# NCSRP: A SHOT IN THE ARM FOR ADVANCING INSECT MANAGEMENT



### **PICTURE OF HEALTH**

Soybean farmers during the last century faced few insect problems. Pests were isolated challenges, requiring only local management assistance. But as invasive insects arrived and native insects expanded ranges the last 20 years, a new approach was needed to tackle first spider mites and bean leaf beetles and then stink bugs, Japanese beetles, soybean aphid and more.

0



## URGENT CARE SPECIALISTS

Extension and land grant entomologists working with NCSRP today deal with exceedingly complex issues. Public-private partnerships NCSRP has been able to coordinate have paid off in such recent successes as soybean aphid-resistant variety development, managing insecticide resistance and calculating economic thresholds amid multiple moving parts.

# RAPID RESPONSE

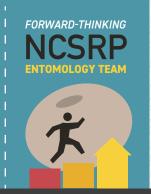
New technology breathes life into insect management. Researchers used innovative technology to sequence the aphid genome, fine-tune problem-solving and devise strategies to delay resistance among aphid populations. Most recently, technology and teamwork provided rapid response when the new, invasive soybean gall midge began to expand and cause yield damage. Teamwork currently helps NCSRP researchers to document pollinator species in soybeans, including the role of

honeybees to augment soybean self-pollination and give yields a boost.

# TECHNOLOGY RAPID TEAMWORK RESPONSE

### **SURGICAL PRECISION**

Future technology will make scouting easier with apps and drones that can identify problem sites. But the real key will be problem-solving where NCSRP-funded researchers already excel. Climate change has expanded the range of pests, so old problems have taken on new relevance. Real-time alerts about pest pressure and dispersal direction and stemming insecticide overapplications are on the horizon with the forward-thinking NCSRP entomology team at work.





# ON 13 NCSRP MEMBER STATES, 355,000 FARMERS



The Soybean Research and Information Network (SRIN) is a joint effort of the North Central Soybean Research Program and United Soybean Board. The online resource contains checkoff-funded soybean production challenge research findings with direct links to the respective underlying scientific studies housed in the National Soybean Checkoff Research Database.

#### **RESCUE SQUAD**

The insect control picture changed in 2000, as the soybean aphid required a crisis management team to address it. The North Central Soybean Research Program (NCSRP) stepped in to help fund and study aphids with entomologists from across the multi-state area. That set the stage for developing economic treatment thresholds, scouting techniques, cultural control strategies and proven integrated pest management (IPM) practices to manage aphid infestations.