



Invasive Plants in Maine Forests

Maine Forest Service, DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
22 State House Station, Augusta, ME 04333

What are Invasive Plants?

Invasive plants are able to grow rapidly and aggressively enough to out-compete and displace locally adapted native plants. Many species of invasive plants, but not all, have been brought by people to North America from Europe and Asia.

Why are Invasive Plants a Concern?

Invasive plants can make it difficult to achieve many of the objectives that landowners commonly have for their woodlands. For example, invasive plants compete for resources with desired tree species, especially young seedlings. This can make it difficult to establish new seedlings to replace the larger trees when they die or are harvested. Some invasive plants, particularly species of vines, such as Asiatic bittersweet, can even kill valuable mature trees by smothering or strangling them. Other species, such as Japanese barberry and shrub honeysuckle, often form dense thickets. These thickets can make it nearly impossible to access the woods for work or enjoyment. Because invasive plants can out-compete native species, they can also lead to a reduction in the diversity of species present in the forest.

What Makes a Plant Invasive?

Not all non-native species of plants are invasive; in fact many non-native species never escape from cultivation. Of the species that do escape into the wild most never become invasive. Botanists use what is called the “tens” rule to describe how many plant species are likely to become invasive. According to the tens rule only one in ten non-native species is likely to escape into the wild. Of those that escape, only one in ten is likely to become invasive. Certain species of plants have characteristics that make them more likely to become invasive. In general, invasive plants have most of the following characteristics:

- They are habitat generalists, able to invade a range of sites;

- Their seeds germinate early and they leaf out before native plants;
- They out-compete native plants through shading and nutrient competition;
- They have few, if any, natural predators here;
- They reproduce both sexually and vegetatively;
- They have long flowering and fruiting periods and produce many seeds;
- They are pollinated by wind or by generalist pollinators; and/or,
- Their seeds are dispersed over long distances (e.g., by birds, wind, water or people).

What Invasive Plants Species are Causing Problems in Maine Forests?

Although there are many species of plants that are considered invasive in Maine, there are a few species that are of particular concern in the forest. These species include:

- Japanese barberry (*Berberis thunbergii*)
- Shrub honeysuckle (*Lonicera* sp.)
- Asiatic bittersweet (*Celastrus orbiculatus*)
- Common buckthorn (*Rhamnus carthatica*)
- Glossy buckthorn (*Frangula alnus*)
- Autumn olive (*Elaeagnus umbellata*)
- Multiflora rose (*Rosa multiflora*)

Many of these species already are causing serious problems, particularly in southern and coastal Maine and the islands. Norway maple (*Acer platanoides*) is another species of concern. Currently, it is mostly a problem around cities and towns, but it has the potential to become more widely established. Some of these invasive species, such as Asiatic bittersweet and autumn olive are particularly problematic along forest edges and in young forest stands. Others such

as the buckthorns, shrub honeysuckles and Japanese barberry are able to invade the understories of undisturbed mature forests.

How Can I Keep My Woods From Being Invaded?

Learn to identify invasive plant species. There are many excellent sources available to help you identify invasive plants. Fact sheets on the species listed in this information sheet, as well as, additional species of concern are available from the Maine Natural Areas Program website or by phone or mail request:

https://www.maine.gov/dacf/mnap/features/invasive_plants/invasives.htm

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Don't plant invasive species in your woodlands or near the edges of your yard. Many invasive plants are still sold legally by nurseries. Know which plants are invasive and don't plant them near the wild lands. The University of Maine Cooperative Extension maintains a list of nurseries that sell native landscaping plants, and a list of good native plants to use in landscaping. These lists can be accessed at the following websites or by contacting your county extension office:

<http://www.umaine.edu/publications/2500e/>

Get ahead of the invasion. Once invasive plants are well established getting rid of them can be very difficult and costly. Therefore, prevention and early detection are key to keeping the invaders at bay. Because invasive plants are so aggressive, they tend to occupy disturbed areas more rapidly than native species. Therefore, it is particularly important to determine if there are invasive plants present in the forest understory *before creating a disturbance such as a timber harvest.* Identifying and removing a few individuals of an invasive species before a harvest could prevent a full-scale invasion later on.

How Can I Control Invasive Plants in My Woods?

There are two primary methods of controlling invasive plants; mechanical and chemical.

Mechanical control involves cutting and or pulling up the undesirable plants. Mechanical control is most effective when entire plants, including the roots, are removed. Mechanical control is best suited to situations with few plants where a thorough job can

be done. Before using mechanical control, check on which method is most effective for the target species.

Chemical control involves the use of an herbicide to kill the plants. An advantage of chemical control is the proper herbicide, properly applied, can kill the entire plant. Some types of herbicide may only be applied by licensed pesticide applicators, but many are available to the general public. Information on the laws and rules governing pesticide use in Maine can be obtained from the board of pesticide control:

(207) 287-2731

<http://www.maine.gov/dacf/php/pesticides/index.shtml>

The labels on all herbicide containers contain information on what types of plants they control, how to apply them and the necessary safety precautions that you must take when using them. ***ALWAYS READ THE LABEL AND FOLLOW THE DIRECTIONS WHEN USING ANY HERBICIDE!*** Different types of herbicide are designed to kill different types of plants, so reading the label is essential to be sure you are using the correct type. Improper application can harm or kill desirable native plants along with the targeted invasive species. For controlling woody invasive species, the mechanical control and chemical control methods can also be combined. The combined method involves cutting the invasive plants and then applying an herbicide to the cut stumps. This kills the roots and prevents sprouting.

Can I Get Help Dealing With Invasive Plants in My Woodlot?

Dealing with invasive plants is often best approached through an overall management plan for your woods. The WoodsWISE Incentives Program offers cost-share assistance for obtaining such a plan. Contact your nearest Maine Forest Service District Forester for more information about the program.

For more information, please contact:

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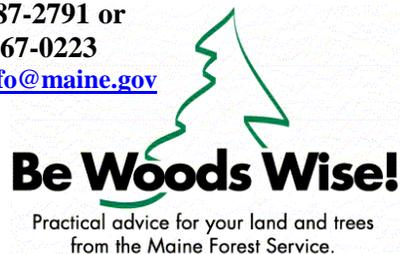
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