

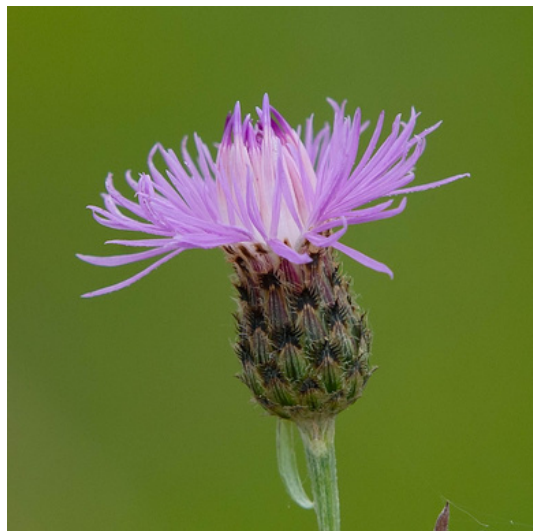


Pretty
wildflowers?
Think again!



Invasive plants (noxious weeds) are able to establish easily, grow quickly, and spread to the point of disrupting biological communities or ecosystems.

"Invasive plants are ecological tumors that won't stay in your yard."
- Dr. Doug Tallamy



Invasive plants transform habitats, are a threat to biodiversity, and can forever alter the landscape.



**GROW
WILD**

Landowner Stewardship Guide

All land is habitat, and all habitat is critical.



The Upper Gallatin Watershed faces rapid development and a surge in visitors. In Big Sky, habitat fragmentation and loss threaten wildlife survival. Growing development worsens the spread of invasive plants—reducing forage, altering water quality, and disrupting migration patterns.

Now is the time to act.

Join Grow Wild in committing to conservation and adopting a land ethic that recognizes our role in preserving the natural world and the Greater Yellowstone Ecosystem!

As Montanans...

We have an ethical and moral responsibility to control noxious weeds. As landowners, we have a legal responsibility to control noxious weeds on our property.

Nature is dynamic, therefore land stewardship must be active and ongoing.



Landowner Stewardship

Grow Wild provides landowners with the tools and resources to address invasive plants using ecologically-based best management practices and adaptive strategies.

Land Management 101

Commit to the Long-Term

- Sustainable land management and noxious weed control efforts must be planned and implemented for many years to yield results.

Get Educated & Make a Plan

- Take advantage of free on-site property evaluations and our online resources (see back page).

Observe, Compare, Adjust

- Remember you are working with a dynamic system that is constantly changing. Take action, keep records, monitor, and modify plans if needed.

An ounce of prevention is worth a pound of cure!



What are invasive species...

Native Species

A species that has evolved over hundreds or thousands of years in a region or ecosystem.

Non-Native Species

A species introduced with human help (intentionally or accidentally) to a new place or new type of habitat where it was not previously found.

Invasive Species

A species that is non-native, rapidly establishes in various environments, grows quickly, and spreads aggressively, disrupting native biological communities or ecosystems.

Noxious Weeds

A noxious weed is any plant designated by federal, state or local government officials as injurious to public health, agriculture, recreation, wildlife, or property.



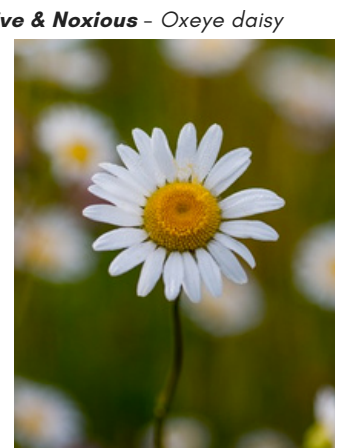
Native - Bitterroot



Non-Native - Alfalfa



Orange hawkweed - **Invasive & Noxious** - Oxeye daisy



What's that Growing?

1

Identify the plant.

Our team is here to help!

- www.growwildmt.org - "Weed ID & Control" page.
- Contact us for a site visit.
- Bring plants or pictures of them to the Big Sky Farmers Market for ID
- Pick up a free pocket guide.
- Send us a picture - 406.209.0905 or info@growwildmt.org



Friend or Foe?

2

Learn how it spreads.

Seeds: How do they spread? By wind, water, or burrs that cling to fur and clothing like Velcro.

- Don't let noxious weeds go to seed—cut, bag, and remove them.
- Pulled or cut weeds with flowers can still produce viable seeds if left on the ground.
- Stay persistent! Dormant seeds, like Oxeye daisy can remain viable for 40 years while waiting for the right conditions to sprout.



Houndstongue burrs

Roots



Taproot of a carrot

- Taproot: Hand pulling is effective, especially when soil is wet.

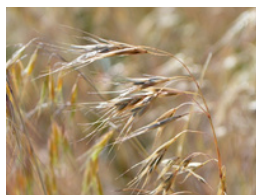


Creeping roots of Canada thistle

- Creeping roots: Small patches can be controlled by digging them up and removing all the roots. Large patches have an extensive root system, making them very difficult to manage. Weeds like Canada thistle are best controlled through mowing and fall herbicide application, depleting root reserves for lasting success.

3

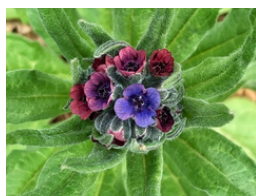
Learn how long it lives.



Annual

One season for all stages of development. Produces foliage, flowers, seeds, then dies.

- Cheatgrass



Biennial

Requires two seasons for completion of life cycle. First year: develops roots and low-growing leaves. Second year: flowers, sets seed, and dies.

- Houndstongue



Perennial

Lives more than two years. Will produce foliage, flowers, and seeds year after year.

- Canada thistle

Weed Management

1 Mechanical Control

- Cultivation/tillage.
- Mowing. Do so just prior to flowering.
- Hand-pull taprooted plants for best results. Wear gloves and bag the removed plants.

2 Biological Control

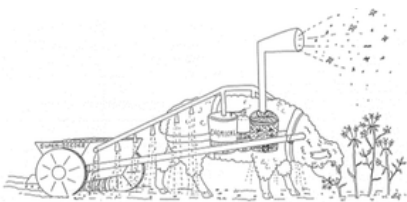
- Biological control uses one organism to suppress another, acting as a stressor rather than a killer.
- It works slowly, many insects can't survive our climate, and grazing animals may spread disease to wildlife.
- Best used alongside other control methods.

3 Cultural Control

- Prevent disturbance.
- Maintain healthy native vegetation.
- Use weed free seed, forage, & gravel.
- Revegetate disturbed ground.

4 Chemical Control

- Ensure the herbicide targets the weed effectively.
- Wear personal protective equipment (PPE): eye protection, long sleeves, chemical-resistant gloves, long pants, and rubber boots—avoid cotton.
- Use a surfactant and blue dye to track application.
- Spot spray with precision.
- Treat weeds when actively growing with ample leaves but before flowering.
- Never spray blooming flowers to protect pollinators.



Integrated Weed Management

Use one or more strategies to control weeds effectively while balancing economic and environmental considerations.

When using herbicides, always read and follow the label—it's the law!

Check re-entry restrictions, residual effects, and PPE requirements. Many herbicides are unsafe near water or high water tables.

Tips

- Spray early in the morning.
- Don't spray if it's windy. Drift can injure nearby trees and shrubs.
- Ideally, spray when temperatures & humidity are moderate (between 65 & 80 degrees F).
- Avoid spraying when rain is forecasted, as it can reduce the herbicide's effectiveness in controlling weeds.
- Use a surfactant to improve efficacy.

Big Sky's Most Common Noxious Weeds

Visit the **Weed & ID Control page** on growwildmt.org to access comprehensive weed management recommendations and control methods.

More species listed online.



Canada thistle



Hoary alyssum



Houndstongue



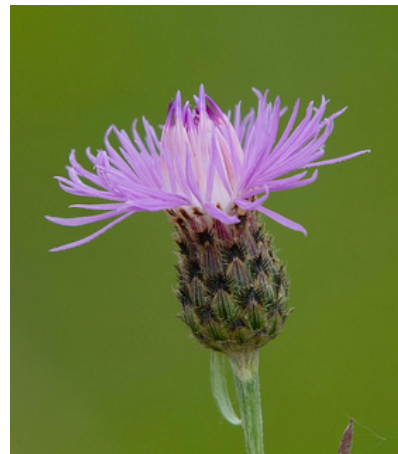
Musk thistle



Oxeye daisy



Yellow toadflax



Spotted knapweed



Poison hemlock

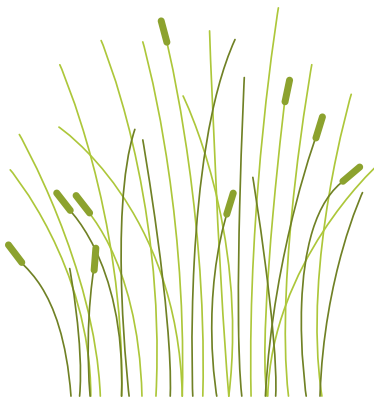
Tips

- Map noxious weeds. This helps track changes over time and assess progress.
- Be aware of weed hotspots and disturbed areas such as roadsides, waterways, parking areas, and ditches.
- Create a management plan that takes into account the biology & ecology of your property.
- Remember to observe, compare, and adjust. Adaptive management is key!

Focus on what you want growing!

Grow to Outcompete: Smart Strategies for Weed Control

- Planting desirable vegetation is often essential to replace noxious weeds and prevent their return.
- Encourage the growth of beneficial plants to naturally outcompete weeds—prevention is the most effective strategy!
- Grasses are resilient and can effectively compete with weeds, provided the right herbicide is used. However, wildflowers, shrubs, and trees may be harmed or killed by herbicides.



- Select a grass mix that matches your goal—whether that’s a native meadow, a low-growing lawn, water conservation, or easy maintenance.
- For more guidance, see ***Grow Wild’s Grass Seed Mixes for Every Landscape***, which outlines options for a range of site conditions and uses.
- Take time to consult with local experts to ensure your seed selection aligns with your site conditions and project goals.

Seeding Grasses

1. **Start with Quality Topsoil:** Use topsoil rich in organic matter, which provides essential nutrients to support your newly planted grasses.
2. **Ensure Good Seed-to-Soil Contact:** Disturb the soil with a rake or harrow to create a fine seedbed. Broadcast the seed, then lightly harrow again. Afterward, lightly compact the area and mulch if possible to retain moisture.
3. **Watering:** During the first 4–6 weeks, water frequently with light applications. This promotes good seed germination, healthy emergence, and strong root development.
4. **Mow for Weed Control:** Be prepared to mow the grass to a height of 3–4 inches. Regular mowing helps control annual weeds, stunts perennial weeds, and gives your grasses a competitive edge.
5. **Be Patient:** Achieving the desired results takes time. Healthy grass establishment requires patience and consistent care.

Only after grasses are established and noxious weeds are managed is it wise to reintroduce wildflowers, as they can easily be harmed by herbicide treatments.

For more information on introducing wildflowers by seed or plantings, visit the **Wildscapes** page at growwildmt.org.





Land Stewardship & Conservation

We work to conserve native species in the Upper Gallatin Watershed through education, habitat restoration, and collaborative land stewardship.

Resources you'll find at growwildmt.org

Our Work

Alpenscapes
Clean Recreation
Conserve Our Canyon
Education Trailer
Pollinator Gardens
Wildlife Habitat Projects
and more!

Volunteer

Join us in the garden,
at community weed pulls,
or by adopting your
favorite trail.

**Give a little time
to protect the places
you love!**

Events Page

Garden Tours
Guided Hikes
Native Plant Sale
Weed Pulls
Workshops
Big Sky Wildflower Festival
and more!

Noxious Weeds

Find species-specific fact sheets and management tips on our **Weed ID & Control** page. For cost-share programs and professional assistance, visit the **Help Available** page. Explore the **Landowner Toolkit** for revegetation and seed guides, plus additional DIY resources.

Native Plants

Discover the native plants at **Crail Gardens** and learn how to create pollinator-friendly gardens that support biodiversity on our **Pollinator Garden** page. Explore our **Landowner Toolkit** for resources on using native plants to support wildlife, conserve water, and preserve historic landscapes.



Visit Crail Gardens at the Historic Crail Ranch
(2100 Spotted Elk Rd, Big Sky)

Open for touring during daylight hours 7 days a week

406.209.0905 • info@growwildmt.org • growwildmt.org