

We can help

If you have questions about control of meadow knapweed or other invasive species, would like help on identifying knapweed, or are interested in volunteering, please contact one of the groups listed below.

In Oregon, please contact:

Your local Watershed Council or Soil and Water Conservation District:
www.oregon.gov/oweb/wsheds/wsheds_councils_list.shtml
www.oacd.org

The Nature Conservancy of Oregon
503-802-8100

Oregon Department of Agriculture
503-986-4621

In Washington, please contact:

Washington State Weed Board
360-902-1901

The Nature Conservancy in Washington
206-343-4344

Information Resources

These internet sites provide information about meadow knapweed & other invasive species:

<http://www.westerninvasivesnetwork.org>

<http://tncweeds.ucdavis.edu>



**Institute
for Applied
Ecology**

This brochure was produced by the Institute for Applied Ecology, with the assistance of the partners of the Meadow Knapweed Working Group, including the Bureau of Land Management, Army Corps of Engineers, Siuslaw Watershed Council, Oregon Department of Transportation, Western Invasives Network, & Lane County. The mission of the Institute for Applied Ecology is to conserve native ecosystems through restoration, research, & education. Visit us at www.appliedeco.org



Meadow knapweed

Meadow knapweed is rapidly expanding in the Pacific Northwest. This species has numerous negative impacts including reducing forage value and wildlife habitat and competing with tree seedlings. You can help by learning how to identify and control this plant.

What is meadow knapweed?

Meadow knapweed (*Centaurea x pratensis* Thuill) is a fully fertile hybrid between black knapweed (*C. nigra* L.) & brown knapweed (*C. jacea* L.), both of which are native to Europe & have been grown as ornamental garden plants.

Meadow knapweed was originally introduced as a potential forage plant. Unfortunately, it actually has a low palatability & reduces the quality of pasture-lands.

What does it look like?

- a perennial that grows from a woody crown;
- young plants form rosettes that have entire (smooth-edged) leaves
- each plant can have several upright stems, 20-40 inches tall, that branch near the middle;
- leaves are entire or have small lobes or teeth, & can grow to 6 inches long, 1 ¼ inch wide;



- flowers are rose-purple (sometimes white) & held in round capitula (heads) about the size of a nickel;
- flowering peaks in July & August, but can continue into November & December;
- capitular-bracts are light to dark brown, with a papery fringe on the margin. The bracts appear metallic-gold when the plant is flowering.



Photos (from top): Lori Wisehart, Andrea Thorpe, Wes Messinger

Control

There are several options for treatment of knapweed. In general, successful management requires a combination of techniques.

Plants can successfully be removed by **digging** them out if care is taken to remove at least the upper 6 inches of the taproot.

There are many different **herbicide** options. For recommendations, visit the Pacific Northwest Weeds Handbook: <http://weeds.ippc.orst.edu/pnw/weeds>

Mowing alone often stimulates growth of meadow knapweed. However, this treatment can have some success if mowed areas are covered with a thick layer of **mulch** & **seeded** with preferred species. Covering mowed areas with thick plastic (**solarizing**) for at least one growing season will not only kill plants, but help reduced the seed bank. It is important to follow-up solarization with seeding of preferred species.

Other options include **grazing** & **biological control**.

Where does it grow?

Meadow knapweed aggressively grows on roadsides, trailsides, pastures, cultivated fields, & disturbed areas.

Prevent the spread of knapweed!

While knapweed seeds may be spread by animals, wind, & water, the biggest contributors to the movement of weed seeds are humans. We transport them on our vehicles, clothes, recreational gear, & farm & other heavy equipment. **Clean your boots, clothes, gear, & equipment & check pets' fur for seeds when leaving an infested area.**



Biological control weevils on meadow knapweed.
photo: Wes Messinger

Several other knapweed species are invasive weeds in Oregon. Here are some to keep your eye out for.

Photos: Washington State Noxious Weed Control Board



Spotted



Diffuse



Russian



Yellow starthistle



Bighead



Black

Spotted knapweed

Perennial. Silvery-green, deeply-lobed (young) to entire (mature) leaves. Flowers usually pinkish-purple. Bracts dark & short with fringed tips.

Diffuse knapweed

Annual to perennial. Silvery-green, divided (lower) to narrow, entire (upper) leaves. Flowers white, pink, or purple. Bracts covered with comb-like spines.

Russian knapweed

Perennial that can spread through rhizomes. Silvery-green, long & lobed (lower) to small & toothed (upper) leaves. Flowers are pink to purple. Bracts pearly & papery.

Yellow starthistle

Winter annual. Grayish-green, deeply lobed (lower) to small & pointed (upper) leaves. Flowers are yellow. Stiff spines up to 1/4" long.

Bighead knapweed

Perennial Light-green, broadly lance-shaped with toothed edges & pointed tips. Flowers are yellow. Bracts thin & papery with fringed margins.

Black knapweed

Perennial Green-gray, broadly lance-shaped with toothed edges & pointed tips. Flowers are yellow. Bracts thin & papery with fringed margins.