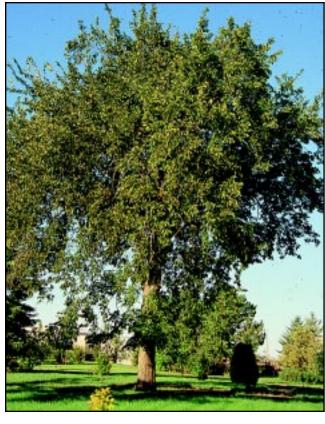
# **American Elm**









# American Elm (Ulmus americana)

### **General Description**

The state tree of North Dakota. A large vase-shaped tree adapted to a wide variety of sites. No longer recommended because of its susceptibility to Dutch Elm Disease. The largest tree in North Dakota is 62 feet tall with a canopy spread of 74 feet.

#### Leaves and Buds

Bud Arrangement - Alternate.

Bud Color - Smooth, sharp-pointed, and reddish-brown.

Bud Size - Lateral buds are small, 1/4 inch long.

Leaf Type and Shape - Simple, unequal at the base, ovate-oblong.

Leaf Margins - Doubly-serrate.

Leaf Surface - Glabrous to rough above, pubescent or nearly glabrous beneath.

Leaf Length - 3 to 6 inches.

Leaf Width - 2 to 3 inches.

Leaf Color - Dark-green above, lighter green below; yellow fall color.

#### Flowers and Fruits

Flower Type - Polygamo-monoecious, in fascicles of 3 or 4.

Flower Color - Greenish-red to brownish.

Fruit Type - Winged samara, oval-globose and wafer-like in appearance, notched.

Fruit Color - Light-green, changing to tan.

#### **Form**

Growth Habit - Trunk divides into several erect arching limbs above, umbrella to vase-shaped.

Texture - Medium-coarse, summer; medium-coarse, winter.

Crown Height - 45 to 65 feet.

Crown Width - 30 to 50 feet.

Bark Color - Dark gray-brown, with broad ridges and deep furrows.

Root System - Root spread is greater than height. Root system is shallow, fibrous, and in dry areas may have a tap root.

# **Environmental Requirements**

#### Soils

Soil Texture - Grows best in rich, moist, well-drained soils, but adapts to a wide range of soil types.

Soil pH - 5.5 to 8.0.

Windbreak Suitability Group - 1, 1K, 3, 4, 4C, 5.

#### **Cold Hardiness**

USDA Zone 2.

#### Water

Drought tolerant, but prolonged drought stress predisposes trees to pests. Tolerant of infrequent, short duration flooding during the growing season.

#### Light

Full sun to partial shade.

#### **Uses**

#### Conservation/Windbreaks

Tall tree for farmstead and field windbreaks, and riparian plantings.

#### Wildlife

Seed, buds, and tender young twigs are used as food by birds and mammals, particularly deer.

#### **Agroforestry Products**

Wood - Used in fine furniture, boxes, barrels, and crates. Good for firewood, but hard to split.

Medicinal - Extracts of some *Ulmus* species have been used as a demulcent, an astringent, a diuretic, and for inflammation, burns, cold sores and wound treatments.

#### **Urban/Recreational**

A favorite tree for all sites, but no longer recommended because of Dutch Elm Disease.

#### **Cultivated Varieties**

*Ulmus americana* 'Ascendens' and 'Augustine' - Cultivars with columnar form.

U. americana 'Lake City', 'Moline', and 'Minneapolis Park'
Variably vase-shaped. Due to susceptibility to Dutch Elm disease, the above cultivars are rarely planted (see Japanese Elm and Siberian Elm for Dutch Elm disease resistant cultivars.)

# **Related Species**

David Elm (U. davidiana)

European White Elm (Ulmus laevis)

Japanese Elm (U. davidiana var. japonica)

Lincoln Elm (U. rubra 'Lincoln')

Rock Elm (*U. thomasii*)

Slippery Elm (U. rubra)

#### **Pests**

Besides Dutch Elm disease, common diseases include wetwood, black leaf spot, and branch cankers. Common insect pests include cankerworms and aphids. Deer browse damage can be serious on young trees.