Controlling Hemp Dogbane
Michigan State University Extension Service
IPM Facts
Fred Salzman, Karen Renner, Jim Kells, Department of Crop and Soil Sciences
Revised January 1998
2 pages

MICHIGAN STATE UNIVERSITY
IPM FACTS

Extension Bulletin E-2247 Revised January 1998

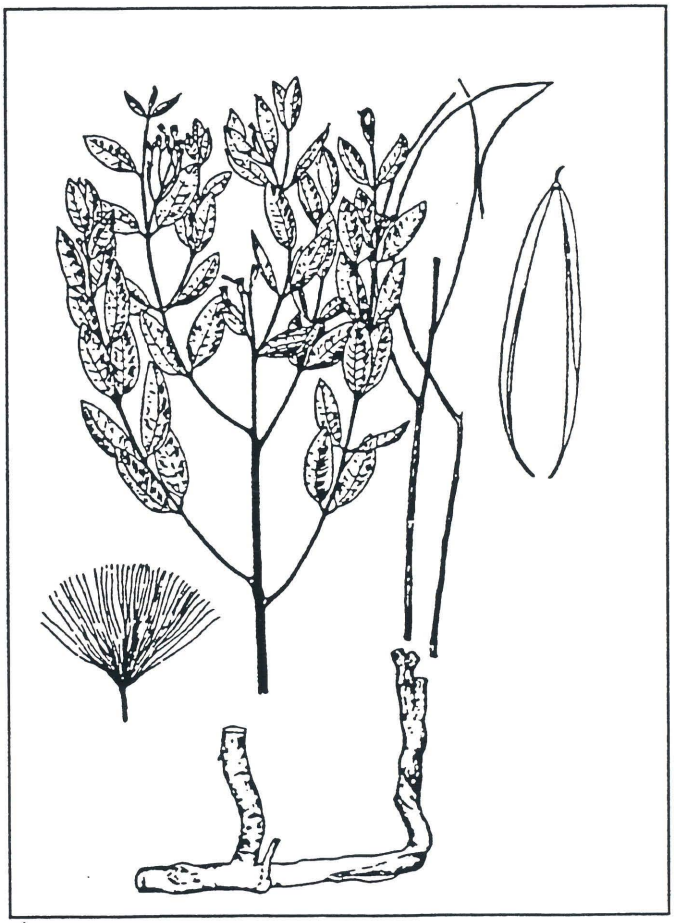
Controlling Hemp Dogbane

Fred Salzman, Corey Ransom, Karen Renner, and Jim Kells
Department of Crop and Soil Sciences
Michigan State University

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 Ultra ropewick applications provide fair control of top growth only. Roundup Ultra at 1 qt/A plus ammonium sulfate (AMS) at 17 lbs/100 gal or urea-ammonium nitrate (28% N) at 4% applied broadcast to only Roundup Ready soybean provides season-long control.

Corn

Research was financially supported by the Corn Marketing Program of Michigan.

Herbicide	Rate	Timing[1] (Weed height)	Effectiveness[2]
Beacon + 2,4-D amine + NIS[3]	0.38 oz/A + 1 pt/A	12+" POST	Good
Accent + Banvel + NIS	0.67 oz/A + 0.5 pt/A	12+" POST	Fair-Good
Beacon + Banvel + NIS	0.38 oz/A + 0.5 pt/A	12+" POST	Fair-Good
Banvel + 2,4-D amine	0.25 pt/A + 0.5 pt/A	12+" POST	Poor-Fair
2,4-D amine	1 pt/A	12+" POST	Poor-Fair
Banvel	0.5 pt/A	12+" POST	Poor

[1]Hemp dogbane typically emerges over an extended period, especially in tilled fields. Since postemergence applications affect only emerged shoots, treatment should be made when corn is 6 to 8" tall to allow maximum hemp dogbane emergence. Later applications may be made with drop nozzles.
[2]Overall effectiveness of the treatment is greatest if shoot emergence is complete at time of application. Short emergence is highly dependant on environmental conditions.
[3]NIS = Nonionic surfactant.

Spot Treatments and Between Crops

Herbicide	Rate	Timing[1] (Weed growth stage)	Effectiveness
Roundup Ultra	2%	Spot treatment (late bud to flower)	Good
Roundup Ultra	4 qt/A	Late bud to flower	Good
Banvel	1 qt/A	Late bud to flower	Good
Banvel + 2,4-D	0.5 pt/A + 1 pt/A	Late bud to flower	Fair-Good

[1]Fall applications provide the most effective control. Fall treatments should follow wheat harvest or non-cropped sites should be mowed in July.

This bulletin was prepared with the support of the U.S. Department of Energy, Grant No. DE-FG276CS60204. However, any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of DOE.

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

This publication contains pesticide recommendations based on research and pesticide regulations. However, changes in pesticide regulations occur constantly. Some pesticides mentioned may no longer be available, and some uses may no longer be legal. If you have questions about the legality and/or registration status for using pesticides, contact your county Extension office.

MAJOR REV, DESTROY PREVIOUS, 1/98-150-KMF/UP. Price 25¢, single copy free to Michigan residents