

A diverse plant community

A healthy, weed-resistant plant community consists of an assortment of diverse species. Desirable plants can take up a large proportion of available resources such as light, water, and nutrients, keeping these resources away from weeds.

- A weed-resistant plant community can include early-emerging species and plants that start growing later in the season. Also consider species that root in a variety of soil depths to use available resources throughout the soil.
- A diverse plant community can include all or a mix of evergreen and deciduous grasses, forbs, shrubs and trees.
- Maximum diversity of plants also promotes wildlife survival. Many species of birds, insects and other animals depend on our diverse native plants for food, cover and shelter. Noxious weeds disrupt entire ecosystems and introduce monocultures of one dominant weed where there may have been numerous native plant species.
- Promoting maximum diversity of desirable plants is one great step to avoid a noxious weed problem.



Native shrub mock orange attracts pollinators

Grow your own native plant community

Washington has a diverse array of native plant communities and land uses. For example, establishing a native bunchgrass community of perennial bunchgrasses, forbs, and shrubs provides excellent competition for noxious weeds, stabilizes the soil to help prevent erosion, is drought-tolerant, and needs little water or care after establishment. Also, many bunchgrass species are beautiful and are excellent accents to any landscape project.

Select native plants that are adapted to the soil, light, temperature, and moisture conditions on site. Look for nearby examples of native plant communities with similar conditions to use a guide of what to plant.

Timing is important! Fall and spring are the best times to control noxious weeds and establish native plants. Reestablish competing vegetation as soon as possible after weed control. Be sure to limit the size of the area you are working on to something you can reasonably manage.

Businesses selling native plants and seeds are available throughout the state. Certified seed is also an option. It is a pure grass seed that has been inspected to have no noxious weeds and will have a blue certification tag. Ask your local WSU Extension office or check the Washington Native Plant Society's webpage www.wnps.org for sources.



Bluestem Nursery

**Native bunchgrass
Idaho fescue**

Contact Us

If you have questions about managing noxious weeds or noxious weeds in general, we can help. Please contact us at:

WA State Noxious Weed Control Board
P.O. Box 42560
Olympia, WA 98504
360-725-5764
<http://www.nwcb.wa.gov>
Email: noxiousweeds@agr.wa.gov

Or contact your local county noxious weed control board:



This brochure was adapted with permission from 'Full Circle Noxious Weed Control' by the Lincoln County Noxious Weed Control Board.



Full Circle

Control noxious weeds and grow healthy plant communities



With good planning, you can grow native vegetation that will help keep out noxious weeds and promote wildlife diversity.

After controlling noxious weeds, over-seed and plant desirable species so weeds can't find an opening.

It's not just about controlling weeds

Noxious weeds are invasive plants that have been accidentally or intentionally introduced outside of their native range and are legally defined as plants that when established, are highly destructive, competitive, or difficult to control by cultural or chemical practices. Developing and managing healthy plant communities that contain a diversity of plants can help resist weed invasions while meeting other land-use objectives.

The emphasis needs to be on encouraging desired plants, rather than simply controlling weeds. In other words, when you are developing a plan to control noxious weeds, envision what plants you want to see in the weeds' place and make that your goal.



First, determine land-use goals. Is the land to be used for wildlife habitat, forage production, recreational land maintenance, or for attractive home landscaping?



Make a plan

The gist of integrated weed management is to choose the best control tools or combination of tools and the best time of year for the weed or weeds you are targeting for control on a particular site. Some of these tools include:

Mechanical: Tillage, hand-pulling and mowing. For small infestations, hand-pulling can minimize soil disturbance while leaving desirable species intact.

Cultural: Planting and over-seeding desirable vegetation, improving soil conditions, and managing water and light availability. These management practices alter the site conditions so that they are less favorable to noxious weeds and better for desired plants.

Biological: Releasing insects that control noxious weeds and using goats, sheep or other livestock for grazing. Biological agents such as approved insects are host-specific and effectively target a specific noxious weed, not native species or commercial crops. Grazing animals



San Juan County NWCB

Pulling Scotch broom with a weed wrench



Goats grazing on leafy spurge.

control some noxious weeds but may also eat desirable plants, so be sure to have a revegetation plan ready if necessary.

Chemical: Treating noxious weeds with herbicides. Herbicides open up sites for other plants to take root, including undesirable plants such as noxious weeds.

Use an integrated weed management approach to reach your land-use goals.

- Decide upon a threshold of what is an acceptable level of specific weeds on your site, but be sure to control those noxious weeds as necessary by law.
- Design your management plan to create sites for desirable species and prevent the introduction of invasive plants.
- Learn about management options and what will work best for your specific site conditions.
- Monitor your progress periodically to determine if noxious weed populations are decreasing, new weeds are appearing, desired plants are establishing, and if the site goals are being met. Taking pictures can help gauge progress, and comparing before-and-after pictures can be rewarding!
- Depending on monitoring results, modify and adapt your management methods when needed.

Remember, it is critical to revegetate bare ground with desired plant species before weeds get a chance to establish.

Use lifecycle knowledge to your advantage

Noxious weeds are very competitive and typically are the first plants to take advantage of open sites such as bare soil.

Understanding a weed's lifecycle helps you determine which stages are most vulnerable to stress or control.

- Kochia is an annual noxious weed. Pulling, mowing, or spraying annuals prior to seed production will decrease its spread in later seasons.
- Releasing the seedhead feeding weevil (*Larinus minutus*) as a biological control for diffuse and spotted knapweed will reduce larger weedy patches. The adults feed on the foliage and the larvae feed on the developing seeds

Understand the stages in a desirable species' lifecycle that will enhance its performance.

- Do not remove or cut back a desirable annual until it has gone to seed. A landowner in Wilbur mowed an empty lot full of Sandberg's bluegrass (*Poa secunda*) to a low height instead of allowing it to grow to its normal height of 12-24 inches. After it was mowed, it never went to seed and allowed noxious weeds to take root.



J. Andreas, WSU Extension

Knapweed seedhead damaged by *Larinus minutus* (left) and kochia infestation in flower (right).