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WEST PLAINS IPM UPDATE

News about Integrated Pest Management in Hockley, Cochran, and Lamb Counties from Kerry Siders

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(Below is an excellent article written this time last year. Worth repeating.)

Economic Damage from Cotton Insect Pests Comes to an End

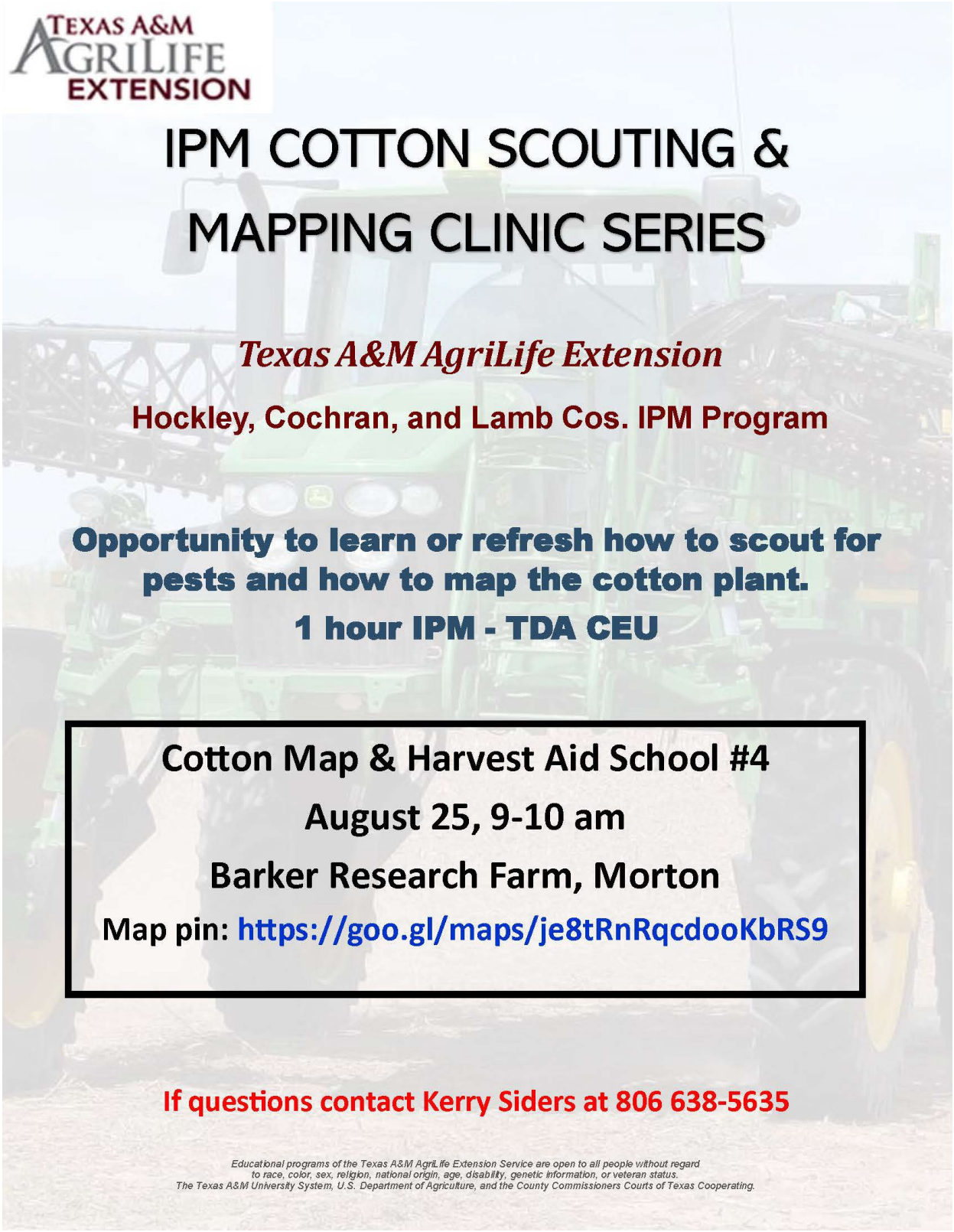
By Dr. Suhas Vyavhare, Extension Entomology Specialist, Lubbock

As we approach the end of August, one question that has been received lately more often than any other is at **what stage do I stop worrying about insects in cotton?** The major insect activity that I am noticing at this stage is around lygus bug and stink bugs.

Stop sampling and treating for lygus bug when cotton accumulates 350 DD60 (degree days 60) beyond five nodes above white flower (NAWF). The window of vulnerability for developing cotton bolls to lygus bug damage is significantly less after ~8 days post-anthesis when the carpel wall has become sufficiently thick and mature that probing activity is less damaging. Lygus bugs will continue to feed on squares and small bolls in the plant terminals even beyond 5NAWF+350 DD60 but those fruiting structures will not contribute significantly towards the yield (not to the extent to offset the cost of an insecticide application). Same applies to bollworms. Fields that have reached 5NAWF+350 DD60 are no longer susceptible to small (≤ 1/4 inch) larvae. This time frame may widen for larger worms but if you are not picking up on any bollworm activity at this stage, it is very unlikely they will appear from somewhere and reach damaging levels anymore.

Stink bugs, on the other hand, will have to be scouted for a bit longer. They prefer larger bolls (about quarter size diameter) and may need treatment up to 450 DD60 after 5NAWF. Once the cotton reaches 450 DD60 beyond 5NAWF, sampling and treating for stink bugs may no longer be necessary since bolls produced after this point will not become fully mature or contribute significantly to the crop yield. Now, it is possible that this value may shift slightly due to factors such as boll shading, variety, irrigation, presence of pathogen (e.g., boll rot) but it shouldn't change to the extent that we need to keep scouting and spraying going into mid-late September or October. As per the recommended threshold, we will have to hit 50% boll damage going into 8th week of bloom to trigger a spray and the 8th week of bloom wouldn't go beyond August.

We have had instances in the past where stink bug damage (hard locks) was found in harvestable bolls in October—this scenario would be most likely from the earlier infestations that went undetected.



ACKNOWLEDGMENT

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Cotton Nematodes

Now is an excellent time, especially if your fields are still moist from irrigation or we receive some rainfall soon, to soil sample for cotton root-knot nematodes. Soil sampling is important in determining populations of plant parasitic nematodes capable of reducing yield. Nematode samples collected prior to harvest may give the best estimation of nematode populations. In collecting soil samples, several factors, such as sampling method(s), sample preparation and handling and field conditions must be taken into consideration.

Several methods can be used in obtaining soil samples. Samples should be collected following a random, crossing, or zig-zag pattern (Fig. 1). A total of three composite samples (from 1/3 of the field each) should be collected per field. Additional samples may be required if dealing with different soil types in a field. A composite sample consists of 15 to 20 soil cores taken from a depth of 12-inches using a soil probe, or a narrow-bladed shovel. Samples should be taken within a 4-inch radius of the taproot, as it is important to have root fragments present in the sample. The soil cores should be placed in a bucket and thoroughly mixed, being sure that any dirt clods are broken-up. A sub-sample of 1-quart should be placed in a sealed plastic storage bag. Nematode samples need to be kept cool (*not frozen*), and out of direct sunlight. In addition to the collection and handling of samples, field conditions at the time of sampling may impact test results. Close attention should be paid to the amount of soil moisture at sampling. Samples should not be taken if soil moisture is too wet or too dry. Samples should be sent to a qualified laboratory capable of making microscopic evaluations to determine populations.

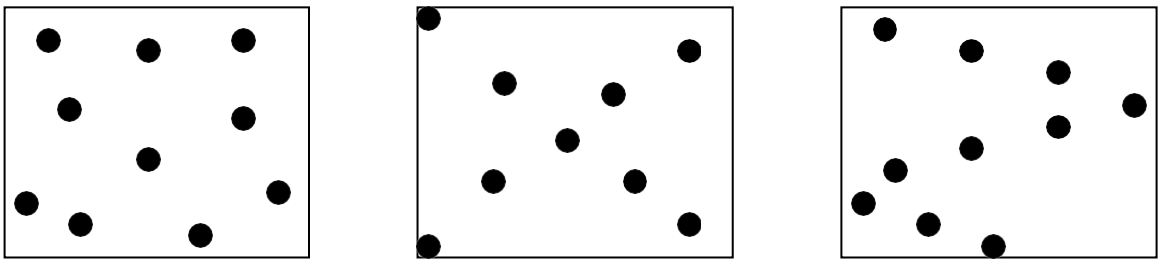

Figure 1. Sampling patterns used to determine nematode populations in soil. Left) random, Middle) crossing or X and Right) zig-zag patterns.

West Texas Agricultural Chemicals Institute Annual Conference Set for September 14

Pre-Registration Deadline is September 8

The West Texas Agricultural Chemicals Institute will host their annual conference on Thursday, September 14, at the Scottish Rite Event Center, located at 1101 70th Street in Lubbock.

This year represents the 71st meeting of WTACI, an unincorporated organization of dealers, industry representatives, agricultural producers, scientists, educators, and agribusiness members who support education and research programs promoting safe and effective use of agricultural chemicals and protection and preservation of the area's natural resources.

Topics to be discussed at the conference include:

- Weed control in herbicide-tolerant sorghum.
- New chemistries for weed and brush control in range and pasture.
- Endangered Species Act overview.
- Beltwide cotton IPM research focus.
- Semi-arid Agricultural Systems Institute research update; and
- Australia cotton production overview compared to West Texas cotton production.

A total of 7 Texas Department of Agriculture (TDA) CEUs are pending currently.

Pre-registration is available online at https://bit.ly/3QuDE7G. On-line registration fees are $75 for conference attendees and must be completed by September 8. Booth fees start at $300. On-site registration will begin at 7:30 a.m., the day of the conference, and will cost $95 for attendees and $325 for booth sponsors. Lunch will be provided as part of the registration fee.

Opportunities also exist to contribute to the WTACI Scholarship Fund, which has provided more than $60,000 in scholarships to students majoring in agricultural fields at many Texas universities.

Contact Scott Asher at scott.asher@basf.com for questions about the program and CEU's. If you have trouble or questions regarding registration, contact Kara Bishop, 806-792-4904 or kara@plainscotton.org.

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