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Controlling Hemp Dogbane

Michigan State University Extension Service

IPM Facts

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Issued December 1992

2 pages

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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 Hemp Dogbane

Hemp dogbane has long, horizontal rootstocks that contain buds from which shoots emerge. The stems are 1 to 2 feet long and grow from a woody base. Leaves are erect, elliptical, narrow, and have smooth edges. Leaves are bright green in the summer and turn yellow-brown in the fall. Flowers are produced in clusters and are small, greenish-white and bell-shaped. Each flower produces 2 pods that are slender, sickle-shaped, and 2 to 4 inches in length.

The pods contain seeds that are small, spike-shaped, reddish-brown and have a tuft of soft, silky hairs on one end. The plant can reproduce by seed, crown buds, and roots.

Hemp dogbane may be found in cropland, pastures, fence rows, and waste areas. Seedlings become perennial within 6 weeks of emergence.

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 Hemp Dogbane

Soybeans

Cultivation will suppress growth. Roundup ropewick applications provide fair control of top growth only.

Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing¹</u> <u>(Weed height)</u>	<u>Effectiveness</u>
Banvel	1/2 pt/A	POST (8")	Fair
Banvel + 2,4-D amine	1/4 pt/A + 1/2 pt/A	POST (8")	Fair
2,4-D amine	1 pt/A	POST (8")	Poor-Fair

Spot Treatments and Between Crops

<u>Herbicide</u>	<u>Rate</u>	<u>Timing¹</u> <u>(Weed growth stage)</u>	<u>Effectiveness</u>
Roundup	2%	Spot treatment (late bud to flower)	Good
Roundup	4 qt/A	Late bud to flower	Good
Banvel	1 qt/A	Late bud to flower	Good
Banvel + 2,4-D	1/2 pt/A + 1 pt/A	Late bud to flower	Fair-Good

¹Fall applications provide the most effective control.

This bulletin was originally prepared with the support of the U.S. Department of Energy, Grant No. DE-FG0276CS60204. However, any opinions, findings, conclusions or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of DOE.

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