

Soybean Aphid Management in Soybeans



Soybean Aphid Distribution and Biology

- Soybean aphids were confirmed in the United States in 2000. Today it is the most prevalent insect pest in soybeans in the North Central region of the U.S. and the only aphid capable of colonizing soybeans.
- Soybean aphids suck sap from the phloem tissue of soybean leaves and stems, using their needle-like mouthparts.
- Heavy infestations of soybean aphids can cause stunted growth, yellowing leaves, reduced pod and seed set, reduced seed size and reduced seed quality, all of which cause major yield loss if not properly managed.
- Although they appear anywhere from V2 through R6, the peak time for soybean aphids occurs between the R1 and R5 stages. The risk of loss is greatest during the seed and pod development stages.

Insecticide Resistance in Soybean Aphid

Resistance to bifenthrin (Group 3) and lambda-cyhalothrin (Group 3) insecticides has been documented through small-plot research and laboratory tests.

Management of Soybean Aphid in Soybeans

An integrated pest management approach that includes scouting and treatment with foliar insecticides after economic thresholds are met is an effective method to manage aphids and protect yield. Aphid-resistant soybean varieties are a promising tactic for soybean aphid management, but the availability is limited.

Scout regularly.

Visiting the field regularly to scout for soybean aphids will help determine if foliar insecticides are warranted. Throughout the season and at least once per week between R1-R5, inspect at least 20 plants from throughout the field and calculate the average number of aphids per plant. The more plants you scout, the more accurate assessment of aphid infestation.

Apply foliar insecticides only when necessary.

Consider treatment only after the economic threshold has been met. The economic threshold for soybean aphid is 250 aphids per plant, with at least 80% of plants infested and the aphid population is increasing.



Merle Shepard, Gerald R. Camer, and P.A.C. On: Insects and their Natural Enemies Associated with Vegetables and Soybean in Southeast Asia. Bugwood.org

For more information and links to additional resources, visit www.IWillTakeAction.com.

Technical editing for this publication was led by Erin Hodgson, Ph.D., Iowa State University and Robert Koch, Ph.D., University of Minnesota. The United Soybean Board and all Take Action partners neither recommend nor discourage the implementation of any advice contained herein and are not liable for the use or misuse of the information provided. ©2019 United Soybean Board. [58535 4/19]

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