ARIZONA PINK BOLLWORM ERADICATION 2014 PROGRAM UPDATE

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Abstract

In 2014, Arizona transitioned into year one of the four year Confirmation of Eradication phase of the Pink Bollworm eradication program. The concept of Confirmation of Eradication is outlined in the Pink Bollworm minimum standards document as adopted by the National Cotton Council's Pink Bollworm Action Committee. The recommendation to enter this new phase of program is based on results from 2013 when no native moth captures or signs of larval reproduction surfaced across the entire International Pink Bollworm Eradication Program area.

Introduction

The following updates the progress of the 2014 Pink Bollworm eradication effort in Arizona. Background information including methods and materials can be found in previous Beltwide proceedings; information provided here will be generalized and focused on current program results.

Results

Arizona cotton acreage for 2014 totaled 167,874, conventional cotton comprised 18,025 (10.7%) of the total acreage. Yuma County (Area III) conducted year seven of eradication activities. La Paz and Mohave counties (Area II) completed year eight eradication activities. Central and eastern Arizona (Area I) completed a ninth year of eradication activities (Figure 1). In the three zones, 2,654 traps were checked weekly.

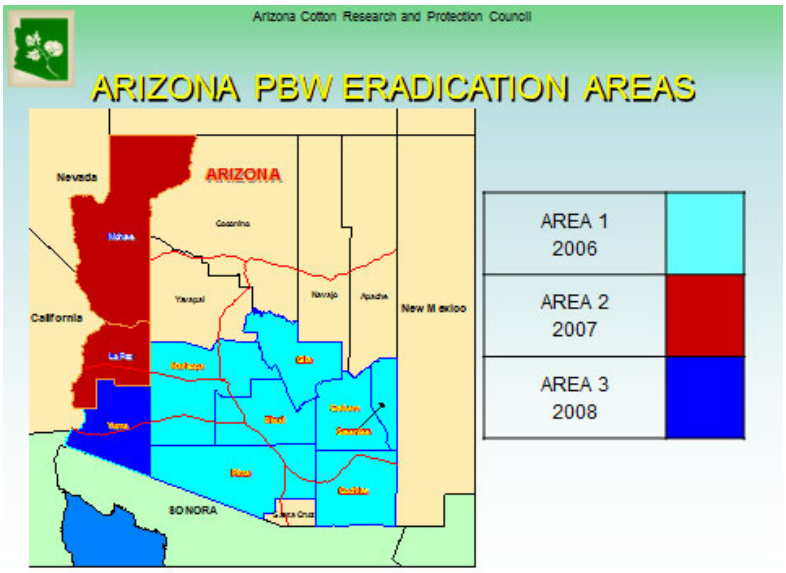

Figure 1. Arizona program areas.

In 2014 no pheromone or insecticide treatments we made for control of Pink Bollworm, limited sterile releases were conducted around the Pink Bollworm rearing facility on a precautionary basis.

In Central and Eastern Arizona (Area I), no native moths were captured in 2014 (figure 2), and no immature Pink Bollworm life forms were detected in targeted boll sampling or boll incubation mirroring results in the previous 5 years.

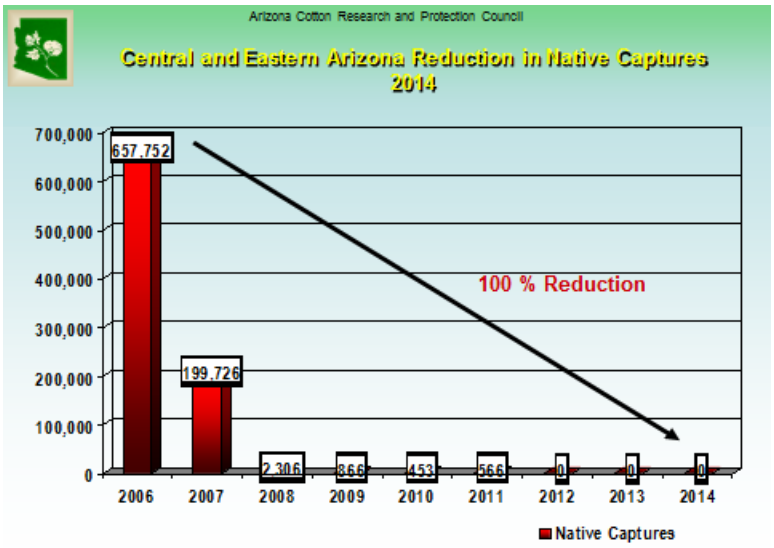

Figure 2. Area 1 native moth captures

In the river counties of La Paz and Mohave (Area II), Three years have passed without a native moth capture (figure 3), and no immature Pink Bollworm life forms in targeted or incubated boll samples as in the previous six years.

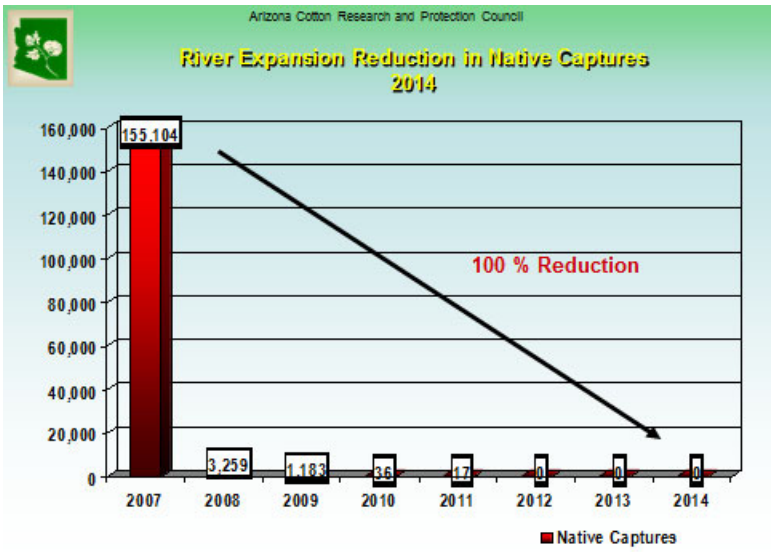

Figure 3. Area II native moth captures

In Yuma (Area III), for the second consecutive year zero native moths were captured in 2014 (figure 4). Targeted and incubated boll samples provided no indication of any Immature Pink Bollworm life forms in Area III for the fifth year.

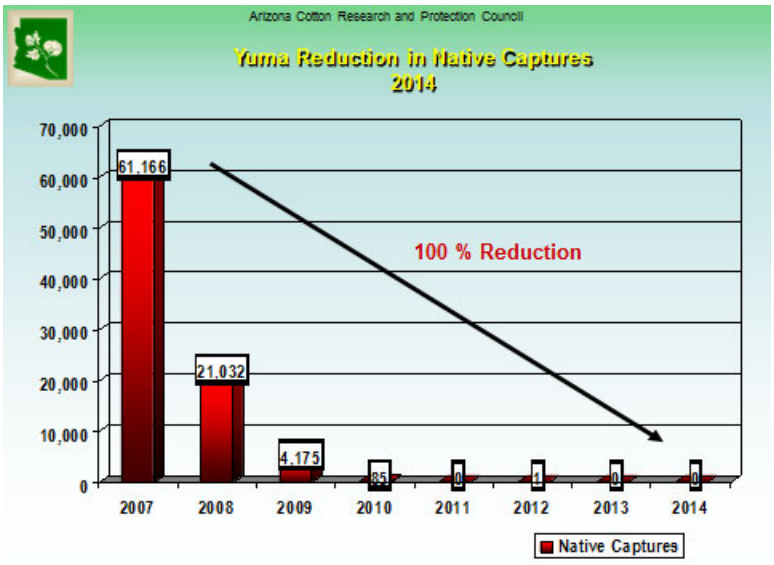

Figure 4. Area III native moth captures

For the fourth consecutive year desert line trapping yielded no captures of native moths (figure 5).

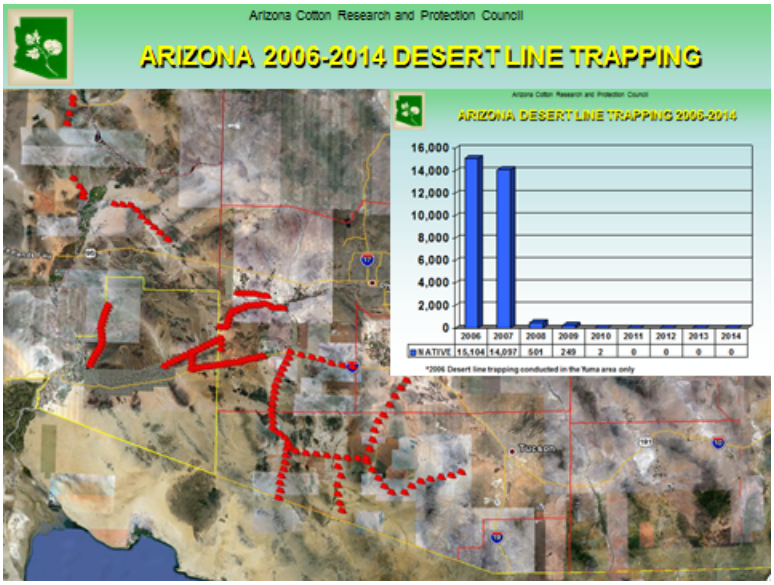

Figure 5. Arizona desert line trapping

Conclusions

In addition to trapping, maximum use of Bt cotton and continued support provided by the Pink Bollworm rearing facility, Arizona has taken action to strengthen its cultural control program. Crop destruction rules are a critical tool in protecting gains made in Pink Bollworm eradication and the prevention of increases in traditional pests and diseases. Annual non-compliance with crop destruction rules had been in the 3% range in recent years. Following the adoption of updated rules compliance increased to 100% for the 2013-2014 crop destruction program.

As we move forward in the confirmation of eradication phase of the program a major challenge will be to maintain support for the capability to produce sterile moths to respond to any reintroductions of Pink Bollworm. As previously noted this capability is vital to maintaining 24C special local need registrations for the 100% use of Bt technologies in conjunction with Pink Bollworm eradication.

As we move forward into 2015 and beyond it is vital that all the expertise and tools which made the current level of program success possible are supported and maintained.