How important are natural predators for suppressing aphid populations? "Pretty important," says Matt O'Neal, Iowa State University entomologist. Several researchers just completed a study on the impact of predators and whether their impact varies with the landscape. In 22 locations, more than 50 percent of fields were kept below threshold by predators. "In fields where the predators' impact was not as great, the area was surrounded by corn and soybeans. When you have more diverse landscapes, predators can find food and a place to spend the winter, so there are more of them and their impact is greater."

Courtesy of Craig Grau, U of Wis.

An increase in natural parasites

Researchers report seeing more native parasitoids in 2007

Besides the exotic *Binodoxys communis* parasitoid that researchers imported from Asia and released in the Midwest last summer, native parasites also have been popping up in North American soybean fields. "Scientists in several states report seeing more parasitoids in 2007," says Chris DiFonzo, entomologist from Michigan State University.

"It was very striking, even in Michigan. We had this little black parasitoid that I'd never seen before," DiFonzo says. "In Ontario, they were seeing the same thing."

Tracey Baute, entomologist with the Ontario Ministry of Agriculture, Food and Rural Affairs, identified two types of parasitoids in 2007. "We believe the dominant one was *Aphelinus* spp., though taxonomists are still determining which species it is. It wasn't released here, so we're wondering if it came along with soybean aphids from their origin country. Initially we thought it was *Aphelinus albipodus*, which was originally released in the United States to control Russian wheat aphid."

In Minnesota, researchers discovered something else entirely. "They're called *Lysiphlebus testaceipes*, and we first found them at relatively high levels back in 2003," says University of Minnesota Entomologist George Heimpel.

"I thought they'd move into soybean fields, but then we didn't see them again until 2007," he adds. Although there were more of them than in 2003, "Even at higher numbers the total percentage was still very low. In one-third to one-half of fields, we saw 2 percent native parasitism."

Good guys winning in Canada

In Ontario, parasitism levels are significantly higher. "We did a survey in 2007, and preliminary results show between 10-25 percent parasitism rates by the *Aphelinus* spp. alone at several locations across the province," Baute says.

Aphelinus albipodus

Courtesy of Bob Ellingson, U of Wis.

Lysiphlebus testaceipes

Courtesy of JK Clark, U of Cal.

"It's interesting," she adds. "Our cropping system here is very similar to Michigan and Ohio, yet they're not seeing the same levels of parasitoids. We're investigating why."

As for aphid infestations in Ontario, "In 2007, we experienced an outbreak early, in late May/early June, on early emerged beans," Baute says. "We had good weather here and planted early, and we think they may have blown in from the United States.

"We found unifoliate stage soybeans that already had mummies on the plant. The parasitoids reacted immediately to the early aphid infestation. The good guys knew where to go, and I'm referring to