

# A Decision Support Guide for Ecological Weed Management

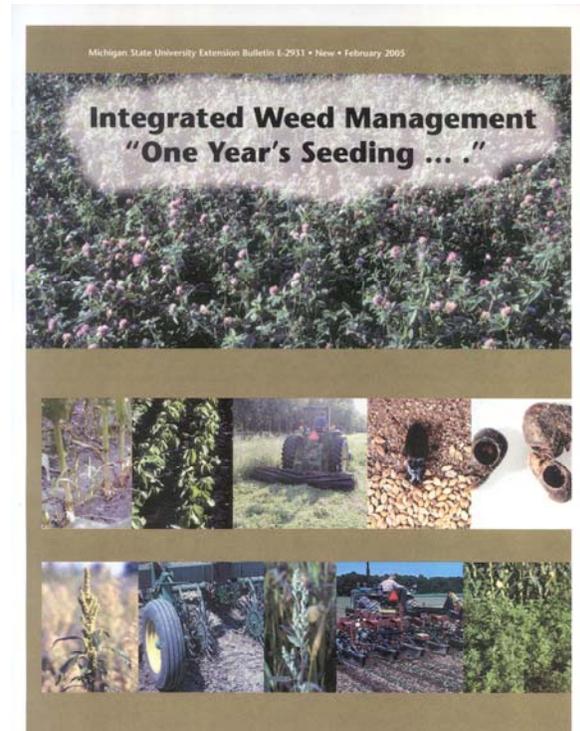
**Project GREEN No.:** GR04-044

**Team Leader:** Karen Renner

**Team Members:** Adam S. Davis and Dale R. Mutch

## Project Justification

Weeds are the most significant economic pest in Michigan agriculture. Producers in Michigan and other states have expressed interest in ecologically based weed management strategies, yet little information is available to them. Therefore we wrote a decision support guide for ecological weed management *E-2931 Integrated Weed Management "One Year's Seeding ..."*, and presented the information contained in the guide to growers at meetings throughout Michigan in the winter of 2004-2005. The implementation of biologically based weed management programs will capitalize on renewable weed management resources already present in crop fields, enhancing both the economic viability and environmental quality of Michigan farms.



## Objectives

1. Write a decision support system guide for managing weeds in Michigan agriculture
2. Publish this guide
3. Distribute the guide to farmers at meetings throughout the state in the winter of 2004-2005
4. Obtain farmer feedback on the usefulness of the guide.

## Results and Accomplishments

- a. The decision support guide was written in the fall of 2004. Many individuals contributed to the writing of this guide including two members outside of the team, Dr. Christy Sprague and Dr. Larry Dyer.
- b. The guide was published as *E-2931 Integrated Weed Management "One Year's Seeding ..."* in February 2005.
- c. We printed 2,120 copies and have sold 710 copies to date. Most of these guides were distributed at farmer meetings throughout the state. There were five regional meetings and three organic meetings held in the winter of 2004-2005.

- d. Farmer feedback was obtained with a survey following each of these meetings. Further farmer feedback is planned for fall 2005 with written evaluations of the guide.

### **Impacts**

Seven hundred guides were distributed to farmers in Michigan in 2005. Over 600 farmers attended regional and organic meetings where this guide was used to discuss ecological weed management strategies. Survey results stated that over 50% of the farmers in attendance planned to implement one or more of the ecological weed management practices discussed in the guide. GREEN funding provided leverage for SARE funding which will: support out of state workshops using the guide in the winter of 2006, provide for continued review of the guide by farmers, support on-farm demonstrations, and provide some support for a revision of the guide which will be published in February 2007.

### **Summary Statement**

An ecological weed management decision guide *E-2931 Integrated Weed Management "One Year's Seeding ..."* was written, published, and sold to 700 farmers in the state of Michigan. Over 600 farmers attended meetings in the winter of 2005 to learn and adapt ecological weed management practices.

### **Funding Partnerships**

EPA Grant

Michigan Field Crop Ecological Weed Management: A decision support system  
Mutch, Davis, and Renner

8/2003 - 3/2005: \$40,000

\$10,000 in 2004

SARE -NCR

One year's seeding: a seedbank approach to sustainable weed management  
Renner and Davis

10/1/04 -4/30/07: \$149,900

\$60,000 in 2004