

## **Scout for Soybean Aphids to Protect Yields**

*Spray when 80% of field has 250 pests per plant.*

*Compiled by staff*

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If you're not scouting for soybean aphids, get moving. Untreated soybean aphid populations can cause 40% or more yield loss.

Using research data from commercial soybean fields, University of Minnesota Extension recommends treating when rising aphid populations reach 250 per plant, with 80% or more of the plants in the fields harboring aphids.

"At this point, the crop has not yet lost yield, but it will if populations are left untreated," said Ian MacRae, Extension entomologist and U-M's state coordinator of the Integrated Pest Management program. "Using this threshold has been demonstrated to provide a more sustainable economic return than lower thresholds or prophylactic treatments, such as seed treatments. But it does require knowing the population of aphids within a field."

Scouting soybean aphids, while time consuming, is not difficult. Prior to soybeans flowering, aphids are most likely found on the top growing trifoliate of the plant. After flowering, the aphids will disperse lower onto the plant's stems, lower leaves and even pods. Where aphids feed doesn't seem to impact the amount of damage they cause, this is more a function of how many aphids there are and how long they've been feeding. Aphids suck sap, so the damage they cause is incurred over time.

MacRae advises that, when counting aphids, you include all stages, young and old. "If scouting a lot of fields, you will soon develop a 'search image' of what 250 aphids looks like and treatment decisions become easier," he said. One method of quickly estimating soybean aphid populations is to employ "Speed Scouting." This is a method of estimating aphid numbers using the presence or absence of aphids on a plant. Details on Speed Scouting are available at [www.extension.umn.edu/go/1070](http://www.extension.umn.edu/go/1070).

Other signs that aphids may be present include the presence of lady beetles or lacewings (both of which eat aphids) or ants (which tend aphids for honeydew). The presence of honeydew itself is another sign. Honeydew is the waste product of aphids; because aphids suck sap, their excretia is liquid and contains a lot of sugar. This appears as a sticky, shiny surface on leaves which may become dark as Black Sooty Mold develops on the honeydew. Another sign is the presence of what appears as white fluff; this fluff is the cast skins of growing aphids (which must molt to grow) and indicates aphids have probably been on the plant long enough for a couple of generations.

"Watch for the signs, know where to look, get to know what threshold levels look like, use Speed Scouting if appropriate, and use the thresholds," said MacRae. "Follow those steps to avoid yield loss."

*Source: University of Minnesota Extension*