Allee® Elm

Ulmus parvifolia 'Emer II' P.P. #7552

Dirr's Description

The Ulmus parvifolia 'Emer II' P.P.# 7552 Allée® brand Elm is a noble and majestic tree that will grace boulevards, city streets, urban spaces and country lanes. This superb tree brings new meaning to the words biological grandeur. The parent tree is 75 feet high and 55 feet wide. In outline, Allée® brand Elm copies the vase-shaped form of the American elm, Ulmus americana. The major limbs ascend from the main trunk at a 30 to 45 degree pitch to form an elegant wine glass outline.

The trunk is irregularly fluted and the bark exfoliates in puzzle-like patterns exposing rich shades of gray, green, brown and orange-brown. The bark colors glisten in the afternoon light when the oranges and rich browns are fully accentuated. The exfoliating character occurs on the main trunk and extends to two-inch diameter branches. In winter, the tree is as beautiful as in summer. In fact, with the bark moistened by gentle rains, the entire tree assumes a sculptural quality. Allée® brand Elm is a year-round, majestic work-of-art. No other cultivated tree compares with this selection for the beauty of its bark.

Allée® brand Elm produces rich green summer foliage that changes to yellow and, in the best ye4ar, yellow-red fall color. Foliage is free of insects and diseases and appears as fresh in September-October as upon emerging in spring. Allée® brand Elm is resistant to the troublesome insects (elm leaf beetles and Japanese beetles) and disease (Dutch elm disease) that decimated the American elm.

Allée® brand Elm, when planted along streets and boulevards, will form the magnificent cathedral ceiling effect that was so reminiscent of American elm. Allée® brand Elm withstands the harshest growing conditions and will bring green civility to our cities and towns, cool our streets and our homes and provides human scale and a sense of place. No other tree embodies such functional, yet noble, attributes.



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Growing Information

Soil and Media

Allée® adapts well to both heavy and light soils and tolerates a wide range of pH and fertility levels. Allée® grows better in situations that provide good drainage. Its dense root system with many fine roots makes it very efficient even in landscape sites with poor soils and limited soil volume.

Climate Range

Allée° tolerates hotter, dryer, and sunnier conditions than many other trees. The species, *Ulmus parvifolia*, is native to China over a region that roughly corresponds in climate and soil conditions to the region of the United States that ranges from Florida to Tennessee and over to Oklahoma, Texas, and Arizona. Allée° has proven to grow well throughout most of this range.

Growth Rate and Habit

The Allée® parent tree is approximately 50 years old and in form emulates that of American Elm, an upright vase. The parent is roughly 70 feet tall and 50 feet wide. As young trees, growth is upright and the tree will tend to form multiple leaders if not properly pruned. In production fields in Georgia, landscape size trees typically caliper 1" per year. The largest Allée® in existence (other than the parent) is growing in Wichita, Kansas. In two experimental sites in Zone 6, Allée® has increased 1¼" per year without supplemental water or fertilizer.

Hardiness

Allée° seems to tolerate lower temperatures than many *Ulmus parvifolia*; however, young trees in a vigorous state of growth have experienced cold damage caused by sudden temperature fluctuations in fall and spring. *In order to prevent this damage, it is important to slow growth throughout the growing season and especially at the end of the summer well before freezing temperatures will occur. This is best accomplished by limiting water and nitrogen. Cold hardiness experiments have shown that elms in a vigorous state of growth are less cold hardy.* Allée° has survived temperatures as low as -8°F in February 1993 in Wichita, KS. The parent has experienced temperatures as low as -8°F, and field grown Allée° have survived laboratory tests to -22°F.

Planting and Transplanting

Allée® may be planted bare root during dormancy or at any time from a container. The fibrous root system makes for a plant that quickly grows out after transplant. Planting root-enhanced liners will improve transplant success. Transplanting into the landscape and lack of optimum care during establishment often stresses elms as well as other trees and makes them more susceptible to various kinds of pests, especially borers. The most common borer to attack Elms after planting is a shothole borer that leaves several tiny BB sized holes in the trunk of the tree. These holes may ooze and lead the way for more serious problems to develop. In order to protect the trees during the first several months following planting, it is a good idea to spray regularly with a chemical labeled for borer control, according to the label.

Irrigation

It is important to water carefully during the growing season. Adequate water is important to maintain the health of the tree; however, Allée* requires less water than most trees and therefore does not need to be watered as frequently as most trees. Excess water (especially in combination with fertilizer) can promote succulent growth that will not harden off before the first freeze.

Fertility

Since Allée* is such an efficient tree, it requires less fertilizer than most trees. Use low to moderate rates only in the spring or summer to encourage root growth and stimulate caliper increase. Fertilizer should never be applied in the late summer or fall, and it is preferable that slow-release fertilizers not be used. For field and container growers, we recommend applying enough fertilizer to provide good growth early in the season but has completely released by the middle to the end of August, depending on the length of the growing season.

Pruning

Pruning is important to develop a strong central leader. Since growth is relatively fast, frequent, light prunings are recommended over infrequent, severe prunings. Ideally, trees should be visited about 4 times per year and not more than 20% of the foliage should be removed at any one pruning. We recommend Dr. Ed Gilman's book, <u>An Illustrated Guide to Pruning</u>, as a guide to proper pruning techniques. We also recommend doing the last pruning in an adequate amount of time before the first frost. This is to prevent a new growth flush that will not harden before the first frost and could be damaged.

Pests

Mites are sometimes found on smaller, closely spaced plants, and Japanese beetles will also feed on them. As with most trees, borers may be a problem following stress such as transplanting. Each of these pests can be controlled with labeled



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chemicals. Deer and rabbits can also be a problem on smaller trees. *Ulmus parvifolia* has been reported to be sensitive to herbicide injury, both from post- and pre- emergent herbicides, especially when bark tissue is green. Problems with bark damage have been observed on *Ulmus parvifolia*, especially those fast growing selections with exfoliating bark. The highest incidence of this problem seems to be associated with mechanical damage caused by improper handling during transplanting or staking (too tightly), spacing very closely in containers or in an overwintering structure, sun scald, frost cracks, and herbicide damage. Overhead water, shading of trunks and lack of air circulation can also increase the probability of damage. Fungi seem to be primarily secondary or opportunistic. Thiophanate methyl compounds and mancozeb have been recommended for control. These compounds as well as copper sulfate compounds can be applied after handling or pruning, especially during wet periods as in the early spring or during wet falls. The best time to prune is during the driest part of summer. Tissue damaged by cold should be sprayed within a 24-hour period to protect from infection by any secondary pathogens. Trees that have experienced significant bark damage could develop weak points and should be destroyed. Any pesticide should be used according to the label. Another pest to be aware of is woodpeckers, also called sapsuckers. As they can with many elms, woodpeckers attack the clear trunk area and cause small rows of shallow holes.



Allee® Elm Parent Tree

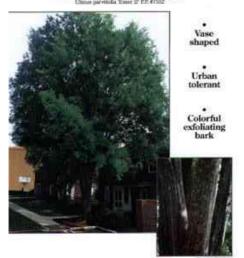


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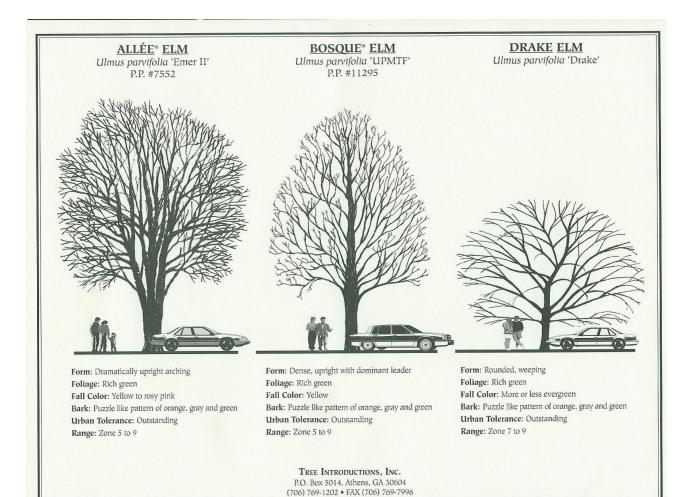
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Michael Des





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Landscape Value - Allee Elm

<u>Ornamental features</u>: Bright green leaves are ovate to slightly obovate, with serrations that are slightly more pointed than the species. Lustrous summer foliage changes to yellow and, possibly, yellow-red in fall. The bark exfoliates in puzzle-like patterns exposing gray, orange, and brown.

<u>Habit and growth rate:</u> Relatively fast growing, reaching 75 feet tall and 55 feet wide. Upright, arching habit that resembles the vase-shaped form of American elm.

<u>Culture</u>: Especially tolerant of hot, dry conditions. Prefers well-drained soils, but prospers in a variety of soil types. Grows best in full sun.

<u>Landscape Value</u>: Street plantings or other areas where an upright, high canopy tree is needed. Can also be a large specimen shade tree

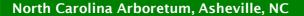


Allee® Elm Summer Foliage



Sallie Mae, Washington, DC







Disney Celebration, Orlando, Florida

Photos courtesy of Tree Introductions, Inc.

