

ICM Workgroup

3/30/16

Present: Mike Ottman, Ayman Mostafa, Lydia Brown, Randy Norton, Josh Sherman, Al Fournier, Duarte Diaz, Pedro Andrade, Bill McCloskey, Kurt Nolte, Paul Brown, Peter Ellsworth, Naomi Pier

Introductions

Josh – Starting a study of salinity tolerance of pecan root stocks. Will plant at SAC this fall. Many new plantings in SE AZ. Also looking at nickel in pecans through a Specialty Crop Block Grant. He's working in Graham and Santa Cruz Counties, currently. He will work with Paul Brown to develop some crop phenology for pecans. There is a new CE nut work group: Randy, Bill, Josh, Shirley Papuga (spelling?), Paul Brown, Ursula, Jim Walworth. Also working on grapes. Working with Ursula to put in a irrigation

Duarte – Getting to know dairy producers; he's met about 40% of them, mainly the larger ones. Started Spanish language training module with a few growers. Has formed a stakeholder task force of dairy producers which meets quarterly. The level of knowledge on forage production is fairly low. He has had very little interaction with forage growers, outside of the dairymen that grow their own. He thinks there is too much green chop (alfalfa) being fed to cattle. There were some dairymen at Ayman's recent forage meeting; he thinks that this was the case because the meeting focused specifically on forages. Also, it helps to bring in outside speakers. He estimates about 45 dairy owners in the state. He is trying to put together an alfalfa grant for alfalfa and forage research program, USDA, due April 13. He is interested in doing on-site work with dairies to monitor pH, temperature, etc. Doing research on bird deterrent systems. Wants to do a "silage school", but end users have concerns about high turnover rate. Duarte is looking for data on AF36 use. He wants to develop standard application procedures. There is much research that still needs to be done. Peter suggests that he interact with Leighton Leisner at Arizona Cotton Research and Protection Council.

Ayman – Now we have a good connection with the forage growers, which he hopes to cultivate over time. For some time this group may have felt their needs were not being met by CE. But they are responding to targeted meetings. They do need more information on forage production.

Bill – This year, he expects to have 2,4-D cotton, looking at dicamba and glufosinate. Glufosinate systems in cotton. Long term weed control project in pecans and pistachios. Herbicide tolerance work in Eloy, Marana and Cochise County. Some work on buffleggrass and guayule.

Pedro – Works in precision agriculture, variable rate, site specific management. He has been working with software and hardware to improve operations. A grower asked him if he has a paper that proves that the software works. This was a profound question for him. He wants to

develop this component of his program. He is looking for projects with growers that reinforce the precision ag aspect of what he does. Bill is working with a pecan grower who now has the equipment to do precision applications. It would be good to bring Pedro in, because they are currently not using them. Randy has been compiling data for years that show the value of precision ag and needs to write this up. He would like to collaborate with Pedro on this. Josh mentioned some opportunities in pecans.

Ayman – Has some projects in alfalfa, developing thresholds for aphids, with collaborators in CA. Trying to establish practical thresholds that growers will adopt. Submitting a new project to AFRP program. Conducting trials for Topguard fungicide in alfalfa, for the second year. It provides good suppression of disease. This year continuing with grower trials. Some nutrition work on alfalfa. Lygus movement project in cotton. Variety trials with Randy. Work on guayule.

Lydia – Finishing up most of the field trial part of her WIPMC Stink bug management trial. Analyzing pesticide use data. Testing for aflatoxin but needs help to interpret the data. A second lab is testing it now. She wants to work with Duarte on this. She has another trial from last year, looking at a novel transgenic. She will be moving to New York this year. She is trying to put together a list of the most important IPM Shorts she could complete before she leaves her Assistant in Extension position.

Randy – Continuing cotton variety testing; 16 different locations across the state. 8 are university trials that Ayman is also working on. National Cotton Council predicts that cotton acres will increase this year, should make it easier to find sites. Will be doing agronomic evaluations of transgenic versus non-transgenic cotton for the lygus trait. Cotton fertility work. Continuing work with Topguard in cotton, testing different application techniques and timing, using data to do precision applications. Project with Bayer: concerns about potential effect of dicamba cotton on their seed crops. Greenhouse and field planted seed. Bill would like to see them incorporate 2,4-D into the study. Dow now has established a master service agreement with the university. It may make collaboration with them easier. Randy anticipates that diacamba varieties will do better in AZ than the 2,4-D varieties currently available. Grain corn hybrid testing.

Paul Brown (by phone) – Administrative update. Legislative budget process – Extension funding left intact by the senate. There has been some money put back into the vet school. Budget is now going to the House, where vet school is less popular. They do not expect a cut, but no increase either. Jeff is considering requesting an increase in Extension line item next year (for FY 2018). There is discussion about system-wide pay raise of 2% - unsubstantiated. Hiring status, Andrew Brischke (spelling?), for Mohave County. He has limited responsibility for crops. Mainly working on range and livestock. Barry and Kurt will cover any major ag issue in Mohave. Field Cropping Systems agent, central AZ, have a small pool of candidates but are trying to broaden the pool. Rick G, Paco Ollerton, Greg Wertz, Kyrene White, Mike Ottman and Steve Husman are on the committee. Extension Specialist Plant Pathologist, Ursula is Chair. They have 13 candidates. They expect interviews by late April. Extension Specialist in Cropping Systems Agronomist – that position was released yesterday for development of job description

and posting. There is no committee yet. ICM Team should discuss how to position that position and advise Karen S. Is Irrigation Specialist position still valid? It is still in the hiring plan, but has not been funded. If irrigation needs are met by Cropping Systems position, it may not go forward. But CE is open to input from the ICM group. Natural Resources Law and Policy Center is looking for a Director. Joint venture between CALS and the law school. To provide legal assistance to entities that deal with public resource issues. This position might have a big impact on water issues. Extension has partial funding for this position for 2 or 3 years. Once the director is hired, the Center will get going. Several commodity groups are involved in the background. In Service training: Ayman suggested water training for Ag Agents. CE will develop a system-wide water training. Ayman is on the committee which meets next week. Today, let Ayman know any conflicts in August. There will no Extension conference this year. CE is supportive of more In-Service training and can provide funding. Other ideas include a forage in service, genetically modified organisms, urban IPM, etc. Or if you have meetings and want to bring in outside speakers, let Paul know and CE will help to fund travel, etc. Travel restrictions policy that went out was misunderstood. It does not restrict travel to professional development meeting. It is to prevent us doing extensive trainings with states or countries that do not have reciprocal programs that do not provide benefits to Arizona. At this point there is 50 – 60% chance of a water shortage in 2018. Yuma Center for Excellence status? There has been discussion related to evaluating how well it is meeting its goals. Kurt: has a sense that there needs to be a bit more impact from that group. Paul to group: Keep working with Paul Brierley through your programs to improve the productivity of YCE.

AI – We have had an increased focus, especially since the start of this year on 1080 data quality issues. We've implemented new quality control procedures and are working with ADA partners and stakeholders to improve 1080 data quality through outreach. I will be setting up training meetings directly with distributor companies and also would like opportunities to present at Extension meetings.

Peter – Tim Vandervoet, finishing PhD, working up draft guidelines on biological control and influence on whitefly management. Lydia's work on stink bugs is continuing. Tim and Lydia will be presenting at meetings and have articles coming out in Western Farm Press. Naomi Pier worked on project to develop Chemical Use Maps for whitefly management. Will do meetings in late June (preferred) and July to roll out the maps this year. Not sure if he will continue transgenic cotton study this year. Will continue to work with Ayman on Lygus movement study.

Naomi – Sampled 41 fields statewide last year for whiteflies, including some in Parker Blythe area. Ran bioassays with Steve Castle and Nilima Prabhaker. Needs to sample independent sites. To conduct analysis, we require that pesticide use data are turned into ADA or otherwise provide us with the records. ADA has an interest in customizing the 1080 reporting form. One possible work around is if the distributors submit data electronically directly to the state. Naomi needs help to identify collection sites in cotton. Most sampling will be in July. Randy: no variety test will be done on CRIT this year, nor anywhere in Parker Valley.

Mike – large plot small grain studies at MAC. 10 different forage varieties being cut for green chop: wheat, triticale, barley and oats. Peter is interested in triticale because it can have heavy stink bug populations when it heads out. Will look at water stress and impact on growth. Water intake has implications for nutrient management.

Kurt –Traveling the state talking to growers about food safety. Working with national collaborators on implementing food safety programs in greenhouses for melons and in processing facilities. Looking at the benefits of selling bagged salads in display cases, which better maintain salad temperature. Working on organic fertilizers in produce. The demand for organic continues to increase. There is pressure to grow lettuce in Yuma earlier – trying to start at the beginning of August with transplants. There is a possibility that transplants could allow an earlier planting window that would allow October harvest. If it works, it will have dramatic economic impact. Working on drones with vegetable growers, looking at stand establishment. Can detect plants the size of a dime at 50 feet and count them. They have shown that size after thinning correlates to head size at harvest. Trying to predict yield well ahead of harvest. Using drones to pollinate dates (250 acres / day) and comparing with traditional hand pollination (40 acres / day). Conducting workshops for first responders that use drones to capture 3 dimensional images of an accident or disaster. Topic for workshops: set realistic expectations for growers on what drones can do and what it takes to use them. Working with local community college to potentially develop a flight school.

Cropping Systems Specialist position

The group had a short discussion about the proposed position and it seemed comments were consistent with the recommendations forwarded to Cooperative Extension Administration following our meeting in May 2014. Following the meeting, Peter provided the following summary. Please feel free to comment:

RE: our discussion about the open hire for a “Cropping Systems Specialist”, I would like to amplify and perhaps clarify what I think the search image should be and what should be communicated to Karen on this.

This person will be confronted with the looming threat of CAP disruptions to price or supply of water in 2030. This will have revolutionary impact in central Arizona if a political or other solution does not intercede before, during or after that transition. However, knowing how those processes work or don't work, there will be tremendous pressure on CALS and this position in particular to develop agricultural systems / plant production systems that can remain productive and profitable with a diminished supply or significantly increased cost of water. So fundamentally this person must be very adept at studying and developing multiple plant production systems. That comfort level does not typically come from experience and expertise in just one system. The person will need to be agile and effective at looking at and evaluating alternative plant production systems. All of this above constitutes one important trait. They must be a trained agronomist.

The second critical attribute will be their thorough understanding of the soil water plant continuum and plant-water relations for plant productivity in particular. They will be comfortable with irrigation delivery systems but especially familiar with, if not expert in, measurement of plant water relations, plant water stress, and crop water use.

Meeting Planning

Duarte: will organize a Google calendar for meeting dates.

Ayman – New Technology Workshop: June 8, at MAC. Possible topics: Kurt on drones. Duarte / Leighton Leisner on use of bio-competitive products for aflatoxin, how to use the technology, etc., possibly with presentations from cotton or corn grower. Mike: soil moisture probes (working with Jason Rovey). Inferred sensors to determine irrigation schedule (Paul Brown). Bill: 2,4-D and dicamba: effects on cotton and other plant development; impact of drift. Pedro: variable rate – present a case study with less focus on the software; Randy could work with Pedro. (One suggestion was to do this as a hands-on dedicated session with the people who really want to implement it – growers and field operators.) There was some discussion about considering breakouts for some specialized topics. Dan Reynolds, MS State.

Tent talks – late June, early July. Cotton and other field crops based on local needs.

Fall – Central AZ farmer field day at MAC.

January – field crop clinics.

March - Forage workshop.

Duarte - Meeting for sorghum growers? Maybe in combination with silage corn. Possible May meeting. He knows some potential speakers from Texas. Bill knows some in Kansas. presented an online tool from Michigan that may have local applications.

Randy – July 20 Tent Talk in Safford. Insect pests, late season pest management.

Oct 5 – Variety Trial field day

Sept – grain corn field day

Feb 8 – Farm Home Day

Kurt – Aug 24 Veg meeting last week in August

Aug 10 agronomic meeting (note potential conflict for CE in-service event). Kurt will work with Barry to determine if a meeting is needed in his area.

November 2 - Field event at YAC – potential presentation for Naomi, whitefly resistance

Late Nov, early Dec – Veg meeting

Peter – Late June (preferred) to early July. Chemical use maps.

Josh – Pecan conference –August 26

(Bill will be out of state June 27 to July 8. SW Noxious weed July 19 – 21 in Farmington, NM)

Next ICM meeting: following Ayman's new Technology workshop, June 8 – just to schedule the next set of dates.