

Spotted Knapweed

Centaurea maculosa L.; *Acosta maculosa* (L.) Holub



James H. Miller, USDA Forest Service, Bugwood.org

Plant Family: Sunflower (Asteraceae)

Other Names: None widely accepted

Similar Species: Diffuse knapweed rosettes and Russian knapweed, although the flowers are different

Weed Classification: Priority 2B

Native to: Central Europe

Is This Weed Toxic? Can have negative effects to some species of livestock

Identification

Flowers are pink or purple and fan-like with many thin petals protruding from a spotted bud that is reminiscent of decorative artichoke. Leaves are deeply and sometimes irregularly lobed and the many stems of the plant originate from the rosette (the base of the plant). These weeds can get larger but generally range between 2-3 feet tall and have a large taproot. In some studies this plant has shown to be allelopathic, meaning it leaches chemicals into the soil around it that prevent other plants from germinating, thus eliminating any competition for soil resources and light. An individual knapweed plant can produce up to 140,000 seeds in one growing season.

Treatment

As with most weeds, prevention is the first step to controlling spotted knapweed. Since it is such a highly competitive plant, it is frequently the first weed to germinate in areas that have been disturbed. If the ground is disturbed by construction or for any other reason, promptly reseed and provide adequate conditions for desirable plants in the disturbed area to give them an edge over the aggressive knapweed. Knapweed responds well to treatment, so remaining proactive about weed control will easily prevent the infestation from becoming larger, more destructive, and more costly to control.

Hand pulling before seed heads begin to form is a highly effective means of control if the infestation is small. This option is not a realistic solution for large infestations until the weed population is brought under control. Regardless of the infestation size, hand pulling requires repetition since seeds can be viable for 7 years. If even one plant is allowed to flower, the soil gets saturated with seeds and the management process begins again. Stay vigilant! Remove all or as much of the taproot as possible, because a new plant can regrow from a broken root. With the proper tools and moist soil it is possible to remove the entire root. **Always wear gloves when touching knapweed as it can cause skin irritation.**

Mowing can be used as a last-ditch effort to prevent plants from flowering and going to seed. Avoid repeated mowing of plants throughout the summer as they adapt very quickly to these conditions and will simply flower below the height of the blade; making hand-pulling difficult or impossible, and allowing production of a new crop of seeds. Mowing does not kill knapweed nor will it prevent propagation, therefore, it is an insufficient means of control when used alone. **Clean equipment after mowing.**

Goats and sheep can be trained to graze spotted knapweed and can be an effective treatment option, especially if utilized when the knapweed is under-seeded with a less desirable plant.

Knapweed can be treated effectively with many herbicides that are labeled for both lawns and non-lawn areas. Apply the selected product in the spring when the plants are actively growing for maximum effectiveness. Fall regrowth and rosettes can also be treated effectively.

"Spotted Knapweed (Centaurea Stoebe)." *MPG North*. MPG North, n.d. Web. 24 Jan. 2017.

"Spotted Knapweed." *Www.nwcb.wa.gov*. Washington State Noxious Weed Control Board, n.d. Web. 13 Feb. 2017.

"Spotted Knapweed." *CWMA*. Colorado State, n.d. Web. 13 Feb. 2017.



Copyright © 2007 The Regents of the University of California. All rights reserved. 5374335



5455955



UGA1459272

Joseph M. DiTomaso, University of California - Davis, Bugwood.org, Leslie J. Mehrhoff, University of Connecticut, Bugwood.org, Steve Dewey, Utah State University, Bugwood.org