# **Integrated Pest Management**

IPM is an ecosystem-based strategy focusing on long-term prevention of pests (in this case noxious weeds) through a combination of control methods, including the use of <u>biological</u> controls, modification of <u>cultural</u> practices or <u>mechanical</u> techniques and / or application of <u>herbicides</u>.

# **Steps for Successful IPM**

# 1. Identify & Profile the Pest

Upon identification of your pest, research the factors that influence its behavior. Once you have a better understanding of the pest, management becomes easier and more successful.

### 2. Evaluate your Location

Is your pest infestation near water, in sand or clay, or on a rocky slope? Are you surrounded by livestock or agricultural land? Different areas may require a specialized approach to maximize results and minimize unwanted side effects.

#### 3. Determine Land Use Goals

Each landowner has a different goal for their land. You may want to harvest timber, grow vegetables, or maintain a golf course. Depending on your land use goals, control strategies may vary greatly between scenarios.

# 4. Develop & Implement you IPM Plan

Consider all of these factors about your pest species, location, and land use goals. Will mowing encourage or discourage the weeds? Are herbicides appropriate for your location? Will planting native species reduce noxious weeds and meet your land use goals? Determine which combination of control methoeds will best address the pest throughout the year. Begin implementation.

#### 5. Monitor

Monitor the population and its behavior. IPM may take multiple seasons or years to reduce or eradicate the pest. You may need to adjust the plan.

#### 6. EDRR & Prevention

Early Detection & Rapid Response (EDRR) is essential in preventing infestations from expanding or establishing, saving you time and money.

# Your Noxious Weed IPM Plan

Gather information about the noxious weeds and your property to determine the best combination of techniques needed to increase the success of your control efforts.

Noxious Weed(s) Profile: Ex: preferred environment, method of spread, to ty, best time to treat, seed viability, etc.		
Location Evaluation:  Ag-	☐ Near Water ☐ On a slope ☐ Ornamental ☐ Right-of-Way	
Soil Type: Clay Loam Other:	Sand Silt	
Land Use Goals:		
Applicable Control Meth Biological Chemical Cultural Mechanical		

for you and your land-use goals. Be sure to monitor!

Summer:

Spring:\_\_\_\_\_

Fall:

Winter:

#### RCW 17.10

Washington State's Noxious Weed Law established all property owners' responsibility for helping to prevent and control the spread of noxious weeds. Since plants grow without regard to property lines or political jurisdictions, everyone's cooperation is needed—gardeners, farmers, government agencies, foresters, ranchers, and all other landowners have a role to play. Washington's weed laws spell out these responsibilities and create the government infrastructure needed to educate citizens and ensure that the laws are respected.

#### **Contact Us!**

Contact us to report noxious weeds or to learn more about controlling noxious weeds in Jefferson County:

# Jefferson County Noxious Weed Control Board:

121 Oak Bay Road, Port Hadlock, WA 98339 360-316-9332 sdegroot@co.jefferson.wa.us

# Washington State Noxious Weed Control Board:

P.O. Box 42560, Olympia, WA 98504 360-725-5764 nwcb.wa.gov

# Washington State Department of Agriculture:

P.O. Box 42560, Olympia, WA 98504 360-902-1800 agr.wa.gov



Prepared with assistance from the Cowlitz County Noxious Weed Control Board



Jefferson County Noxious Weed Control Board

# Integrated Pest Management Resource & Strategy Guide









#### **Biological Control**

Biological control is the use of natural enemies to manage noxious weeds. Biological control options take time and are most effective on large, isolated infestations.

# **Common Biological Control Methods:**

- <u>Grazing Livestock:</u> prescribed grazing utilizes animals that consume the target pest species, which may prevent weeds from producing seeds
- <u>Biological Agents:</u> There are a few approved insects and pathogens in Washington State that can help manage weeds by consuming or interfering with the reproductive process of the plants.

In some cases, the uses of biological control methods encourages the growth of certain weeds. Please research and contact your Noxious Weed Control Board for more information.

#### **Chemical Control**

Chemical Control is the use of herbicides to manage only the target noxious weed. Select the right product, the follow the instructions on the label for safety and success.

#### Common Herbicide Use Factors:

- <u>Identification:</u> correctly identify the target species and nearby species to avoid accidental damage.
- <u>Timing:</u> herbicides vary in effectiveness based on the life cycle stage of the target species. Timing is critical for success.
- <u>Land Use & Location</u>: the label dictates where the bericide can be applied based on factors like proximity to water, soil type, or presence of trees, animals, or crops.
- The Label is the Law: herbicides should only be applied at the rates and sites specified on the label. Follow all label directions.

Some noxious weeds can only be managed by the use of herbicides.

#### **Cultural Control**

Cultural control is the modification of environments to suppress noxious weeds by minimizing conditions and resources they need to survive.

#### **Common Cultural Control Methods:**

- Revegetation: planting native species and providing the proper nutrients for them may discourage establishment of noxious weeds.
- <u>Soil Modification:</u> changing the soil composition, texture, acidity, or water and nutrient availability in the soil can make it uninhabitable for certain plants
- <u>Exposure:</u> mulching, plastic covering, or planting shade trees can reduce available sunlight, & prevent seeds from germinating.
- Other strategies: prescribed burns, crop rotations

Land use goals help determine cultural control.

#### **Mechanical Control**

Mechanical control is the act of physically altering or removing noxious weeds and is most practical on small infestations, since it can be physicallyintensive and time-consuming.

#### **Common Mechanical Control Methods:**

- <u>Cut and Bag:</u> removing the flower heads, or cutting the plant at the base, and disposing of it in a bag.
- Mowing/ Brushing-Hogging/ Weed-Eating: depending on the plant, this strategy can be effective prior to seed production, or repetitively to exhaust nutrients and resources.
- <u>Digging / Weed Wrenching:</u> removes the root of the plant and is effective for noxious weeds with a deep taproot or woody structure.

Some noxious weeds spread vegetatively or are stimulated to grow if mowed, or can re-sprout if left on the ground, leading to denser infestations.

# **Courtesy Lists for Noxious Weed Control Services:**

The following contractor and herbicide dealer lists are provided for your convenience. Jefferson County Noxious Weed Control Board does not endorse these companies, and you are not required to use or purchase from these companies to control noxious weeds. These lists are not all-inclusive and determined by response & interested of the company. Herbicides may be purchased from other retailers not listed, in addition to online stores.

Contractor	Services / Specialties
<b>Quality Landscapes</b> (360) 385-6663 qualitylandscapes@cablespeed.com	Residential / Commercial; Herbicide Application— Agricultural, Ornamental, Right-of-way
Moving Earth LLC (360) 385-4415 www.movingearthllc.com	Landscaping, Brush cutting, stump removal
Matthew Berberich Horticulture (856) 745-5363 www.mattprogardening.com	Landscaping, heavy-duty mowing
Call Luke (360 912-2049 www.CallLukePest.com	Pest Control: Turf, Weed, Ornamental, Rights-of- way, agricultural, Pre-emergent
Resource Renewal (360) 531-0453	Weed Control; Reforestation, timber stand improvement; mowing, spraying, pruning; seedling release; brush control

### **Noxious Weed Control Board Mission**

"To protect lands within Jefferson County from the degrading impacts of noxious weeds by educating residents, landowners, land managers, county departments, city governments, and state & federal agencies to be responsible stewards."



For additional information on current weed classifications and lists, best management practices for noxious weeds, and the meeting schedule, please visit our website:

https://www.co.jefferson.wa.us/195/ Noxious-Weed-Control-Board