

General Situation

Scattered rain storms have provided temporary relief in some fields. Several growers have had to cut their watering rates due to less water being available for pumping. Please see the attached "Rate of Water Use in Relation to Cotton Development". Hopefully this will help with your water management and maximize your yields.

Peanut plants continue to bloom and no diseases have been observed in peanuts. Cotton stages range from 4 to 12 true leaves, with a majority of the cotton averaging between 6 to 9 true leaves. Cotton plants infected with Fusarium wilt were observed in a field between Seminole and Hobbs. Cotton plants infected with black root rot were observed in a field southwest of Seminole.

A severe hail storm came through central and south central Gaines County this past Wednesday and caused severe damage to several cotton fields. Peanut fields also sustained damage but these fields should out grow the damage. However, these peanut fields should be monitored closely as they may be more susceptible to diseases.



Figure 1. Hail Damaged Cotton



Figure 2. Hail Damaged Peanuts

June 20th FOCUS on South Plain Agriculture (reported by Dr. Jason Woodward, Extension Plant Pathologist)

We are seeing **black root rot**, rootknot nematode, as well as Fusarium wilt. Symptoms of black root rot consist of severe stunting and necrosis and deterioration of the root system. There are currently no in-season tools available for control of black root rot. Management options are limited to seed applied fungicides. Plants infected with the black root rot fungus (*Thielaviopsis basicola*) may also be infected with the root-knot nematode (*Meloidogyne incognita*).



Figure 3. Cotton Infected with Fusarium Wilt

Plants exhibiting symptoms of **Fusarium wilt** were observed in a field in Gaines County. The disease is caused by the soilborne fungus *Fusarium oxysporum* f. sp. *vasinfectum* and is also found in association with the root-knot nematode. Initial symptoms of Fusarium wilt consist of a general wilt appearance that is more visible during the heat of the day.

A closer examination of infected plants will reveal yellowing or necrosis of the lower leaf margins. These symptoms are a result of the fungus clogging the vascular tissue, impeding the uptake and assimilation of water. Diseased plants will have a distinct

brown discoloration in the stem. We are currently screening cotton varieties for resistance/tolerance to Fusarium wilt, as well as evaluating seed treatments that may become commercially available. Results from these projects will be made available later in the season. One strategy that can reduce Fusarium wilt severity is proper nematode control.

Plant Growth Regulators

Cotton fields with good soil moisture and good nitrogen fertility or those cotton varieties which may have rapid growth should be monitored to determine if a plant growth regulator (PGR) should be applied in order to maintain an adequate vegetative/fruitlet balance. PGR may also help to reduce plant height and height to node ratios.

Cotton Fruit Loss

Some square loss has been observed in scattered fields. All fields should be scouted thoroughly before insecticides are applied to determine if insects are present and causing the observed damage. Square loss could be caused by a number of factors including insects, environmental conditions and wind damage. Figure 4 is a square that has turned black and died, hence the name "blasted". Figure 5 is the scar left behind after the blasted square fell off the plant. Figure 6 is an atypical scar on a cotton plant in a minimum till field with thick wheat cover. This square was likely damaged by wind whipping the wheat into the cotton plant causing the square to be torn off the plant. This likely caused the elongated scar seen in Figure 6 versus the circular scar observed in Figure 5.



Figure 4. "Blasted" Cotton Square



Figure 5. Normal Scar on a Cotton Plant



Figure 6. Atypical Scar on a Cotton Plant

Mark Your Calendars

July 23rd

Gaines County Pecan Meeting.

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2008 Cotton Heat Unit (H.U.) Accumulation Graph

