Scientific Name: *Ulmus* x species Common Name: Elm Hybrids Environmental Conditions:

Hardiness Zone: varies, 3b to 5a (see cultivar listing below)

Soil Moisture:

VERY WET									VERY D	RY
occasio saturate very we	ed or	me	isisten oist, we ained s	ell	pe	casion criods ry soil	of	pe	olonge riods o ry soil	of
2	3	4	5	6	7	8	9	10	11	12

Sun/Shade: full sun

Salt: some observed tolerance

pH: ≤ 8.2

Insect/Disease Factors: all cultivars listed are resistant to Dutch elm disease, resistance to elm yellows (a fatal disease sometimes known as Phloem Necrosis) and elm leaf beetle (an insect that can cause severe damage in some areas) varies, see chart on page 114

Growth Characteristics:

Height: 50'-70'

Width: 40'-60' typical, can equal height with age

Form/Habit: varies with cultivar, see cultivar chart on following page

Rate: medium to fast, many cultivars are noted as fast growing on cultivar chart on following

page

Ornamental Characteristics:

Flower: not ornamentally important, inconspicuous

Fruit: ½" disc-shaped, matures in spring

Seasonal Foliage Color: green to dark green in summer (all cultivars listed as dark green except

VanguardTM and CommendationTM), yellow in fall

Bark: gray to brown, ridged or scaly, varies with these hybrids, can be attractive but none considered highly ornamental as *U. parvifolia* species and cultivars except **'Frontier'** (gray-green bark with orange lenticels due to *U. parvifolia* partial parentage)

Transplant Issues: easy to transplant B&B or ≤ 2 " caliper bare root (except 'Frontier', which is difficult to transplant bare root)

Management Issues: plants propagated on 'own roots' are preferred, specify when possible **Suggested Uses:** narrow or wide street tree lawns/pits, parks, suitable for CU-Structural SoilTM

Cultivars: see chart on following page



Ulmus x species (Elm Hybrids):

Culitvar	Growth Rate and Size (if differs from previous page)	Form/Habit	Foliage (if differs from previous page)
Zone 3			
'Discovery' (possibly 2b)	more compact, 45' high, 35' wide	upright oval to vase-shaped in youth, develops arching vase-shape with age, symmetrical	
'New Horizon'	fast growing	upright, full crown	large leaves, fall color unknown
Zone 4			
'Prospector'	typically shorter, 40' high, 30' wide, fast growing	vase-shaped, American Elm-like but more dense	larger leaves, emerges with orange tint
'Regal'		pyramidal to oval, open, sometimes upright branching, potentially good wide branching angles, strong central leader	not glossy, little fall color
'Sapporo Autumn Gold'	fast growing	conical in youth, potentially vase-shaped and American Elm like, upright and irregular branching, densely branched	emerges with red tint
'Urban' (4a)	fast growing	pyramidal to broadly columnar, strong central leader	
Vanguard TM ('MortonPlainsman')	grows into mid- summer	upright vase-shaped	waxy, glossy, slightly folded
Zone 4 to 5			
Accolade TM ('Morton')	fast growing	vase-shaped, arching, American Elm-like	glossy
Danada Charm TM ('Morton Red Tip')	fast growing	vase-shaped, arching, very American Elm-like	glossy, emerges red
Zone 5			
Commendation TM ('Morton Stalwart')	fast growing	upright oval, symmetrical	larger leaves
'Frontier'	may have slightly smaller stature, fast growing	pyramidal to upright oval when young, develops vase-shape with age	glossy, emerges with reddish tint, red to reddish- purple in fall, long lasting fall color
'Homestead' (5a)		pyramidal to oval, usually becoming arching with age, dense branching when young, symmetrical	dense foliage
'Patriot'		stiffly upright, vase-shaped, may stay narrower	
'Pioneer'	fast growing	broad pyramidal in youth, rounded with age, some branches arching, dense	larger leaves
Triumph TM ('Morton Glossy')		upright oval to vase-shaped, arching, strong branching, symmetrical	glossy

Cultivar	Elm Yellows	Elm Leaf Beetle
'Discovery'	resistant	resistant
'New Horizon'	unknown	moderately susceptible
'Prospector'	resistant	resistant
'Regal'	unknown	susceptible
'Sapporo Autumn Gold'	unknown	susceptible
'Urban'	resistant	very susceptible
Vanguard TM ('Morton Plainsman')	reportedly resistant	moderately resistant
Accolade TM ('Morton')	reportedly resistant	resistant
Danada Charm TM ('Morton Red Tip')	reportedly resistant	unknown but likely resistant
Commendation TM ('Morton Stalwart')	reportedly resistant	unknown
'Frontier'	tolerant, likely resistant	moderately resistant
'Homestead'	resistant	susceptible
'Patriot'	resistant	resistant
'Pioneer'	resistant	susceptible
Triumph TM ('Morton Glossy')	reportedly resistant	unknown

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Ulmus x spp (Elm Hybrids) Parentage:
Accolade<sup>TM</sup> ('Morton')
        (U. japonica x U. wilsoniana)
Commendation TM ('Morton Stalwart')
        ((U. japonica x U. wilsoniana 'Morton') x (U. pumila x U. carpinifolia))
Danada Charm<sup>TM</sup> ('Morton Red Tip')
       (U. japonica x U. wilsoniana)
'Discovery'
       (not hybrid, U. davidiana var. japonica)
'Frontier'
       (U. parvifolia x U. carpinifolia)
'New Horizon'
       (U. japonica x U. pumila)
'Homestead'
        (complex, involving U. pumila, U. x hollandica, and U. carpinifolia)
'Patriot'
       (complex, crossing 'Urban' (complex parentage listed below) with a selection of U. wilsoniana),
'Pioneer'
       (U. glabra x U. carpinifolia)
'Prospector'
        (not hybrid, U. wilsoniana)
'Regal'
        (complex, cross 'Commelin' (U. x hollandica 'Vegata' x U. carpinifolia #1) with
        'N215' (U. pumila x U. carpinifolia 'Hoersholmiensis'))
'Sapporo Autumn Gold'
        (U. japonica x U. pumila)
Triumph<sup>TM</sup> ('Morton Glossy')
       ((U. japonica x U. wilsoniana 'Morton') x ((U. japonica x U. pumila 'Morton Plainsman'))
'Urban'
       (complex, involving U. x hollandica 'Vegata', U. carpinifolia, and U. pumila)
Vanguard<sup>TM</sup> ('Morton Plainsman')
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(U. japonica x U. pumila)