TEXAS A&M AGRILIFE EXTENSION

The Seedling

Texas IPM Partners With Nature

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Crop Management Newsletter

News about Crop Management for producers in Dawson, Lynn and surrounding Counties.

Thanks to the sponsors and the gins who support the Dawson/Lynn IPM Program
(found on page 2)

Another round of rains - that is three in 8-days. It's good to see the fighters running - again - means we got rains.

Now there are some re-plant decisions needing to be made. There are those no-brainer, the sand burned and/or wind damaged. and the plant stand was destroyed. Also, those fields that the seed sprouted and developed a good root system and pushed right up to the top of the ground but remained below the surface, and have been just sitting there for several days will probably need to be re-planted, if a cotton crop is to be harvested. Those seed have used up their energy source and will not be able to push again - those sprouts will not get a "second wind.

With available moisture, warm soil temperatures and good daily heat unit accumulation, fields that are re-planted should come out of the ground in four to five days and really take-off. I wouldn't really be to worried about re-planting through June 25th - of course that's just my opinion.

Thrips

Thrips are typically always the first insect concern of the season. I have not seen much thrips activity prior to the rains or so far since the rains. However, they can become more of an issue since the rains due to the abundant growth and appearance of wild weed hosts in the barrow ditches, lots, fields, etc. These plants provide thrips with a host site to develop large populations which ultimately migrate over into the seedling cotton.

Thrips are a pest in cotton from emergence to the fifth-to-sixth true leaf stage. At that point the cotton is able to out grow the thrips damage. Thrips damage causes a silvering of the lower leaf surface, deformed leaves by crinkling them upward and/or blackened leaves. During sever infestations terminal buds may be destroyed, causing excessive branching of the plants and delaying plant growth and maturity.


M Vandiver

Thrips damage can often look like weather damage or visa versa. Control may be justified when an average of one thrips per true leaf is found. Fields need to be scouted for thrips rather than waiting for damage to appear. If the field is not treated until damage occurs in many cases the thrips have already cycled through and the damage is done. When deciding to treat for thrips, **make sure** thrips are present and you are not treating just the damage left behind.

By the time the second true leaf has unfurled, the plant has started to produce the first square. After the seedling has unfurled the 1st and 2nd true leaves and has initiated the first square, it starts developing the various parts of the flower. The flower parts are developed in order starting from the outside. First the bracts, next

the sepals that envolpe the flower parts, the petals, stamens with anthers, and last the carpels or future bolls.

This is why early control of thrips can be warranted - to avoid delays in fruiting and final yield. Since tiny squares are actually present when the first true leaves appear, thrips may also be damaging squares while grazing on leaf buds. This results in the loss of early square positions and yield losses especially in the northern cotton growing areas where there is little time to compensate for early loss.

For our area, I personally do not get too aggressive in thrips management, especially in dryland, due to all the compensation work that we have conducted over a ten year period. However, if a field is experiencing other stresses such as weather damage or seedling disease, I would tend to become more aggressive.

Seedling Nitrogen

Nutrient uptake by cotton seedlings proceeds slowly. Until the first true leaf is unfurled, most of the water and nitrogen (N) uptake is driven by diffusion, movement from a high (the soil) to low (the plant) concentration. Total N partitioned into shoots through the first 15 days after emergence is about 0.13 lbs of N per acre per day. As seedlings continue to develop by adding leaves, N moving into the plant (stems and leaves) increases to about 0.76 lbs of N per acre per day at first square. Nitrogen accumulation up to first square is about 20 lbs of N per acre of the seasonal total uptake.

Calculating Heat Units

Step 1: add daily high and low temps,
Step 2: divide the step 1 total by 2,
Step 3: subtract 60 from step 2.

Example: High of 100 and low of 60
100 + 60 = 160
160 ÷ 2 = 80
80 - 60 = 20 HU for the day

There are no negative HU's - use a "0"

Keep in mind it takes about 2200 HU from planting to harvest.

Special THANKS to those who support Agriculture and the Lynn/Dawson IPM Program

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