

Row Crops

White County Newsletter

August 2022 Issue 5



Southern Corn Rust: What to expect in 2022?

Southern rust has arrived, but conditions are not favorable for disease development, so expect slower than normal rust spread across the Mid-South. Southern rust was confirmed in Drew County, Arkansas on July 13, 2022. Rust incidence and severity were low (Fig. 1) on corn at the milk growth stage (R3). The dry condition has slowed rust development and spread, which will likely be slower than in previous years. Rust has been detected in North Mississippi; thus, it is likely to find southern rust in other Arkansas Counties. This update provides some guidelines for the management of southern corn rust. See the “Southern Rust” article by the Crop Protection Network for great information on southern rust identification and diagnosis. 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 three to six days after infection. After seven to ten days, the pustules rupture to release rust spores. Conditions that favor disease include warm/hot temperatures (morning low of 75°F and daytime high of 93°F + 4-6 hours of consecutive leaf wetness) and extended periods of light rain or heavy dew. When these conditions are not met, as in 2022, disease development is much slower. Given the recent forecast, most of the corn crop will likely “outrun” the disease. Fungicides applied in the absence of the disease are less likely to protect yield potential compared to years when a foliar disease is present, and conditions favor disease development. Fungicides are effective at protecting corn yield potential, but fungicide use should be made on a field-by-field basis. The “Fungicide Timing for Southern Rust” (Table 1) is a guideline on the benefit of a fungicide to protect yield potential at various corn growth stages with the assumption that southern rust is present (first detection) in the field and conditions favor disease development. See the MP 154 for fungicides efficacy tables to control southern rust in Arkansas.

Beginning Corn Growth Stage	Southern Rust in the Field	Weather Favors Rust	Forecast Southern	Benefit from Fungicide
VT – Vegetative Tassel	Yes	Yes		Yes
R1 – Silk	Yes	Yes		Yes
R2 – Blister	Yes	Yes		Yes
R3 – Milk	Yes	Yes		Yes
R4 – Dough	Yes	Yes		Unlikely
R5 – Dent	Yes	Yes		No
R6 – Maturity	Yes	Yes		No

-By T. R. Faske, Extension Plant Pathologist

Topics

Southern Rust

Stubble Nutrients

Endigo Approval

Rice Draining Timing

Tax Education



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How much are straw and stubble worth in terms of the nutrients it contains?

With the current drought, many people are looking for any type of forage or hay possible, and the thought of not having to deal with all the stubble and straw following harvest is very appealing. The question of the day is, “how much are my straw and stubble worth in terms of the nutrients it contains?” My first approach was to tell producers what the value of the straw is on a per acre basis, but that approach is way too simplistic. A well-maintained rice or corn crop can produce between 6,000 and 12,000 pounds of “straw or stubble,” but that doesn’t mean all that biomass can be baled and removed following harvest. Cutting height, moisture, and whether or not you mow following harvest all play a role in determining the amount of stubble available to bale. Therefore, the best approach to use when selling straw or stubble should be to estimate the tonnage being removed and calculate the relative value of the straw. Most rice straw contains roughly 1% K and 0.125% P, which may not seem like a lot, but when you consider the amount of stubble that can be cut, baled, and hauled off, it starts to add up real fast. On a per acre basis, it is safe to say that there will be 10,000 lb rice straw following harvest.

- At the average values listed above, that relates to roughly 120 lbs of K_2O per acre and 25 lbs of P_2O_5 contained in 10,000 lbs of rice straw.
- At current market prices for potash and phosphorous, that relates to about \$115 of nutrients (potash and phosphorous) per acre that could be removed in 10,000 lbs of rice straw.

The next issue that complicates this discussion is the number of bales per acre, which is often how the producer is paid. If you remove the straw immediately following harvest, you will make a lot more bales per acre due to the increased weight of the straw than if you waited and let the straw dry before baling. A producer should focus on the tonnage of straw or stubble removed and the relative cost of nutrients on a tonnage basis to ensure that you are getting paid for the nutrients removed – not the number of bales. Few people consider the value of the straw that is rolled/tilled back into the soil following harvest, but when a producer sells straw, those are nutrients leaving the farm that will have to be replaced, most likely through purchasing fertilizer. When straw is rolled and tilled back into the soil following harvest, the majority of the nutrients contained in the straw will return to the soil and help to maintain soil nutrient levels. In fact, while the straw lies on the soil surface, potash can actually leach out of the straw and back into the soil, but when a producer sells straw, those are nutrients leaving the farm that will have to be replaced, most likely through purchasing fertilizer. To keep things fair and prevent producers from losing money, we have established the following guidelines to help aid producers when considering whether or not to sell straw and stubble following harvest.

Baling rice straw and selling it may seem like a very lucrative deal because it makes the ground easier to work up for soybeans. Plus, you may get a little money in your pocket. The analysis that we present here has attempted to put a price tag on the value of stubble based on the amount of potash and phosphorous contained in the straw and removed from the farm. Although the value of potash and phosphorous are very significant, there are many other factors to be considered which are much harder to put a price tag on. Rice stubble may seem like a hassle to mess with, but the organic matter that rice straw returns to the soil helps to improve soil structure, increases water holding capacity and returns a number of plant essential nutrients to the soil. Decisions are often based on immediate benefit/cost, with little foresight to the long-term impacts. When selling rice straw, remember that there is a significant value to that straw. Although it may seem beneficial in the short term, it may actually end up costing you money in the long term when your soil test reports start calling for 120 lbs of potash rather than 60.

-Trenton Roberts, Associate Professor and Extension Soil Fertility Specialist

Endigo ZC Approved for Rice Stink Bug Control

A Section 18 Emergency Exemption for the use of Endigo ZC for control of rice stink bug in rice has been authorized for the 2022 growing season.

Rice stink bug numbers and control with lambda have varied greatly this year and depending on where you are in the state. In our assay work with lambda, we have rarely exceeded 65% control with a 1X rate; and no benefit has been observed for going above 1X.

With the limited amount of alternative products available, we applied for a Section 18 for Endigo ZC in May and received the approval today, July 28. Many folks are already familiar with Endigo ZC due to the Section 18 last summer. Our experience with this product has been good, and we typically see upwards of 14 days of control. Below are highlights around the Section 18 and Endigo ZC. If there are any questions, please feel free to reach out and contact us.

Endigo ZC Highlights:

- Approved from July 27 to October 15.
- Rate range is 4.5-6.0 oz (we prefer 5.0 oz).
- Maximum of 18.5 fl oz / year
- Minimum interval of 5 days between applications.
- Pre-harvest interval (PHI) is 21 days.
- Area within 100 feet of the edge of field must be kept free of flowering weeds.
- *Nick Bateman, Ben Thrash, and Glenn Studebaker, Extension Entomologists*

Drain Timing Considerations

Some of the earliest planted rice fields in the state have already been drained with the first fields hopefully to be harvested sometime next week. Given the demanding effort required to keep up with irrigation through this season's drought, draining can't come fast enough. The weather for the upcoming week looks mild, but the longer-term outlook calls for higher than normal temps with lower than normal precipitation, meaning we need to drain with care. In milder, wetter conditions we can a little early with no penalty as soil moisture remains high. In years with warmer weather and no rainfall, early draining can lead to early plant death and reductions in yield and milling. As a rule, we recommend draining fields 25 days after 50% heading for long-grains and 30 days after heading for medium-grains. The DD50 Rice Management Program builds this number of days into its drain timing recommendation. However, as temperature, rainfall, and humidity can impact how quickly kernels actually mature, it's important to do more than just count days and drain. It's preferred to look at the number of recommended days as a guide, but then to look at the relative maturity of the crop from a visual standpoint. Assume it's never going to rain again when you're draining your fields. If the rice couldn't make it safely to maturity under those conditions, hit the pause button and wait. Stay on the side of caution to protect yield and quality. Use a combination of the days after 50% heading guideline (25-30 days) and the relative grain maturity in the field to make your drain decisions.

-*Jarrold Hardke Rice Extension Agronomist*



Feral Hogs

Need help controlling nuisance hogs?

Just a reminder that feral hogs can be trapped and disposed of anytime of the year in Arkansas. White County landowners and producers have access to a Game Changer Jr. hog trap for \$25/week. If you are having an issue, please reach out for help. Call 501-268-5394 to schedule the trap now or for more info on managing feral hogs.



Division of Agriculture to partner with USDA on \$10 million tax education effort for farmers, ranchers

The University of Arkansas System Division of Agriculture and the U.S. Department of Agriculture are teaming up to provide taxpayer education to farmers and ranchers. The partnership aims to provide resources for educators and tax professionals who work with rural and agricultural clients as well. The endeavor is part of a \$14.5 million investment by USDA's Farm Service Agency through two outreach efforts — the first to new farmers, and the other to underserved audiences.

In the first phase, FSA is investing \$10 million toward agriculture-oriented taxpayer education, an effort called the Taxpayer Education and Asset Protection Initiative. The second phase is comprised of a \$4.5 million investment in outreach for the Conservation Reserve Program's Transition Incentives Program, which helps with access to land for beginning and socially disadvantaged farmers and ranchers. Many producers don't know that USDA program funds they receive for conservation contracts, disaster assistance payments and pandemic relief are taxable income, and need help with short- and long-term business planning associated with their program payments, according to the USDA.

"Many rural areas lack legal and certified accounting services, and agricultural producers need additional knowledge and/or resources to integrate tax planning into their financial planning," Rainey said. "This partnership will help the Division of Agriculture and USDA work together to overcome inequalities in tax services to serve agriculture communities."

The next phase of this work will include a suite of online resources for producers, continuing education opportunities for tax attorneys and CPAs, as well as cooperative agreement funding and training opportunities for stakeholder organizations.

"This is the type of effort that goes to the heart of the land grant mission to help our neighbors in the agriculture industry and our rural communities," said Deacue Fields, who heads the Division of Agriculture. "I appreciate the leadership role Ron Rainey has taken in bringing this effort to life."

"Running a farm operation is tough, and we are working to help meet gaps where farmers need assistance," said Deputy Under Secretary for Farm Production and Conservation Gloria Montaño Greene. "First, filing taxes for an agricultural operation can be challenging and many agricultural producers may not have the funds to hire accountants or tax professionals to assist, especially for new and historically underserved producers. This new initiative offers support to producers in navigating tax season.

"Second, we want to make sure producers are aware of our many program options, and Conservation Reserve Program Transition Incentives Program provides a unique opportunity for producers with expiring CRP land to help bring new farmers into the fold," Greene said.

-Mary Hightower U of A System Division of Agriculture

AR Row Crops Blog

Want to Know What is Up in AR Row Crops?

Arkansas Row Crops now has a blog that you can check for weekly market updates and research-based crop recommendations and updates from our specialists.

[AR Row Crop Blog](#)

Farmland Wanted

Need Someone to Partner with on the Farm?

We have a request from a local man looking to start row crop farming. If you are interested or have questions, please contact Bobby Morrison at (870) 552-5109.

Flow Meters

Meters Available

If you need to get your wells checked before the season gets too busy, just let me know. We have an 8" and 10" flow meter you can check out from our office.

2022 White County Demonstrations

It is that time of year again!! Time to get some research demonstrations planned on your farm. Do you have any issues or challenges you would like to have some help with? Have any burning questions or ideas that you would like to see answered on your own farm? If so, let me know!

Current:

Cotton Multiplier- White and Prairie County

Soybean Verification- Brandon Cain

Corn Verification-White & Prairie County

Corn Hybrid Demo- Keith Feather

Soybean Fungicide Trial- Brandon Cain

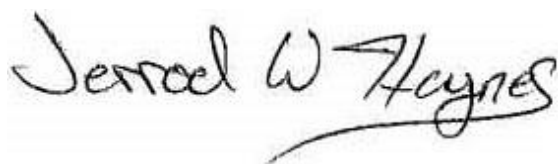
Soybean Xtend Variety-Brandon Cain

Green Seeker Demonstration- Jacob Feather

Cover Crop Moisture- Brad Peacock

Please, feel free to contact me for further information about the items in this newsletter or anything else I may be able to assist you with.

Sincerely,



Jerrod Haynes
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U of A Helpful Publications:

[UPDATED Row Crop Plant-Back](#)

[Intervals for Common Herbicides](#)

[Max Use Rates per Application &](#)

[Per Season for Common Herbicides](#)

[Application Cut-Off Timings for](#)

[Common Herbicides](#)





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