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Michigan Energy Conservation Program for Agriculture and Forestry

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# Controlling Yellow Nutsedge

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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 Yellow Nutsedge

Yellow nutsedge is grass-like in appearance, but it is not a grass. Stems are solid, erect, triangular in cross section, and can reach a height of 8 to 24 inches. Leaves are yellowish-green, narrow, sprout from the base of the

plant, and appear to grow from three sides of the stem when the plant is viewed from above. The seedhead has many yellow-brown, widely spaced, narrow spikelets, each ½ to 1¼ inches long, and is surrounded by 3 to 9 leafy structures. Seeds are usually sterile. The plant reproduces primarily by

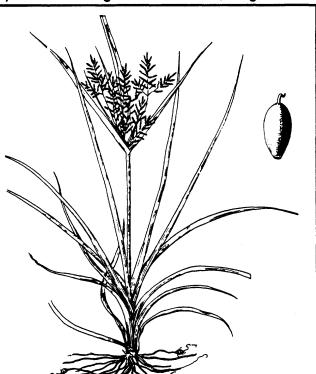
hard tubers, often called nutlets, located at the ends of rhizomes. These tubers overwinter. New plants emerge from each tuber. A single yellow nutsedge plant is capable of producing over 100 tubers.

Yellow nutsedge becomes a perennial within 3 weeks of emergence. It is often found in wet areas and is troublesome in low areas of cultivated fields and pastures.

#### **Methods or 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 Yellow Nutsedge**

# Soybeans

<u>Herbicide</u>	ı iming'		
	<u>Rate</u>	(Weed ht.)	<b>Effectiveness</b>
Dual	2.5 pt/A	PPI or PRE	Good
Lasso or Arena	3 qt/A	PPI or PRE	Fair-Good
Lorox Plus <sup>2</sup>	1 lb/A	PRE	Fair
Preview <sup>2</sup>	1/2 lb/A	PPI or PRE	Fair
Scepter	2/3 pt /A	PPI or PRE	Poor-Fair
Pursuit	1/4 pt/A	PPI or PRE	Fair
Basagran + COC3.4	$1\frac{1}{2}$ pt/A + 1 qt/A and repeat	POST (6-8")	Good
Classic + NIS4.5	3/4 oz/A+1/4%	POST (4")	Good
Pursuit + 28% N + NIS4	1/4 pt/A + 1 qt/A+1/4 %	POST (4")	Fair

<sup>&</sup>lt;sup>1</sup> PPI applications are more effective than PRE applications.

### <u>Corn</u>

Timing		
<u>Rate</u>	(Weed ht.)	<b>Effectiveness</b>
3 qt/A	PPI	Good
31/2qt/A	PPI	Good
3 qt/Å	PPI	Good
2½ pt/A	PPI or PRE1	Good
3 qt/A	PPI or PRE1	Fair
$1\frac{1}{2}$ pt/A + 1 qt/A and repeat	POST (6-8")	Good
$1\frac{1}{2}$ lb/A + 1 qt/A and repeat	POST (6-8")	Good
	3 qt/A 3 ½qt/A 3 qt/A 2½ pt/A 3 qt/A 1½ pt/A + 1 qt/A and repeat	Rate       (Weed ht.)         3 qt/A       PPI         3 ½qt/A       PPI         3 qt/A       PPI or PRE¹         2½pt/A       PPI or PRE¹         3 qt/A       PPI or PRE¹         1½pt/A + 1 qt/A and repeat       POST (6-8")

<sup>&</sup>lt;sup>1</sup> PPI will provide greater control than PRE applications.

# Spot treatments and between crops

Tillage may provide suppression in a dry year.

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

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<sup>&</sup>lt;sup>2</sup> Do not use Lorox Plus or Preview if soil pH is greater than 6.8.

<sup>&</sup>lt;sup>3</sup> A second application of Basagran is recommended 10 to 14 days later. A cultivation may replace the second application.

<sup>&</sup>lt;sup>4</sup> NIS = nonionic surfactant; COC = crop oil concentrate

<sup>&</sup>lt;sup>5</sup> Do not use Classic if soil pH is greater than 7.0.

<sup>&</sup>lt;sup>2</sup> Sequential applications of Basagran or atrazine should be made 10 to 14 days apart.

<sup>&</sup>lt;sup>3</sup> COC = crop oil concentrate