



Delaware FORESTS

A HEALTHY FOREST IS A MANAGED FOREST

DELAWARE FOREST SERVICE



Healthy forests are essential to many healthy ecosystems in Delaware and benefit everyone. They are, without a doubt, a vital part of the state's natural infrastructure. Without forests, we lose their natural benefits - clean water, clean air, crucial wildlife habitat, soil protection, forest products, and carbon sequestration/storage. Forests also provide the public with many healthy recreational opportunities.

A healthy forest is an investment in the future that protects natural benefits critical to Delaware's green infrastructure.

As experts in forestry, the foresters and technicians within the Delaware Forest Service play a major role ensuring our forests are protected from loss and harm. This is accomplished through conservation, protection, and education.

ENGAGING FOREST LANDOWNERS

To meet this overall priority, our team engages with forest landowners by:

- Offering technical assistance for stewardship planning and cost shares for reforestation and forest management;
- Tracking harvest permits to ensure the use of Best Management Practices to protect water quality;
- Educating and providing expertise on sound silvicultural principles to offer forest landowners a wide variety of options in forest management.

MAINTAINING FOREST HEALTH

Just like people, animals, and other living organisms, trees have a beginning and an end to their life. A forester's job is to help maintain forest health and ensure that trees are not succumbing to the destructive effects of serious forest pests. Delaware's foresters accomplish this by:

- Monitoring forests through annual aerial defoliation surveys;
- Working to revitalize Delaware's forest industry to ensure sustainable practices and increase the diversity of tree species planted;
- Collaborating with other state agencies to maintain old growth characteristics to enhance wildlife habitat.



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COMMON MYTHS ABOUT FORESTS

MYTH: Old forests offer more benefits than young forests.

FACT: Forests of all ages offer inherent benefits, including habitat for diverse wildlife species. Young forests sequester more carbon than mature forests while declining forests release carbon.

MYTH: Cutting down a tree is bad.

FACT: People use wood and forest products daily – trees are renewable and should be replanted when harvested.

MYTH: Passive forest management is sustainable.

FACT: A “hands-off” approach to forest management does not address potential destructive forces such as insect and disease outbreaks or invasive species. A forest that is unhealthy, overcrowded, or past maturity does not provide the full range of benefits we desire.

MYTH: Timber harvesting degrades water quality.

FACT: Delaware requires Best Management Practices (BMPs) to be implemented during harvests to protect water and soil quality. A joint Maryland/Delaware BMP study showed that Delaware's BMPs are followed and highly effective.

MYTH: Timber harvests are responsible for forest loss.

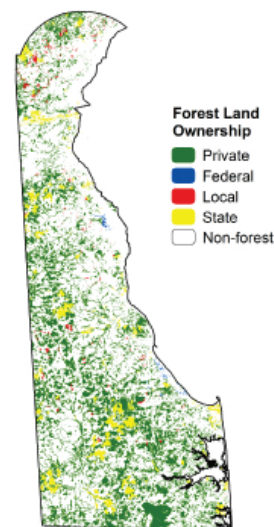
FACT: The greatest threat to forests is land-use conversion. Development should be balanced with forest conservation.

The loblolly pine is the primary commercial species in Delaware. Hardwoods such as oaks, hickory, and yellow-poplar are also highly valued. Pines typically take 50 to 65 years to reach maturity, while the hardwoods can take an additional 20 years.

A forest analysis has shown that Delaware forests contain a more significant proportion of older, larger size classes which are prime for harvest. The state also has an overabundance of low-value hardwoods that could support the development of new mill operations and markets. These operations would help improve the health and sustainability of our forests.

SUSTAINABLE FOREST MANAGEMENT

Sustainable forest management is a strategy that balances timber harvests by the industry and forest conservation. Research has proven that healthy forests enhance natural ecosystems. In contrast, forest overcrowding makes trees more susceptible to insects, disease, invasive species, and decline. By ensuring there is a mix of age classes and species in the forest and that tree growth exceeds tree removals, professionals can thin forests to help promote tree health and growth by increasing light, water, and nutrients.



Nonindustrial private landowners control 78% of Delaware's 359,000 acres of forestland.

ENVIRONMENTAL BENEFITS TREES DIFFER

THINK BACK TO SCIENCE CLASS AND STUDYING PHOTOSYNTHESIS IN PLANTS. YOU LIKELY LEARNED THAT TREES ABSORB ATMOSPHERIC CARBON AND THEN STORE IT IN A TREE'S TRUNKS, BRANCHES, FOLIAGE, ROOTS, AND SOIL. HOWEVER, THIS IS NOT THE CASE IN ALL INSTANCES.

When carbon is absorbed through photosynthesis, trees sequester it at different rates. A young, growing tree is very efficient in carbon storage, but not so much as it ages. Mature trees release carbon as they decline. In addition, unhealthy forests produce fewer natural benefits, such as improved air and water quality. They can also pose hazards in areas where recreational activities occur. Tree harvests create early successional forests that support habitat for wildlife species. By selecting trees to harvest using sustainable harvest management, the carbon is permanently stored in timber or other wood products we use daily, including cardboard, lumber, flooring, furniture, medicine, coffee filters, and toothpaste. Not only does this help the environment, but it encourages the use of recyclable materials made from renewable resources. Lastly, the income from harvests incentivizes good forest management and decreases the likelihood of forest conversion to non-forest uses, such as commercial and residential development.

