

Corn and Grain Sorghum Weekly Update – July 12, 2019

2019 Update

Corn and Grain Sorghum Research Verification – Chuck Capps (Corn & GS Verification Coordinator)

About half of the fields were irrigated over the last seven days with Chicot, Jefferson, Lawrence, and Mississippi County fields receiving enough rainfall to push irrigation out five or more days. We are still using the combination of soil moisture sensors and Online Irrigation Scheduler. We have telemetry units on our fields, so this allows us to check sensor data anytime with the AgSense app on our phones or iPad.

We are picking up corn ear worms feeding on tips of ears especially those fields that are at milk (R3) or later. We do not recommend spraying for corn ear worm in field corn. The ends of the ear are usually not developed enough for those kernels to contribute to yield. Also once the worms are in the ear, it is very difficult to get any insecticide to the larvae.

Southern rust was found in Woodruff County, so I have attached Extension Plant Pathologist, Dr. Travis Fiske's Disease Update for your information below the crop updates.

Table 1.

County	Heat Units	Crop Stage	Crop Notes
Arkansas	1903	R3	Field was irrigated on 7/10. Very light common rust.
Chicot	2023	R4	Field received 2" of rain over the last 7 days, so we got by this week without having to irrigate. It had just gotten into the dough stage on Wednesday.
Clay	2003	R3	This field looks good as well with very light common rust found. Irrigation was started on 7/9.
Desha	1969	R3	We got just enough rain to push the irrigation back one day to 7/9. Very light disease presence here as well.
Jefferson	1937	R3	The Jefferson County field received 1.7" of rain with most of it coming on 7-8. Very light disease pressure.
Lawrence	1972	R3	Field will be irrigated Friday (7-12) barring a significant rain event.
Mississippi	1713	R2	This field is on some heavier clay ground. It has been holding soil moisture pretty well. The field missed some early rains but has caught some lately to get by with only one irrigation.
Monroe	1418	V15	This is the latest field in the program. It was scheduled to receive pre-tassel N application followed by irrigation midweek.

Prairie	2190	R4	This field seems to have missed every rain over the last month or so after losing a couple of acres after planting due to flooding in the lower draws. The ears look good with a few ears having some kernels denting on the bottom of the ears.
White	1408	VT	The field was being irrigated on Tuesday, and it was beginning to tassel well.

Crop Updates

Northeast – Stewart Runsick – Clay County Extension Agent/Staff Chair

Most of the corn is now in the R4 growth stage. More rainfall has been received across the County but it has been spotty. Common rust is light in most fields. We have a few fields of grain sorghum. Most of it is heading or has already headed. Insect pressure in corn and grain sorghum has been light so far. The crop is maturing rapidly.

River Valley Update – Kevin Lawson – Faulkner County Extension Agent/Staff Chair

Rainfall has been sporadic in the River Valley. Some fields have been blessed enough to receive good rainfalls, but the majority is still being irrigated. Fields range anywhere from V2 to R4 growth stage. Fields have been scouted but no Southern Rust has been found.

North Central Update – Brett Gordon – Woodruff County Extension Agent

Irrigation has been the main activity in Woodruff County. For the second week in a row, southwestern corn borer trap catches have been very high (some over 4 times the treatment threshold). Conventional corn growers in the area have treated their corn with an insecticide with residual activity. Woodruff county has a confirmed report of southern rust located in the northern portion of the county. So far this has been confirmed on a couple of leaves from a single field and nothing widespread at this point.

Corn Disease Update: Southern Rust

T. R. Faske
Extension Plant Pathologist
July 11, 2019

Southern rust was detected earlier this week (July 9) in Woodruff Co. near Augusta. Disease incidence and severity was low (one leaf on two plants with 30-40 pustules/leaf) on corn at blister growth stage. The first or second week of July is when southern rust is typically detected in Arkansas, so this “first report of 2019” is on time. This announcement is a reminder to scout, and not a justification for widespread fungicide use. The current counties where southern rust has been detected can be monitored on the [NEW corn ipmPIPE website](#).

Dry conditions will suppress the spread of southern rust as free moisture (dew or light rain) is necessary for spore germination and infection. When conditions favor disease, symptoms appear about 3 to 6 days after infection and by 7 to 10 days the pustules rupture to release rust spores. Conditions that favor disease: warm/hot temperatures (morning low of 75°F and daytime high of 93°F + 4 hr of

consecutive leaf wetness) and extended periods of light rain or heavy dew. When these conditions are not met disease development will be much slower.



Figure 1. Southern rust pustules on upper corn leaf surface and benefit of a fungicide to protect corn yield potential in fields where southern rust is detected.

Fungicides are effective at protecting corn yield potential, but given the price of corn many are considering the benefit of yield protection before applying a fungicide. The following table is a guideline on the benefit of a corn fungicide to protect yield potential at various growth stages with the assumption that southern rust is detected in the field and conditions favor disease development (Figure 1). See [MP 154](#) for fungicides efficacy to control southern rust in Arkansas.