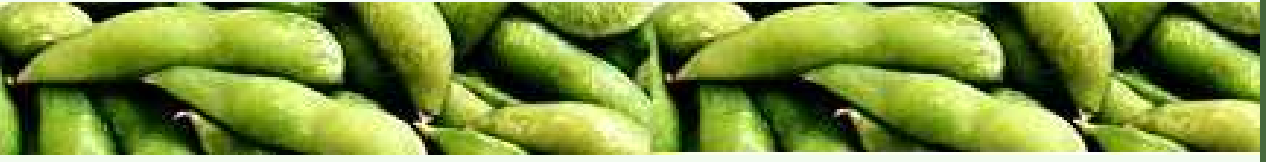


Virginia

Photo Guide of Pests and Beneficial Insects of Corn, Soybean and Wheat in the Mid-Atlantic Region

Grant Amount: $24,116

Project Team:
Ames Herbert, Ph.D.
Sean Malone

Project Leader:
Ames Herbert

Lead Institution:
Virginia Polytechnic Institute and State University

Source of Funding:
2004 IPM Enhancement Grant: Special Projects

"It makes you feel good that we are helping people correctly identify some of their crop pests."
—Ames Herbert

Characterized by a small, mottled head with two dark stripes and pronounced orange or brown stripes edged with white along its sides, the true armyworm can quickly shred a leaf into a thin veil of veins. In the field with no reference, it can be mistaken for a corn earworm or a fall armyworm. But the frequency of its mistaken identity has already decreased—its clear photograph and distinction from its "lookalikes" are on page 30 in a new pocket-sized guide distributed by Virginia Polytechnic Institute and State University. Discovering that many mid-Atlantic growers lost crops due to misidentifying species and applying the wrong insecticide, entomologists Ames Herbert and Sean Malone with Virginia Tech decided to create a resource that would help growers identify what pests were devouring their crops.

Contacting extension specialists and researchers at the University of Delaware and the University of Maryland, Drs. Herbert and Malone began brainstorming the specifications for a pocket-sized, colorful insect guide that would follow farmers into the field. Gathering ideas from growers, commodity boards, pest control industries and other stakeholders and collecting lists of insect pests from Delaware and Maryland specialists to complement Virginia's list, Herbert and Malone developed a template for a new, regional mid-Atlantic guide to pests and beneficial insects. After they drew up some page designs, they sent them to their communication office to design the final template.

The results amazed them. "When the boilerplate came back, Sean and I were floored by the high quality of the images," said Herbert. "It's probably one of the neatest projects we've ever done."

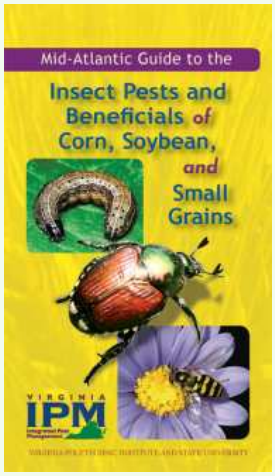
Dr. Malone gathered the content for the guide. Compiling all of the images proved to be quite challenging, he discovered. After consulting every pest guide he could get his hands on, he contacted various photographers for photos and copyrights.

"The challenge in this was finding high resolution images that were true color," said Herbert. "A lot of photo guides you see out there are off-color, or they're nationally-based, so they miss some of the insects we have."

Herbert and Malone worked together on the text, which also proved challenging, since the text had to be clear and concise with critical information for ensuring accurate identification of the insects.

The pocket notebook-size guide displays each insect in full-color and divides them by preferred crop. Toward the end of the guide is a key to distinguishing similar-looking insects by body parts and markings. Printed and distributed by Virginia Cooperative Extension, the guide proved to be hugely popular; of the 10,000 copies that Virginia kept to distribute, only 2,500 remain (Maryland and Delaware received 2,000 each). In fact, the guide landed Office of Communications and Marketing a Bronze Award for Technical Publication from the Association for Communications Excellence (ACE).

They have also received positive comments from the evaluation cards that they included in each copy of the printed guide. Returned survey cards indicate that on a scale of 1=not useful to 5=very useful, the insect identification guide was useful (4.7, *n*=178), improved the user's ability to identify an insect (4.6, *n*=177), and helped the user in making a better pest management decision (4.4, *n*=170). Herbert and Malone said that the education and exposure that these IPM projects provided should increase farmer adoption of IPM practices in the coastal plains region of Virginia. In response to the helpfulness of the guide, one farmer wrote, "I quickly identified a true armyworm and took action with the help of my extension agent."



Herbert and Malone are pleased with the feedback. "It makes you feel good that we are helping people correctly identify some of their crop pests," Herbert said. "With the worms, for instance, it makes a big deal what you use to spray."

And growers don't have to remember what an insect or worm looked like while they run back to the house to look it up on the Internet. "A lot of farmers don't use Web-based information too often," said Herbert. "I made a case for making something that they could carry in their pickup trucks or in their pocket. They're just not going to spend the day in the field and then go home and try to look up that pest that they saw that afternoon."

And with the *Mid-Atlantic Guide to Pests and Beneficial Insects*, they don't have to.