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Controlling Quackgrass

Michigan State University Extension Service

IPM Facts

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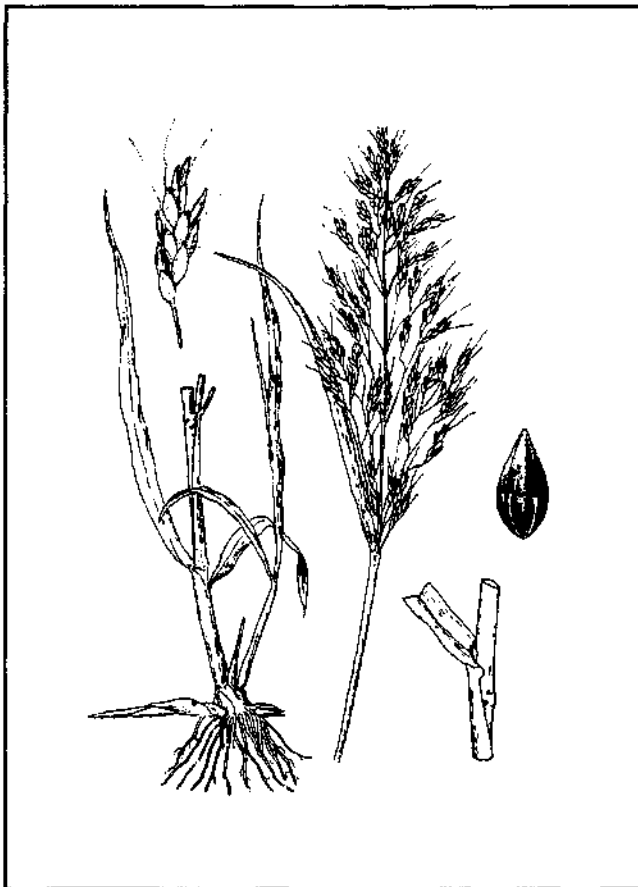
### *What is a Perennial Weed?*

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 Johnsongrass*

Johnsongrass is a warm season perennial grass with thick, white to pink, scaly rhizomes. Stems are erect, thick, and range from 1 1/2 to 2 1/2 feet tall. Leaves are alternate on the stem, smooth, 6 to 20 inches in length with a very large white midrib. There is a large papery ligule at the juncture of the leaf blade and sheath (collar). The seed head is purplish and ranges from 8 to 20 inches long. Seeds are 1/8 inch long, oval, reddish-brown, and have fine lines on the surface.



Johnsongrass can reproduce from seeds or rhizomes. The rhizomes cannot survive extremely cold temperatures. It is considered a perennial once it has produced a seedhead.

Johnsongrass was introduced as a forage, but has become a noxious weed. It can be found in cultivated fields, fence rows, and waste areas.

### *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 Johnsongrass

## Soybeans

<u>Herbicide</u>	<u>Rate</u>	<u>Timing</u>	<u>Effectiveness</u>
Treflan <sup>1</sup>	1 1/2 - 2X for 2 yrs. <sup>2</sup>	PPI	Fair
Prowl <sup>1</sup>	1 1/2 - 2X for 2 yrs. <sup>2</sup>	PPI	Fair
Assure II + COC <sup>3</sup>	0.6 pt/A + 1%	POST <sup>4</sup>	Excellent
Fusilade 2000 + COC <sup>3</sup>	1 1/2 pt/A + 1 qt/A	POST <sup>4</sup>	Excellent
Poast + 28% N + Dash	1 pt/A + 1 gal/A + 1 qt/A	POST <sup>4</sup>	Good
Poast Plus + Dash	1 1/2 pt/A + 1 qt/A	POST <sup>4</sup>	Good
Option II	0.7 pt/A	POST <sup>4</sup>	Good
Roundup	-	ropewick	Fair
Select + COC <sup>3</sup>	10 oz/A + 1 qt/A	POST <sup>4</sup>	Good

1 If using a Treflan or Prowl program, grow continuous soybeans for 3 years.

2 1 1/2 - 2X = increase standard application by 50-100%.

3 COC = crop oil concentrate.

4 Make postemergence applications when johnsongrass is 15 to 18 inches tall. Retreat if regrowth occurs. Add nonionic surfactant or crop oil concentrate to postemergence applications (see label).

## Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing</u>	<u>Effectiveness</u>
Accent + COC <sup>2</sup> or NIS <sup>3</sup>	2/3 oz/A + 1% or 1/4%	POST (8-16")	Good-Excellent
Beacon + COC <sup>2</sup> or NIS <sup>3</sup>	0.76 oz/A + 1% or 1/4%	POST (8-18")	Good
Eradicane <sup>1</sup>	4 3/4 pt/A	PPI	Fair
Eradicane Extra <sup>1</sup>	5 pt/A	PPI	Fair
Sutan Plus <sup>1</sup>	4 3/4 pt/A	PPI	Fair

<sup>1</sup> For seedling johnsongrass only.

<sup>2</sup> COC = crop oil concentrate

<sup>3</sup> NIS = nonionic surfactant

## Spot treatments and between crops

<u>Herbicide</u>	<u>Rate</u>	<u>(Timing)</u>	<u>Effectiveness</u>
Roundup	2% (v/v)	Spot treatment (boot stage of johnsongrass)	Excellent

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



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