

# EUROPEAN ALDER

invasive  
fact sheet



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**European Alder** is a quick growing tree in the birch family that reaches 30-50 feet. It is commonly found in moist soils and along stream banks, rivers, ponds or other wetlands.

## The Problem

- ◆ European Alder (*Alnus glutinosa*) is a nitrogen-fixing plant that has the ability to become



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## European Alder

Leathery green 5-8 veined, notched leaves



© Kent McFarland



© Paul Wray

Female cones, male catkins

nitrogen fixing root nodules



© Tony Davidson

established on very poor soils

- ◆ Average number of seeds per tree is 240,000
- ◆ Its ability to be dispersed by water and form mono-specific stands, makes it a threat to native wetland species
- ◆ European alder commonly sprouts from the stump after cutting, and live branches can be layered successfully

# EUROPEAN ALDER



## Mechanical removal:

**Hand pull:** Any time of year when the ground is soft, especially after a rain, hand pull small plants by the base of the stem. Be sure to pull up the entire root system. Hang plant from a branch to prevent re-rooting. For larger plants, use a Weed Wrench™. Continue to monitor the area every year for new seedlings.

**Cut stump:** Repeated pruning of established plants to ground level without subsequent herbicide application is not effective for European Alder control. Each regrowth results in a thicker stem base and denser branches.

## Chemical removal:

**CAUTION: BECAUSE THIS PLANT GROWS IN AND CLOSE TO WETLANDS, AQUATIC HERBICIDE FORMULATIONS MUST BE USED.**

**Cut stump:** Cut the plant 4 inches above the ground. Use a drip bottle to apply a 18-21% glyphosate solution to the stump within one hour of cutting. This is best done in late summer through winter when plants are transporting resources to their root systems.

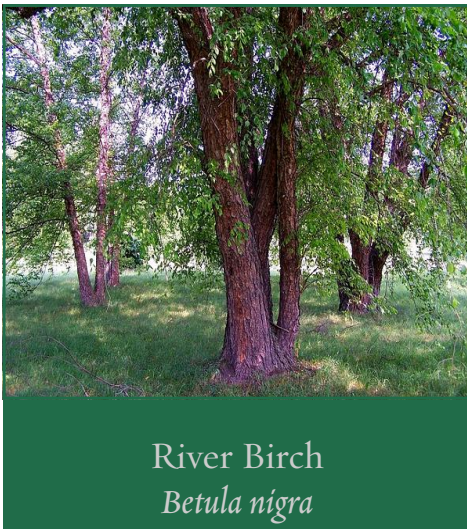
**Low volume foliar spray:** This method is used for dense populations and best left to a contractor. During the summer months, July to August, spray a 2% glyphosate solution on the entire leaf surface of the plant. In order to avoid drift to native plants, spray only on calm days.

## Safe Chemical Application

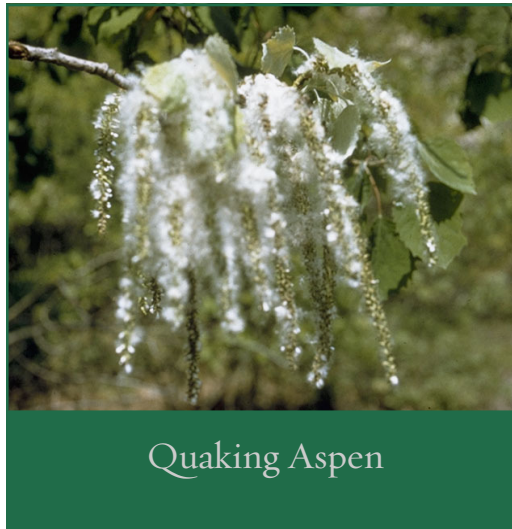
- ✓ **Develop an Integrated Plant Management approach.** Use chemical control as only ONE piece of your prevention and management strategy.
- ✓ **The label found on the herbicide container is the law.** It indicates the concentrations to use, what protective clothing to wear, how to apply the product, and what environmental and human health hazards are associated with the chemical.
- ✓ **Use aquatic formulations within 10 feet of water.** You need a permit to apply herbicides in wetlands. You cannot apply herbicides within 100 feet of a well-head. Contact VT DEC at 802-241-3761 for more information.
- ✓ **You need to be certified to apply herbicides on land that you do not own.**
- ✓ **Hire a contractor to manage large infestations.** A good contractor will have the knowledge to help create an effective management plan. For a list of certified contractors, contact the VT Department of Agriculture at 802-828-3482.



## Non-invasive Alternatives



River Birch  
*Betula nigra*



Quaking Aspen



American Hornbeam  
*Carpinus caroliniana*