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Controlling Canada Thistle
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IPM Facts
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Controlling Canada Thistle

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What is a Perennial Weed?

A perennial weed is any weed capable of surviving for three or more years. Perennial weeds are characterized by vegetative reproduction. Vegetative reproduction in these species is due to: (a) rhizomes - underground creeping stems commonly

found in perennial grasses; (b) stolons-prostrate stems or runners on the soil surface with roots at the nodes; (c) creeping roots; (d) tubers - underground enlarged storage stems; or (e) bulbs - underground storage organs consisting of a stem axis covered with many overlapping leaf scales.

Perennial weeds may or may not reproduce by seed. They always, however, have the potential to reproduce by vegetative means.

Description of Canada Thistle

Canada thistle has an extensive, deep root system. Stems are 2 to 5 feet tall, grooved, and branch only at the top. Stems are slightly hairy when young, but increase in hairiness

with maturity. Leaves are slender, smooth, and have crinkled edges with spiny margins. There are many compact rose-purple flowers surrounded by tight bracts. Flowers are about 3/4 inch in diameter. Seeds are brown, smooth-coated, 3/16 inch long,

and attached to a tannish down that is easily broken off. Canada thistle primarily spreads by an underground root system. It often grows in dense patches in fields or pastures.

Methods of Control

Methods of perennial weed control fall into three categories: (a) cultural, such as crop rotation; (b) mechanical, tillage including various implements such as plows, disks, or cultivators; and (c) chemical,

using herbicides. Control of perennial weeds may require a combination of all these methods. Consider the energy and environmental implications when choosing a method of control.



Mechanical Control

Mechanical control may increase or decrease perennial weed infestations. Tillage may increase infestations by moving perennial weeds to new areas of the field or breaking dormancy of underground buds resulting in new shoot growth. Tillage during cool, wet conditions results in reduced control.

Tillage may decrease perennial weed infestations if done frequently enough to deplete underground root

reserves. The field should be tilled every two or three weeks. Warm, dry soil conditions increase the effectiveness of tillage for perennial weed control by drying plant roots on the soil surface.

Chemical Control of Canada Thistle

Soybeans

Timing

Herbicide

Rate

Basagran + COC1

1 qt/A + 1 qt/A and repeat²

(Weed stage) POST (6-8")

Effectiveness Good

Blazer + NIS1 Cobra+ COC1

1.5 pt/A + 1/4% 0.78 pt/A + 1 pt/A

POST (up to 12")

POST (before bud) Poor Poor

Corn

Timing

Herbicide Rate¹ Basagran + COC2 1 gt/A + 1 gt/A and repeat Banvel 1/2 pt/A and repeat Stinger 1/2 pt/A

(Weed height) POST (8") POST (8") POST (6-8")

Effectiveness Good Good Good

Banvel + 2,4-D amine 2,4-D amine

1/4 pt/A + 1/2 pt/A and repeat POST (8") 1 pt/A and repeat

POST (8")

Fair Poor

Winter Wheat and Barley

<u>Herbicide</u>	Rate	Timing	Effectiveness
Stinger	1/3 pt/A	Rosette-bud stage	Good
Express + NIS1	1/3 oz/A + 1/4%	4-8" Can. thistle	Fair
Harmony Extra + NIS1	0.6 oz/A + 1/4%	4-8" Can. thistle	Fair
2,4-D ester	1 1/2 pt/A	Fully tillered to boot stage (Crop)	Poor-Fair
Banvel	1/4 pt/A	Early spring to fully tillered (Crop)	Poor-Fair

¹ NIS = nonionic surfactant.

Spot treatment and between crops

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Rate	(Weed growth stage)	Effectiveness	
2%	Spot treatment(bud stage)	Good-Very Good	
2-3 qt/A	Bud to bloom stage	Good-Very Good	
1-2 qt/A2	Bud stage	Good-Very Good	
1-2 qt/A	Bud stage	Fair-Good	
	2% 2-3 qt/A 1-2 qt/A²	2% Spot treatment(bud stage) 2-3 qt/A Bud to bloom stage 1-2 qt/A ² Bud stage	

¹ Fall applications provide the most effective control.

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To protect yourself and others and the environment, always read the label before applying any pesticide.

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¹ COC = crop oil concentrate: NIS = nonionic surfactant.

² A cultivation may replace the second herbicide application.

¹ Two applications of each treatment are recommended for adequate results.

² COC = crop oil concentrate.

² Banvel at 1 qt/A will provide suppression; 2 qt/A will provide control.