Management options for soybean aphids

Marlin E. Rice
Iowa State University, merice@iastate.edu

Matt O'Neal
Iowa State University, oneal@iastate.edu

Follow this and additional works at: http://lib.dr.iastate.edu/cropnews

Part of the Agriculture Commons, and the Entomology Commons

Recommended Citation
http://lib.dr.iastate.edu/cropnews/2388

The Iowa State University Digital Repository provides access to Integrated Crop Management News for historical purposes only. Users are hereby notified that the content may be inaccurate, out of date, incomplete and/or may not meet the needs and requirements of the user. Users should make their own assessment of the information and whether it is suitable for their intended purpose. For current information on integrated crop management from Iowa State University Extension and Outreach, please visit https://crops.extension.iastate.edu/.
Management options for soybean aphids

Abstract
If producers need to treat for soybean aphids this year, Iowa State University (ISU) has recommendations on when and how insecticides should be used to manage this pest.

Disciplines
Agriculture | Entomology
In this issue:

- Management options for soybean aphids _______ 135–136
- Can we spray Section 18 fungicides in Iowa? _______ 137
- Soybean rust outlook—June 30 _______ 138
- Manure Management Clinic offered for livestock and crop professionals _______ 139
- Not too bad, not too bad _______________ 140
Check for parasitized aphids (called mummies). Do not spray the field if a majority of the aphids have turned to mummies.

Insecticide applications made during the early soybean reproductive stages (R1–R4) have shown larger and more consistent yield protection than applications made later in the growing season. On-farm strip-trial data from several Midwestern states in 2003 showed that fields sprayed in late July or early August had larger yield gains than fields sprayed in mid-August.

For each day delay in spraying during 2003 after August 1, an average of 0.5–0.6 bushel was lost daily. Fields sprayed in late August and early September often showed no yield response to the insecticide application because most of the aphid damage had occurred by this time.

Complete coverage of a soybean plant is essential for optimum aphid control, especially because soybean aphids feed on the underside of leaves and often in the upper third of the plant canopy. If coverage is poor or an insecticide does not give effective control, then the remaining aphids will reproduce and the population could rapidly reach the economic threshold again.

A preferred insecticide would be one that provided the greatest percent of killed aphids with the most extended control and the least environmental impact, especially the mortality of beneficial insects, at the least cost to the producer. There are no perfect insecticides, but there are performance traits that may help determine product selection.

Warrior, a pyrethroid insecticide, has provided the most consistent control among the pyrethroids in many university insecticide trials. Pyrethroid insecticide performance is enhanced during cool temperatures. Lorsban, an organophosphate insecticide, also has shown good aphid control and exhibits a vapor action, especially during high temperatures.

If an insecticide is sprayed, a small, unsprayed test strip left in the field will help to determine the real value and performance of the insecticide treatment.

A preferred insecticide would be one that provided the greatest percent of killed aphids with the most extended control and the least environmental impact, especially the mortality of beneficial insects, at the least cost to the producer. There are no perfect insecticides, but there are performance traits that may help determine product selection.

Warrior, a pyrethroid insecticide, has provided the most consistent control among the pyrethroids in many university insecticide trials. Pyrethroid insecticide performance is enhanced during cool temperatures. Lorsban, an organophosphate insecticide, also has shown good aphid control and exhibits a vapor action, especially during high temperatures.

If an insecticide is sprayed, a small, unsprayed test strip left in the field will help to determine the real value and performance of the insecticide treatment.

A Preferred insecticide would be one that provided the greatest percent of killed aphids with the most extended control and the least environmental impact, especially the mortality of beneficial insects, at the least cost to the producer. There are no perfect insecticides, but there are performance traits that may help determine product selection.

Warrior, a pyrethroid insecticide, has provided the most consistent control among the pyrethroids in many university insecticide trials. Pyrethroid insecticide performance is enhanced during cool temperatures. Lorsban, an organophosphate insecticide, also has shown good aphid control and exhibits a vapor action, especially during high temperatures.

If an insecticide is sprayed, a small, unsprayed test strip left in the field will help to determine the real value and performance of the insecticide treatment.

Data from Iowa and neighboring states show that not all insecticides provide equal levels of control. The soybean aphid appears to rebound from some insecticides and a high level (98%) of control is desired. High water volume and high pressure also have been suggested as ways to improve soybean aphid control, especially in fields with a dense plant canopy.

Visit the Iowa Soybean Aphid Task Force Web site at www.soybeanaphid.info for the latest on the spread of this insect in Iowa and more information on how to manage this pest.

Marlin E. Rice is a professor of entomology with extension and research responsibilities in field and forage crops. Matt O’Neal is an assistant professor of entomology with research and extension responsibilities in field crops.