall. The gray-brown bark is ridged and furrowed on older trunks. Glenleven Lindens can reach a mature height of 45-50 feet and width of 35' in Denver. Lindens generally are hardy trees once established and maintain their pyramidal shape with minimal pruning.

Sources: Dirr, CTC web page (on *tilia cordata* generally)

