Maine Tree Species Fact Sheet

Common Name: Balsam Fir
Botanical name: *Abies balsamea or Pinus balsamea*

http://www.canadianforestry.com/images/forest/emblem-nb.jpg

Tree Type: Coniferous

Physical Description:

Growth Habit: The balsam fir is native, occurs statewide and is the most abundant conifer in the state. On young trees the branches are horizontal, slender and produced in regular whorls to form a symmetrical crown. In older trees, the top is often slim, regular and spire-like. It has flat resinous needles approximately 0.4 -1.2 inches long. The needles are prone to pitch, dark green and shiny above, silvery white below, with tips occasionally notched. The cylindrical cones perch upright on one-year old branches on the crown. The bark is thin, gray, and smooth, with resin blisters. It is brown and scaly on older trees. The root system is shallow.

Height: Balsam fir has a mature height of 60-70 feet with a trunk diameter of 12-20inches.

Shape: It is narrowly pyramidal in its shape, with persistent dead lower branches in the wild.

Fruit/Seed Description Dispersal Method:

The fruit of the balsam fir are upright, cylindrical cones. Seed production starts when trees are 20 years old and 15 feet tall and are produced yearly. The seeds shed mostly in autumn and are dispersed by the wind and small mammals. The germination rate is less than 50% and happens May through July. Seedlings are very shade tolerant but require sufficient moisture. Layering may occur in swamps and mossy areas.

Range within Maine:

Balsam fir occurs statewide, usually in damp woods and on well-drained hillsides, often occurring in thickets. It is the most abundant tree in the state.

Distinguishing Features:

The balsam fir is the only fir native to the Maine North Woods. It is distinguished from spruce trees by flat needles and upright cones (spruce trees have 4-sided needles and pendant oval cones). Winter buds are covered with clear resin.

Interesting Facts:

The wood of the balsam fir is soft, light and moderately limber. It is used for lumber, pulp, paneling, and crates. This species is favored for Christmas trees and wreaths. The bark blisters

contain oleoresin used to mount microscope specimens and for optical cement. The branches can also be steamed to produce oil of balsam.

Relationship to Wildlife:

The balsam fir is a major food source for moose. It also provides food for deer, red squirrel, spruce grouse, ruffed grouse, and insect eating birds are attracted to spruce budworm-infested trees. The species provides winter cover for deer and moose as well as a safe haven for martins, hares, deer, and songbirds.

Landscape Use:

Balsam fir is used in screens, mass plantings, and windbreaks. It requires sufficient moisture and abhors drought. It is hardy to Zone 3.

Common Problems or Pests of the Tree in Maine:

Pests of the balsam fir include the spruce budworm (in cyclical epidemics), balsam needle gall midge, balsam shootboring sawfly, balsam woolly adelgid, balsam twig aphid, hemlock looper, blackhead budworm, and the wooly aphid. It is also susceptible to butt/heart/root rots; more than 50% of trees older than 70 years have heart rot, a fungus which causes decay in living trees. Cankers can also be problematic.

References:

A Boundary Waters Compendium: www.rook.org/earl/nature/trees.

All About Evergreens. Ortho Books. 1984.

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

University of Connecticut Plant Database: www.canr.uconn.edu.

Maine tree club