7-16-2007

Mid-July soybean aphid update

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Abstract
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The one exception continues to be in northeastern Iowa where Brian Lang notes that the population in his research site near Decorah has gone from 30 per plant on June 28 to 405 per plant on July 5, to 1,137 per plant on July 12 (Table 1). Soybean fields in northeastern Iowa should be scouted now and an insecticide application should be considered when the population exceeds 250 aphids per plant on 80 percent or more of the plants. For more information, see ICM, July 9, pages 217-218.

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Entomology

Disciplines
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Soybean aphids exceed the economic threshold

Mid-July soybean aphid update

by Marlin E. Rice and Matt O'Neal, Department of Entomology

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The one exception continues to be in northeastern Iowa where Brian Lang notes that the population in his research site near Decorah has gone from 30 per plant on June 28 to 405 per plant on July 5, to 1,137 per plant on July 12 (Table 1). Soybean fields in northeastern Iowa should be scouted now and an insecticide application should be considered when the population exceeds 250 aphids per plant on 80 percent or more of the plants. For more information, see ICM, July 9, pages 217-218.

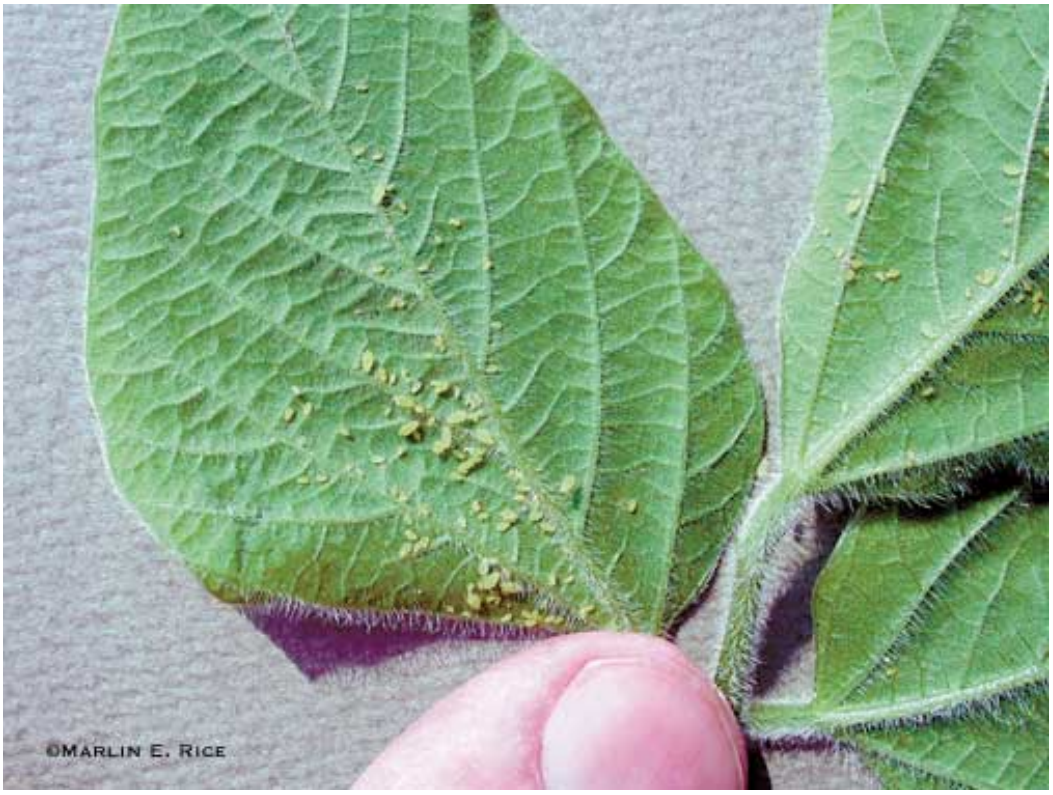
Table 1. Soybean aphid population trends, Decorah, 2002-2007 (ISU Extension Soybean Aphid Research Site).

	2002	2003	2004	2005	2006	2007
Date	**- - - - - - - - - - - - Infestation (%) - - - - - - - - - - - - -**					
June 1	--	--	0	6	0	2
June 7	--	--	0	15	2	23
June 14	--	40	0	33	6	56
June 21	7	90	0	31	12	59
June 28	15	100	0	85	13	95
July 5	70	100	4	99	24	100
July 12	93	100	8	100	71	100
	2002	**2003**	**2004**	**2005**	**2006**	**2007**
Date	**- - - - - - - - - - - - Aphids/Plant - - - - - - - - - - - - -**					
June 1	--	--	0	0.1	0	0.1
June 7	--	--	0	1.4	0.4	3.4
June 14	--	10	0	2.5	0.3	5.8
June 21	1	115	0	4.0	0.8	6.6
June 28	2	341	0	48	0.7	30
July 5	14	745	0.5	179	1.8	405
July 12	25	2,803	1	713	6.6	1,137

One of four suction traps set up in Iowa in 2005 for soybean aphid sampling. The traps are approximately 20 feet tall to collect winged aphids that are migrating from buckthorn to soybean and back. At this size, the traps are unlikely to collect aphids

The risk for soybean aphid outbreaks is increasing in Iowa based on observations from the network of suction traps deployed throughout the Midwest. In Iowa, by the first week in July, every suction trap in Iowa had collected soybean aphids for the first time during the 2007 growing season. This indicates that aphid migrations are now occurring, contributing to those aphids that are already present. These traps are located at four Iowa State University research farms in northwest, northeast, central and south-central Iowa; visit www.ncipmc.org/traps for weekly updates. Also at these farms, we conduct field research, tracking soybean aphid populations in multiple fields. As of July 16, we have not reached threshold populations at any of these sites. However, we are seeing increases in aphid populations. All of our plots have at least 80 percent of the plants infested with aphids. We anticipate reaching threshold level populations at our central (Story County) site during the week of July 16.

In addition to several predators that feed on aphids in soybeans, heavy rains and high temperatures can slow aphid growth and reproduction. Growers may wonder if the weather might help combat these growing aphid populations. It is not wise to rely on these conditions for pest management. Now is a critical time to scout soybeans for aphids to determine the extent of aphid infestations in your field and whether these populations are growing.



Soybean aphids are small, pear shaped, and range in color from green to yellow. (Marlin E. Rice)

Winged aphid (Marlin E. Rice).

Reports from other areas of the state

Joel DeJong, LeMars: Low levels of aphids can be found in northwest Iowa. Some fields (Lyon County) have numbers approaching 150 per plant.

Jim Fawcett, Iowa City: The field I'm monitoring in northern Johnson County increased from two aphids per plant on July 9 to 12 aphids per plant on July 16. Very low numbers (less than one/plant) were found in Keokuk and Washington county fields I am monitoring. Many others

are finding aphids at low numbers in the area. A couple of other notes: Percent infestation increased from 30 percent last week to 80 percent today in Johnson County. I have not yet found any aphids in the Iowa County field I am monitoring.

John Holmes, Clarion: During the past week, soybean aphids have continued to be found in central Iowa soybean fields. Last week, I found an average of one to two aphids per plant when I was scouting fields in Hardin, Marshall, and Tama counties. Many agronomists and farmers are finding much higher counts in central Iowa fields.

Kyle Jensen, Lewis: No aphids in any numbers are being found in southwestern Iowa. You can look and look and maybe find a few in the northern part of my region (Harrison, Shelby, and Audubon counties).

John Kennicker, Creston: Populations in the soybean aphid survey field in Adair County increased from two aphids per plant on July 9 to 17 aphids per plant on July 16.

Mark Licht, Carroll: Soybean aphids are present but at low populations, generally less than 20 aphids per plant and two to five per plant are not uncommon.

Aaron Saeugling, Winterset: Some aphids have been found in Dallas, Madison, and Warren counties. Central Iowa has some aphid activity but not enough to warrant spraying at this point.

Virgil Schmitt, Muscatine: I have received a very credible report of a few fields with very low numbers in Muscatine and Cedar counties.

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This article originally appeared on pages 228-229 of the IC-498(19) -- July 16, 2007 issue.

Updated 07/19/2007 - 1:25pm