



Blacklands IPM Update



Just as the bulk of the cotton acres across the area were defoliated and harvest operations start, rain set in across the region. Total rain fall over the last two weeks is anywhere from 5 inches to over 10 inches. This amount of rain is enough to delay harvest for at least a week maybe even two, but could also lead to issues with regrowth, cotton sprouting in the burr and/or modules, and even some lint quality issues.

Regrowth may make fields look ugly and delay harvest operations, but it is not as big of an issue compared to other issues this rain could cause. Cotton regrowth can happen in multiple places on the plant including the apical meristem or growing point, as well as, around the cotyledon nodes on the lower stem. There are multiple chemicals that can be used to manage regrowth, and this includes PPO-inhibitor herbicidal defoliants like Aim, Sharpen, ETX; and paraquat. If using Aim or Sharpen to manage regrowth the application will need to be made with at least 7.5 lbs. of Ammonium Sulfate and a Methylated Seed Oil. These PPO inhibitors will desiccate the young tender tissue quickly, but the downside is that these leaves will be stuck on the plant, and could lead to a increased leaf grade. Gramoxone or paraquat is generally used as a desiccant commonly applied after the crop has received a defoliant application. Paraquat however does not have the greatest activity on young leaf tissue, but when mixed with a defoliant like Ginstar and defoliate the new younger leaves. When selecting what product to use, determine how quickly you want to be harvesting. If you use Aim, Sharpen or another PPO-inhibitor will allow you to be ready for harvest in about 5-7 days, while using the Gramoxone plus Ginstar will require a minimum of 7 days depending on the environmental conditions following the application.

Cotton sprouting in the burr is probably the biggest concern for cotton producers in the regions following the rains over the last two weeks. I have seen a few areas with cotton sprouting in the burr, but currently it does not appear to be widespread. Once cotton seed begins sprouting in the burr or even the module the quality of both the seed and lint can quickly decrease. When cotton seeds start sprouting in the burr those seeds are no longer marketable, and the moisture held in the lint can quickly spoil any seeds that did not germinate. This is big deal because the money made off selling the cotton seed can often help pay for the ginning costs. On the lint aspect, when seed sprouts in the boll, it can lead to stained lint, increased trash content, and seed coat fragments in the lint; all of which can reduce the value of the lint. The best-case scenario would have been getting the rain last week (8/31-9/4) followed by warm sunny days to quickly dry out the lint and bleach some of the stains out of the lint. However, more rain was received this week as a cool front moved across the area and the forecast is calling for overcast skies and temperatures in the mid to upper 80s for the next 7-10 days, and this forecast could lead to seed sprouting occurring in more fields across the area. If a field does have seeds sprouting in the burr there are two routes, we can take to minimize issues with harvesting and ginning. The first route is using a desiccant like Gramoxone, Aim, Sharpen or other PPO-Inhibitor herbicidal defoliations to dry down the emerged seedlings and plants down before stripping. This will most likely be the most common practice used as we will also need to get dry regrowth down before we can harvest. Coverage is key for the successfulness of these desiccants to work well on sprouted seeds in the boll and regrowth, however results can be inconsistent when it comes to killing and quickly drying down sprouted cotton seeds. The second option is to wait and let the environment dry out the sprouted cotton seed and lint, but this is Texas and the weather is so unpredictable that we could easily get more rain before the environment dries the cotton out enough for harvest. It is important to wait for the lint, seeds, and any sprouted seedlings to dry down to avoid lint staining, excessive moisture in the module which can lead to lint quality issues and help with the ginning process.

The amount of rain and the rate at which we received the rain over the last 14 days has also posed issues with yield loss and reductions in fiber quality. The rains last week caused lint to either get packed into the burr or string out, depending on how the lock(s) were oriented in relation to the direction of the rain, or sting out of the burr. The rains that occurred this week did cause some lint to fall out of the burr, but I have not seen a lot of lint pulled out of the burr by the recent rains. Cotton fiber quality starts degrading slightly once the boll opens, but if the lint is rained on this degradation process can occur quicker. Rain on cotton alone can cause it to become stained, but the recent rains and humidity could lead to some boll rot issues that can also stain the lin. Along with affecting the color grade, rain can also reduce the length, strength, and micronaire, but not as bad as it affects the lint's color grade. Exactly how bad these rains will affect the lint quality depends on the temperature, humidity, received sunlight and time to harvest following the rain events.

POTENTIAL CHANGES TO Bt CORN and COTTON USE

The EPA has released a draft that could change the Insect Resistant Management Regulations for Bt crops grown in the cotton belt. Most of these changes will potentially affect corn, but some changes will also affect the use of Bt cotton varieties. The reason behind the preposed changes is to slow the development of the Vip3A toxin. Dr. Pat Porter, Extension Entomologist out of Lubbock has put together a summary article that explains the details of the plan and these proposed changes can be found here https://focusonagriculture.blogspot.com/2020/09/tighter-regulations-around-bt-corn-are.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%203A+FocusOnSouthPlainsAgriculture+%28FOCUS+on+South+Plains+Agriculture%29. Additionally, the EPA is currently accepting comments on these proposed plans, and the link to where you can submit your comments can also be found in the article Dr. Porter published recently.

Blacklands IPM Update is a publication of Texas A&M AgriLife Extension IPM Program in Hill & McLennan Counties.

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