Maine Tree Species Fact Sheet

Common Name: Eastern Cottonwood (Southern Cottonwood, Carolina Poplar,

Eastern Poplar, Necklace Poplar, and Alamo)

Botanical Name: Populus deltoides

Tree Type: Deciduous

Physical Description:

Growth Habit: Eastern cottonwood is a short-lived, rapid-growing, moisture-loving species that is found in moist places and along streams and rivers. It is one of the largest eastern hardwoods and the fastest growing. It grows best on moist, well-drained sands or silts near streams. The bark is a light yellowish-green in color and smooth on young trunks and branches. As the species ages, the bark becomes thick, ash-gray in color and deeply furrowed. The twigs are stout, round or ridged below the bud and bright yellow or greenish-yellow in color. They emit a rank odor when broken. The leaves are alternate, simple and broadly triangular, and from 3 to 5 inches long. They are coarsely serrate along the margin, have a square base and a long, laterally flattened leaf stalk.

Height: The eastern cottonwood reaches a height of 75-100 feet and spreads 50-75 feet. This species is hardy to Zone 3.

Shape: Eastern cottonwood is pyramidal in youth but develops a broad vase-shaped habit in old age with the branching structure being somewhat open, irregular and ragged. The branches are often massive and spreading.

Fruit/Seed Description/Dispersal Methods:

Eastern cottonwood is dioecious. Floral buds form in the summer prior to opening the next spring. Flowering occurs in the spring before the leaves appear. Male flowers are 3-5 inches long, have 40-60 stamens and are reddish in color. Female flowers are 6-12 inches long. Seed production starts when the trees are 5 to 10 years old. Seed dispersal follows flowering, June through July. Seeds may be carried several hundred feet by the wind, aided by the "cotton" attached to the seed.

Range within Maine:

Eastern cottonwood has been commonly planted as a street and yard tree.

Distinguishing Features:

The twigs emit a rank odor when broken. The leaf margins have incurved teeth. Mature seeds have a "cotton" like substance attached to them.

Interesting Features:

The wood is light, soft and weak. It is dark brown in color with thick, nearly white sapwood, which warps when drying. The wood is used for pulp and boxes.

Relationship to Wildlife:

Rabbits and deer browse seedlings and young trees. Beavers cut sapling and pole-sized trees for food and dam construction.

Landscape Use:

Eastern cottonwood has been planted extensively along streets. However, it is short-lived and the roots often penetrate and clog drains and sewers. It is not easy to get rid of, because once it is cut down, the stump continues to sprout vigorously. This is a very messy tree often dropping leaves, flowers, fruits, twigs and branches. It is best grown in river bottoms.

Common Problems or Pests of the Tree in Maine:

Eastern cottonwood is susceptible to a large number of diseases including cankers, leaf spot, shoot blight, leaf rust fungi, and powdery mildew. A variety of insects have also been known to cause a lot of damage including borers, cottonwood leaf beetle, and the poplar tentmaker. Since cottonwood grows primarily in relatively low areas near streams, it is subjected to frequent flooding. This species is also very susceptible to fire.

References:

Forest Trees of Maine, Twelfth Edition. Maine Forest Service/Department of Conservation. 1995.

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Manual of Woody Landscape Plants, 5th Edition. Dirr, Michael A. Publishing L.L.C. 1998.

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