



Courtesy of Chris DiFonzo, MSU



Nip them in the bud Buds on common buckthorn edged with soybean aphid eggs.

Scouting tips

- Check the whole plant
- Look at several different spots in the field
- Pay special attention to areas with buckthorn, such as shelterbelts (a lot of buckthorn was planted as a windbreak)
- Keep an eye on late-planted fields, double cropped beans, and beans under stress – especially drought stress

Fall migration to buckthorn

In the fall, triggered by cooler temperatures and shorter daylight, aphids begin producing “migrants.” These are special winged females that cause another migration in September and October (depending on how far north they are) as they move back to buckthorn, their only known overwintering host.

Once they’re back on the buckthorn, the migrants have wingless fertile female offspring known as oviparae.

Meanwhile, back on the soybean plant, the same aphid that just produced the winged females will birth a batch of winged males. Males are produced only during this time of year.

These winged males are drawn to the oviparae on the buckthorn, thanks to a special sex pheromone produced in her big hind legs. They’ll mate, and the oviparae will produce eggs into November. The eggs remain on the buckthorn all winter. Unfortunately for the aphids, however, scientists suspect that the multicolored Asian lady beetle hones in on this pheromone, too. Who says Mother Nature doesn’t have a wicked sense of humor?

Where do they go between buckthorn and beans?

“We haven’t a clue where soybean aphids go before the beans are up,” says Dave Voegtlin, entomologist at the Illinois Natural History Survey and “honorary aphid geek” of the NCSRP research team.

“We’ve seen them leave buckthorn a month before beans emerge, and the earliest migrants to leave don’t seem to have a chance of finding soybeans. But in our experiments here, we couldn’t find a winged one left on buckthorn a good week before soybeans emerged.”

Paul Haag, a crop consultant in Deerfield, Wisconsin, has a theory: volunteer soybeans in minimum-till fields with a corn/bean rotation and certain types of corn chemical programs.

“In 2003, I was scouting corn fields and noticed a lot more volunteer soybeans than normal, and they were loaded with aphids. They were absolutely covered, and actually starting to show damage. And that was before I had detected any aphids in my production fields.”

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Small body with dual exhaust pipes Soybean aphids are plump, oval and soft bodied, and usually less than 1/16" long. Those black “tail pipes” on the back end are called cornicles.