

Spotted Knapweed



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Spotted knapweed [*Centaurea stoebe* L. ssp. *micranthos* (Gugler) Hayek] is a bushy, winter-hardy plant. It is an erect-to-spreading perennial forb that lives 3 to 5 years and sometimes longer. A deep taproot supports an initial rosette of bluish-green, woolly, dandelionlike leaves. Stem leaves are pinnately dissected, becoming smaller and less dissected towards the tips of multiple woolly, hairy stems. Midplant branches are topped by a few to many pink-to-lavender thistle flowers constricted below the plume by distinctively fringed bracts with black tips, thus, the common name “spotted,” to produce thousands of tiny bristle-topped seeds. Dead tops remain in winter and new sprouts appear in spring. Seeds are equipped for dispersal by wind, water, livestock, wildlife, and human activity with viability in the soil for many years. Seeds germinate throughout the growing season.

Management strategies:

- Bag and dispose of plants and seed heads in a dumpster or burn.
- Treat when new plants are young to prevent seed formation.
- Pull, cut, and treat when fruit are not present.
- Minimize disturbance within miles of where this plant occurs, and anticipate wider occupation when plants are present before disturbance.
- Manually pull when soil is moist to ensure removal of all roots.
- Prescribed burning is not recommended.

Recommended control procedures:

- Thoroughly wet all leaves with one of the following herbicides in water with a surfactant: Milestone VM^{*} at 5 to 7 ounces per acre applied at the spring bolting or fall rosette stages; Tordon K[‡] at 0.25 to 0.5 pounds per acre will control spotted knapweed plants and seedlings for 2 to 3 years; Tordon K[‡] should be applied either in fall when the plants are in the rosette growth stage, or in spring during the bud-to-bloom stage; or Vanquish^{*} at 1 to 2 pounds per acre (acid equivalent, see label). May require annual followup treatment for a minimum of 2 years; apply Overdrive^{*} as a 0.2-percent solution (0.6 ounce per 3-gallon mix) plus Tordon 101[‡] as a 4-percent solution (2 pints per 3-gallon mix), or Garlon 3A as a 2- to 3-percent solution (8 to 12 ounces per 3-gallon mix) three to four times per year for 2 years.

^{*} Nontarget plants may be killed or injured by root uptake.

[‡] When using Tordon herbicides, rainfall must occur within 6 days after application for needed soil activation. Tordon herbicides are restricted use pesticides.