



SPOTTED KNAPWEED (*Centaurea stoebe*)

Family: Asteraceae (Aster)

Life Cycle: Biennial to Perennial

Class: B - Control Required

AKA: N/A

SPOTTED KNAPWEED
<ul style="list-style-type: none"> • Produces chemicals that inhibit nearby plant growth, forming own habitat • Highly competitive with native vegetation, reducing forage for livestock and large game • Can hybridize with diffuse knapweed • Native to Eurasia

CONTROL METHODS
<p>Mechanical: Hand pulling feasible for small populations, ensure roots are removed and pull new plants multiple times through season. Mowing at late bud to early flower stage, two to four times per season, can reduce seed production. However, mowing can encourage plants to bloom at mower blade height. Annual cultivation will control spotted knapweed; always clean equipment before removing from infested fields to reduce chance of spread.</p> <p>Cultural: Grazing may reduce seed production, especially if grazed early in the season, and again in the fall on young plants. Timing is critical.</p> <p>Biological: Several species of weevils, flies, and moths have been used to control spotted knapweed. None alone are effective.</p> <p>Chemical*: Most effective on rosettes in spring or fall. Use a surfactant to help penetrate plant hair cover. See table below for recommendations.</p>

DESCRIPTION
<p>Growth Traits: Biennial to short-lived perennial growing up to three feet tall, with a sturdy taproot. Begins as basal rosette and develops upright branching flowering stems in second year. Knapweeds are allelopathic; plants exude chemicals that inhibit the growth of nearby plants creating an environment in which they can spread and form monocultures rapidly.</p> <p>Leaves and Stems: Leaves and stems are covered in short coarse hairs which give the plant a gray-blue appearance. Leaves tend to be lobed on the lower part of the plant, and un-lobed on upper stems. Stems upright and branching, reaching three feet tall</p> <p>Flowers: Blooms June - September. Flowers purple to pink, occasionally white. Bracts have comb-like fringe along edges and brown to black tips, making base of flower appear spotted.</p> <p>Roots and Reproduction: Sturdy taproot and spreading lateral roots. Plant may reproduce from lateral roots just below soil, creating a new rosette. Plants may produce 1,000 seeds which can remain viable for eight years in soil seed bank.</p> <p>Habitat: Knapweeds prefer dry sandy soils. Invades open sites like fields, roadsides, rangeland, logged areas, and vacant lots. Not very shade tolerant and is less competitive in shaded areas.</p> <p>Toxicity: Not known to be toxic. Wear long sleeves and gloves; is a skin irritant to some people.</p>

***ALWAYS read herbicide labels and follow instructions for use and PPE.** The use of a surfactant (aka sticker) increases the efficacy of herbicide application, saving you time and money. If treating over multiple seasons, rotate using herbicides with different modes of action to reduce likelihood of herbicide resistance developing. Below are recommended herbicides based on stage of growth and time of year. All recommendations are supplied with the understanding that no discrimination is intended and no endorsement by the Noxious Weed Board is implied. Trade names are used to simplify recommendations.

NOTE: There is no 'magic bullet' in noxious weed control, and control efforts must be repeated every season to stop their spread. Using a combination of methods (e.g. cultural and chemical) will lead to better control over time.

May - June Rosette, Seedling Stage	June - July Bolting, Bud, Bloom Stage	August - October Seeding, Fall Regrowth Stage
2,4-D	Tordon + 2,4-D	Tordon + 2,4-D
WeedMaster	Roundup (Spot spray)	Regrowth after mowing, rosettes:
Milestone	Transline	2,4-D
Tordon + 2,4-D	Milestone	Milestone