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Controlling Smooth Groundcherry and Clammy Groundcherry Michigan State University Extension Service Michigan Energy Conservation Program for Agriculture and Forestry Fred Salzman, Karen Renner, Jim Kells, Department of Crop and Soil Sciences Issued May 1990 2 pages

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Michigan Energy Conservation Program for Agriculture and Forestry

Extension Bulletin E-2253

May, 1990

CONTROLLING SMOOTH GROUNDCHERRY AND CLAMMY GROUNDCHERRY

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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 Smooth Groundcherry and Clammy Groundcherry

Smooth groundcherry and clammy groundcherry are closely related species. Some characteristics are common to both species: Stems are 1 to 3 feet tall and erect. Leaves are 2 to 3 inches long and slightly round-toothed. Flowers are bell-shaped. yellow to yellow-green

with purple to brown centers, and are about 3/4 inch in diameter. A round berry is produced that is enclosed with a papery covering resembling a Chinese lantern. The berry of smooth groundcherry is

red to purple, while clammy groundcherry berries are yellow. Berries contain numerous small, yellow, flattened, oval seeds. Clammy groundcherry can be distinguished by its hairy stems and leaves, while smooth groundcherry is smooth to sparsely hairy. Clammy groundcherry stems are more branched, thus the plant appears bush-like. Both species reproduce by seeds and 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

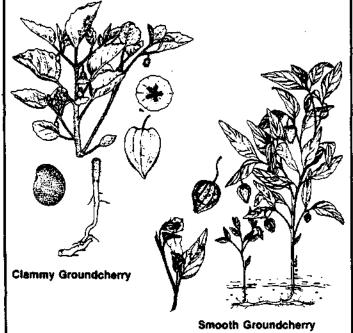
choosing a method of con-

Mechanicai Control

Mechanical control may increase or decrease perennial weed infesta-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 Smooth and Clammy Groundcherry

Soybeans

Timina

Herbicide ¹	<u>Rate</u>	(Weed height)	<u>Effectiveness</u>
Blazer + NIS ²	2 pt/A + 1/4%	POST (2-4")	Poor
Cobra + COC ²	0.78 pt/A + 1 pt/A	POST (2-4")	Poor

¹ These treatments only suppress top growth.

Corn

<u>Herbicide</u>	liming		
	<u> Bate</u>	(Weed height)	<u>Effectiveness</u>
Banvel	½ pt/A	8"	Fair-Good
Banvel + 2,4-D amine	14 pt/A + ½ pt/A	8"	Fair-Good
2,4-D amine	1 pt/A	8"	Fair-Good

Spot treatments and between crops

Herbicide	Timing			
	<u>Rate</u>	(Weed growth stage)	Effectiveness	
Roundup ¹	2%	Spot treatment	Good	
		(late bud to flower)		
Roundup ¹	3 qt/A	Spot treatment	Good	
	-	(late bud to flower)		
Banvel	1-2 qt/A²	Spot treatment	Good	
	·	(late bud to flower)		
2,4-D	2 qt/A	Spot treatment	Good	
	•	(late bud to flower)		

¹ Roundup is not labeled for control of clammy or smooth groundcherry.

"This bulletin was prepared with the support of the U.S. Department of Energy, Grant No. DE-FG0276CS60204. However, any opinions, findings, conclusions of recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of DOE"

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

Issued in furtherance of Cooperative Extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture, J. Ray Gillespie, Interim Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824.

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² NIS = nonionic surfactant; COC = crop oil concentrate

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