



DIVISION OF AGRICULTURE
RESEARCH & EXTENSION

University of Arkansas System



Row Crops

WHITE
 COUNTY
 NEWSLETTER

ISSUE

09

September
 2020

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Corn Drying Tips

--Harvest corn at 20% or less moisture content.

--Load corn into clean bins immediately after harvest. Bins should be *cleaned & sanitized* prior to harvest to minimize insect problems. Move corn from the field to grain bins as soon as possible. The amount of time before spoilage begins depends on grain moisture content & air temperature. **A safe rule of thumb is to hold freshly harvested corn in carts or trucks no longer than 12 hours.** Warm air temperatures > 80°, and higher grain moisture levels are the most critical factors for decreasing the time required for the grain to spoil.

--Check the moisture content of each load of grain as it is placed in the drying bin. There can be some variation in moisture content, but you need to know *the average moisture* content of the bin to determine the minimum necessary air flow needed and the allowable depth of grain in the bin.

--Open air exits & start the fan as soon as the grain depth is about *1 ft deep* on the perforated floor. Be sure to use spreading devices or some other means to keep the grain leveled as the bin is being filled. If the grain is allowed to cone, there will be an increase of small particles in the center of the cone/ or central portion of the bin resulting in the air not being able to reach this grain because of increased resistance to flow. This makes it very hard to dry & control moisture uniformly in the grain bin & may cause spoilage.

--Add corn to drying bin in shallow layers until the moisture content decreases. High moisture corn (18 to 20%) can be added in *4 feet layers* on top-

of dry grain if the fan can provide at least 3 to 4 cfm/ bu through the total depth in the bin.

--Level corn inside each drying bin continuously; **never allow coning to occur.** Some manual work may be required to maintain a level surface on the top when the maximum depth is reached. This will ensure uniform airflow through all the grain assuming it has been placed in the bin with a good spreader.

--Monitor the moisture content of corn daily. Corn must be cooled to avoid nighttime condensation on the inner walls. If the heat has been on long enough for the complete mass of corn to be warmed & the weather is clear & dry with humidity below 60%, turn the heat off when the moisture content of the grain drops to within 1% of the target moisture content. Continue running the fans, & the residual heat in the grain will finish the drying process.

--Probe the bin periodically to check for *insect infestation & grain temperature increase.* Corn temperature increase usually means moisture migration. Aerate whenever this is detected. If the problem is in the center of the bin and aeration is not effective, move the grain to another bin to solve this problem. Problems in the center of the bin usually indicate that a lot of fines and/or trash accumulated in this area during filling.

--Never add more heat than necessary to adjust the humidity of the drying air down to about 55%. **The maximum heat needed, even in rain or 100% humidity will be about 15-17° above the outdoor temperature.**

Minimizing Field Losses During Soybean Harvest

Harvested yields of soybeans in many Arkansas fields can be increased by 5 – 10% by leaving fewer beans in the field when combining. Surveys indicate that only 10% of all combine operators check their combine adjustments regularly and match forward speed to field conditions.

Typically, soybean harvest loss occurs at four stages. The **PRE-HARVEST** losses occur in the form of loose beans or detached pods that have fallen to the ground prior to harvest. The **GATHERING** losses occur because of shattering during harvest and when beans remain attached to the stubble. The pods on lodged stalks remain in the field and are cut, but loose stalks sometimes do not reach the threshing unit. **CLYINDER** losses occur when the beans remain in the pods after being threshed by the combine. **SEPARATION** losses are threshed beans that fail to be separated from trash and are discharged out the back of the combine along with other trash.

*Typically, more than 75% of soybean machine harvesting losses are **gathering losses**, so the greatest attention should be given to proper header adjustment and operation. Losses go up as travel speed increases.*

Things To Do:

Evaluate your operation & decide where you can make improvements.

Know how to operate & adjust your combine properly in order to keep harvest loss low.

Know how to quickly measure soybean field loss.

Know what losses are reasonable from each harvest component.

Identify how much soybean damage & foreign matter content are allowed without getting docked.

Know how to reduce foreign matter dockage, field loss & soybean damage using proper cultural practices and helpful combine options.

Make sure knife sections, guards, wear plates & hold down clips are in good condition and properly adjusted.

Make a note for the upcoming season to try to keep the seedbed level. Do not pile up soil around beans when cultivating.

Operate the cutter bar as close to the ground as possible at all times. A floating header unit or an automatic header control is nearly essential on self-propelled combines.

Use a ground speed of 2.8 to 3 mph.

Use a reel speed about 25% faster than ground speed.

Reel axle should be 6-12 inches ahead of the cutter bar. Reel bats should leave beans just as they are cut. Reel depth should be just enough to control the beans.

A six-bat reel will give more uniform feeding than a four-bat reel.

Complete the harvest as quickly as possible after the beans reach 15% moisture content to prevent yield reduction due to excess in-field drying.

A pick-up type reel with pick-up guards on the cutter bar is recommended when beans are lodged and tangled.

For more in-depth information and how to calculate total field losses click on the link below or request a FSA1048 to be emailed to you.

-Subodh Kulkarni, Program Associate
Machinery

<https://www.uaex.edu/publications/>

[PDF/FSA-1048.pdf](https://www.uaex.edu/publications/PDF/FSA-1048.pdf)



Johnsongrass Resistance

Dr. Norsworthy has a student project evaluating herbicide resistance in johnsongrass. He is looking for approximately 60 johnsongrass populations to screen for resistance. If you have a johnsongrass population you would like screened for herbicide resistance, please collect several (~10) seedheads, place in a paper bag, record GPS coordinates of sample, and either drop them off to the Extension Office or call me for pick up.

Spray Water Samples

The U of A Weed Science team is repeating studies evaluating the effect of spray water quality on our current herbicide applications. They are needing our help to take water samples, 1 liter each, from sources that would be used for herbicide applications in White County.

The samples will give a better understanding of the water characteristics used for herbicide applications and how these characteristics impact herbicides. If you wouldn't mind having a sample taken from your farm let me know and I can come out and collect them.

Farm Stress

Weather & Harvest Time Adds to Stress So What Can You Do??



-Plan ahead & don't procrastinate

-Set priorities & plan your time

-Set realistic goals & expectations daily

-Take a break; climb down from tractor & stretch

-Take care of your body; eat & stay hydrated

-Look for humor in the things you do

-Talk with someone about worries & frustrations

-Think positive thoughts

-Turn challenges into opportunities

-Seek help when you need it

-Be proud of daily accomplishments

-Get rest for your mind & body

Rice Harvest Aid

--Complete rice harvest in 5 days or less after application of sodium chlorate. Any longer and heavy dew and/or rain can reduce milling yield. Excessive drying of panicle branches can increase shattering potential and excessive plant desiccation can increase lodging. The greatest losses in research trials have been observed from waiting over 5 days to harvest. You can get lucky if conditions happen to be favorable, but the losses can be substantial if conditions are poor.

--Do not salt varieties until grain moisture is below 25%.

--Do not salt hybrids until grain moisture is below 23%.

--Once grain moisture falls below 18%, do not salt the rice. **This is an absolute cut-off for medium grains.** The greatest losses in research trials have been observed from waiting over 5 days to harvest. You can get lucky if conditions happen to be favorable, but the losses can be substantial if conditions are poor, especially Titan. Long grains may be able to cheat below 18% but harvest must start immediately.

--The lower the grain moisture at the time of application, the more you should consider using a lower rate of sodium chlorate. A 1 gallon rate of 5 lb. material is an effective rate especially at higher moisture rice, but as rice approaches lower ranges, a 0.5 gallon rate may be justified to decrease the risk of overdrying the rice.

-Hank Chaney -ANR Educator

Cotton Harvest Aids

Harvest Aid Timing

Time applications based on heat units beyond cutout (NAWF=5), boll slicing, and percent open bolls.

- In most cases cotton in Arkansas can be defoliated without yield penalty when
 - 50 to 60% of the bolls are open
 - 850 HU beyond cutout reached
- Cut uppermost harvestable boll – seed coat will be dark and no jelly present
- Refer to the MP503 Mid-South Defoliation Guide

Harvest Aid Application

- Coverage is key
- No air induction tips
- Use a minimum 5 gallons of water/acre for air applications
- Use at least 13 to 15 gallons of water/acre for ground applications
- For best results, two applications are recommended on actively growing plants

Harvest Aid Product Selection

Refer to the MP 503 Mid-South Cotton Defoliation Guide for the latest defoliation recommendations (click below).

<https://www.uaex.edu/farm-ranch/crops-commercial-horticulture/cotton/MP503-2018%20Mid-South%20Cotton%20Defoliation%20Guide.pdf>



IPM: Insect ID Challenge

A beneficial bug that can be bought by homeowners to help control harmful insects. The larval stage feeds on aphids, whiteflies, mites, & small caterpillars. (Green Lacewing)



Retiring Farmers

Need Someone to Pass the Farm Along To in the Future?

We have a request from a local man looking to start row crop farming in White County. He is interested in maybe teaming up with a soon-to-be retiring farmer, learn from the farmer, and then eventually buy the farm. If you are interested or have questions, please contact Bobby Morrison @ (870)552-5109.

Herbicide Resistant Weeds

NOVEMBER 1st DEADLINE

If you suspect Herbicide Resistant weeds in your fields and want them to be tested let me know. We will send them to Fayetteville to be evaluated. We will need the weed and some field info before we send them off. We now can send in multiple Barnyard Grass samples per county thanks to several companies & the UADA. (Red Rice, Italian Rygrass, Johnsongrass & Palmer Amaranth)

Flow Meters

Need to know your flow?

Before you shut your pumps down, give me a shout! We can help you check the flow on your farm with our flow meters. This will give you a better idea of your irrigation capabilities and give you the needed data for your Pipe Planner plans and be ready for next year!

2020 U of A Field Days



OUR FIELD DAYS ARE MOVING ONLINE!

Our field days are moving to an online format this year, giving Arkansas farmers a chance to interact with U of A specialist.

Our online field days will begin at **6 p.m.** with short messages from administration & commodity boards. Our scientists will then share updates on their research projects. Participants can ask their questions during the live Q & A session.

Registration is FREE and open until the event starts. You'll need the free ZOOM app to join on your mobile devices. If you can't make it to the live event, the videos will be posted on our website after the broadcast.

Registration is required. Register at link below:

<https://bit.ly/ArkRiceOnline>

Call (501) 268-5394 for help downloading the ZOOM app or for registration.

All @ 6:00 p.m.

Corn: September 3rd

Soybean: September 17th

Cotton: October 1st

Rice Weed Management Survey

The University of Arkansas System, Division of Agriculture, weed scientists would like your help in gathering weed management information and understanding your current weed management concerns in rice. Harvest is an excellent time to assess weed control escapes and reevaluate management strategies.

Information gathered from the survey will provide direct insights into your current weed management practices and allow us to better understand your current concerns with making accurate and efficient weed management decisions. Additionally, the information provided will be used to prioritize research and Extension outreach efforts moving forward to more effectively address your needs.

If you have questions or concerns about this study, you may contact Dr. Thomas Butts by email at tbutts@uaex.edu. For questions about your rights as a research participant, please contact Ro Windwalker, the U of A – Fayetteville IRB Coordinator, at (479) 575-2208 or irb@uark.edu.

Please click on the link below to access the survey. It should take approximately 10-15 min. to complete.

[2020 Rice Weed Management Survey](https://uaex.co1.qualtrics.com/jfe/form/S_V_0PrXRlv9BHuQjvX)

https://uaex.co1.qualtrics.com/jfe/form/S_V_0PrXRlv9BHuQjvX

IPM Trap Counts

White County Trap Counts Aug 24-28 Corn Earworm
CEW Trap catches are moderate but CEWs **CAN** be found at treatment levels in fields regardless of trap catches; fields should be scouted for exact populations.
See CEW Dynamic Threshold & SWCB Threshold in MP144

Location	Count	Level
Feather S. Griffithville CEW (Treated Last Week)	80	Moderate
Cain N. Griffithville CEW	49	Low
Peacock Russell CEW	75	Moderate
Pruitt McRae CEW	67	Moderate

2020 White County Demonstrations

We appreciate local producers working with us to provide opportunities to further research and create learning environments.

Current:

Cover Crop- Jacob Feather (Planted 6/4)

Soybean Verification- R.J. & Brad Peacock (Planted 6/4)

Corn Verification- Brandon Cain (Planted 4/18)

Corn Planting Population: Brandon Cain (Planted 4/18)

Corn Starter Fertilize: Brandon Cain (Planted 4/18)

Hybrid Corn Variety Trial: Keith Feather (Planted 5/4)

Rice Multiple Inlet Demo: Danny Barnett (Planted 6/4)

Row Rice Multiplier: John Hamilton (Planted 6/4)

Corn Surge Valve Demo: Brandon Cain

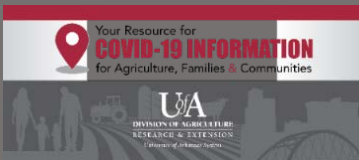
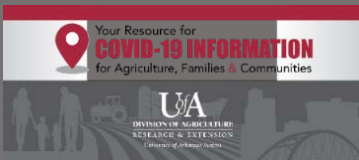
Soybean Fungicide Demo: Brandon Cain

CEW/Bollworm Traps & SWCB Traps

Cotton Multiplier: Jackson, Woodruff, & White Co.-Kent Farms (5/28)

Pecan Orchard: Prairie, Lonoke, & White Co.-Reidhar Bro. Farms

We will not be having our End of Season Grower Discussion or Field Tours because of COVID-19 but if you would like to see any of the above demos before we start to harvest, just let me know!



If you are needing information on COVID-19 or any of the issues that it is causing, please visit our COVID-19 Information page on our website, listed below. There are resources available for you, your family, your farms, & your businesses. If you need help with something not listed, then just give us a call & we will do what we can!
www.uaex.edu

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.

 facebook

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Sincerely,

Jan Yingling
County Extension Agent - Agriculture

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Upcoming Events

Now Until Further Notice: WE
are OPEN but CLOSED to
Face to Face Interactions
at the White County
Cooperative Extension
Service

Practice Safe Sanitizing



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