

AGRONOMY PROFILE

Controlling Soybean Aphid Multiplication

OVERVIEW. Soybean aphids can reduce yields by up to 40% while exposing soybean crops to other potential pest problems. Under the right circumstances, insecticide applications can help growers manage crop losses.

WHAT YOU SHOULD KNOW.

- Soybean aphids have a rapid life cycle. They lay eggs and overwinter on their host, buckthorn. After the eggs hatch in the spring, the aphid will produce 2-3 generations on buckthorn. Then, winged females invade soybean fields in early June.
- Females are fertile without mating, allowing a single aphid to produce up to eight offspring per day for 10-20 days. Soybean aphid populations can double in a field in only 2-3 days if temperatures are between 70°-77°F with low humidity.
- Aphids secrete honeydew, a sticky waste product that causes sooty mold to cover the leaf surface and interfere with photosynthesis.
- Aphids feed on leaves and stems, removing significant amounts of water and nutrients. Symptoms include leaf puckering, stunted growth, reduced pod count or reduced seed size.

ACTION STEPS.

- 1. Routinely scout throughout summer:** Soybean aphids usually attack between late May and late August, typically on the underside of the upper soybean foliage. Sample leaves and stems from at least 20 plants — particularly in fields with previous aphid infestations — to determine whether soybean aphids have reached thresholds. (See table.)
- 2. Correlate infestations with other problems:** Aphid secretions block light and stunt photosynthetic rates, slowing growth and reducing pod counts. Feeding also creates openings in leaves for other plant pathogens.
- 3. Apply insecticides if warranted:** Insecticides offer excellent control, but timing and plant coverage is critical for maximized efficacy. Choose insecticides with a longer residual.

SOYBEAN APHID THRESHOLD

Growth Stage	R1 to R4		R5	R6	R7+
Aphid population per plant	<250	>250	>250	>250	N/A
Treatment recomm	Do not treat	Treat	Treat if pops are rising	Treat battling stresses	Do not treat

30 SECOND SUMMARY

- Soybean aphids reproduce very rapidly. They can reduce yield and leave plants vulnerable to other pests and pathogens.
- Soybean aphids are typically manageable, provided treatment is properly timed.
- Compare your infestation to thresholds to determine if treatment is agronomically necessary.

NOTES:
