DIFFUSE KNAPWEED

Centaurea diffusa

CONTROL

Hand Pulling

Hand pulling is an extremely effective method on small scale infestations of diffuse knapweed. Pulling is easiest when soil is moist; allowing you to remove most of the taproot and kill the plant. Any stage from flowering on should be bagged and removed from the site in order to minimize seeds at the site.

Mowing

Mowing will help reduce seed production of diffuse knapweed; however, repeated mowing will result in knapweed plants flowering and setting seed below the blades of the mower. Mowing should occur during the bud stage but before flower to prevent cut plants from producing viable seed.

Biological control

There are thirteen biological control agents that have been released in Montana to control spotted and diffuse knapweed. Of those species, eight have been shown to affect knapweed populations. The majority of these species are wide spread in Western Montana. Contact the Missoula County Weed District for assistance with monitoring and additional releases.

Grazing

Repeated grazing by cattle, sheep and goats can be effective at reducing levels of diffuse knapweed if managed to reduce damage to desirable species such as native forbs and grasses. Grazing should occur when native species are dormant (either in the spring before native species begin growing or in the fall after they have dropped their seed). Managers should also be careful not to graze so much as to produce excessive bare ground, which can result in increased weed invasions.

Ideal Timing for Treatment Options

Spring	Summer	Fall
Hand pull most of the taproot with plant, and bag flower heads if present when pulled.		
Grazing		Grazing
	Biological Control	
Foliar Spray		Foliar Spray

Herbicide

There are a number of herbicides that provide effective control of diffuse knapweed. The herbicide chart on the back lists approved controls for diffuse knapweed. Always consult product labels and read them carefully to ensure correct species/land management usage and chemical application.

Diffuse Knapweed Life Cycle

Life Cycle	Root	Leaves	Stems	Flower	Seed/Fruit
Biennial or short-lived perennial	Taproot	Finely divided, alternate, wider at tip, grayish-green, and covered with wooly hairs.	Up to 2 feet tall and highly branched.	White or pink. Bracts have stiff, cream- to brown-colored spines arranged in comb-like teeth.	Brown or grayish with bristle-like hairs.

Herbicides for Diffuse Knapweed, Centaurea diffusa

Active Ingredient	Rate	Efficacy	Comments
Picloram	1 pint/acre	Spring/Fall, actively growing plants.	Do not use near surface water, shallow ground water, landscaped areas or current/future vegetable gardens.
Aminopyralid	4-7 oz/acre	Spring/Fall, actively growing plants.	One of the most effective herbicides. Safe on grasses unless used at more than 7 oz/acre a year.
Aminopyralid + 2,4-D	2 pints/acre	Spring/Fall, actively growing plants.	Can be applied to waters edge; cannot be used in landscaped areas and current/future vegetable gardens.
Clopyralid + 2,4-D	2 quarts	Apply after rosette emerges, but before flower stem elongates	Lower rate for in-crop cereal grain. Consult label for crop rotation restrictions before use. Some crops risk injury up to 4 years after application
2,4 - D	2 quarts/acre	Least effective herbicide listed	Not recommended. Can cause drift to sensitive crops.

Information on diagnostic identifying characteristics adapted from "Montana's Noxious Weeds" by Pokorny and Mangold, Montana State University Extension Bulletin EB0159.

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