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Controlling Horsenettle

Michigan State University Extension Service

IPM Facts

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## Controlling Horsenettle

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are 1/16 inch in diameter, round, flattened, and yellow in color. Horsenettle reproduces by seed and creeping rootstock.

Horsenettle can be found in cultivated fields and pastures, and prefers sandy soils.

### *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 Horsenettle*

Horsenettle has erect or ascending stems, either unbranched or branched, that reach a height of 1 to 4 feet. Leaves are oblong, wavy-edged, or lobed. Sharp prickles are found on the stems, leaf petioles, midribs, and veins. Flowers are white or bluish, 5-lobed, approximately 1-inch in diameter, and are found in clusters. Seeds are found in distinctive yellow, juicy berries, that range from 3/8 to 5/8 inch in diameter. The berries are smooth early in the season, but later become wrinkled. Seeds

### *Methods of Control*

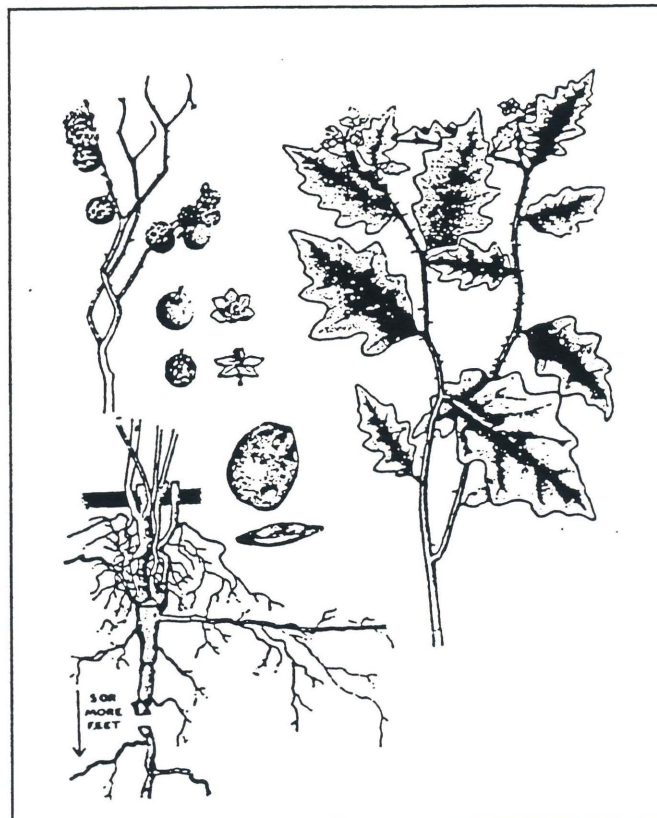
Methods of perennial weed control fall into three categories: (a) cultural, such as crop rotation; (b) mechanical, tillage including various implements such as plows, disks, or cultivators; and (c) chemical, using herbicides. Control of perennial weeds may require a combination of all these methods. 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 Horsenettle

## Soybeans

Cultivation will suppress growth.

Roundup Ultra at 1 qt/A plus ammonium sulfate (AMS) at 17 lbs/100 gal or urea-ammonium nitrate (28% N) at 4% broadcast over only Roundup Ready soybean will provide approximately 60-70% control.

## Corn

<u>Herbicide</u>	<u>Rate</u>	<u>Timing</u> (Weed height)	<u>Effectiveness</u>
Banvel	0.5 pt/A	8" POST	Good
Beacon + COC or NIS <sup>1</sup>	0.76 oz/A	8" POST	Good
Beacon + 2,4-D amine + NIS	0.38 oz/A + 1 pt/A	8" POST	Good
Beacon + Banvel + NIS	0.38 oz/A + 0.5 pt/A	8" POST	Good
Lightning + NIS + 28%N or AMS <sup>2,3</sup>	1.28 oz/A	8" POST	Fair-Good
2,4-D amine	1 pt/A	8" POST	Fair-Good

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

<sup>2</sup>IMI Corn only.

<sup>3</sup>28% liquid nitrogen fertilizer at 1 qt/A or ammonium sulfate at 2.5 lb/A.

## Spot Treatments and Between Crops

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

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

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

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