TEXAS A&M AGRILIFE EXTENSION

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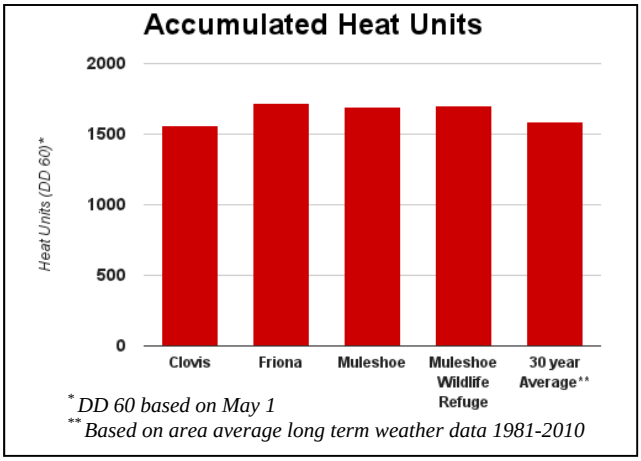
The harvest season is off to a rapid start as silage choppers are rolling in area corn. Conditions are very good and harvest has not been impeded by weather making harvest quick and efficient.

The **irrigation termination** decision making process in corn continues. Assuming an adequate crop condition we normally say that once the starch line has reached 50%, irrigation can be terminated with no detrimental affect. The key to this crop stage irrigation termination point is it assumes a full profile of moisture from which the plant will pull moisture to finish filling grain. If the soil profile is not near capacity at 50% starch line, additional moisture in the form of irrigation or rainfall will be required to finish the crop. With sprinkler and drip irrigation systems we have the capability to tailor late irrigation applications to specific crop needs. Early irrigation termination can significantly reduce corn yield. The starch line is an indicator of crop maturity, corn kernels mature from the outward tip inward toward the cob. A distinct color separation is visible on each kernel and moves down the kernel as it fills. The starch line is easily seen by breaking the ear in half and viewing the cross section.

Potential Dailey Water Use*	
Crop	Inches/Day
Corn	.20-.29
Cotton	.27
Sorghum	.23-.26

*Daily estimated crop water demands (inches of water per day) based on PET data from Halfway.



*DD 60 based on May 1
**Based on area average long term weather data 1981-2010

Headworm activity in sorghum has really picked up, many observations have revealed headworm numbers 4X the established economic threshold. Current infestation are near 75% fall armyworm (FAW) and 25% corn ear worm. What appears to be happening is the majority of the FAW are hanging out in the foliage until some grain formation appears then they are moving to the head to feed on developing grain. In this scenario fields with few worms in the head a few days ago could be infested with large worms with large appetites very quickly; large larvae consume 83 percent of the total grain consumed during larval development. Treating the worms before they move to the head will not be as effective simply due to the fact that larvae in the heads are directly exposed to the insecticide. A complicating factor in managing headworms is the presence of spider

FAW in Sorghum

http://nwpipm.blogspot.com/

IPM radio show on Fox Talk 950 AM Wednesdays from 1:00-2:30

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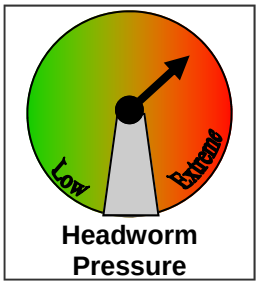
mites. If mites are established then product selection to suppress headworms should be carefully considered as many of the traditional and often cheaper options may flare the mites which could then devastate the sorghum. In situations where mites are present at low levels the use of Belt should provide good headworm control while not flaring mites. If mites are well established then Comite or Onager should be considered as tank mix partners to suppress the mites. Large numbers of spider mites occurring early in kernel development can reduce the ability of sorghum plants to make and fill grain. After kernels reach hard dough, grain is not affected. Additionally, if spider mites are very abundant sorghum plants will have much weaker stalks which and may lodge, which can result in severe harvest losses.



Bollworm moth activity and egg lay has picked up over the last few days. Diligent scouting will be necessary to identify fields with economic levels of bollworms. The decision to treat for bollworm should be based on number of larvae/acre, larvae size, and the maturity of the crop. Most of the area cotton is late and still has a lot of squares and small tender bolls which very suitable for larval development. Most of the small fruit has little if any chance to make a harvestable boll but larvae could become established on this then move to more mature bolls as they gain the ability to penetrate larger fruit. Generally we consider bolls which have gained 450 heat units after bloom to be safe from bollworm damage. The late crop makes determination of which bolls are worth protecting much more difficult; we will likely be tempted to protect a much later boll than what we normally would. This adds significant risk associated with getting a positive return on an insecticide application since the later bolls have less time and probability to mature.

Heat Unit Accumulation from Various Bloom Dates

Aug 1	483
Aug 5	407
Aug 10	310
Aug 15	236

Loopers are common in many cotton fields, they feed on foliage making small holes in the leaves. Very high populations could cause excessive loss of leaf surface area but I have not observed any infestations near that level. There is no established treatment threshold in Texas but NCSU suggests " If the defoliation reaches 25 percent and a significant number of bolls that the producer expects to harvest are still filling out, treatment may be advised. However, remedial sprays may have only marginal effect on the more common soybean looper." To round out the current Lepidopteron spectrum beet armyworm, yellow striped armyworm and Arctiid moths, eggs and larvae have also been observed in area cotton. **Beet armyworms** at present infestations are at tolerant levels but what makes this pest more concerning than other foliage feeders is it may transition to feeding on small bolls.


Looper and feeding damage.

Late planted corn has been and continues to be very attractive to lepidopteron pests. FAW and southwestern corn borer have been observed in alarming numbers in late planted non-Bt corn. FAW will readily feed on emerging silk which can inhibit pollination. In extreme cases I have seen heavy FAW pressure reduce pollination by more than 90%. Any late planted corn should be carefully monitored for these pests.

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