

**Agronomic Crops
IPM**

Team Update
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Agronomic Crops IPM
[Our crops & priorities]

- Cotton
- Alfalfa and Small Grains– priority targets based on needs assessment
 - Weeds & insects in alfalfa
 - Weeds in small grains (esp. wheat)
- Other crops as suggested/requested
 - Corn
 - Sorghum
 - Bermudagrass
 - Sudangrass
- Other pests as needed
 - Nematodes
 - Pathogens

Our cotton IPM program has made a lot of progress: we have high adoption, but we need more demos and cooperative research to further expand our reach, keep current on new chemicals and varieties, and continue with natural enemies research. A 2009-2010 needs assessment found that alfalfa and small grains need more attention. Growers want more information on weed and insect control in both these crops. As far as other crops, a grower asked about corn and “maize” yesterday, and Mike Ottman mentioned a need for pest management guidelines in sorghum.


My Role

- Respond to the Agronomic Crops Leadership Team & IPM Coordinating Committee

Mike Ottman	Peter Ellsworth
Al Fournier	Ayman Mostafa
Bill McCloskey	Randy Norton
- Work with stakeholders
- Expand and enhance agronomic IPM programs **statewide**
- Right now, working on a funded project

I am working under the supervision of the Agronomic Crops Leadership team, but I also respond to the 20 member IPM coordinating committee. I will be working statewide with extension and research faculty to develop, expand, and implement extension programs for IPM on a statewide basis. My position is focused on working with stakeholders. I will be evaluating stakeholders’ needs and the outcomes of IPM programs; informing program planning; organizing meetings, demonstrations, and other educational events; and assisting Agronomic IPM faculty with research projects. I’m currently working on a funded project for USDA-APHIS.

CAPS program




- Cooperative Agricultural Pest Survey
- USDA-APHIS-PPQ-CPHST
- Designed to identify exotic pests entering the US & prevent their establishment
- Now providing reference materials and survey guidelines

My first project is with the Cooperative Agricultural Pest Survey (CAPS). It’s a national USDA program to survey for and identify exotic pests when they first enter the US. It is a second line of defense after border inspections. People receive funding to survey for exotic, potentially invasive pests on a state-by-state basis. The goal of the CAPS program is to detect and intercept exotic pests early, before they become established. We have received funding to create cotton reference materials to support surveyors.

Reference Document

- Description of Pest
- Biology and Ecology
- Symptoms and Signs
- Host list
- Distribution
- Risk assessment
- Basic survey methods



The reference document is composed of a series of pest data sheets and mini pest risk assessments. It is highly graphic and contains enough information that surveyors will be able to confirm whether a pest has been detected. It also contains the potential distribution and risk the pest poses to the US based on host availability and climate. The pests are suggested by the CAPS national committee from the CAPS analytic hierarchy process. We refined the pest list in collaboration with nationwide experts. Just last week, we added another pest, cotton leaf curl, as suggested by Dr. Judy Brown. A second document provides guidelines on how to survey for the pests.

Pest List

- Summerfruit tortrix
- Silver Y moth
- Cucurbit beetle
- Old world bollworm
- Citrus brown mite
- Asian cornborer
- Cotton seed bug
- Passionvine mealybug
- Egyptian cottonworm
- False codling moth
- Ramie Blight
- Cotton Leaf Curl
- More??

This is the pest list for the national cotton manual. The CAPS program covers all types of pests except weeds, but our list is all arthropods except two pathogens— Ramie Blight (a *Phytophthora*) and Cotton Leaf Curl. If you know of other pests that should be added, please let me know.

Current Activities

- Finish Cotton Commodity-based Reference
- Written two RFAs
 - ADA reduced risk program (funded, \$16,304)
 - Cotton Foundation (pending, \$8,115)
- Presented at three grower meetings
 - Poston, Marana, Casa Grande
- Participating in WRIPM grant
 - Peter Ellsworth, Steve Naranjo (USDA), Al Fournier

Most of my time now is spent writing the cotton reference, but I have written two funding proposals and presented at three grower meetings.

Anticipated Activities

- Fully engage the IPM Coordinating Committee & Agronomic Crops Leadership Team
- Updating guidelines
 - Lygus management in cotton
 - Alfalfa insect management
- Grower Demos/Cooperative Research
 - 6 cotton insect & natural enemies
 - 3 cotton nematode management
- Meetings and Events
 - Regular workshops and field days
 - Reduced risk management workshops (software)
- Measuring impacts

The Agronomic Crops Leadership Team is meeting next week. I've had only a little contact so far, and I look forward to talking further about where I can be useful. What follows are examples of the activities I already know about – based on needs assessment and input from the group (Peter, Al, Bill, Randy, Mike, and Ayman). I will be updating Lygus Management guidelines with Peter and Steve Naranjo that take into account natural enemies and new chemicals. Along with the 2009-2010 needs assessment, Mike Ottman suggested that we update alfalfa management guidelines– focusing on weeds and insects. I'm fairly sure Bill has input for a project like that. I will hold field demonstrations