



Maine's Celebrated White Pine

History, Identification, and Management

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Eastern white pine has been an important tree to the people of Maine for hundreds, if not thousands, of years. Therefore, it is no coincidence that Maine has come to be known as the "Pine Tree State." Recognizing its importance, in 1895 the Maine Legislature designated the "Pine Cone and Tassel" as Maine's official floral emblem. In 1945 the legislature resolved, "That the white pine tree be, and hereby is, designated the official tree of the State of Maine."



History

The availability and high quality of white pine lumber has played an important part in the development and economy of Maine since 1605, when Captain George Weymouth of the British Royal Navy collected samples here and brought them back to England for display. The shortage of ship masts in Europe led to England's Broad Arrow Policy in 1691 whereby pines 24 inches or more in diameter within 3 miles of water were blazed with the mark of the **broad arrow**; such trees to be reserved for use in the Royal Navy. The term **King's Arrow Pine** originated from this policy. Most of the accessible virgin pine was cut by 1850. Lumber production reached its peak in 1909, but white pine is still a valuable species that contributes greatly to the state's economy.



Maine is known as the "Pine Tree State" and the Eastern white pine is the official tree of the State of Maine.

Where White Pine Trees and Forests Grow

White pine occurs in all localities in the state in moist situations, on uplands and on sandy soil, but develops best on fertile, well-drained soils. On sandy soil it often becomes established in pure or nearly pure stands. The tree grows rapidly both in height and diameter, growing an average of 1 foot or more in height each year.

When grown in the open, young trees are symmetrical and conical in outline except when deformed by white pine weevil, snow, and ice. White pine weevil is an insect that kills the topmost shoot, and often causes the tree to have multiple stems and a round profile. In the forest, a white pine tree has a narrow head; and the trunk is commonly free of live branches for a considerable portion of its length. Old forest trees have a broad and somewhat irregular head. The branches are horizontal and in regular whorls, usually of 5 each. Very old trees often become very irregular and picturesque.

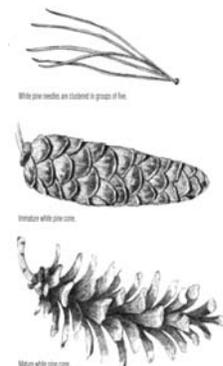
Identification Tree

The trunk tapers gradually, and the tree often attains a height of 100 feet. Commonly it is from 70–80 feet tall, and has a diameter of 1–3 feet.

Leaves are in clusters of 5, flexible, 3–5 inches long, bluish-green but whitish on one side. The papery sheath at the base of the new needle clusters falls in late August.

Cones are 4–8 inches long, cylindrical and borne on a long stalk. They take 2 years to mature, and open to discharge the seed shortly after ripening in late August through September of the second season.

Bark of young trees is smooth and thin, green with a reddish-brown tinge overall, or brown in spots. On old trees, bark is 1–2 inches thick, very dark, and divided into broad, flat ridges by shallow fissures.



Practical advice for your land and trees from the Maine Forest Service

Economic Importance

Economically and socially, Eastern White Pine is one of the state's most important tree species. Maine holds the distinction of being the number one producer of white pine lumber in the nation. In 2009, Maine sawmills processed 192 million board feet of quality white pine lumber, approximately a third of all output & 822,000 tons of pulpwood; landowners received \$31 million dollars in stumpage; substantially contributing to Maine's gross domestic Product (GDP); while providing well paying jobs for foresters, truckers, loggers, mill workers, and others throughout Maine.

Site Conditions and Forest Stand Composition

Soil

White pines are well suited to poorer soils and drier sites, but grow best on moist sandy or loamy soils.

Shade or Sunlight?

White pines are moderately tolerant of shade. As seedlings they can survive in shade but require partial to full sunlight to thrive after they are established.

Stand Composition

White pines grow in pure and mixed stands with other conifers and hardwoods. They are most commonly found with red oak, white ash, hemlock, maples, oaks and beech. White pine is a component of mature forests throughout Maine, but is also known as a pioneer species because it is often one of the first trees to grow in abandoned agricultural land..



Managing Your White Pine Forest

How you manage your white pine stand depends on your goals. For example, stands can be managed for timber production, windbreaks or landscaping. Managing to achieve these goals also provides other benefits, such as improved wildlife habitat and clean air and water.

Whatever your goals, a forest management plan for your property can help you achieve them. Assistance with preparing a plan is available from the Maine Forest Service, as well as private consulting foresters.

At the Maine Forest Service, we share your vision for beautiful, healthy and productive woodland. We respect your decisions, and can help put them into action. Our advice is free and expert.

White Pine Health

Good management practices can help to mitigate the many environmental, mechanical, and biological stresses that affect the health of white pine trees.

Controlling Insects and Diseases

Insect and disease management procedures should be incorporated into all phases of woodlot operations, including planting, management and harvesting. Management of understory vegetation is an most important step in reducing pest damage. It can also reduce the effects of mice and deer, which feed on seedlings. Site selection is an important factor in preventing damage by insects and disease. Many of these biological stresses are most damaging to trees growing on poor sites.

Managing your woods for white pine can provide you and your family lifelong benefits; from excellent financial returns to providing wildlife habit and recreational opportunities. Enjoy.

Timber Production

Managed stands of white pine can produce high quality sawlogs and pulpwood. The goal is to produce trees with long, straight, branch-free stems, which are highly valued for wood products.

To encourage trees to compete for light and grow tall, rather than to branch at lower levels, stands of white pine should be thinned and pruned at recommended intervals as the trees grow to marketable size. Care should be taken not to open the stand too rapidly because white pines are susceptible to ice damage.

Additional information on commercial forest management, the art and science of growing white pine forests, and specific economic benefits to landowners is available from the Maine Forest Service.

For more information, please contact:

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