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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.

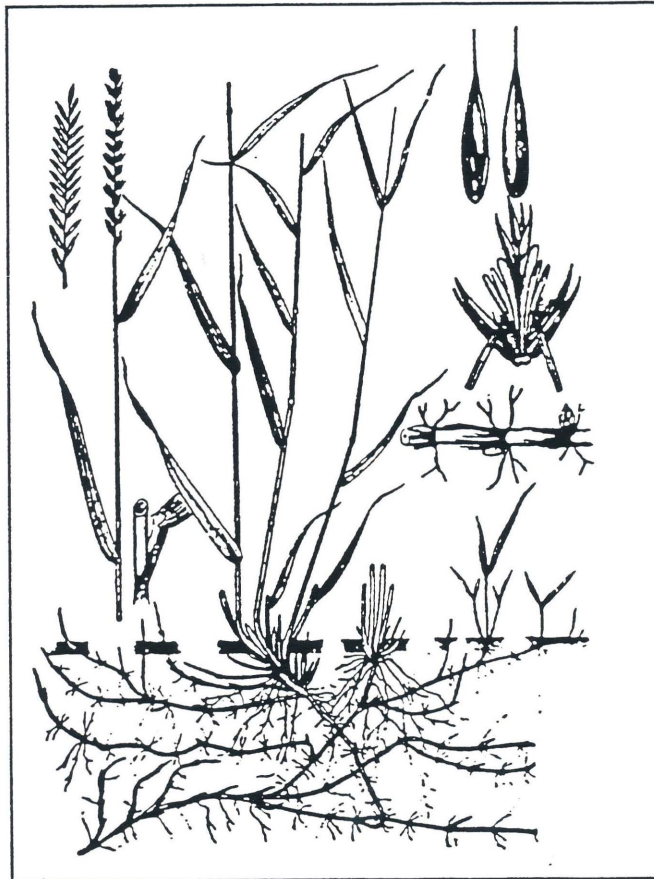
Perennial weeds may or may not reproduce by seed. They always, however, have the potential to reproduce by vegetative means.

### *Description of Quackgrass*

Quackgrass is characterized by clasping auricles. At the base of the leaf where the leaf blade meets the stem sheath there are two structures that wrap partially or completely around the stem. Another major characteristic is the slender, white creeping rhizomes found in the soil at a depth of 2 to 8 inches. These rhizomes are short-lived, only lasting for two summers and one winter. Shoots and roots arise from nodes on the rhizomes. Stems are 1 1/2 to 3 feet tall and erect, branching at the

base. Leaves are finely ribbed, sparsely hairy on the lower sheath and smooth (or nearly smooth) on the upper sheath. The seedhead is a spike 2 to 10 inches long. Quackgrass reproduces primarily by rhizomes; less than 20% of the seeds can produce a new plant.

Quackgrass may be found in cultivated fields, pastures, and waste places.



soil conditions increase the effectiveness of tillage for perennial weed control by drying plant roots on the soil surface.

### *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

# Chemical Control of Quackgrass

## Soybeans

<u>Herbicide</u>	<u>Rate</u>	<u>Timing<sup>1</sup></u>	<u>Effectiveness</u>
Assure II + COC <sup>2</sup>	10 oz/A	POST	Excellent
Fusilade DX + COC	12 oz/A	POST	Good
Fusion + COC	12 oz/A	POST	Good
Select + COC	16 oz/A	POST	Good
Poast + 28% N + Dash HC	24 oz/A	POST	Fair
Poast Plus/Prestige + Dash HC	2.25 pt/A	POST	Fair
Roundup Ultra + AMS or 28% N <sup>3</sup>	1 qt	POST <sup>4</sup>	Excellent

<sup>1</sup>Apply when quackgrass is 6-8 inches tall. May require a second application or cultivation 14-21 days later

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

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

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

## Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing (Weed height)</u>	<u>Effectiveness</u>
Accent + COC or NIS <sup>1</sup>	0.67 oz/A	6-8" POST	Good
Beacon + COC or NIS	0.76 oz/A	6-8" POST	Good
Basis Gold + COC + 28% N or AMS <sup>2</sup>	14 oz/A	4-8" POST	Good
Eradicane	3.5 qt/A	PPI	Fair

<sup>1</sup>COC = crop oil concentrate; NIS = nonionic surfactant; AMS = ammonium sulfate; 28% N = 28% liquid urea:ammonium nitrate.

<sup>2</sup>28% liquid nitrogen fertilizer at 2 qt/A or ammonium sulfate at 2 lb/A.

## Spot Treatments and Between Crops

<u>Herbicide</u>	<u>Rate</u>	<u>Timing<sup>1</sup></u>	<u>Effectiveness</u>
Roundup Ultra	2 qt/A	Spring or fall	Excellent
Roundup Ultra	1 qt/A	Spring or fall	Good
Ranger	1.5 qt/A	Spring or fall	Good
Roundup Ultra	1%	Spot treatment (see label)	Excellent

<sup>1</sup>All treatments should be made when quackgrass is 8 inches tall or greater.

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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.



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