

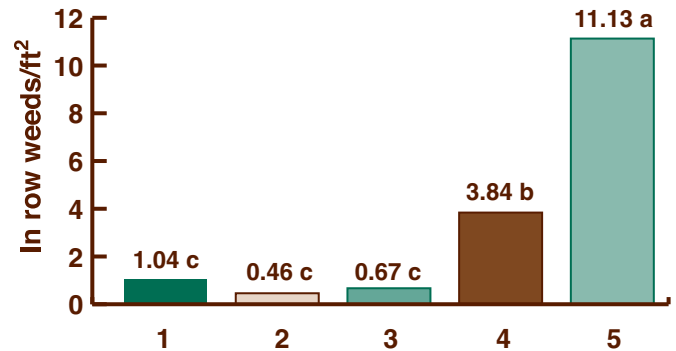
Cropping Systems  
Soybeans

Weed control strategies in organic soybeans

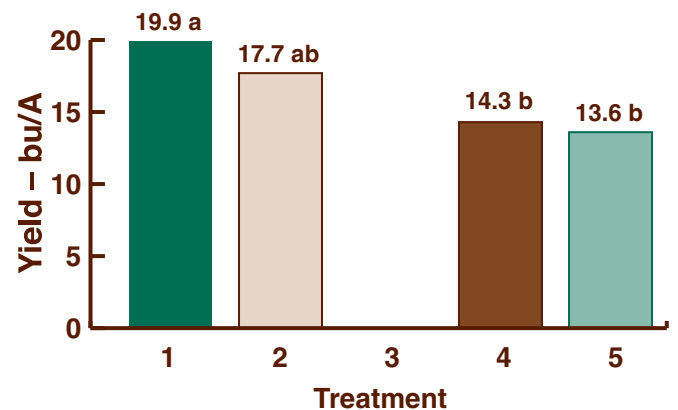
<b>County:</b>	Kalamazoo
<b>Cooperator:</b>	KBS
<b>Nearest town:</b>	Hickory Corners
<b>Soil type:</b>	Kalamazoo sandy loam
<b>Tillage:</b>	Conventional
<b>Previous crop:</b>	Corn
<b>Planting date:</b>	05/29/03
<b>Fertilizer:</b>	none
<b>Herbicide:</b>	none
<b>Row width:</b>	30-inch
<b>Variety:</b>	Vinton 81
<b>Harvest date:</b>	10/08/03
<b>Exp. design:</b>	RCB, four replications

Purpose

Evaluate four weed control strategies for organic soybean production.



Treatments	Yield bu/A	Plant pop. after treatment plants/A	In row weeds after treatment weeds/ft <sup>2</sup>
1. Rotary hoe (3X)	19.9 a	59420 a	1.04 c
2. Lely weeder (3X)	17.7 ab	45580 b	0.46 c
3. Flaming	—	7667 c	0.67 c
4. Banded vinegar (1X, 15%, 20 gal/A)	14.3 b	60500 a	3.84 b
5. Control, 1 cultivation (07/14)	13.6 b	57500 a	11.13 a
LSD 0.05	5.1	4977	2.16



Results

Rotary hoeing resulted in a significantly higher yield as compared to flaming, vinegar or the control. There was no difference between rotary hoeing and Lely weeder. Unlike corn, rotary hoeing soybeans did not reduce soybean plant population. The Lely weeder treatment significantly reduced soybean plant populations. All weed control strategies reduced weed densities as compared to the control. The vinegar treatment resulted in higher weed densities compared to the other weed control strategies.

**For more information**  
 Dale Mutch  
 Cover Crop/IPM Specialist  
 3700 E. Gull Lake Drive  
 Hickory Corners, MI 49060  
 Phone: 269-671-2412 ext 224  
 Email: mutchd@msue.msu.edu