

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 to Maturity
	<250	>250	>250	>250	N/A
Aphid population per plant	<250	>250	>250	>250	N/A
Treatment recommendation	Do not treat	Treat	Treat if populations are rising	Treat if 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:

For more information, contact:



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1-888-647-3478