

Agronomic Crops IPM Leadership Team
5-17-11

I. Lunch / Summary of IPM Related projects (Team members)

Bill McCloskey

- Currently has a Specialty Crop Block Grant (SCBG) doing 3 demonstrations for pre-emergent herbicides in tree crops.
- Study at MAC (field 2) examining Glytol / Liberty Link cotton to develop recommendations for use of glyphosate and Ignite.
- Working with Randy in Safford doing Pima cotton variety trials with Round-up Ready Flex technology.
- There is a need to revise old weed Extension publications and to write something new for Glytol and Ignite.

Mike Ottman

- Conducting annual alfalfa variety trial in Tucson, some varieties have pest resistance. [Note: Mike is not sure but will find out which of the varieties are Round-Up Ready.]
- Completed 2 years of alfalfa irrigation termination trials. He found (just observing) that there was an impact on potato leafhopper and Egyptian alfalfa weevil. Also, there was an impact on weed control. He plans to write this up for publication soon.
- A publication on weed and insect control in sorghum is in need of revision.
- Conducting a study on corn (Bt and non-Bt) to determine the impact of an ethylene analog on drought tolerance.

Ayman Mostafa

- Has an interest in sampling activities, identification of natural enemies and the development of an ID guide for field use, weed identification, soil sampling, the use of multimedia in extension and outreach. He is collaborating with Sam Wang on a project that examines the impact of double cropping on plant stress. He has spoken to Larry Antilla of the Arizona Cotton Research and Protection Council about improving understanding of the impact of pesticides on honey bee populations. It was suggested he have a follow up conversation with Steve Castle of USDA-ALARC on this topic. Steve had a post-doc (currently unemployed) who addressed the topic of insecticide effects on honeybee and colony collapse disorder.

Randy Norton

- He has four years of data on prescriptive applications to control nematodes based on soil type. He will summarize this in a poster he is presenting at Agronomy Society of America annual meeting this fall. He plans to develop an Extension publication on the findings.
- Conducting trials on Votivo seed treatment from Bayer CropScience at 4 locations but got poor germination of treated seed.
- Collaborating with Mary Olsen on a project that looks at at-planting treatments of Quadris for preventative rhizoctonia control.

- Collaborating with Sam Wang on a study of 4 different cover crops, with and without Quadris.
- Collaborating with Mary Olsen studying sclerotinia control with and without cover crops.

Peter Ellsworth

Cotton

- Conducting non-target effects of Lygus control chemicals, Transform (sulfoxaflor) and Belay (Clothianidin) in contrast to negative (Carbine) and positive (Orthene) controls.
- Pilot field trial (MAC) and grower data collection sites (Pinal Co.) examining impact of natural enemy abundance and/or function on whitefly thresholds and decision-making.
- Demos for Lygus and/or whitefly management (1 at MAC; at least 5 others with area growers) to include examination of products, rates, timing, and termination decisions.
- Small plot chemical efficacy screening of experimental, new and existing chemistries for control of whiteflies and Lygus in cotton.
- Plans to develop whitefly management bulletin with Palumbo
- Plans to develop new Lygus management bulletin with Lydia
- Plans to develop Natural Enemy bulletin with Naranjo, Lydia, Ayman and potentially Garrett
- Complete CAPS project with Lydia and Lucy Li
- Publishing paper on spatial impacts of source/sink crop relations to Lygus presence in cotton with Carriere, Goodell, et al.
- Plans to complete and deploy Lygus simulation software in grower workshops this summer in cooperation with local Agents. This event requires a great deal of set-up. So RSVPs will be necessary. [Develop ADA grant to help support completion of the software and its deployment in workshops.]
- Complete Cotton Pest Management Strategic Plan
- Developing analyses of large Natural Enemy datasets to identify cropping patterns associated with colonization of key predators with Carriere and Naranjo

Corn

- Work with Mike Ottman and Lydia to survey and identify corn pests in MAC project and look at yield effects of Bt corn.

Alfalfa

- Engage growers this summer on needs for arthropod pest management, mainly through one-on-one discussions with PCAs and Agents.
- Consider re-purposing PCA training manual, alfalfa insects chapter into short bulletins on management and chemical control. Discuss with Ayman and Lydia.

Lesquerella

- Publishing paper on Lygus impacts on lesquerella production with Naranjo and Dierig.

1080s, Insecticides

- Work with Wayne and Al to continue to improve 1080 database, esp. for cotton insecticides. Develop proposal to support work to convert data for use in OSU PRiME (Pesticide Risk Mitigation Engine) with Paul Jepson (OSU).

II. USDA-APHIS, Cooperative Agricultural Pest Survey (CAPS) project Update (Lydia)

Lydia is working with Lucy Li now to develop datasheets for the Cotton CAPS document. With Lucy's help, the datasheets will be completed in the next month, and they will start work on a

Survey guideline document. The CAPS project is a contract that Peter secured to pay for 50% of Lydia's time and will be completed by July 30, 2011.

III. Ag IPM Team function and process (Peter)

Review of Arizona Pest Management Center (APMC) Organization. Peter is IPM Coordinator; AI is IPM Program Manager; The IPM Coordinating Committee (IPM-CC) is the steering committee for the APMC. We have hired four Assistants in Extension to enhance our delivery of IPM statewide. The deployment of additional personnel was the strategy developed by the IPM-CC to increase the effectiveness and reach of our IPM programs. Each of these positions is aggressively leveraged through other resources. Each person is funded no more than 50% from EIPM. For example, Lydia is currently funded through a USDA CAPS grant and an ADA Reduced Risk Pest Management Grant.

IPM Leadership Teams have been established for each of the APMC focal areas (Agronomic Crops IPM, Vegetable Crops IPM, Community IPM and IPM Assessment). Each team has a new Assistant in Extension (AiE), directed by a few faculty members along with Peter and AI, who make up what we are calling the "Leadership Teams". The purpose of the Leadership Team is to direct the activities of the Asst. in Extension. It also increases communication and cooperation among the faculty members involved.

For the Community IPM Team, their first team goal is to develop a school IPM "inside and out" program. The leadership team faculty members interact with the other related working groups (e.g., Turf working group, Horticulture working group) and represent their interests.

The Vegetable IPM Team is doing good work in Yuma.

There is an IPM Assessment Leadership team, which has not met yet.

For the Agronomic IPM Team, we should be representing the interests of other working groups, for example the Ag / ICM Working Group. Lydia is a shared resource for this group. If someone uses her time in a more dedicated way, there is an expectation that there should be grant funds attached to the activities. We do need to continue to come up with at least 50% of funding to support her position. Each AiE and leadership team also has a small travel and operations budget. **Team members: contact Lydia or AI if you need to submit expenses for travel of operations related to the Team.**

Budget. We are now starting Y2 of a 3 year EIPM grant (August). The EIPM Year 2 budget need is \$248,234; Annual E-IPM budget is \$175,000. There is a difference of \$73,222. We are requesting at least \$55,000 from CALS, which would also come along with ERE if we applied those moneys to salaries. We do not know their response yet. If CALS does not commit the \$55k, we will cut back on travel and operations in the EIPM budget to make up the difference and may have to consider other cuts and/or attempt to secure more extramural funding.

Personnel Resources. Theresa Smith works for AI Fournier and is available to anyone for web-related content related to IPM. She manages the APMC and the ACIS websites. Wayne Dixon, our AiE for IPM Assessment works for AI on the 1080 database and has web skills, but his primary skill is in application development. In the short term he is pretty tied up with 1080 database work, but he is available to discuss potential future projects. **Team members: Let AI**

know if you have web needs related to ACIS or the APMC site, or contact Wayne Dixon if you want to discuss potential future projects.

Lydia's time. While Lydia's time is "free" to team members once the CAPS project is completed (late July), there may be times in the future when dedicated funds are needed to continue support for her position. Team members should look for grant opportunities that she might contribute to. In the short term, any activities she works on with team members will be good training for her. She can work on anything that is pest management related. It will be important for this group to meet face to face and have conference calls to touch base, in part to help schedule Lydia's time and activities. Ultimately it will be up to Lydia to manage her own time efficiently. Lydia, like all AiEs, is a statewide resource; her activities are not limited to MAC. **Lydia will set up a Google calendar for the team to use.**

Draft Logic Model. (Handout). We reviewed a draft logic model that Lydia developed for the Team's activities. The logic model is fairly broad and general. **Team members: Let Lydia know if you have any comments or additions.**

IV. Review of Agronomic Crops IPM Needs Assessment

In 2009-10 we did an agronomic crops IPM needs assessment as part of our EIPM grant. Al and Lydia reviewed the data with the team. Alfalfa and Wheat were the top crops and weed and insect management issues were identified (see handouts). Al and Lydia are available to help with further needs assessment. The team discussed expanding the survey to include cotton and running it to collect additional data. **Al and Lydia were tasked with "translating" the existing survey into an online survey using Survey Monkey.**

V. Review of EIPM Objectives for Agronomic Crops IPM (handout)

Al provided a handout of the revised scope of work for the Agronomic IPM portion of the EIPM grant. A list of committed deliverables is summarized here.

- Documentation of Cotton/Agronomic IPM Team meetings and stakeholder identified priorities on the APMC website⁸;
- At least 5 county meetings annually; **[Will be completed by end of July; Lydia, Peter, and Bill have all contributed to at least 3 county meetings already this year.]**
- At least 1 demonstration field-days of commercial scale grower participatory research in agronomic crops annually; **[May be a site in Buckeye with Peter and Randy this summer detailing nematode control and cotton insect management, or other similar venues in demos yet to be set-up]**
- One annual cotton and field crops field day at Maricopa Agricultural Center; **[We have conducted this in October and September in the last two years; we should be thinking about set-up for another with Ayman and Shawna's help; trailer tour, etc.]**
- At least 2 presentations related to agronomic crops pest management and one stakeholder engagement (CROP) meeting at Desert Ag Conference annually; **[Completed by Peter, Pete Goodell (UC-IPM), and Paul Jepson (OSU); sponsored by APMC]**
- The team will develop and publish at least 1 new extension publication on priority agronomic IPM topics annually and will review and revise existing publications on an as-

needed basis. [Plans for cotton whitefly management publication and Lygus management publication, as well as Natural enemies of field crop pests bulletin.]

- All new and revised publications and relevant presentations, data and pesticide updates will be posted on ACIS. [On-going]
- An “IPM Impacts” report for agronomic crops will be developed using IPM assessment tools and posted to the APMC website. [As a result of completed needs assessment or as augmented by a Survey Monkey tool that Lydia and AI will develop and Agents will help deploy through email lists.]

VI. Other Issues

Use of 1080 data to identify Lygus Control practices in Cotton for 2010

Peter presented 1080 data worked up by Wayne Dixon on products used for Lygus control in cotton in 2010. Carbine (flonicamid) is the most used insecticide targeting Lygus. Based on 1080 data, we see extremely good adoption of Carbine as suggested by our guidelines. In addition, Belay (clothianidin) is in good use and is a suggested rotational alternative to Carbine. But some active ingredients that are ostensibly used to control Lygus are not recommended, and others are broad spectrum and should be avoided if possible. Wayne pulled out data to identify a list of PCAs that wrote 1080s for non-selective products for Lygus control. This is an excellent tool for identifying PCAs and/or growers who could be targeted for cooperative research/on-farm demos. Peter and Lydia will be contacting these people for potential Lygus control trials and demonstrations.

A Checklist of Potential Demos was circulated by Lydia for the group to identify their needs. Peter and Lydia will develop a follow-up item for this exercise.

IPM Advisories. The team took a look at the Vegetable IPM Advisories that the Veg IPM Team is doing. The agents are faced with developing their own outputs and advisories to the growers. Team members discussed developing some kind of regular advisories on IPM for agronomic crops. Maybe we could do something monthly that would look ahead to the next month: this is what to be looking for. Peter: one month may be too long of an interval. Weather advisories for cotton are coming out weekly from Paul Brown. Mike contributes something on small grains biweekly. This discussion was never clearly concluded, but Lydia thinks we should consider bi-weekly contributions. Lydia will be contacting people for information to start this process.

Extension Meeting Dates

- June 15 confirmed in Coolidge. Shawna. 8:30 am – 12:00 pm. A variety trail “tent talk”. Might ask Jeff Silvertooth to present.
- June 21 confirmed in Yuma. Kurt. 10 am – 3 pm at Yuma Ag Center
- June 22 confirmed in Poston. Draft agenda includes Paul, Ed, Hector Duran, Bill and John Palumbo. Note: John P was not aware he was on the agenda and is not available this week.
- June 23 confirmed on Ak-Chin Shawna. 8:30 am – 12:00 pm.

- June 24 confirmed in Goodyear. Ayman. Morning meeting. Paul, Sam, Bill and Pedro confirmed as speakers. Need more speakers.
- July 11 confirmed in Marana. Shawna. Field meeting, 8:30 am – 12:00 pm. Randy will speak on Defoliants.
- July 13 confirmed in Thatcher on Layton Farms. Randy. 9am – 11:30am.
- July 14 confirmed at Curry Farms in Cochise County. Randy. 9am – 11:30am.

AI will post all confirmed meeting dates on ACIS by Monday, May 23. Agents need to follow-up as soon as possible to finalize speaker commitments and agendas. Please send AI (even draft) agendas for posting on ACIS. Once posted, AI will send an email to the ACIS list to help advertise the meetings.

Randy will have a variety trial on Raynor's farm in Goodyear and a field in Buckeye with mite / nematode trials, late planted. Might do a field day in early August with Peter potentially covering insect management in a nearby cotton demo if one can be set-up. Randy will coordinate with Ayman.

Meeting Adjourned. Lydia sent out a Doodle for the next Ag IPM Team meeting. Potential dates are June 27-30, July 1, and July 5-8.

Action Items

- Team members: contact Lydia or AI if you need to submit expenses for travel of operations related to the Team.
- Lydia will set up a Google calendar for the team to use.
- AI will post all confirmed meeting dates on ACIS. Agents need to follow-up as soon as possible to finalize speaker commitments and agendas. Please send AI (even draft) agendas for posting on ACIS. Once posted, AI will send an email to the ACIS list to help advertise the meetings.
- Team members: Let Lydia know if you have any comments or additions for the Logic Model.
- AI and Lydia will “translate” the existing needs assessment survey into an online survey using Survey Monkey.
- Lydia will be contacting the Ag IPM Leadership Team for information to start producing bi-weekly agronomic IPM newsletters. If you have input, please contact Lydia.
- Peter and Lydia will be contacting PCAs for potential Lygus control trials and demonstrations using 1080 data to target those PCAs using broad-spectrum chemicals to control Lygus.
- Peter and Lydia will develop a follow-up item for the demonstration survey we passed around.
- Mike Ottman will find out which varieties in his alfalfa variety trials are Round-Up Ready and send this information to the rest of the group.