TEXAS A&M AGRILIFE EXTENSION

WEST PLAINS IPM UPDATE

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

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TEXAS IPM

Partners with Nature

Crop and Pest Situation

Reviewing my scouting notes from this - week the primary issue in **cotton** is how to manage the water from here on out. If we knew what the temperature and rain potential were going to be over the next 2-4 weeks it would be much easier to plan this thing out from a long range stand-point. However, we do not know what those two important factors will be with out certainty except maybe for the next 3-5 days. So that being said, here is my approach for you to consider. On drip cotton if you have not already begun to start easing off I would suggest at least by September 6 shutting down for a couple days; then back on September 9; on 4 days; off 4 days; on 3; off 5; on 2; and then most likely leave off. By this time bolls should be of sufficient age that any water stress will not cause quality or quantity losses. Again, temperature and rain may alter this plan, but you get the idea.

On pivot irrigated cotton I would try to stay with the water through this current heat this weekend anyway. On Monday 9th evaluate weather and determine if more may be needed. Understand that only after a boll is 20 days old should it experience wilting from mild water stress as long as it fully recovers that same evening and for certain by the next morning. So we set our last harvestable bolls on or near August 20, these bolls are now 10 days old. We need them to be stress free another 10 days or Sept 9. So do the best you can. I've seen more fields not reach there full potential because missed opportunity through irrigation in late August into September. This is especially true when we do not have much or any subsoil moisture to live on.
No insect pests of importance were noted this last week. I will continue to check cotton for another week or two.

Peanuts are still making goobers right now so do not back off water there for at least another 7-10 days, then possibly can start backing off, but not off. No insect pests, be vigilant of diseases.

Late **grain sorghum** is the crop which needs to be scouted closely for headworms now. It has been a field by field call. Some I have looked at have well over threshold while another is just now developing and needs to be monitored frequently. On the next page I have a good article by Dr. Pat Porter on managing headworms.

Headworms in Grain Sorghum

(the following was taken from Dr. Pat Porter's discussion in today's issue of FOCUS)

Sorghum has been experiencing above-threshold levels of headworms in many areas. See Managing Insect and Mite Pests of Texas Sorghum (page 23) for thresholds, scouting procedures and suggested insecticides (as of 2007). Monti Vandiver just wrote this excellent summary of considerations for scouting sorghum headworms. "Estimating the economic injury level for headworms is complicated because the potential yield loss varies with the size of the larvae. That is why it is necessary to record the number of small (up to 1⁄4 inch), medium-size (¼ to ½ inch long) and large (1/2 inch long or longer) headworms. Small larvae consume very little grain (about 10 percent of the total) and about 80 percent of them die in this stage. Therefore, small larvae should not be considered in determining the economic injury level. If most headworms are this size, sample the field again in 3 to 4 days. About 19 percent of medium-size larvae survive beyond this stage. Thus, the potential grain loss from medium-size larvae is only 19 percent of the potential loss from large larvae. Most corn earworm larvae larger than ½ inch will survive to complete development, and these large larvae are most damaging; they consume 83 percent of the total grain consumed during larval development. If most of the larvae are larger than ¼ inch, determine which size (medium size or large) is most common and use the corresponding threshold to make treatment decisions. An Android based threshold calculator can be found at the Google Play Store; http://goo.gl/8mXvv . We also have a web app for other operating systems which can be accessed at http://goo.gl/5k7ZtU . The calculators will require inputs of control cost, grain value, and heads/acre. I have found that in many cases 45000-50000 is a good starting point for irrigated and 28000-32000 dryland; but a quick count of actual heads/ac would be best." M. R. Vandiver

Some area sorghum also has significant levels of spider mites, and choosing the wrong headworm control option could make the spider mite situation significantly worse. This is a bit complicated, but chemical choice for headworms should depend upon 1) the proportion of fall armyworm to corn earworm in the field AND 2) the presence of mites.

1) **When spider mites are not present**. If mites are not present then a pyrethroid can be used without fear of flaring mites. However, pyrethroids, while generally effective on the corn earworm/cotton bollworm part of the headworm complex, are not especially effective on fall armyworms, especially medium to large fall armyworms. Pyrethroids should not be the sole insecticide in situations where fall armyworm comprises a significant percentage of the headworm population. Tank mix options are Lannate, Lorsban etc. presented in our guide referenced above. Belt or Belt + pyrethroid is also a good option.

2) **If spider mites are present in established colonies**. It now becomes important to preserve the beneficial insects because these usually provide significant control of mites (and our miticides take many days to begin working). In the case where mites are present, then, if a pyrethroid or Lannate, Lorsban or any chemical hard on beneficials is to be used, it should probably be combined with a miticide such as Comite or Onager. (Onager was recently labeled for sorghum.) A different approach would be to forego the insecticides that are hard on beneficials and use Belt, which provides good control of both fall armyworm and corn earworm/cotton bollworm in headed sorghum. (Other insecticides are available as well but we don't have enough recent headworm experimental data to suggest them yet. I am certainly not saying not to use them, I am just saying that we don't have the data. Additionally, I should also note that Prevathon and Besiege, which are very good on fall armyworm and corn earworm, are not yet labeled on sorghum but should be labeled by next year.)

The fact of the matter is that headworm control is, in one way, fairly easy. We get excellent coverage because the heads are directly exposed to the insecticide(s). The issues become sorting out the need to control fall armyworm in addition to corn earworm while simultaneously avoiding flaring mites if they are present in the field. So easy is not always so easy.

NACB: a.k.a. Nodes Above Cracked Boll

NACB or nodes above cracked boll is the next physiological measurement which we will be using as reference to the maturity of the cotton plant. As with NAWF (nodes above white flower) this gives us a reference to which to gauge where in this plant development process a field is. So NACB is simply that, how many nodes are there above the uppermost 1st position cracked boll. So when we do begin to see open bolls on at least 50% of the plants in a field find the uppermost open boll nearest the main stem. Then take the next boll above it and mash it between your thumb and forefinger. If it pops open easily without much effort you will use this boll, if not use the open boll below it. So the open boll is zero, start your count right above. Count all nodes up to the last harvestable boll. Hopefully this is the very top position. For some it may actually be a few nodes below the very top node because it either does not have bolls or what is there will not mature out and contribute. A typical NACB count for the first week of open bolls would be 7, 8 , or 9 on irrigated cotton. This measurement is especially useful when knowing if the plant is ready for harvest aides. When there are 4 NACB the plant is ready for a boll opener and defoliant. With only 2 NACB a dessicant can be used. So if you call me with questions here in a few weeks please be prepared to answer the NACB question.

Upcoming Meetings:

***Pesticide Applicators training will be held here at the Extension office in Levelland on September 12 & 26. Call 894-3150 for more information.

***The 61st Annual Meeting of the West Texas Agricultural Chemicals Institute has been scheduled for Tuesday, Sept. 10, at the Scottish Rite Temple - Learning Center, located at 1101 70th Street in Lubbock, (South Loop 289 and Interstate 27)

AREA FIELD DAYS SCHEDULED

Mark your calendars for the following area field days:

Sept. 13 – Texas Tech/Texas AgriLife Research Field Day, 8 a.m., Quaker Farm, 200 N. Quaker
Sept. 17 – Bayer CropScience Field Day, Levelland next to United Cotton Growers Gin
Sept. 18 – All-Tex/Dyna-Gro Field Day, 9 a.m.-noon, 2200 West Avenue, Levelland (lunch served at noon)
Sept. 26 – Texas A&M AgriLife Extension in Hockley County Crop Field Day, FM 1585 ½ mile East of Hawk Road Mike Henson RACE Variety Trial

See You On The Radio

IPM Radio Program Ag Talk on Fox Talk KJTV, radio 950 AM, on Wednesdays from 1:00 to 2:30.
Texas A&M AgriLife Extension in Hockley County Report on KLVT Levelland, High Plains Radio Network, radio 1230 AM, Wednesdays from 7:30 am to 7:45 am.

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