



Chapter 10 - Noxious Weeds

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A "**Noxious Weed**" is defined by the Idaho State Department of Agriculture as any plant having the potential to cause injury to public health, crops, livestock, land or other property; and which is designated as noxious by the director of the Department of Agriculture.

Noxious weeds are almost always plants that have been introduced (either accidentally or purposely) into areas where they were not originally found. Since noxious weeds are not native to these areas, there are few natural controls present, and so they tend to spread rapidly, crowd out native plants, and be very difficult to control.

Noxious Weed Control

Developing a basic weed control strategy begins with:

1. Identifying the weed.
2. Determining what makes it a problem. For example:
 - **Toxicity to Humans and Livestock** is one of the most common problems. Poisonous plants can cause loss of life, serious health problems, and costly animal care services. Toxic weeds in feeds are an animal's nightmare.
 - **Allelopathy:** Some noxious weeds produce chemicals that inhibit growth or even kill adjacent plants. Weeds with this ability are said to be **allelopathic**.
3. Determining why it's hard to control. The reasons can include:
 - **Life Cycle:** It's important to know whether the weed is **perennial**, **biennial** or **annual**. A perennial weed is likely to be the most difficult and costly to manage. Biennial and annual weeds have a shorter life, making them vulnerable to more control options than perennials.
 - **Ability to Reproduce and Spread** by seeds, rhizomes, roots or other parts. The quantity of seeds produced annually per plant and the life of those seeds in the environment are very important factors. Weeds that produce hundreds or thousands of seeds per plant each year create the need for years of expensive management. Some weeds produce a few seeds that may survive in the environment for 60 years or more, making it nearly impossible to totally eliminate them.

Some perennial weeds can sprout from cut-up plant parts, so cultivating, mowing or pulling can actually increase their populations and rate of spread. Cutting or burning some weeds stimulates the roots to sprout more seed producing stalks.

Control Methods

All the factors listed above must be considered when developing a management plan for weed control. In addition, we must keep in mind that each plant species will express its own particular characteristics in relation to its environment. Much like people, the reactions of individual plants of a single species will vary under various conditions. Thus, depending on climate or other variations in growing conditions, the same weeds often must be managed in different ways in different areas.

A best weed control plan involves using more than one strategy and more than one control method. The control methods selected must be affordable while preserving or helping to create the desired environment. The most common methods for weed control include:

- **Prevention:** Keep weeds from occurring or increasing by identifying and controlling them before they become a problem. Some prevention methods include scrubbing boots after hiking, washing equipment before/after use, and using weed free seeds for plantings.
- **Cultural Methods:** Improve desirable plant growth to resist weed invasion. Methods include planting, fertilizing, and irrigating crops to compete with the weeds.
- **Mechanical Methods:** Physically slow or kill weed growth by mowing, tilling, hoeing, pulling, burning, or mulching.
- **Biological Control Methods:** Use of living organisms, such as insects that are a natural enemy of the weed, or targeted grazing with animals that are resistant to toxic weeds, such as goats.
- **Chemical Methods:** Use herbicides to kill or slow weed growth. **Always read and follow the label directions and warnings** before using chemicals.

CONTEST TIP - At the Forestry Contest, you will be expected to be able to:

- 1) Define the term "noxious weed"
- 2) Identify the 14 weeds listed on the chart (see next page) and their impacts on people, animals and/or the environment
- 3) Know the 5 common types of control methods and give examples of each type
- 4) Know the best control methods for weeds

Noxious Weeds To Know

The following chart lists 14 of Idaho's noxious weeds. You can learn more about these noxious weeds, their effects, and their control in the reference listed below. Download it from the Idaho Department of Lands website on the Forestry Contest page, or obtain it at local IDL area offices, the IDL Forestry Assistance office in Coeur d'Alene, the U.S. Forest Service IPNF offices in Coeur d'Alene or Sandpoint, or the Boundary and Bonner County weed superintendents.

Idaho Noxious Weeds

Weed Name	Life Cycle	Toxic or Hazard to	Economic Threat	Control Problems
Hawkweeds	Perennial	None	Rapid spread	Mass seed production, regrowth, wind seed dispersal (A, C, D)
Leafy Spurge	Perennial	Humans, Livestock	Resists herbicides	Long seed viability, regrowth (B, C)
Large Knotweed	Perennial	None	Rapid spread	Regrowth, limited control methods (C, E)
Oxeye Daisy	Perennial	None	Rapid spread	Mass seed production (A)
Scotch Broom	Perennial	Humans, Livestock	Long-term seed life	Long seed viability, regrowth (B, C)
Canada Thistle	Perennial	None	Rapid spread	Mass seed production, regrowth, wind dispersal (A, C, D)
Scotch Thistle	Biennial	None	Rapid spread	Mass seed production, long seed viability, wind dispersal (A, B, D)
Dalmatian Toadflax	Perennial	Livestock	Resists herbicides	Long seed viability, regrowth (B, C)
Yellow Toadflax	Perennial	Livestock	Resists herbicides	Long seed viability, regrowth (B, C)
Rush Skeletonweed	Perennial	None	Resists herbicides	Mass seed production, wind dispersal (A, D)
Eurasian Watermilfoil	Perennial	Humans, Livestock	Clogs boat propellers, drowning hazard	Regrowth, limited control methods (C, E)
Knapweeds	Biennial/ Perennial	Humans, Livestock	Rapid spread	Mass seed production, regrowth, wind dispersal (A, C, D)
Houndstongue	Biennial	Livestock	Attaches to animals, rapid spread	Mass seed production (A)
Yellow Star Thistle	Annual	Livestock	Rapid spread	Mass seed production (A)

Category	Code	Meaning / Explanation
Economic Threat	—	Why control is costly, e.g., “Resists herbicides” means few effective chemical options and they are expensive
Control Problems	A	Mass seed production
Control Problems	B	Seeds viable for more than 15 years
Control Problems	C	Plant parts and cut roots can regrow
Control Problems	D	Seeds dispersed by wind
Control Problems	E	Limited control methods available

References

- Goodnow, V., Frymire, K., Dingman, M. R., Hargrave, W., Ely, L. (Eds.) (n.d.) *Idaho Panhandle Noxious Weed Handbook*. Multiple agencies, counties, donors, and programs contributed to publication. Printing by Kootenai County Reprographics Center. (Free copies are available by contacting the Bonner Soil and Water Conservation District office (208-263-5310) or IDL Pend Oreille Area office (208-263-5104) in Sandpoint.)
- Prather, T., Robins, S., and Morishita, D., 2004. *Idaho’s Noxious Weeds, 4th Edition*. Bulletin 816. University of Idaho Extension, Moscow, Idaho. First edition 1994.