



Herbicide Use in Forestry

An important tool for renewing and protecting Oregon's forests

What are herbicides?

Herbicides are chemicals used to control unwanted plants. Herbicides are used in agriculture, residential and urban areas, forestry, industrial sites, railroads, and other settings.

How are herbicides used in forestry?

Oregon's Forest Practices Act (FPA) requires reforestation after a timber harvest. Tree seedlings must be "free-to-grow" within six years of harvest.

Weeds can outcompete young tree seedlings for water, nutrients and light, slowing their growth or causing them to die. So to meet reforestation goals, landowners use herbicides to prepare forestland for tree planting, and again to keep down weeds that could kill or slow the growth of young tree seedlings. Many landowners consider herbicides the most cost-effective way to achieve reforestation goals, while others try different means to meet those goals. Other tools for controlling unwanted vegetation are typically labor intensive. They include cutting brush by hand or with power tools, grubbing/removing sod around individual trees, mowing/mulching around individual trees, and if available and approved by the Department of Agriculture, releasing parasitic insects or pathogens that target specific weed species.

Herbicides are also used by many forest landowners to control damaging, exotic invasive plants. Invasive noxious weeds, such as gorse, Scotch broom, Himalayan blackberry and Japanese knotweed, can encroach on roads and streams, displace native species, and lower the quality of habitat for wildlife. They can also increase the risk of wildfire and can make cropland less productive. That's why controlling the spread of "Class A" noxious weeds is required by the Oregon Department of Agriculture.



Gorse invading coastal forest in Curry County.

How often are herbicides used in forestry?

Forest landowners are responsible for only 4 percent of all pesticides (including herbicides), by weight, used every year in Oregon. Within the first few years of a timber rotation in a managed western Oregon Douglas-fir/hemlock forest, herbicides are typically applied 1 to 3 times during site preparation and to control competing vegetation while seedlings gain height. Because of different management methods on

the slower-growing forests in eastern

Oregon, herbicides are used much less frequently than in the rest of Oregon.

What laws regulate forest herbicide use?

All pesticides used in the United States must be registered with the U.S. Environmental Protection Agency (EPA) and must carry federally approved labels describing permitted uses and appropriate protection measures. To be registered, pesticides must be tested for effects on humans and the environment.

Pesticide sellers and applicators must comply with the state's Pesticide Control law (Oregon Revised Statute Chapter 634) which requires state product registration and applicator licensing. The law prohibits faulty, careless or negligent application of herbicides.

Users of pesticides on forest land must also follow Oregon's FPA, administered by the Oregon Department of Forestry (ODF). The FPA requires operators to protect human health & safety, soil, air, fish, wildlife, and water quality through measures that include:

- Providing a minimum buffer of 60 feet around schools and dwellings during aerial pesticide applications
- Preventing leaks and spills

- Prohibiting aerial herbicide applications within 60 feet of fish-use or drinking water streams, and prohibiting ground-based applications within 10 feet of those streams
- Leaving and protecting trees and plants along streams following logging

ODF Stewardship Foresters work with landowners, loggers, and pesticide applicators to help them comply with forest practice rules. To find your local Stewardship Forester, please visit <http://www.oregon.gov/ODF/Working/Pages/FindAForester.aspx>

Measures to protect water quality

The Board of Forestry and ODF have worked with Oregon State University and many other federal, state and local partners to monitor water quality and stream health during reforestation. Herbicides, sediment and temperature have been studied in watersheds downstream from timber harvesting. A 2012 study in the McKenzie River Basin concluded that forestry pesticides were rarely detected, and when present, were not at levels that would be harmful to human health. A similar two-year study conducted by the Oregon Department of Environmental Quality in the Siuslaw watershed and north coast region failed to find pesticide residue at levels that would be a risk to the environment or public health. ODF staff in the Private Forests Division continue to monitor stream health as it applies to reforestation laws.

Requirements to notify ODF prior to applying pesticides

Before applying herbicides on forestland, the chemical applicator must file a notification of operations with ODF that describes the planned application. The notification must be filed at least 15 days prior to beginning the operation. The ODF *Forest Activity Electronic Reporting and Notification System* (FERNS) is an internet-based system that allows users to submit notifications. Notifications are required for herbicide applications where the desired outcome is forest management, but they are not required for vegetation management around households and personal property. To file a notification, visit the FERNS website at <http://ferns.odf.oregon.gov/E-Notification> or contact your local ODF Stewardship Forester: <http://www.oregon.gov/ODF/Working/Pages/FindAForester.aspx>. For more information, visit <http://www.oregon.gov/ODF/Working/Pages/ENotification.aspx>.

How can I get information on planned herbicide applications?

The E-Notification system (FERNS) maintains the information contained in each submitted notification. To allow easier access to this information, ODF has developed

a web-based subscription service that will provide notification and information of upcoming forest operations to registered users. More information on the E-Notification system and how to subscribe is available at <http://www.oregon.gov/ODF/working/pages/ENotification.aspx>.

What if I think a violation of the law has occurred?

If you think a violation of the ODF FPA laws has occurred, please contact your local ODF office: <http://www.oregon.gov/ODF/aboutODF/Pages/MapOffices.aspx>. ODF staff will investigate your report and provide information back to you on their findings.

What if there is a pesticide spill?

If you have an immediate emergency please call 911. Under rules administered by the Departments of Forestry and Environmental Quality (DEQ), if a spill occurs on forestland, those responsible are required to report the incident. To report a pesticide spill call the Oregon Emergency Response System (1-800-452-0311) or the National Response Center (1-800-424-8802) and contact your local Stewardship Forester.

For additional information:

- Oregon Department of Agriculture (Oregon's lead agency for pesticide use) <http://www.oregon.gov/ODA/PEST/www.oregon.gov/ODA/PEST/>
- Pesticide Analytical and Response Center <http://www.oregon.gov/ODA/programs/Pesticides/Pages/PARC.aspx>
- U.S. Environmental Protection Agency <http://www.epa.gov/pesticides/>
- Oregon Department of Environmental Quality <http://www.oregon.gov/DEQ/>
- Oregon Department of Forestry Forest Health Unit <http://www.oregon.gov/ODF/ForestBenefits/Pages/ForestHealth.aspx>
- Oregon Department of Agriculture Noxious Weed Program <https://www.oregon.gov/ODA/programs/Weeds/Pages/Default.aspx>
- National Pesticide Information Center <http://www.npic.orst.edu>