



Centaurea stoebe

WA – Class B Noxious Weed, Prohibited Plant List

OR – Class B Noxious Weed

Spotted Knapweed

Panicled Knapweed

Family: Asteraceae

Origins: Native to Europe, it was first recorded in Washington in 1923. It is speculated that Spotted Knapweed was introduced to the U.S. in contaminated alfalfa from Turkmenistan or a hybrid alfalfa seed from Germany.

Range: Found throughout the United States. In Washington and Oregon, infestations are more dense east of the Cascades.

Habitat: Commonly found in meadows, pastures, along roadside, railways, sandy or gravelly floodplains of streams or rivers, and in areas of irrigation.

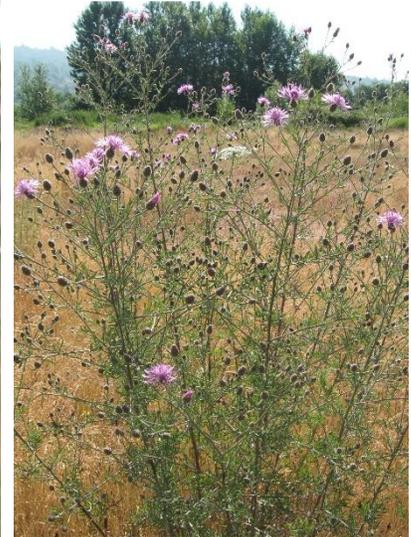
Impact: Spotted Knapweed is a very aggressive species that can quickly infest large areas, reduce the quality of wildlife habitat and plant diversity, increase soil erosion rates in watersheds, and pose wildfire hazards. It produces an average of 1,000 seeds per plant, which can remain viable in the soil for up to 8 years.

Description: Spotted Knapweed is a biennial or perennial growing up to 5 feet tall with a long taproot. It begins as a rosette of basal leaves during fall, then bolts and flowers in the spring/summer. Stems are upright and branched. Leaves and stems are blue-grey and covered in short, rough hairs giving it a woolly appearance. Leaves vary from unlobed near the upper part of the plant to lobed on the lower part of the plant. Lobed leaves have narrow lobes on each side of the center leaf vein.

Pink to purple flowers (rarely white) are solitary at the ends of clustered branches. The bracts of the flower heads have pronounced veins, with a black spot on the tip. The tip and upper bract margin have a soft spine-like fringe. Flowers bloom from June to October.

Common Look-Alikes: Diffuse Knapweed, Meadow Knapweed, Russian Knapweed.

** May be carcinogenic in large quantities.*



Integrated Pest Management - Control Methods

Integrated Pest Management (IPM) combines various methods such as mechanical, cultural, biological, and chemical controls to manage pests. IPM offers the possibility of improving the efficiency of pest control while reducing its negative environmental impacts. For more information, see the Cowlitz County Noxious Weed's IPM Resources & Strategy Guide or contact your local Noxious Weed Control Board to develop a customized IPM plan.

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Non-Herbicide Control

Mechanical (pulling, cutting, digging, etc.)	Seasonal mowing and tillage. Hand pulling is only effective on small patches. Repeated pulling may be necessary, and the entire taproot must be removed. <i>*Wear gloves when handling Spotted Knapweed. May be carcinogenic in large quantities.</i>
Cultural	Seasonal grazing.
Biological	Several biological agents control Spotted Knapweed in different ways with varying levels of efficacy. Many factors are involved when determining which agent is best for each scenario. Sulfur Knapweed Moth (<i>Agapeta zoegana</i>), Knapweed Peacock Fly (<i>Chaetorellia acrolophi</i>), Green Clearwing Fly (<i>Terellia virens</i>), Root Mining Weevil (<i>Cyphocleonus achates</i>), Knapweed Flower Weevil (<i>Larnius minutus</i>), Blunt Knapweed Flower Weevil (<i>Larinus obtusus</i>), Banded Gall Fly (<i>Urophora affinis</i>), and the Knapweed Seedhead Fly (<i>Urophora quadrifasciata</i>).

Herbicide Control: Foliar Broadcast Treatment

2,4-D (Many Trade Names)	Timing: Apply during the early bolting stage before flowering. Remarks: Avoid drift to sensitive crops; treatment will only control plants emerged at the time of spraying; do not apply near water.
Aminopyralid (Milestone)	Timing: Fall to actively growing plants. Spring to rosettes or bolting plants. Remarks: Many desirable plants can be seriously injured or killed; use a non-ionic surfactant to enhance control under adverse conditions; do not apply near the root zone of desirable trees; do not compost plant material that has been sprayed by this product; do not use manure from fields that have been sprayed with this product; do not apply near water.
Clopyralid + 2,4-D amine (Curtail)	Timing: Apply to actively growing plants after most basal leaves have emerged but before the bolting stage. Remarks: For best results, wait at least 20 days after application before disturbing treated areas (cultivation, mowing, fertilization with shank-type applicators) to allow thorough translocation; apply enough spray volume to ensure good coverage; may damage crops; do not apply near water.
Glyphosate (Rodeo, Killzall, Kleenup, Roundup)	Timing: Apply to actively growing Knapweed when most plants are at bud stage. Remarks: Spray complete uniform coverage, but not to the point of runoff; dust on plants may reduce effectiveness; Glyphosate is nonselective and may injure or kill any vegetation it contacts; refer to the label for use in aquatic areas.
Clopyralid (Transline, Stinger)	Timing: Apply to rosettes or bolting plants before the bud stage. Remarks: Product will injure or kill sensitive broadleaf forages; consult the label for crop rotation restrictions before use; consult the label for registered sites; several crops may be injured for several years after application; do not apply near water.

* Cowlitz County Noxious Weed Control Board does not endorse any product or brand name. Brand names are listed as an example only. Other commercial products may contain the listed active chemical for herbicide control. Always read and follow the safety protocols and rate recommendations on the herbicide label. **The Label is The Law.**

This control sheet includes excerpts from the Written Findings of the Washington State Noxious Weed Control Board (WSNWCB), nwcb.wa.gov. Herbicide information from the PNW Weed Management Handbook (ISBN 978-1-931979-22-1) and product labels.