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The Newsletter about Integrated Pest Management for the El Paso Valley

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Announcements

- **Turn row meeting on alfalfa and pepper in Dell City**, Hudspeth County, on July 14, from 9:00 AM to noon. Presenters: Calvin Trostle, Texas AgriLife Extension Agronomist, Salvador Vitanza, and Cathy Klein. For more information contact: Cathy Klein, (CMKlein@ag.tamu.edu) P.O. Box 278, Sierra Blanca, TX 79851. Phone: 915-369-2291.
- **Training on alfalfa and cotton in Van Horn**, at the Culverson County Courthouse, on July 14, at 4:00 PM. Presenters: Calvin Trostle, Salvador Vitanza, and Elaine Koch. For more information contact: Elaine Koch, (JEKoch@ag.tamu.edu) P.O. Box 625, Culberson County Courthouse, 300 La Caverna TX 79851. Phone: 432-283-8440.
- **Western Pecan Production Short Course, in Las Cruces**, NM. September 8-10. Cost $240 per person (it includes lectures, course materials, refreshments, 3 lunches, and field trip transportation). You need to register by August 6. Hotel Encanto de Las Cruces (on I-25 take the Lohman exit), 705 S. Telshor Blvd, Las Cruces, NM. For more information: http://pecans.nmsu.edu or contact Peggy Salopek at 575-646-2875 (psalopek@nmsu.edu).
- **Texas Master Volunteer Entomology Specialist**. September 27 to October 1. Classes will be held at the AgriLife Office in San Antonio, TX. Topics will include Ento 101, IPM, beneficial insects, spiders, urban pests, insect photography, veggie pests, invasive species, landscape and ornamental pests. Hosted by Extension Program Specialist Molly Keck. Cost $300 (it includes collecting kit, lectures, extension bulletins, 3 lunches, 1 dinner, snacks and drinks). Only 30 participant spots are available. Registration is on a first come/first serve basis. Deadline for payment and forms: July 30. For more information contact Wizzie Brown (ebrown@ag.tamu.edu), 512-854-9600 or visit: http://agrilifeweb.tamu.edu/insectspecialist/2010-training-in-san-antonio/mves-flier-2010a/

GENERAL SITUATION:
The recent rains over the weekend are a welcome change to mostly dry and hot weeks. That is, with the exception of some areas in northeast and west El Paso, which, unfortunately, have been affected by floods. These strong rain showers have helped reduce the population of aphids in pecan orchards (along with their honeydew) and other insect pests. However, the added moisture and higher relative humidity levels may create favorable conditions for Southwestern cotton rust and/or Alternaria leaf spot in cotton fields. We need to be on the lookout for plant disease incidence. The weather forecast for the next three days calls for drier weather. Population levels of beneficial insects have been exceptionally high this season. Beneficial insect abundance and weather forecasts should be factored into your pest management decisions. For most pecan orchards, this is an “off year”, but some farms have trees with very good nut loads despite of having obtained high yields last year.

MANAGING SOIL SALINITY BY ADDING POLYMERS:
Dr. Girisha Ganjegunte, Assistant Professor of Water Resources and Salinity Management at the El Paso AgriLife Research and Extension Center, is currently working on salt management in pecan orchards. The results of this research project should be extremely interesting to all pecan growers in our region. The following is a summary of preliminary research results that Dr. Ganjegunte submitted to our newsletter:
In arid Far West Texas, long-term irrigation with water containing elevated salt concentration has led to serious salinity and sodicity problems resulting in reduced crop yields, poor soil condition and declining farm profitability. Reclamation of salt affected irrigated land in the Far West Texas is difficult, especially on land that has fine texture high shrink-swell soils with low permeability. Sub-soiling is the current practice to manage salinity, but it is an expensive proposition ($2500/ha). There is an urgent need to explore efficient and economical alternative ways to reduce soil salinity and improve soil permeability. Although past studies have indicated synthetic polymers were successful in decreasing surface runoff, furrow soil erosion and improving infiltration rates, their efficacy in decreasing soil salinity and improving hydraulic conductivity, especially in high shrink-swell fine texture soils, is

largely unknown. This project evaluates use of synthetic organic polymers to reduce soil salinity and improve permeability within the effective root-zone in an El Paso Pecan Orchard. Preliminary results have indicated that application of polymer at the rate of 10 ppm with first irrigation resulted in reduced salinity in the effective root zone (0-45 cm) of pecans. In addition, application of synthetic organic polymers in irrigation water resulted in increased pecan nut yield by 34% (compared to control, no polymer) and potential improvement in irrigation efficiency. At an estimated unshelled nut price of $1.4/lb, this increase in yield can translate into increases in gross revenue of $656/acre. Improvements in infiltration rates and hydraulic conductivities have also been observed in polymer applied plots. This project will continue for one more year and future research will evaluate how long the positive effects of polymers will last.

PECAN:

Trap capture of second generation **pecan nut casebearer (PNC)** moths has peaked already. The first moths were captured on June 22 (as predicted on previous newsletter) and the largest trap catches occurred on July 6 and 7 near Clint. Some recent insecticide applications in our region have been made based on moth trap data. However, AgriLife guidelines for PNC management recommend that the best approach is to base your control decisions on PNC egg levels, rather than moths, and apply insecticides only when action threshold is reached (2 eggs per 310 nut clusters). This is the right time to be monitoring for PNC eggs. Very few eggs were present on pecan nuts as early as last Thursday. I would recommend using your own trap and weather data in the AgriLife PNC forecast system website http://pncforecast.tamu.edu/ to predict optimal dates to scout for PNC eggs and then decide whether or not insecticide applications are needed.

Aphids: The relative abundance of the three aphid species that usually occur in our area has shifted from a month ago. Back then, yellow aphids predominated; followed by black-margined aphids. Black aphids were the least abundant species. Now, black-margined aphids are the most commonly aphid species found in pecan by far. Before the recent rains, there were spots where aphids reached, or surpassed, threshold levels and “goma” or honeydew was everywhere. Both aphids and honeydew have decreased as a result of the rain. Of course, the degree of aphid population decline was dependent on the amount and intensity of precipitation at your location .

COTTON:

Most fields have reached first bloom stage. At this point, 80-90% of potential yield is on the plant already. Now, our main job becomes protecting the crop from insect pests, diseases, and weeds and avoiding plant stress by timely irrigation. Monitor the crop for excessive growth and apply growth regulators if needed. Cotton fleahopper is no longer a problem because the key squares, to harvest a good crop, are large and no longer susceptible to its feeding damage. Instead, it has become a beneficial predator of small insects. You should still monitor Lygus bugs population levels because it is capable of hurting large squares. In a couple more weeks, Lygus bugs will no longer threaten cotton yields. If sustained rainy weather ensues (we are at the start of typical monsoon season), you need to inspect cotton plants for symptoms of Southwestern cotton rust and Alternaria leaf spot. These diseases are not always present early enough in the season or at levels that cause severe defoliation and therefore justify treatment, but just in case, we need to be proactive by timely scouting for signs or symptoms.

Bollworms: This is the insect pest to watch right now, especially in pima cotton. Bollworm eggs and small (1/16”) larvae have reached threshold in several cotton fields in the Lower Valley. Currently fields with threshold level infestations have been found in close proximity to the Rio Grande River, but growers should monitor pima fields throughout the area. Right now, bollworm eggs are usually found on the upper plant canopy, but be aware that in plants under stress or in periods of very hot weather, bollworm eggs may be deposited on the lower parts of the canopy where it is more difficult to find them. The recommended threshold for small bollworm larvae is 10,000 worms/acre with the caveat that if the scout’s eyesight is not very sharp, this threshold could be cut in half (5,000 worms/acre). The threshold for bollworms that have reached 3/8”, or greater, is 5,000 worms/acre. Useful formulas:

$$\text{Worms, eggs or key predators per acre} = \frac{\text{No. eggs, worms or key predators counted}}{\text{No. of whole plants checked}} \times \text{No. of plants per acre}$$

$$\text{Plants per acre} = \frac{\text{Row feet per acre}}{\text{Row feet examined}} \times \text{Plants counted}$$

$$\text{Row feet per acre} = \frac{522{,}720}{\text{Row spacing in inches}}$$