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## Newly revised aphids publication available

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### **Abstract**

The soybean aphid is a major pest for soybean growers in Iowa. Since the arrival of this Asian species to Iowa in 2000, significant outbreaks have occurred--most noticeably in 2003 when aphid populations exceeded 3,000 aphids per plant in many fields.

### **Disciplines**

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## Newly revised aphids publication available

*by Keven Arrowsmith, Extension Communications*

The soybean aphid is a major pest for soybean growers in Iowa.

Since the arrival of this Asian species to Iowa in 2000, significant outbreaks have occurred--most noticeably in 2003 when aphid populations exceeded 3,000 aphids per plant in many fields.

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# Soybean Aphids in Iowa—2007

by Marlin E. Rice, Matt O'Neal, and Palle Pedersen

## Introduction

The soybean aphid (*Aphis glycines*) is a major pest for soybean growers in Iowa. Since the arrival of this Asian species to Iowa in 2000, significant outbreaks have occurred, most noticeably in 2003 when aphid populations exceeded 3,000 aphids per plant in many fields. During this year Iowa soybean yields averaged 32 bushels per acre, a 16 bushel per acre (or a 32%) reduction from 2002. This yield reduction was partly due to the soybean aphid coupled with drought conditions. Approximately 3 million acres in Iowa were sprayed with insecticides to reduce these damaging populations, and a survey of 2,400 Iowa farmers indicated that yield losses reached 57.7 million bushels of soybeans. However in 2004, very low soybean aphid populations occurred throughout Iowa, with only 50,000 acres treated for soybean aphids.

Despite this year-to-year variation, the soybean aphid remains a threat to cause economic damage to soybeans. This publication reviews what is currently known about the biology of the soybean aphid and suggests management strategies.

## Origin of Soybean Aphid

The soybean aphid is native to eastern Asia, including China, Indonesia, and Japan, where it is an infrequent pest of soybeans. It was first detected in North America in Wisconsin in July 2000 and now occurs throughout all Midwestern soybean production states. It is not known how this insect entered the United States, but historical records of other aphid interceptions by the U.S. Department of Agriculture suggest that the soybean aphid most likely arrived from Asia, either carried by an international airline passenger or associated with horticultural cargo.

## Distribution in Iowa

Since its discovery in northeastern Iowa in August 2000, the soybean aphid quickly spread across Iowa. Twelve months later, the aphid was detected in western Iowa in Woodbury County, and within two years, the aphid had been found in soybeans in every Iowa county.

## Description of Soybean Aphid

The soybean aphid is the only aphid in North America that will develop large colonies on soybeans. Therefore, large clusters of aphids found on soybeans must be soybean aphids. There are both wingless and winged forms. Wingless soybean aphid adults are about 1/16 inch in



Soybean aphids will colonize the upper stem and developing leaves on soybeans. (Marlin E. Rice)



Winged and wingless soybean aphids on a soybean leaflet. (David Hoppe)

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IOWA STATE UNIVERSITY  
University Extension

A newly revised publication is now available to educate producers on what is known about the biology of the soybean aphid. Look for Soybean Aphids in Iowa--2007 (SP 247) by Marlin E. Rice, Matt O'Neal, and Palle Pedersen, available at the [Iowa State University Extension Online Store](#).

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