



Integrated Vegetation Management Program

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Background

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment (US EPA, <http://www.epa.gov/pesticides/factsheets/ipm.htm>). Since 1991 ODOT has formally implemented an Integrated Pest Management (IPM) program for controlling vegetation along state highways. Because the 'pest' is vegetation, the term we use is Integrated Vegetation Management (IVM).

ODOT is responsible for 19,066 highway lane miles and more than 50,000 acres of right-of-way. ODOT manages right-of-way in a safe and sustainable manner by using a combination of mechanical, cultural, biological and chemical methods to control vegetation along roadsides:

- **Mechanical:** using equipment such as mowers, chain saws, brushers, etc.
- **Cultural:** incorporating native or more appropriate plant material to out-compete unwanted vegetation; using weed-free mulch and straw; project design considerations
- **Biological:** using a natural predator to control the noxious weed or unwanted vegetation (e.g., weevils on Scotch broom)
- **Chemical:** applying EPA-approved chemicals per product label (e.g., aquatics approved for use near water)

The Office of Maintenance and Operations leads and supports highway maintenance and operations activities throughout the state by developing and implementing programs to ensure efficient, effective and consistent maintenance and operation of Oregon's transportation infrastructure.

The use of herbicides is often raised as a concern due to perceived or real impacts to natural resources and public health. Current ODOT practice is to take a multi-pronged approach to vegetation management and use the right tool in the right place at the right time to ensure the cost effective use of public dollars to maintain a safe highway.

Federal Law requires that ODOT follow Environmental Protection Act (EPA) labels to avoid and minimize impacts to natural resources and public health. Chemicals are used only for the intended purpose as identified on the label. All ODOT applicators are certified and licensed by Oregon Department of Agriculture standards and requirements. Annual training ensures current knowledge of applicators.

ODOT stays abreast of changes in technology and evaluates new chemicals to ensure the least toxic chemicals are used to meet management objectives. ODOT uses and promotes the Adopt-a-Highway weed management program, works with the Oregon Department of Agriculture on bio-controls, and utilizes mechanical means for vegetation management where feasible and appropriate.

IVM Program Quick Facts

- ◇ ODOT continually evaluates new technology, equipment, and chemicals to ensure program efficiency, effectiveness, and that the least toxic chemicals are used to meet management objectives.
- ◇ ODOT works closely with the Oregon Dept of Agriculture to ensure biological controls are used whenever feasible
- ◇ ODOT integrates other maintenance practices with the use of herbicides to gain the most benefit and increase effectiveness and efficiency.
- ◇ ODOT is more selective where spray occurs by providing stream buffers and minimizing bare-shoulder widths.
- ◇ ODOT implemented two pilot projects that utilize other methods of vegetation management at the pavement edge, such as mowing, to evaluate the cost of alternatives.
- ◇ ODOT utilizes a public notification system for ODOT spray schedules.
- ◇ ODOT is required by state law to control the spread and establishment of noxious weeds.

Herbicide Reduction

ODOT has reduced the amount of chemical used statewide since implementing IVM in 1991. Comparing 2009 to 2004, ODOT reduced the amount of herbicides used west of the Cascades by 58%, representing a 26% statewide reduction. Due to continued pressure in regard to the use of herbicides in ODOT's vegetation management program, ODOT is implementing plans to reduce the amount of herbicides used to manage the highway for safety and for structure preservation, and evaluate how that reduction affects highway management. ODOT is not reducing the amount of herbicides currently used in the effort to eradicate noxious weeds.

Each District will identify the challenges to be met in implementing a reduction. Past reductions on the use of herbicides have placed some districts in the position of being unable to reduce further without compromising public safety. Therefore, district-developed strategies will be unique to each District. Each District strategy will include unique circumstances that result in implementation challenges. The 25% reduction will be demonstrated at a statewide level to minimize overall agency costs and resource needs, so some Districts may have to reduce more than others.

The path for development and implementation is as follows:

- Over the next five years, ODOT will aim to reduce by 25% the amount of herbicides used statewide to treat non-noxious vegetation along Oregon highways, based on 2010 amounts.
- ODOT's reduction strategy ensures that changes are economically and practically feasible and minimize impacts on level of service in vegetation management or other maintenance responsibilities.
- ODOT will continue to work effectively to prevent the establishment and spread of noxious weeds.
- Implementation progress will be tracked to ensure the target is met in 2015.

ODOT has demonstrated and continues to demonstrate a commitment to minimize impacts to health and natural resources in managing vegetation by implementing the principles of IPM. ODOT must consider the possibility of unknowns that may effect implementation including budget limitations or constraints/reductions, weather, which could affect how roadsides are managed, equipment, chemical or other resource availability.