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Controlling Field Bindweed and Hedge Bindweed

Michigan State University Extension Service

IPM Facts

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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.

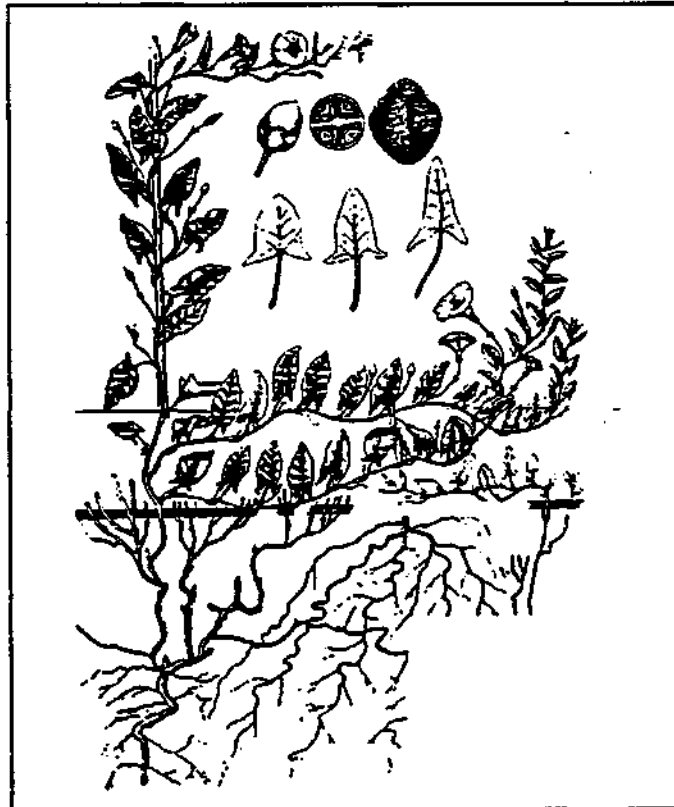
Perennial weeds may or may not reproduce by seed. They always, however, have the potential to reproduce by vegetative means.

Description of Field Bindweed and Hedge Bindweed

Field bindweed and hedge bindweed are two closely related members of the morningglory family. They are not morningglories since they are perennial weeds while morningglories are annual weeds. Both bindweed species have extensive root systems. The roots of field bindweed may reach a soil depth of 20 to 30 feet while hedge bindweed roots are much more shallow. Stems are smooth, slender, and range in length from 2 to 10 feet. Leaves of field bindweed are 1.5 to 2.5 inches long and are oblong in shape with arrowhead-like bases. Leaves of hedge bindweed are up to 4

inches long, are triangular in shape than field bindweed, with a sharp point at the tip. Flowers on both species are funnel-shaped and white to pink. Flowers of hedge bindweed are larger than those of field bindweed. Seeds are dark brownish to gray and dull

with one rounded and two flattened sides. Plants reproduce by seeds, stems, and creeping rootstocks.



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 Field/Hedge Bindweed

Soybeans

<u>Herbicide¹</u>	<u>Rate</u>	<u>Timing</u>	<u>Effectiveness</u>
Roundup Ultra + AMS or 28%N ²	2 qt/A	POST ³	Good
Blazer + NIS ⁴	1.5 pt/A	POST	Poor
Cobra + COC ⁴	0.78 pt/A	POST	Poor

¹These treatments cause top growth suppression only. Two applications of Blazer may be necessary. 2,4-DB may be added to Blazer and nonionic surfactant removed to increase activity. Read the label as 2,4-DB can injure soybeans.

²Ammonium sulfate (AMS) at 17 lbs/100 gal or urea-ammonium nitrate (28% N) at 4%.

³For spot treatment only. Broadcast applications can be made to Roundup Ready soybean only.

⁴NIS = nonionic surfactant; COC = crop oil concentrate.

Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing (Weed height)</u>	<u>Effectiveness</u>
2,4-D ester	1 qt/A	Preharvest application (after brown silk stage of corn)	Fair/Good ¹
2,4-D amine	1 pt/A	8" runners	Fair
Banvel	0.5 pt/A	8" runners	Fair
Banvel + 2,4-D amine	0.25 pt/A + 0.5 pt/A	8" runners	Fair

¹2,4-D ester is fair on field bindweed and good on hedge bindweed.

Spot Treatments and Between Crops

<u>Herbicide</u>	<u>Rate</u>	<u>Timing¹ (Weed growth stage)</u>	<u>Effectiveness</u>
Roundup Ultra + Banvel	2 qt/A + 1 pt/A	Full bloom	Good
Roundup Ultra	3-4 qt/A	Full bloom or beyond	Good
Banvel	1-2 qt/A ²	Full bloom	Good
Roundup Ultra	2%	Spot treatment (full bloom)	Good

¹Do not treat when bindweed is under drought stress.

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