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The Newsletter about Integrated Pest Management for the El Paso Valley

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Announcements

- A pecan workshop will be held on May 4 at Texas AgriLife Research and Extension Center from 9:00 AM to noon. Speakers: Mark Muegge, Jaime Iglesias, and Salvador Vitanza. The topics: PNC, forecast system, research trial, aphids, and crop nutrition. Free event. 3 CEUs.
- This field season, Drs. Mark Muegge, Allen Knutson, Jaime Iglesias and I would like to conduct a study with the objective of comparing the efficacy and cost of managing pecan nut casebearer (PNC) using either the Texas AgriLife IPM program, which targets hatching larvae or the adulticide program that targets PNC moths in growers' orchards. At this point we have a few Cooperators willing to help us conduct this trial, but if you would like to include part of your pecan orchard in this study, please get in touch with me as soon as possible to discuss it.

PECAN:

I just attended the joint 58th Annual Meeting of the Southwestern Branch of the Entomological Society of America and the Society of Southwestern Entomologists. Among the many interesting presentations, Dr. Mark Muegge summarized the research projects conducted with Dr. Allen Knutson on mating disruption of pecan nut casebearer (PNC) during the last seven years. He discussed several pheromone concentration levels and three delivery systems:

1. **Superior Pheromone Lure Application Technology (SPLAT)** which consists in a mixture of PNC pheromone and cypermethrin. It is intended to attract, and kill, PNC adult males.
2. **Paintball application**. This system uses paintball guns to shoot pecan tree branches with encapsulated pheromone pellets that explode on contact and disperse pheromone in orchards.
3. **Sprayable micro encapsulated beads** through airblast sprayers.

All these systems resulted in a significantly lower number of PNC moths captured by standard pheromone when compared to the untreated orchards. This difference persisted regardless of trap placement (lower or upper pecan tree canopy) or pheromone concentration. However, none of the delivery techniques or the pheromone concentration levels provided consistent and adequate control of nut damage. The exact reason for these results is yet to be determined, but a strong possibility is that a large population of moths did not respond to the standard PNC pheromone (the only one used in the study). The next phase of these trials will include a mixture of standard PNC pheromone and "Mexican strain" pheromone.

Another interesting talk at this conference was presented by Dr. Allen Knutson and titled "PNC Forecast: an on-line model for predicting pecan nut casebearer oviposition in pecan". This online tool was developed using 10 years of research and 44 independent data sets across Texas and Oklahoma. The predictions are based on heat units or degree days that start accumulating when the first moths are captured and use locally generated weather data. It is estimated that there may be up to a ±1.3 days margin or error for percentage of oviposition and up to ±2.3 days error for first nut entry. This system is considered less reliable in Oklahoma than in Texas possibly due to lower PNC pest pressure. You can access this site at http://pncforecast.tamu.edu/. Please let me know if you need assistance in obtaining oviposition or nut entry forecasts using your orchard data.

Alejandro Calixto presented: "Harnessing information technology for use in production agriculture of pecans". He highlighted the "IPM Pipe" website (http://pecan.ipmpipe.org/); which has an ample library of pecan resources (proceedings articles, extension publications, presentations, and newsletters). You will also find news/pest alerts, continuously updated PNC maps, a pesticide database, and other useful items. If you have not visited it yet, you will be pleasantly surprised with the wealth of information there.

I set PNC pheromone traps in seven pecan orchards on April 20th. It was a bit early, but I find reassurance in setting the traps before the expected date of moth emergence and making sure that I will be able to pinpoint the first moth flight. I would like to thank Mr. Marcelino Lozano for kindly providing me with Mexican strain PNC lures. Dr. Jaime Iglesias is monitoring the traps in the upper valley. So far, we have not been able to see PNC moths. At this point, most of PNC are in pupae stage and will emerge soon.

I also placed some hickory shuckworm traps. This is not a key pest in our area, but it will be interesting to see what we find.

COTTON:

Approximately more than half of the cotton fields in our area have been planted. The cotton growers that I have interviewed estimate that they are between one to two weeks from finishing their planting. I monitored the soil temperature at a depth of 4 inches at 8:00 AM, in a prepared cotton field, in Socorro for 10 days starting April 17th. During that period, the average soil temperature was 60 F and it dropped to 56 and 58 degrees in only two occasions. This year, it took the soil a little longer than in previous seasons to warm up to an optimal temperature for planting. It is advisable that you measure cotton seedling emergence in your fields and correlate it with planting dates so you can make pertinent changes in future field seasons.

The Pima variety trial conducted with Mr. Ramon Tirres near Clint was planted on April 26th. The varieties being evaluated this year are the following: PHY-800, PHY-830, Cobalt, DP-340, DP-357.

All the seed for the upland variety trial conducted with Mr. Harvey Hilley Jr. has been received and it will be planted soon. The varieties to be tested are DP-164-B2RF, DP-0935-B2RF, DP-0949-B2RF, DP-1044-B2RF, DP-1048-B2RF, DP-1050-B2RF, PHY-375-WRF, PHY-565-WRF, ST-4288-B2F, FM-1740-B2F, FM-9160-B2F, FM-9170-B2F. I will let you know about the progress with these trials. Hopefully, you will be able to attend this year's cotton variety field days and see for yourself how the varieties performed.