

Welcome and Introductions – Joel Floyd, APHIS, PPQ

Welcome to the International *Cactoblastis cactorum* Conference. I hope everyone had safe and smooth travels to get to this beautiful place. We are grateful to the Desert Botanical Garden for making this facility available as co-sponsors and hosts of the conference. We wanted to have this conference in the desert Southwest in order to raise awareness in one of the areas under threat from *Cactoblastis*, and I think this is the perfect venue. This is not the first international conference on this subject however, as there was a Cactus Moth Regional Forum held in Mexico City in the summer of 2004, sponsored by SAGARPA and the IAEA.

It's been called "the worm that turned", to quote a proverb used as the title of a Natural History Magazine article by Peter Stiling. *Cactoblastis cactorum*, the South American cactus moth, represents the good, the bad, and the ugly, or at least the potential for ugly. The good, as a biological control agent when it saved millions of acres of land in Australia after being introduced in the 1920's to control weedy prickly pear cacti that are not native there. The bad, when it was introduced to this hemisphere, to Hawaii and the Caribbean island of Nevis in the 1950's, and later when it was detected in 1989 in Florida. It's affects on native prickly pear cacti are ugly, but the real potential for ugliness is what can occur if introduced to the American Southwest, to this environment you see around you, and of course to Mexico.

This conference will highlight the results of cooperation between US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), the Agriculture Research Service (ARS), and Mexico's plant protection organization SAGARPA (Secretaría de Agricultura, Ganadería, Desarrollo-Rural, Pesca y Alimentación), which is the counterpart to the USDA-APHIS. This cooperative program started after somewhat of a delay when an alarm was sounded by scientists and the conservation community after *Cactoblastis* entered Florida. It took a while for the message to sink in, that a beneficial insect in one part of the world that didn't threaten a significant agricultural commodity in the US, need to be taken seriously as a pest threat. In the scheme of all the new invasives arriving in Florida via the Caribbean, *Cactoblastis* was not recognized by most as a pest that required urgency. But then it appeared to be moving rapidly along the Florida coasts.

A team of ARS and APHIS scientists in Florida and Georgia, with no funding, had *Cactoblastis* literally in their backyards, recognized the threat and began to experiment with it and watch its spread along the Gulf and Atlantic Coasts. In a short time, they developed basic biological information, brought in other collaborators in ARS to begin developing a pheromone, began to track the spread with traps, and worked on mass rearing and sterilization trials in the laboratory. In 2005, Convinced that the research team's proposed methods of control might have a chance at stopping *Cactoblastis*, APHIS' initially put \$ 0.5 million funding of research and survey. The next year, SAGARPA, through the North American Plant Protection Organization (NAPPO) matched APHIS funding and we are now in our second year of this cooperation. We are pleased to have presenters from SAGARPA, and other Mexican organizations, and NAPPO .

We don't really have time for individual introductions, but at this conference, we want to recognize the cooperation with have with the Arizona Department of Agriculture and the Florida Department of Agriculture and Consumer Services. We also have good representation in there program as the result of a three year partnership with the US Geological Survey through Mississippi State University. You will notice in the list of participants in your packet that we have other universities in the United States and Mexico represented here as well.

Besides these organizations and Mexico, we have additional international expertise presented with scientists from Australia, Austria, Canada, and South Africa. Several land management agencies are represented including the National Park Service, US Fish & Wild Life Service, Bureau of Land Management, and State Parks of Texas. We are pleased to have two representatives of the Tohono O'odham Nation from Southern Arizona, the second largest Indian reservation in the United States, where *Opuntia* is an important resource. There are several non-governmental organizations including the Nature Conservancy a long time partner and advocate on this issue, the Arizona Native Plant Society, the Arizona Sonora Desert Museum, and the Cactus and Succulent Society of America. The only United States *Opuntia* fruit industry, from Salinas, California, is represented by one of our presenters as well.

I would like to thank the folks who helped me organize and put the conference on, including Raul Puente-Martinez, *Opuntia* taxonomist and Desert Botanical Garden curator of the living collections, who has been my contact here at the Garden along with events manager, Emily Koeckhoven. I want to thank our own events coordinator, Catherine Brown who has been a huge help in getting all this whole program going, and thanks also to Dawn Ragione in APHIS headquarters for help with some of the visual materials. Thanks to Jerry Levitt, the PPQ State Plant Health Director for Arizona, who made available his equipment and staff, Marie Davis and Lupe Kraucunas to help with registration and other aspects of the meeting preparations, and Rob Quartarone with the computer set-up. Also, thanks to APHIS - CPHST entomologist Michelle Walters, who will be taking notes for the conference. I want to thank Ken and Stephanie Bloem, who will help moderate some the sessions, and also helped with the agenda. Stephanie translated the conference materials for me, for which I am very grateful. I like to think of Ken and Stephanie as the “Cactus Bloems”. They are part of the original research team along with ARS scientists Stephen Hight and Jim Carpenter, who have also provided valuable input into the program, along with Hector Sanchez and Arturo Bello of SAGARPA.

So besides highlighting the results of our cooperation with SAGARPA, we want to bring everyone up to speed on the history of *Cactoblastis*, the latest research findings, and what is happening with current infestations in the United States and Mexico. We also hope to have some good discussions about further partnerships and next steps in our efforts to deal with the threat of *Cactoblastis cactorum*.