

Bosque® Elm

Ulmus parvifolia 'UPMTF'

P.P. #11295

Dirr's Description ~ Dr. Michael Dirr



Predictions seldom ring true, however, in the case of Lacebark Elm, the bull's-eye has been hit. In 1988, Tree Introductions made a quantum leap of faith that the elm species, with breeding and selection for superior characteristics, would revolutionize the shade tree industry. The first salvo was a direct "hit" with Allée® ('Emer II' P.P. #7552), now the most widely grown and marketed patented elm.

The quest for elm shade tree perfection is still in the embryonic stages, however, the integration of successful propagation techniques, field production improvements, landscape evaluation, and marketing has tickled the consciousness of all who love and grow trees.

With the magnificent vase-shaped, American Elm like habit of Allée® and the broad-rounded out line of Athena® ('Emer I' P.P. #7551), the next requirement was for an upright selection with a dominant leader. The triumvirate is now complete with the addition of Bosque® ('UPMTF' P.P. #11,295), found by Moon's Tree Farm, Loganville, GA, an exquisite, upright oval form with a central leader and uniform secondary branches that emerge at 60° angles (base) and 30° angles (top). Mature landscape size should approach 50-60' tall and 35-40' wide. The composite biological specimen is without parallel in the shade tree universe.

Travel a step closer and the beautiful lustrous dark green leaves come into clear focus. Linger for a time, and they turn subtle hues of golden yellow in autumn.

With leaf abscission, the wonderful clean branching patterns become evident. Also, the bark exfoliates to enhance rich shades of gray, orange-brown, and green when trunk diameter approaches three inches and greater.

Bosque® has exhibited incredible heat and drought tolerance in the extreme summers of 1998-2000. Bosque® offers the complete package -- unique upright oval habit, superb foliage, puzzle-like exfoliating bark, and landscape adaptability. As a street tree in narrow planting areas, parking lots, large planters, or anywhere the imagination travels, Bosque® Lacebark Elm will settle into a life of contented culture.

SHADEMAKER

Postal Address: 5505 Muirfield Court ● Flower Mound, Texas ● 75022-3489 USA
817.430.8716 ☎ 817.491.3474 (fax) sales@shademakertrees.com (e-mail)

Bosque® Elm
***Ulmus parvifolia* 'UPMTF'**
PP# 11,295

Growing Information

Soil and Media

Bosque® adapts well to both heavy and light soils and tolerates a wide range of pH and fertility levels. It 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. Some container growers have experienced Bosque® losing foliage during the growing season; at this point it is not clear of the exact cause. Root zone temperatures, soil drainage, or a combination of both maybe blame. A lighter soil mix is recommended for container culture.

Climate Range

Bosque® 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. Bosque® should grow well throughout most of this range.

Growth Rate and Habit

After 10 years of age, the Bosque® parent tree was approximately 8" in diameter. In youth it forms a narrow pyramidal head, which broadens with age to an upright oval.

Hardiness

Bosque® 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.*** Bosque® has experienced temperatures as low as 5°F in February 1996 in Georgia and has survived laboratory tests to -17°F.

Planting and Transplanting

Bosque® 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, Bosque® 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 Bosque® 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 maintain a strong central leader, although Bosque® will develop a central leader with very little pruning. 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, An Illustrated Guide to Pruning, 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 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 a woodpecker, also called sapsuckers. As they can with many elms, woodpeckers attack the clear trunk area and cause small rows of shallow holes.



SHADEMAKER

Postal Address: 5505 Muirfield Court ● Flower Mound, Texas ● 75022-3489 USA
817.430.8716 ☎ 817.491.3474 (fax) sales@shademakertrees.com (e-mail)

Ulmus parvifolia 'LPMTF' P.P. #11295 Bosque® Elm

Introductions, Inc. is pleased to announce the release of Bosque® Elm, the newest addition to the Elm family. Bosque® Elm is a unique combination of the best qualities of the Elm family and the Bosque® Elm. It is a true Elm, with the same genetic background as the Elm family, but with a unique appearance and a unique character. It is a true Elm, with the same genetic background as the Elm family, but with a unique appearance and a unique character. It is a true Elm, with the same genetic background as the Elm family, but with a unique appearance and a unique character.

TREE INTRODUCTION, INC.
 10000 W. 10th Street, Suite 100
 Fort Collins, CO 80504
 Phone: (970) 796-1400
 Fax: (970) 796-0228
 Email: info@treeintroduction.com
 Website: www.treeintroduction.com

ALLÉE® ELM <i>Ulmus parvifolia 'Emer II'</i> P.P. #7552	BOSQUE® ELM <i>Ulmus parvifolia 'LPMTF'</i> P.P. #11295	DRAKE ELM <i>Ulmus parvifolia 'Drake'</i>
<p>Form: Dramatically upright arching</p> <p>Foliage: Rich green</p> <p>Fall Color: Yellow to rosy pink</p> <p>Bark: Puzzle like pattern of orange, gray and green</p> <p>Urban Tolerance: Outstanding</p> <p>Range: Zone 5 to 9</p>	<p>Form: Dense, upright with dominant leader</p> <p>Foliage: Rich green</p> <p>Fall Color: Yellow</p> <p>Bark: Puzzle like pattern of orange, gray and green</p> <p>Urban Tolerance: Outstanding</p> <p>Range: Zone 5 to 9</p>	<p>Form: Rounded, weeping</p> <p>Foliage: Rich green</p> <p>Fall Color: More or less evergreen</p> <p>Bark: Puzzle like pattern of orange, gray and green</p> <p>Urban Tolerance: Outstanding</p> <p>Range: Zone 7 to 9</p>
<p>TREE INTRODUCTION, INC. P.O. Box 3014, Adams, GA 30604 (706) 709-1202 • FAX (706) 709-7996</p>		

SHADEMAKER

Postal Address: 5505 Muirfield Court ● Flower Mound, Texas ● 75022-3489 USA
 817.430.8716 ☎ 817.491.3474 (fax) sales@shademakertrees.com (e-mail)