


*Q-Biotype Whitefly Work Session, Dallas, TX*

## Cotton Management Group Report

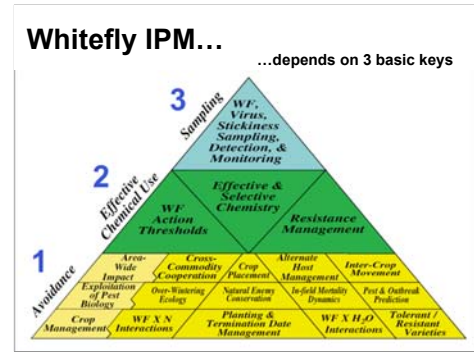
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September 21, 2005

Ellsworth/UA

This report is the result of a cotton management group that met and discussed needs for improvement.



The “Cotton Group” decided that the best way to approach our charge was to build from the existing whitefly IPM plan previously presented by PCE. We believe that all the elements that operate here on B-biotype will likely contribute to efficient management of Q-biotype or others.



Back by popular demand, here is a video from 1992 showing my UTC plots being defoliated due to severe stress by whiteflies (B-biotype). Note: Danitol+Orthene in the background.

- ### Cotton Management Plan
- Vigilance
  - Education
  - Updating of Cotton IRM
  - Partition chemistry with produce & melon industries
  - Harmonization of chemical use plans with protected agriculture
- Ellsworth/UA

Our group identified a number of needs to a successful and improved cotton management plan that might cope with the threat of Q-biotype.

## Avoidance



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As a reminder, however, anything we do to improve this management plan will help avoid scenes like this from 1992.

41

## Vigilance



- Continue survey / detection work
- Continue resistance monitoring
- Continue performance monitoring (pyriproxyfen)
- Continue R&D of B/Q management components

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We see the need for continued and increased vigilance. This includes continuing any survey and detection work that might help identify areas of threat in the outdoor landscape.

We also see the need to continue resistance monitoring, as well as the pyriproxyfen performance monitoring project occurring in AZ, as a means to identify and deal with any changes in our ability to control whiteflies with available chemistry.

At the same time, we need to continue investment in research and development of B/Q management components that can be deployed in the short term (e.g., better document the impact, effects, and efficacy of Oberon use in cotton on wf dynamics, NE conservation, and control).

42

## Education



- Seek industry support for "mandatory" educational campaign in 2006
  - Motivated user community (?)
- Highlight potential risks to quality cotton production
  - Sticky cotton
  - Performance-degrading resistances in B-biotype
  - Q-biotype

Ellsworth/UA

Under Education, we have suggested the bold move that we somehow make mandatory or at least create a compelling atmosphere for a new educational campaign in 2006. We think we might have a motivated user community in AZ due to some difficulties (and expense) in controlling B-biotype this year. Threats of sticky cotton, more difficult to control B-biotype, and the occurrence of Q-biotype are all motivating factors.

43

## Updating Cotton IRM

- Resolve partition for spiromesifen (Oberon)
  - Placement in Stage I or II depending on selectivity outcome
- Resolve cotton limits to Oberon usage
- Re-affirm voluntary limits and staging of use for acetamiprid (Intruder)



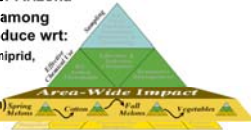
Ellsworth/UA

Immediate attention will be needed to resolve resistance management guidelines for Oberon. At the same time, we need to re-enforce RM guidelines for Intruder, a key neonicotinoid. We consider this step 1 in a 3-step process: Revising cotton RM guidelines, resolving bilateral RM discussions between cotton and veg/melons, and finally harmonizing chemical usage, where possible, with protected ag.

44

## Partition Chemistry (Produce / Melons / Cotton)

- Initiate / continue dialog between producer groups
- Initiate dialog between Cerex Agri (Assail in produce) and DuPont (Intruder in cotton) for Arizona
- Identify interactions among cotton / melons / produce wrt:
  - Neonictinoids: acetamiprid, dinotefuran (Venom), clothianidin (future)
  - Spiromesifen (Oberon)



9/6/14

## Euonymus



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We need to continue our bilateral discussions between cotton and vegs/melons. In addition, we need to get Cerex Agri and DuPont on the same page wrt acetamiprid, which has new registrations in AZ.

In addition we need to activate our process with stakeholders to discuss the impact of dinotefuran and clothianidin, as well as spiromesifen on our management systems.

We're all in this soup together, and hope this motivates some positive interactions among these industries/commodities.

45

46

## Harmonize Chemical Use Plans w/ Protected Ag...

Active Ingredient	Formulation	Cotton	Veggies	Protected
Clothianidin	Celero			XXX
Imidacloprid	Admire / Provado		XX	XXXX
Spiromesifen	Oberon	XX	XX	X
Thiacloprid	Calypso			
Potassium bicarb.	Milstop			X
Acetamiprid	Intruder / Assail	XX	XX	X
Fonicamid	Carbine / Aria	+	XX	
Novaluron	Diamond / Rimon			XX
Buprofezin	Courier	XX	X	X
Abamectin	Agri-mek		X	XX
Pymetrozine	Fulfill		X	XX
Thiamethoxam	Platinum		?	XX
Dinotefuron	Venom / Safari		X	XX
Pyriproxyfen	Knack	XX		X

\*for Lygus control

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Our final goal would be to harmonize our chemical use plan among all the affected parties. Some compounds are more key than others for each market segment. We should try to exploit this for the benefit of each sector and for the long-term sustainability of chemistry for wf and other pest control.

Active Ingredient	Agriculture	Ornamentals	MOA	Cotton	Veggies	Protected
Abamectin	Agri-mek	Avid	6		X	XX
Acephate	Orthene	Orthene	1	X*	X	X
Acetamiprid	Intruder / Assail	Tristar	4	XX	XX	X
Azadirachtin	Azatin XL	Azatin XL	26			X
Beauveria bassiana	BotaniGard	BotaniGard	N/A			X
Bifenthrin	Capture	Falstar	3		X	X
Buprofezin	Courier	Falstar	18	XX	X	X
Clothianidin	Pancho / Clutch	Celero	4			XXX
Cyfluthrin	Baythroid	Decathalon	3		X	X
Dinotefuron	Venom / Safari	Safari	4		X	XX
Endosulfan	Thionex	Thiodan	2	X	X	X
Fenpropathrin	Danitol	Tame (+acephate)	3	X	X	X
Fonicamid	Carbine / Aria	Aria	9C	+	XX	
Hort. Oil		Ultra-Fine Oil	N/A			X
Imidacloprid	Admire / Provado	Marathon	4		XX	XXXX
Imidacloprid-cyfluth.	Leverage	Discus	3+4	X	X	X
Insecticidal soap		SA-Peds, etc.	N/A			X
Nicotine		Nicotine fumigator	4			X
Novaluron	Diamond / Rimon	Pedestal	15			XX
Potassium bicarb.		Milstop / Armitcarb	N/A			X
Pymetrozine	Fulfill	Endeavor	9Bx4		X	XX
Pyridaben		Sanmite	21			X
Pyriproxyfen	Knack	Distance	7C	XX		X
Spiromesifen	Oberon	Jude	23	XX	XX	X
Thiacloprid	Calypso	N/A	4		?	XX
Thiamethoxam	Platinum	Flagship	4		?	XX

\*for Lygus control

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Further discussion and interaction led to this expanded table. This has not been reviewed by all in attendance. It serves mainly as an inventory of chemistries currently exploited for whitefly control.

47

48