Integrated Vegetation Management

PROGRAM HIGHLIGHTS

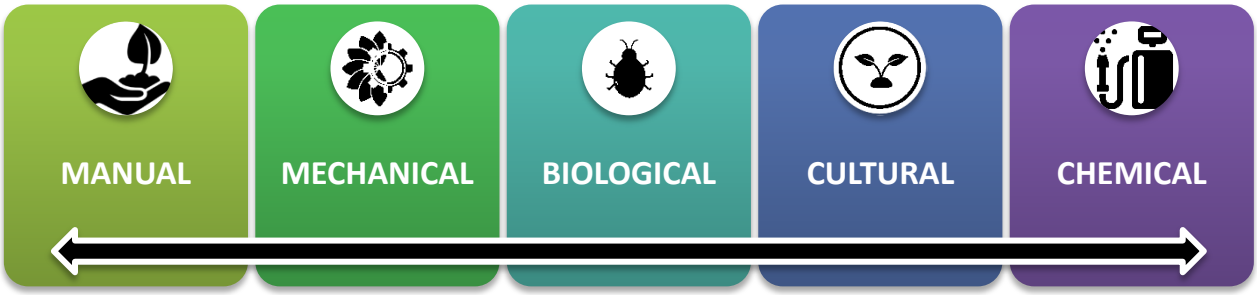
May 2018

Integrated Vegetation Management, or **IVM**, is a proactive approach to managing vegetation along rights-of-way that utilizes appropriate control methods to balance site-specific needs with environmental considerations.

Marion County's **IVM Program** addresses problematic vegetation along the 1,114 miles of roadway system with the following **goals** in mind:

1. **Provide public safety.**
2. **Protect public infrastructure.**
3. **Promote environmental stewardship by controlling noxious weeds.**

Five types of control methods are utilized within the IVM program: **MANUAL**, **MECHANICAL**, **BIOLOGICAL**, **CULTURAL** and **CHEMICAL**.



MANUAL pulling can be a successful way to control small noxious weed infestations. Proper disposal of removed vegetation, including seeds, flowers, leaves, stems, and roots are extremely important.

MECHANICAL cutting uses roadside mowers, brush cutters, handheld weed eaters, or a combination of a bucket truck, power saws, and chippers to establish clear, safe vision at intersections and curved road segments. Mowing is preferred in environmentally sensitive areas such as ditches and drainage ways. One disadvantage of **MECHANICAL** controls is that they are maintenance intensive because sites typically require repetitive cutting.

BIOLOGICAL controls involve the application of insects and/or pathogens to suppress noxious weed infestations. For example, cinnabar moth larvae have been used to successfully treat infestations of tansy ragwort in many areas of the county. **BIOLOGICAL** controls are susceptible to seasonal time lags between the population growth of the target plants and the corresponding increase in beneficial insect populations.

CULTURAL controls can be achieved by replanting areas with desirable vegetation that suppress unwanted plants. **CULTURAL** control can also include prescribed burns to remove old plant growth and encourage desirable vegetation.

CHEMICAL application is performed by licensed applicators according to federal and state requirements. Backpack sprayers are used for localized treatments and for small populations of noxious weeds. Roadside spray trucks are used in rights-of-way (e.g., road shoulders). **CHEMICAL** controls decrease the cost of vegetation maintenance by reducing the frequency of expensive treatments. It may be the most efficient and effective way to combat certain noxious weeds because mechanical treatments can actually stimulate flowering and seed production.

Why Do We Use CHEMICAL Controls?

Achieve Compliance

- Aids Marion County in addressing noxious weed control requirements of ORS 569 and County Ordinances 1225.

Enhance Road Safety

- Improves roadway vision and line-of-sight. Also provides vegetation-free zones for vehicle recovery and emergency parking.

Improve Drainage and Protect Road Infrastructure

- Eliminates sod buildup on road shoulders so water can effectively drain off the road surface. Good road drainage increases road safety by reducing standing water or ice, and also increases pavement life.

Advance Work Zone Safety

- Annual mowing hours can be six-times greater than the hours spent operating a spray truck. Truck spraying also reduces adverse impact to traffic.

Encourage Economic Vitality and Livibility

- Marion County is the number one agriculture county in the state. Controlling weeds is critical for the industry and the community.

Address Economic Costs

- Spraying road shoulders reduces the cost per lane-mile. The County's current program average approximate lane-mile costs for a single spray application is $90, compared to $130 for two-mowings. Spraying also reduces labor needs as well as the need to purchase and maintain additional expensive roadside mowers.

Increase Productivity

- When controlling blackberries, Scotch broom and other woody species on road shoulders, chemical treatments allow crews to treat 20-plus miles a day. Mechanical cutting with a brush cutter is usually only about 1-mile per day.

Reduce Risks

- Mowers can cause damage to utilities and other property. Spraying causes no damage and actually aids mower operations by increasing the visibility of otherwise hidden objects.

Aid in Maintaining Efficient and Effective Weed Controls

- Some noxious weeds such as Meadow Knapweed and Japanese knotweed can increase seed production and stand density when mowed or cut.

Promote Sustainability

- Spraying uses less fossil fuel than mechanical controls, and actually kills noxious weeds, allowing native species to flourish.