

Whitefly P-IRM Project

April 8, 2015

1400-1545

USDA Conference Room

Meeting called by: Peter Ellsworth

Type of Meeting: Preliminary discussion of project

Note taker: Naomi Pier

Attendees: Steve Castle

Nilima Prabhaker

Minutes

1. Introductions

Naomi Pier is new graduate student starting in the fall on this project! She will assist all phases of the project and is currently working with the pesticide use and mapping data. She will assist all aspects of whitefly collection and assaying this summer with Nilima and Steve. Notes at: <http://cals.arizona.edu/apmc/proresistancemgt.html>

2. Review of Project Timeline and Background Information

2-1 Objective 1: Make Maps

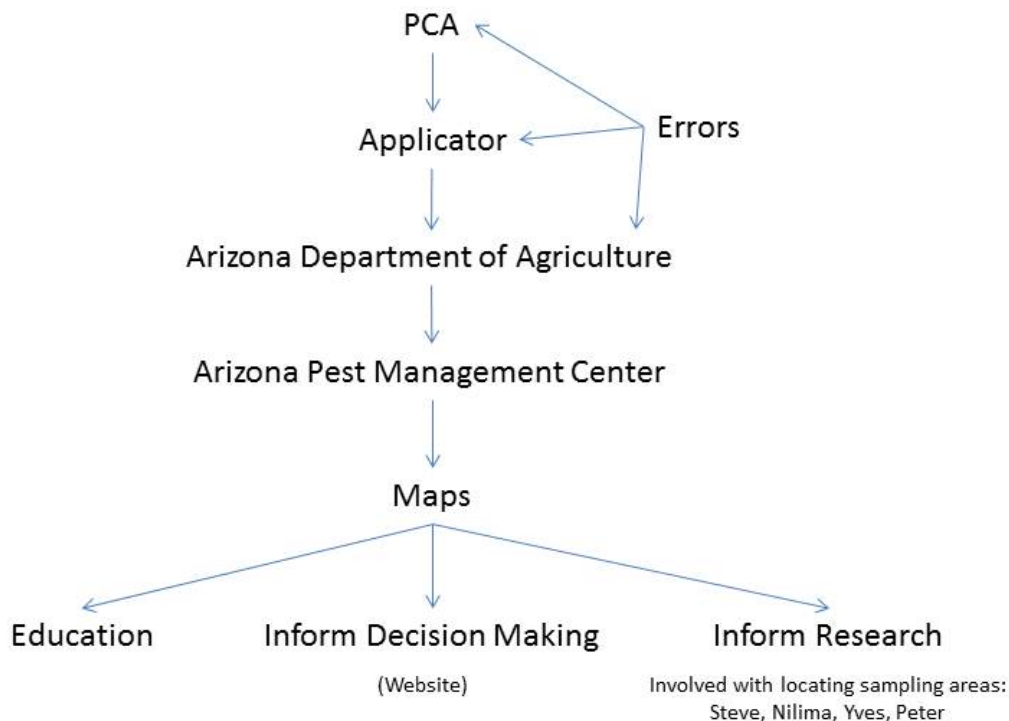
- Vet the data (Naomi, Wayne, Al, and Julianne)
- Overall goal is to have 2013 data be a baseline
 - Look at changes between 2013 and 2014 v. 2014 and 2015 +/- 2016
- Focus on in 2014 data for immediate deployment of maps this summer
 - Insecticides
 - WF important pesticides
- Plan on producing maps by eco-region
 - Yuma – 3 (or 4) maps (Yuma Valley, Dome, balance of county)
 - Yuma Valley
 - Dome
 - Balance of County
 - or, 95 to S Ave 25E, and
 - balance of county
 - La Paz – 1 (or 2) map
 - North Valley down to Poston
 - South Valley
 - Pima – 1 map: Marana/Avra Valleys
 - Maricopa – 3 (or 4) maps
 - Gila Bend – Cotton Center
 - Harquahala to Agua Fria
 - Agua Fria to Ahwhatukee
 - Salt River Indian Reservation to balance of County
 - Pinal – 3 (or 4) maps
 - Maricopa / Gila River
 - Casa Grande / Coolidge
 - Florence / San Tan Valley
 - Balance of County
 - Each map will be represented by 6 different chemistry maps

2-2 Timeline Goals (page 10 of project narrative)

- May 1: draft maps to evaluate for clarity (see if it all makes sense) (Palumbo & Ellsworth)
 - Initiate discussions with Steve & Nilima about potential collection locations
 - Discuss no. of sites and other statistical needs with Yves
- June 1: “Final” corrected maps (Wayne, Al, Naomi, Julianne)
 - Finalize selected locations for sampling in discussions with Steve, Nilima, Yves, John, and Peter

2-3 Background Information

- Approximately 30,000 1080's per year (slightly less in 2014)
- Positive response rate to project from PCA's & growers, intent of individuals to participate is high
- Organizational overview:
 - Wayne, Al, Naomi, Julianne working on “Errors”
 - John & Peter will help validate data & maps
 - Lydia, Peter & John will develop Educational materials supporting project including piece to explain overall project (IRM), piece to explain map interpretation, others?
 - Maps posted at new website, behind password available to licensed PCAs.
 - John, Peter, Lydia, Naomi deploy workshops in late June to support teaching of concepts and use of maps in decision making.
 - Al designs evaluation component for workshops & website
 - Yves, Nilima, Steve, Peter identify sampling sites for Ho testing



3. Proposed Pesticides (minimum of 6 classes / MoAs for maps)

3-1 Pesticides (page 3 of project narrative)

- Synergized Pyrethroids (priority; previous resistances detected)
 - Danitol (fenpropathrin)
 - Orthene (acephate)
 - Optional others to be determined at Steve & Nilima's discretion
- Pyriproxyfen (priority; previous resistances detected)
 - Knack
- Buprofezin
 - Courier
- Spiromesifen/Spirotetramat
 - Oberon
 - Movento
- Cyantraniliprole
 - Not used much, use as a baseline
 - Rynaxpyr – most likely test?
 - Flubendiamide – used, but not likely active on whiteflies
- Neonicotinoids (priority; previous resistances detected)
 - Imidacloprid (probable target for assay, hydroponic)
 - Dinotefuran
 - Acetamiprid (probable target for assay, topical)

4. Project Logistics

4-1 Personnel

- Possibly need a person dedicated to project in Yuma
 - Need to see if John has someone there he can invest
- Candidate people for summer
 - May to October 2015 and 2016 field work

4-2 Location

- 2015 – Arizona only
- 2016 – Arizona and California (Blythe and Imperial)

4-3 Upcoming Tasks

- Steve/Peter begin making connections with California Ag Commissioner
- Peter needs to have a discussion with Yves in the next 30 days
 - Numbers and populations (not mentioned in proposal)
 - Determine criteria for:
 - Electing zones
 - How many sampling points are needed and how far apart points need to be to avoid autocorrelation and other issues
 - Representing insecticide use on maps and for spatial analyses
- Practice bioassays for Naomi with Nilima and Steve
- By May 1st Naomi/Julianne/Wayne need to finish verifying and correcting data
- Within the next two months continue having similar (sub)meetings

4-4 Upcoming Tasks

- Project website will be maintained with these and other minutes and other useful information. Team members should bookmark and visit it regularly.
- Naomi will be webmaster; contact her with any needs you have.

<http://cals.arizona.edu/apmc/proresistancemgt.html>

5. Miscellaneous

5-1 Other Related Research Interests/Questions

- Do environmental conditions influence resistance?
- What are the whitefly genetics over multiple fields and within fields?

5-2 Board Image

