

Montana's Noxious Weeds: Weeds 101

MODULE 1

Module 1: Introduction



Weedy vs. Noxious

A weed is:

A plant growing where it isn't wanted.

Whereas a noxious weed is:

A plant growing where it isn't wanted and has the capability and capacity to be injurious to livestock, agriculture and the environment.

The difference:

A weed is a plant that creates a nuisance-an example would be the dandelions in your yard. Even though they are unsightly and difficult to get rid of their potential to cause harm to agriculture and the environment is slim. A noxious weed, however, has a competitive advantage over most native plants through its numerous biological traits (e.g. seed appendages for transport, extensive root system, fast growth rate). These traits allow noxious weeds to establish and spread to new habitats, seemingly without further assistance from humans.

What makes a weed 'noxious'?

A noxious weed is defined by Montana Law (MCA 7-22-2101) as, “any exotic plant species established or that may be introduced in the state that may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities.”

A noxious weed is any unwanted non-native plant with potential impact serious to the extent that it has been declared by the state of Montana that landowners must enter into an approved management program to keep it from spreading.

Land owner has **legal responsibility to control** noxious weeds on their property per the Montana County Noxious Weed Control Act

A brief history of noxious weed invasion

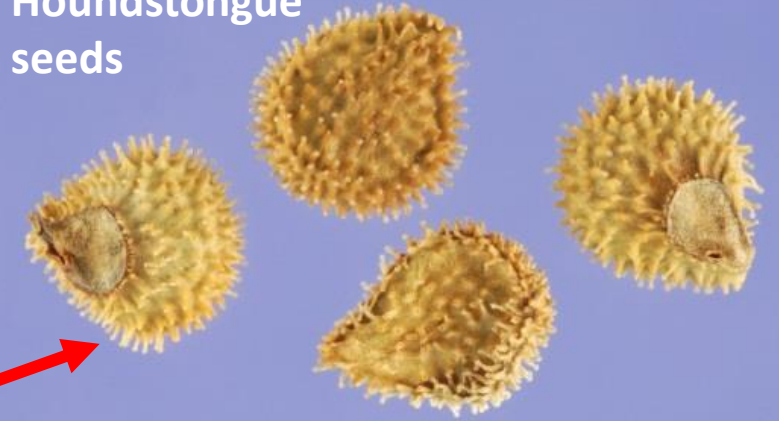


A brief history continued. . .

Competitive advantages:

- Seeds
- Root systems
- Well suited for survival in many difficult conditions

Houndstongue seeds



Steve Hurst, USDA-NRCS Plants Database, Bugwood.org

Barbs that allow for transport

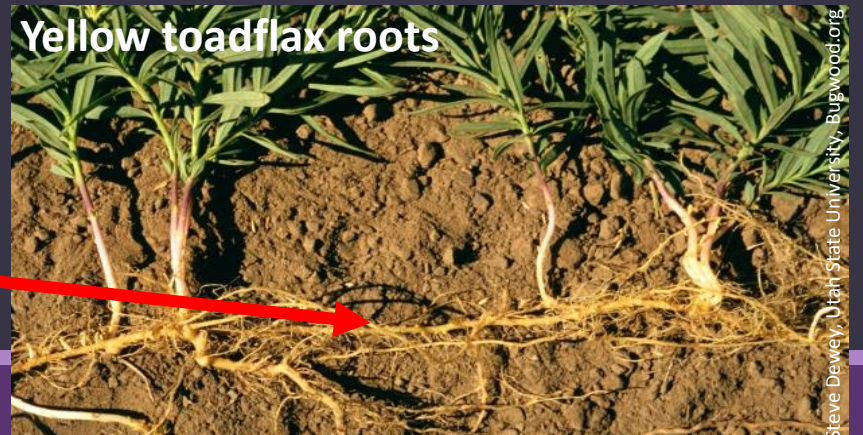
Leafy spurge root



Steve Dewey, Utah State University, Bugwood.org

Buds that cause new plants

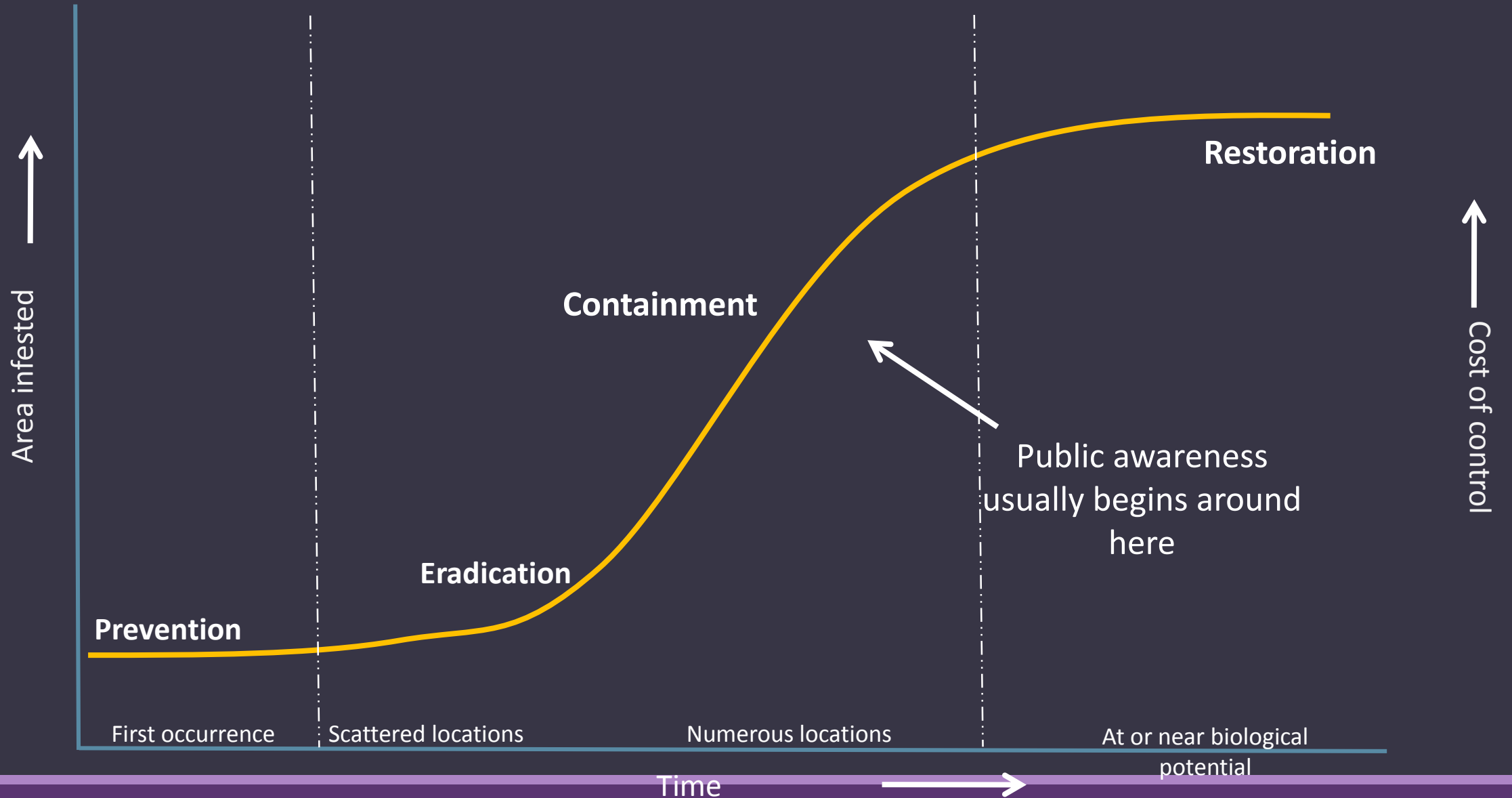
Yellow toadflax roots



Steve Dewey, Utah State University, Bugwood.org

Rhizomes that form new plants

Invasion Process



Facts About Noxious Weeds

Impacts

- Displace native plants
- Reduce crop yield and livestock forage
- Diminishes quality of wildlife habitat
- Decreases property value

Control costs

- Herbicide costs range from \$5-\$35 per acre
- Long-term investment of time & money

The (State) Listing Process

- 1.) Someone petitions the Montana Department of Agriculture (MDA) to list a weed.
- 2.) Review process:
 - History of introduction
 - Lifespan
 - Growth characteristics
 - Methods of reproduction
 - Habitat characteristics
 - Current distribution in MT
 - Methods of control
 - Evidence of behavior in other states
 - Environmental & economic impacts
- 3.) Make recommendation to MDA to list or not to list.
- 4.) Public hearing & comment period
- 5.) If recommendation is accepted, the plant is then added to the state noxious weed list.

The (County) Listing Process

County listing process-

1.) Plant is determined to be exotic

- Deemed economically & environmentally harmful
- Contact County Commissioners to start listing process

2.) Notice of Intent

- Printed twice in local newspaper, 1 week apart
- Includes a 'Notice of Public Hearing'

3.) County commissioners then gather any comments received and determine to list the species in question on their county weed list.

- 2 weeks after public hearing, if deemed to be listed, a dated Resolution occurs and the plant is then listed on that county's noxious weed list.
- That county is then responsible for the management of the newly listed noxious weed.

State Listed Species: 1A-1B

❖ Priority 1A

- ❖ Yellow starthistle
- ❖ Dyer's woad

❖ Priority 1B

- ❖ Knotweed complex
- ❖ Purple loosestrife
- ❖ Rush skeletonweed
- ❖ Scotch broom

Yellow starthistle does not currently occur in Montana, but is found in Idaho, Washington & California.



State Listed Species: 2A-2B

❖ Priority 2A

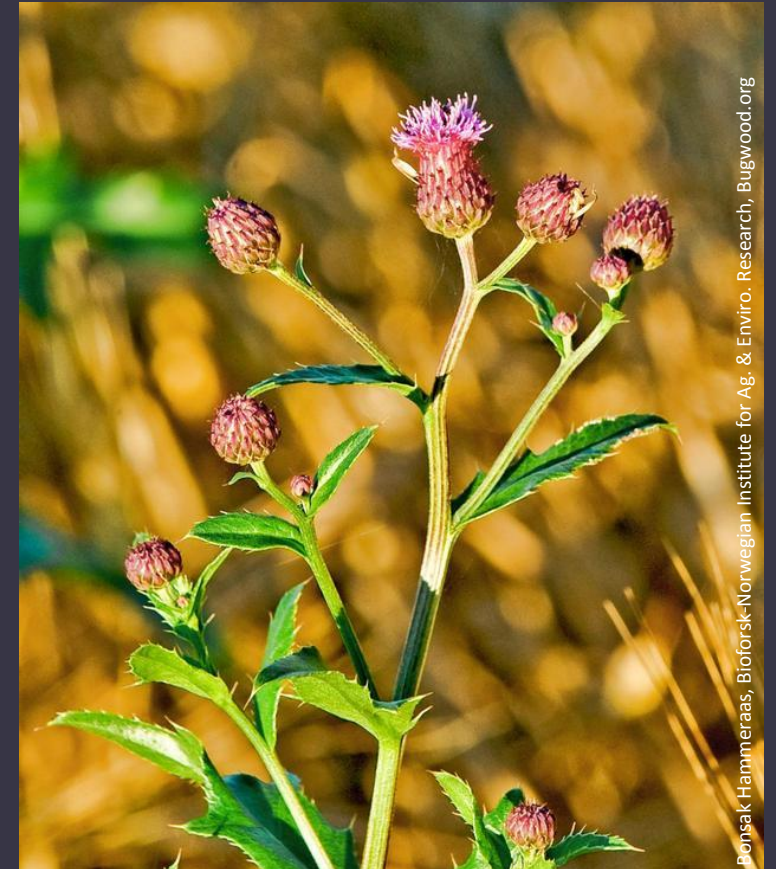
- ❖ Tansy ragwort
- ❖ Meadow hawkweed complex
- ❖ Orange hawkweed
- ❖ Tall buttercup
- ❖ Perennial pepperweed
- ❖ Yellowflag iris
- ❖ Blueweed
- ❖ Hoary alyssum

❖ Priority 2B

- ❖ Canada thistle
- ❖ Field bindweed
- ❖ Leafy spurge
- ❖ Whitetop

- ❖ Russian knapweed
- ❖ Spotted knapweed
- ❖ Diffuse knapweed
- ❖ Dalmatian toadflax
- ❖ St. Johnswort
- ❖ Sulfur cinquefoil
- ❖ Common tansy
- ❖ Oxeye daisy
- ❖ Houndstongue
- ❖ Yellow toadflax
- ❖ Saltcedar
- ❖ Flowering rush
- ❖ Eurasian watermilfoil
- ❖ Curlyleaf pondweed

Canada Thistle



Bonsak Hammaras, Bioforsk-Norwegian Institute for Ag. & Enviro. Research, Bugwood.org

State Listed Species: Regulated Plants

❖ Priority 3 Regulated Plants

- ❖ Cheatgrass
- ❖ Hydrilla
- ❖ Russian Olive

Cheatgrass



Leslie J. Mehrhoff, University of Connecticut, Bugwood.org

County lists

In addition to the 32 state listed noxious weeds and 3 regulated plant species there may be plants listed as county listed noxious weeds in various counties in Montana. A few of the county listed species around the state include baby's breath, common mullein, and black henbane. Landowners have a legal responsibility to manage state listed noxious weeds as well as any county listed noxious weeds for the county in which they reside.

Integrated Weed Management

❖ Biological

- ❖ Insects
- ❖ Grazing: cattle, sheep & goats
- ❖ Burning/Fire

❖ Mechanical

- ❖ Hand pulling
- ❖ Mowing/cutting/clipping

❖ Chemical

- ❖ Herbicide

❖ Cultural Controls

- ❖ Re-seeding, irrigation, cultivation & fertilization
- ❖ Prevention
- ❖ Monitoring



Cyphocleonus achates is a root boring weevil that is used as biological control on spotted knapweed

Module 1 Assessment



Rob Routledge, Sault College, Bugwood.org

Spotted knapweed is one of the noxious weed species that occur in all 56 counties in Montana.