

Tips for Avoiding Breakthrough Spotted-Wing Drosophila Infestations in Blackberry

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Blackberries are already being picked across Arkansas and growers should be spraying weekly for spotted-wing drosophila (SWD). SWD is a major threat each year and the recent rain and cloudy weather is likely gearing us up for a higher risk of infestation. In both 2024 and 2025, an early warm-up followed by periods of cooler and wet weather prior to and at the beginning of harvest season were a recipe for high infestation pressure for many growers. Depending on where you are in the state, you may have gotten rain almost every other day for the last couple of weeks, which is exactly what we see in high infestation years. Any growers late starting their spray schedule for SWD will be more heavily impacted as the year goes on, as these first few sprays are paramount in keeping the population down in fields. See below for recommendations on management throughout the rest of the blackberry picking season.

Spotted-Wing Drosophila

Spotted-wing drosophila (SWD), *Drosophila suzukii*, is a familiar pest to most concerned with berry production in Arkansas at this point, but see [this fact sheet](#) by Donn Johnson for more on the biology of SWD. In 2021 we observed intense SWD infestations and I believe we learned a lot of lessons about control in that year. In every instance, breakthrough infestations occurred where an acceptable spray program of at least every 7 days was in place. What was lacking in most cases was a late start to spraying and the integration of cultural control methods. This led to breakthrough populations that meant infested berries in customers' hands. Although populations were high again in 2023, 2024, and 2025, growers who implemented more cultural control measures saw a marked decrease in worms in their fruit compared to 2021.

Late Spray Schedules Increase Risk of Infestation

The main issue we seem to deal with each year is when to start the SWD spray schedule. We often see many farms apply the first applications after the first harvest, which yields many larvae in berries (Picture 1). Research consistently suggests these first few sprays are the most important, and growers need to use the best products first (bifenthrin, fenpropathrin, zeta-cypermethrin, and malathion). No insecticide 100% suppresses spotted-wing drosophila infestations. This means we want to keep those numbers as low as possible, so 90% suppression only leaves a few successful larvae that we can hope to kill with cold storage, etc.

In 2025 we sprayed a trial where we skipped the first two sprays to increase the pressure (Figure 1). This is a phenomenon we harp on each year, and we wanted to see how hard it would be to get populations back under control if we missed those vital sprays. We also were testing an unlabeled insecticide that the IR4 program is considering for registration, Cormoran (Group 4A + Group 15), which is not legally allowed to be used in blackberry as of 2026. What these data show is that all fruit averaged at least one SWD larvae per berry just one week after the first spray (6/26/2025), showcasing how much infestation can occur when the first two sprays are missed. By 7/3/2025, 14 days after we sprayed for the first time, we were well over two larvae per berry, with the sprays lowering the infestation numbers by a large degree, but not even close to acceptable levels of control. We never reached below one SWD

every other berry, which showcases how behind the eight-ball you can get when employing what should be an effective insecticide schedule, but 1-2 weeks late.

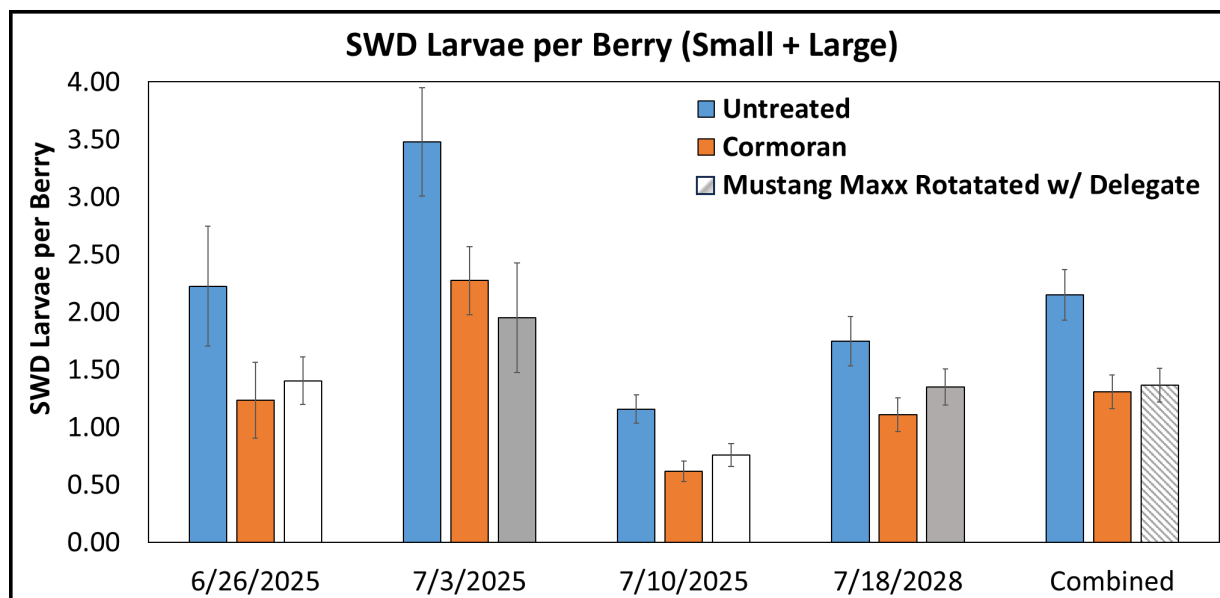


Figure 1. Spotted-wing drosophila insecticide efficacy trial completed in 2025 comparing the number of small and large spotted-wing drosophila (SWD) larvae found in berries from plots: untreated, sprayed with Cormoran weekly (a non-registered pesticide for blackberry) or a standard rotation of Mustang Maxx (gray) and Delegate (white).

Integrated Management is Paramount for Successful Control

Early sprays with highly effective products will keep SWD numbers down, but without integration of cultural tactics, acceptable levels of control will generally not be realized season long. This is especially evident in “bad” SWD years where populations quickly get out of control. Below I will go through some ways to manage the environment on blackberry farms and make it less amenable for SWD.

1. **Prune plants to maximize airflow and light penetration.** Research shows that SWD prefer shaded, humid and cooler environments during the day.
2. **Harvest fruit as soon as they are ripe.** SWD are attracted to ripe or ripening fruit and will lay eggs on blushing fruit when populations are high.
3. **Increase harvest frequency when possible.** This lowers the exposure time of ripe blackberries to SWD adults which will mean less risk of egg-lay.
4. **Do not leave culls on the cane or drop them within the field.** Getting culled fruit out of plantings and disposed of will drastically reduce the number of flies. This is one of the key areas where many Arkansas growers are hurting their management efforts.
5. **Move berries to cold storage as quickly as possible.** Getting berries close to 32°F will slow/stop the development of eggs and larvae, and even kill many. There may be trade-offs with berry quality when you move from hot berries picked in the late afternoon to a cold facility. If problems occur, consider a step-wise manner of cooling down berries but push the envelope as much as possible.

Tips to optimize spray programs:

1. **Make sure your sprayer is calibrated.** If you are applying less insecticide than you think, you should expect a large problem with SWD. Also be sure to frequently check that all nozzles on sprayers are working correctly and within 5% or so flow rate of what is expected.
2. **Don't skimp on spray volume.** A minimum of 50 gallons per acre of spray volume is necessary to fully cover plants and adequately suppress SWD.
3. **Spray an effective insecticide at least every 7 days.** This schedule should begin whenever fruit begins to blush (Picture 2) or when your SWD traps indicate infestations are beginning in plantings.
4. **Make sure your first insecticide sprays are highly effective chemicals** (https://fieldreport.caes.uga.edu/wp-content/uploads/2025/08/AP-121-5_1.pdf). Research shows that keeping populations down early is the key to full-season success.
5. **Rotate effective modes of action (IRAC codes) with each spray.**
6. **Check berries often for larvae.** You can use a saltwater rinse to easily quantify SWD numbers in berries. Increase spray intervals if you are finding large amounts of larvae in samples. See our [fact sheet](#) for more info on monitoring SWD using a salt-water rinse.



Picture 1. Spotted-wing drosophila larvae pictured in a salt-water rinse of harvested blackberry fruit.



Picture 2 – Blackberry fruit beginning to blush (drupelets turning from red to black). This is the point in which a spray schedule should begin for SWD.

In conclusion...

I doubt we will ever implement (or develop) a perfect pest management plan for blackberry, but what we have seen is that implementing cultural tactics, scouting, and hitting important timings will reduce risk. Each year is a reminder that we must continue to optimize management plans as the environment seems to become less amenable. In future years this means more integration of pest prevention and cultural controls, which research shows helps to mitigate the impact of the environmental curve balls we will continue to see.

As always, give me a call at 479-249-7352 if you have any questions.