



## Spotted Knapweed

*Centaurea stoebe* ssp. *micranthos*



### Spotted knapweed

<b>General</b>	<p>Family: Sunflower (Asteraceae)                  Native to Central Europe                  Introduced to North America in the late 1800's or early 1900's  <b>Colorado List B - Eradication Required in Jefferson County</b></p>
<b>Habitat</b>	<p>Long-lived biennial/short lived herbaceous perennial                  Found in meadows, pastures, roadsides, and sandy or gravelly floodplains of streams and rivers                  Causes serious decline in forage and crop production                  Roots do not hold soil as well as native vegetation so soil erosion is sometimes an associated problem                  Releases a toxin that reduces growth of forage species                  Areas heavily infested with spotted knapweed will probably need to be reseeded once the plant is controlled</p>

### PLANT

<b>Vegetation</b>	<p>1-4 feet tall with 1-20 upright stems                  Rosette leaves are 6 inches long and deeply lobed                  Forms rosettes the first year. Bolts in the spring of second growing season (May to June)</p>
<b>Roots</b>	<p>Taproot</p>
<b>Flower</b>	<p>June-October                  Pink or purple                  Single                  1/2 inch wide                  Bracts have black tips</p>
<b>Seed</b>	<p>Each plant can produce as many as 25,000 seeds                  Most seeds fall within 3 feet of the plant                  Seeds can stay dormant for 8 years</p>
<b>Seedling</b>	<p>Seeds germinate in spring or fall forming a rosette.                  Peak germination is in May</p>
<b>Reproduction</b>	<p>Seed</p>

<b>CONTROL -- CHEMICAL</b>		
<i>Timing</i>	<i>Herbicide</i>	<i>Notes</i>
Spring or Fall - Rosette	2,4-D (various) (as a part of tank mix) 2,4-D + Dicamba (various) <b>Aminopyralid (Milestone)</b> Clopyralid (Transline); Clopyralid + 2,4D (Curtail); Clopyralid + triclopyr (Redeem) Dicamba (various) Glyphosate (various) Picloram (Tordon) Restricted Use	Use of a surfactant is recommended for most herbicides to help increase contact with the vegetation and to facilitate herbicide uptake. Refer to the specific label for the appropriate type of surfactant.  Treating at the rosette and early bolt stage stops biennial weeds from using resources that desirable plants need to prosper.  Refer to the individual label for allowed sites, specific timing, and restrictions about grazing and haying.
Spring to Early Summer Rosette to Early bolting	<b>Aminopyralid (Milestone)</b> Aminocyclopyrachlor + chlorsulfuron (Perspective) Clopyralid (Transline); Clopyralid + 2,4-D (Curtail); Clopyralid + triclopyr (Redeem) Glyphosate (various) Picloram (Tordon) Restricted Use	Formulations of more than one active ingredient are available.  For established populations, control will take a few years so treatment will need to be repeated.
<b>CONTROL -- NON-CHEMICAL</b>		
<i>Technique</i>	<i>Timing</i>	<i>Method</i>
<b>Biological</b>	N/A	
<b>Burning</b>	N/A	
<b>Cultivation</b>	Spring to Fall Rosettes and young plants 3-6 inches tall	May need to be repeated throughout the season and on an annual basis until the seedbank is exhausted. May allow more seeds to germinate due to disturbance.
<b>Grazing</b>	Early spring prior to bud stage	Sheep, goats, and cattle will eat
<b>Mowing</b>	N/A	Not effective. Plants will regrow from crown and produce as many seeds as un-mown plants.
<b>Prevention</b>	Anytime	Maintain the health of the site by encouraging native vegetation.
<b>Removal</b>	Spring to Early Summer Rosette to Bolting	Remove rosettes and young plants before they are more than 5-8 inches tall (before flower buds form). Remove at least the top couple inches of the taproot.
	Summer Flowering	Remove plants with flower heads, bag, and dispose of in the trash or landfill. Sever root at least a couple inches below the soil. Plants without flower buds do not need to be put in the trash.
	Fall - Rosette	Remove rosettes and at least the top couple inches of the taproot.
	Pulling when plants are small results in less bulk and makes disposal easier. Pulling will disturb the soil so it may contribute to more of the seedbank germinating.	

Use all chemicals according to the manufacturer's label. The label will provide specific instructions including allowed sites, application methods, rates, storage, re-entry requirements and personal protective equipment. No specific recommendation or endorsement is made or implied by listing the above methods or products. 9/2021