

'09 pest threats evaluated

By JOSH FLINT

DESPITE the rough winter, Kevin Steffey, University of Illinois entomologist, says the top yield threats will once again emerge from their slumber.

"Winter weather is overrated," Steffey notes. "It really doesn't affect many of the big insect threats in Illinois." Bean leaf beetles, alfalfa weevils and corn flea beetles are the primary three affected by cold weather. None of these are key pests for corn and soybeans.

Soybean insects

Once again, the soybean aphid is public enemy No. 1 for soybean plants. Since this aphid's 2000 arrival in North America, it's followed a fairly predictable pattern: Outbreaks occurred primarily in odd years. Last year was the exception.

While it caught many farmers off guard, Steffey says it was bound to happen eventually. The soybean aphid is an invasive species from Asia. Outbreaks and lulls follow the presence, or absence, of its natural enemies, including the predatory multicolored Asian lady beetle. "When an invasive species is introduced, there is a cycle that results as it does battle with its natural enemies," Steffey explains.

In 2009, Steffey guesses soybean

Key Points

- Winter weather did little to affect Illinois' key pests.
- Soybean aphid populations may be lower this year.
- Rootworm populations appear to be trending lower.

aphid populations will be smaller for a couple of reasons. First, the Asian lady beetle population grew to enormous levels during the fall of 2008. Many people noticed this as the beetles took up residence in their homes.

Second, Steffey says the numbers of aphids on buckthorn are very low. Buckthorn is the overwinter host for soybean aphids. Entomologists also noticed a fungal organism that suppressed aphid populations on buckthorn. Steffey wagers that this fungal organism has done a good job of keeping soybean aphid populations down.

To protect a soybean crop, Steffey says to start scouting in mid- to late June. The economic threshold is 250 aphids per plant. Once the number gets to 700 aphids per plant, yield loss occurs. "Under the right conditions, it only takes a few days to go from 250 to 700 aphids per plant," Steffey explains.

Second on soybeans' most-wanted list is the Japanese beetle. According

TOP THREATS: U of I entomologist Kevin Steffey says soybean aphids and corn rootworms are still the key threats for Illinois crops.

to Steffey, Japanese beetle outbreaks tend to be localized. He says U of I is still trying to get a good handle on how much yield loss is a result of Japanese beetle feeding.

"The injury looks really bad, but we're not sure how much yield loss they're causing," Steffey notes. A study to determine yield loss is now in its second year at U of I.

Corn insects

Once again, rootworms are at the top of corn's threat list. Steffey expects corn rootworm pressure to be lower this year. However, he expects few farmers will change their rootworm management plans accordingly.

Unlike the soybean aphid, corn rootworms have one generation per year. While the soybean aphid population tends to spike every other year, rootworm populations build more slowly because of their reproductive cycle.

Typically, rootworm populations follow a decade-long cycle. Since 2004, 2005 and 2006 saw large rootworm populations, Steffey thinks the population may have peaked in the middle of this decade.



With the introduction of *Bt* traits for controlling rootworms, most farmers no longer apply a soil insecticide in conjunction with *Bt* corn. However, Steffey has heard reports that some farmers are now planting *Bt* corn and applying a soil insecticide to control rootworms. Some farmers are using the soil insecticide for extra protection against other below-ground pests such as white grubs and wireworms, Steffey adds.

U of I recommends using only one method to control rootworms. However, Steffey says doubling up on protection can pay off if the rootworm infestation is heavy. "The reduction in the amount of rootworm feeding is pretty noticeable," he adds.

A distant second on the corn insect list is the European corn borer. *Bt* traits have controlled borers so well, U of I's fall borer survey came up empty in several counties across the state.

