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Controlling Swamp Smartweed

Michigan State University Extension Service

IPM Facts

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rough. The plant reproduces by seed and by tough, woody, horizontal rootstocks.

Swamp smartweed is often found in low, wet, and/or muck soil areas in fields.

### *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 Swamp Smartweed*

Swamp smartweed has erect stems 1 to 3 feet tall with enlarged nodes. Stems are usually unbranched. Leaves are 2.5 to 8 inches long, pointed at the tip with a rounded base, and have prominent veins. A papery sheath, called the ochrea, surrounds the stem at the base of each leaf. Flowers are rose and are found in a compact erect spike 1 to 3 inches long. Seeds are oval, flattened on one side, black, shiny, and slightly

### *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 Swamp Smartweed

## Soybeans

<u>Herbicide</u> <sup>1</sup>	<u>Rate</u>	<u>Timing</u>	<u>Effectiveness</u>
Lexone or Sencor DF	0.33 lb/A	PPI or PRE	Fair
Basagran + COC <sup>2</sup>	1 qt/A	up to 12" POST	Fair
Roundup Ultra + AMS or 28% N <sup>3</sup>	1 qt/A	POST <sup>4</sup>	Fair-Good

<sup>1</sup>A second application of Basagran 14 to 21 days after the first application is suggested.

<sup>2</sup>COC = crop oil concentrate; NIS = nonionic surfactant.

<sup>3</sup>Ammonium sulfate (AMS) at 17 lbs/100 gal or urea-ammonium nitrate (28% N) at 4%.

<sup>4</sup>For spot treatment only. Broadcast applications can be made to Roundup Ready soybean only.

## Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing</u> (Weed height)	<u>Effectiveness</u>
Banvel	0.5 pt/A	8" POST	Fair
2,4-D amine	1 pt/A	8" POST	Poor-Fair

## Spot Treatments and Between Crops

<u>Herbicide</u>	<u>Rate</u>	<u>Timing</u> <sup>1</sup> (Weed growth stage)	<u>Effectiveness</u>
Roundup Ultra + Banvel	1 qt/A + 1 pt/A + 1/2%	Late summer/fall	Good
Roundup Ultra	3 qt/A	Late summer/fall	Good
Roundup Ultra + AMS <sup>2</sup>	2-3 qt/A + 2%	Late summer/fall	Good
Roundup Ultra	2%	Bud to bloom stage of swamp smartweed	Good

<sup>1</sup>Spring applications only provide suppression for one year.

<sup>2</sup>AMS = ammonium sulfate at 2% by weight or 17 lb/100 gal.

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