

Pest Cast

The Row Crops IPM Newsletter for the LRGV, a cooperative project of Texas AgriLife Extension Service and the Cotton & Grain Producers of the lower Rio Grande Valley

Danielle Sekula IPM Extension Agent

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General Situation

Incredibly hot and mostly dry again this week as temperatures are in the low 100°F during day and 77°F at night. Monday night there was a trace of rain in some areas but was a real hit and miss for mostly all the Valley. Sorghum harvest has been non stop. Corn and sunflowers are also being harvested at this time as growers race to get harvest done before the forecast expected for next week.

We are seeing many cracked and open bolls this week in some of the earlier planted cotton. In case you hadn't heard, Verne Vanderpool harvested the 1st bale of cotton in the U.S. here in the LRGV on June 14, 2024, and it has been delivered to Willacy Coop. Congratulations to cotton grower Verne Vanderpool!

I noticed some leaf spotting and discoloration occurring last couple weeks in some of our cotton, it's a mixture of leaf spot causing fungi – the Alternaria sp., and Stemphyllium sp. occurring and this week it looked even more severe as premature defoliation has occurred in several fields due to the intense heat (Figure



Verne Vanderpool at Willacy Coop with first bale cotton harvested on June 14, 2024, Photo courtesy of Harlingen Cotton Committee

1). These fungi (Alternaria sp., and Stemphyllium sp) cause circular concentric lesions, can appear reddish in color, and have a shotgun hole like appearance on the leaves (Figure 1). These foliar diseases tend to be more prevalent at crop maturity and during periods of high humidity and some varieties are more susceptible to late season leaf spot fungi according to the Texas Plant Disease Handbook. Having these two fungi present is also an indicator of a lack of potassium amongst other nutrient deficiencies. Late season occurrence of these minor leaf spot fungi has hardly any impact on yield and treatment is not necessary. However, the fungus can survive in the soil and debris so a good soil tillage program will be key from having it occur in the cotton crops in years to come. For more information please visit this link below:

https://southtexas.tamu.edu/files/2022/07/Diagnosis-Management-Foliar-Diseases.pdf





Figure 1: fungi (Alternaria sp., and Stemphyllium sp) cause circular concentric lesions, can appear reddish in color, and have a shotgun hole like appearance on the leaves, photos left & right

Cotton Pests this week

This week in cotton our main pests are plant bugs: Verde plantbugs and tarnished plantbugs. We are seeing them above threshold in cotton with large squares and dime size bolls in many fields across the Valley. Many cotton fields have been treated for plant bugs this week. We are seeing more tarnished than verdes and upon beat bucketing mature sorghum we are finding up to 10-15 plantbugs per beating 2 heads in some fields ready for harvest. Tarnished and Verde bugs feed on penetrable size bolls and large squares and can cause loss of yield as well as degrade the quality of the lint by secreting a toxin while they feed. Threshold to treat for plantbugs is when you have 20-25 bugs/100 plants, or (1-2 bugs per 10 sweeps) or (4-5 per 20 sweeps) or if you are using a beat bucket it is when you are averaging 1 per plant. Make sure to access your cotton field to see if you have more immature bolls than mature as once bolls are larger than 1 inch diameter and cannot be squeezed open they are generally safe from plant bug damage. Other pests in cotton building in populations quickly are whiteflies and chilli thrips. We have been seeing increase in whitefly populations (adults & nymphs) along the river and in Edinburg in cotton that was recently irrigated, the high heat plus the moisture creatures a perfect environment for whitefly adults to reproduce and develop quickly. Treating whiteflies as soon as the first handful of adults is



Figure 2: Tarnished plant bug on cotton



Figure 3: Verde plant bug on cotton



Figure 4: Lots of whiteflies in cotton

spotted is key in controlling them. Whiteflies feed on cotton excreting sugars that cause black sooty mold to develop and inhibits cotton plant growth and once we have open bolls sometimes the sooty mold can stain the open boll cotton if we receive rains. We are also seeing chilli thrips populations increase greatly in cotton along the river. Chilli thrips can cause severe bronzing and defoliation of the leaves when populations are left unmanaged and can reproduce rapidly as they thrive in this intense heat.

See pages 33 & 34 in the Cotton Insect management guide for insecticide options for plantbugs & whiteflies in cotton at link below:

https://southtexas.tamu.edu/files/2023/05/Managing-Cotton-Insects-in-Texas-ENTO-075_2019.pdf

Chilli thrip efficacy trial information at link below: https://southtexas.tamu.edu/files/2023/05/Controlling-Chilli-thrips-Eficacy-trial-_2022.pdf



Figure 5: Chilli thrips bronzing damage on underside of cotton leaf, chilli thrips are on leaf just too small to see

Grain Sorghum

Grain sorghum harvest is at full speed, so many growers are trying to harvest what they can before next week's forecast. I am still seeing sugarcane aphid hotspots in mature sorghum fields with green leaves. Treatment might be necessary to prevent sugarcane aphids from exploding in populations prior to harvest, especially if we do receive some muchneeded moisture this next week that will only encourage their reproduction and populations will peak at the end of June. There have



Figure 6: Sugarcane aphids on sorghum leaves

also been reports of spray treatments done in young vegetative sorghum for high fall armyworm activity.

Sesame

Sesame is drying down and many fields have excellent pod loads. Sesame looks clean of pests this week as we are only seeing a few tarnished and a few mirids active but yields have been set so treatment not necessary.

Be safe harvesting & stay hydrated. Thank you.



Figure 7: Sesame down by the river in Los Indios

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