



Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Trent Roberts, & Scott Stiles

June 14, 2019 No. 2019-16

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Crop Progress

“Pretty good, not bad, I can’t complain. But actually, everything is just about the same.” We can stop talking about planting progress now. As of Monday we had officially reached 95% planted for the state. There were still a few fields going in this week in isolated spots but we can essentially call planting complete now. On with trying to manage it!

So a large portion of the crop is going now or will soon be going to flood. Probably at least 1/3 or more should already be flooded. The temperatures of this past week requiring a morning jacket were a bit of a shock. Rice has enjoyed that but is moving slowly. Prior to this slowdown some early rice was progressing a couple days ahead of projection. This cool weather will back that off to a degree.

Next week should be more of a return to upper 80s (and warmer lows) to keep this crop progressing. However, rain chances abound throughout the week. The action in the air this week says everyone has been preparing to be sprayed up and fertilized as much as possible before that. Hope you’re getting yours ready!

Much of this late-planted rice is getting ready for flood fast. Way faster than you may be thinking. Run DD50 reports on your fields and update them every few days (at least once a week) – they’re updated with current weather data daily. DD50 Rice Management Program (<http://DD50.uaex.edu>).

We’ll get into Midseason N management more next week, but don’t be in too big of a hurry to make that midseason application. Apply too soon before the pre-flood N is finished being taken up and you risk not getting the full benefit out of the midseason N application.

Fig. 1. If one picture summed up 2019, it would be this turtle. We know how you feel.



Sulfur Isn’t What’s Giving You That Boost From Some Fertilizers

There have been several questions recently revolving around using sulfur (S)-containing nitrogen (N) sources in rice. Of late, these have centered around their use at pre-flood. The most frequent comment is how some have the impression that rice “responds” better. The main two fertilizer forms we’re referring to are ammonium sulfate or AMS (21-0-0-24) and sulfur-coated urea (41-0-0-4).

It seems that many folks like the quick “green up” they see from early V2-V3 applications of AMS on rice. Although on silt loam soils we don’t generally observe other benefits besides the improved green color. It seems that some associate this improved color and crop response with the sulfur in AMS. Since most of our soils have adequate amounts of sulfur, this is not the case.

Instead, what you’re seeing is the more readily available N in AMS in the form of ammonium providing the plant response. In

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contrast, urea must hydrolyze into an ammonium form over ~2 days. This creates a “delayed fuse” effect with urea compared to AMS.

With this response in mind, some have moved toward using sulfur-coated urea or 41-0-0-4 (as it’s often referred to by its analysis). Again, the idea is that the S is providing a boost or quick green-up. In reality, the S in 41-0-0-4 is elemental S (not sulfate as in AMS) and takes a long time to become plant available – so it can’t be providing a kick even if you did need S.

Using 41-0-0-4 is also less desirable because it is actually a controlled (delayed) release. This could cause availability issues when rice is in high demand for N at the mid-tillering stage.

So, using 41-0-0-4 is going to cost you more money per unit N, the S won’t be available for a long time, and the N is going to be more slowly available. So, this is an option we probably want to avoid.

If you think you need S, or want to give a little kick with your pre-flood, it’s much more economical to blend in a little AMS with your pre-flood urea. Odds are you don’t need to pay more for the AMS, urea works just fine, but going with a small amount of AMS is a better option than using 41-0-0-4. Call with any questions.

Fig. 2. A happy rice field – they do exist.



Rice Market Update

The big news this week came from USDA’s supply/demand report released Tuesday. Judging by the muted reaction, CBOT rice futures had been “pricing-in” the June WASDE for the last 7 weeks. The new crop September contract has held in a 30 cent trading range most of this week (thru Thursday’s close) and is finding resistance just above \$12. The life of contract high for the September ’19 contract is \$12.35 ½ -- made last July.

September ’19 Rice Futures, Weekly Chart.



Given the persistent planting delays this year, USDA broke with the usual protocol of waiting for the NASS Acreage report to adjust plantings. The most surprising example of this was in the 2019 corn balance sheet. USDA cut planted acres by 3 million and reduced the national average yield by 10 bushels per acre. In similar fashion, USDA made a 20.1 million cwt. cut to new crop long-grain production. Total long-grain production now stands at a projected 139.5 million cwt. To arrive at this number USDA trimmed harvested acreage by 268,000. This implies that more long-grain production cuts could be seen in the months ahead. Since 2007 the largest prevented planting total for rice in Arkansas was 302,684 acres in 2013. In all likelihood this year’s total will be very similar to 2013. More clarity on acreage will be provided later this month in the NASS Acreage report, which will be released June 28. Considering the

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fact that NASS was surveying growers during the first two weeks of June for the Acreage report, a completely accurate picture of acreage could be lacking for a few (if not several) more months.

Partially offsetting lower new crop production was a 2 million cwt. increase in beginning stocks and a 0.5 million cwt. increase in imports. On the demand side, domestic use was lowered 8.0 million cwt. Projected exports were reduced 2.0 million cwt to 70.0 million. Reductions in demand generally occur with lower supply and an increasing price outlook. Projected 2019/20 ending stocks were lowered 7.6 million cwt to 30.3 million. The projected 2019/20 long-grain season-average farm price was increased by 50 cents to \$10.50/cwt. or \$4.73 per bushel.

U.S. Long-Grain, Supply and Demand, 2019/20.			
Unit: million cwt.	May	June	Change
Beginning Stocks	35.3	37.3	2
Production	159.6	139.5	(20.1)
Imports	23.0	23.5	0.5
Total Supply	217.9	200.3	(17.6)
Domestic Use	108.0	100.0	(8)
Exports	72.0	70.0	(2)
Total Use	180.0	170.0	(10)
Ending Stocks	37.9	30.3	(7.6)
Avg. Farm Price (\$/bu.)	\$ 4.50	\$ 4.73	0.23

Source: USDA, June 2019.

*The next USDA WASDE report will be released on July 11, 2019.

Rice PLC Update:

2018 Projected PLC Payment Rates (as of June 2019).

	A	B	C	(A minus higher of B or C)	-6.8%
Unit: \$/bu.	Ref. Price	Loan Rate	Mktg. Year Avg. Price	Proj. PLC Payment Rate	Net PLC Pmnt. Rate
Long-Grain	\$6.30	\$2.925	\$4.82	\$1.48	\$1.38
Med.-Grain	\$6.30	\$2.925	\$5.49	\$0.81	\$0.75

The final 2018 marketing year prices and PLC payment rates for rice are expected to be announced in October 2019. Projected 2018 PLC payment rates are updated monthly on the USDA Farm Service Agencies' ARC/PLC website at this link: [ARC/PLC Program Data](#)

Look under the heading "Program Year 2018 Data" for "Projected 2018 PLC Payment Rates".

Rice Field Problems

The wet spring (preceded by a wet winter and a wet fall) have created interesting conditions out there for rice. Many fields are shallow-rooted due to the prolonged wet and mild conditions. With that, more herbicide injury is beginning to show up even with normally safe rice herbicides.

In some instances we're seeing what is known as delayed phytotoxicity syndrome (DPS) or some refer to it as delayed phytotoxic shock. Either way, it's bad.

You get stunted, discolored plants, fish-hooking tillers, and rigid / crunchy feeling plants. The answer is to reduce the flood back to at least muddy for a few days and expose the roots to oxygen and the majority of plants will begin to grow out of it. The more severe the problem, the more a greater drydown period is needed.

Fig. 3. Delayed phytotoxicity syndrome or DPS of rice. Caused by normally rice-safe herbicides.



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While there are some fields out there with true deficiency problems, many out there right now only have that appearance. Not unlike the DPS topic above, many fields are displaying a yellow flash that has no discernible pattern. Actually a lack of a pattern is a pattern – point at ALS injury sometimes referred to as a “Permit pattern”. Not to pick on that product, any of our ALS herbicides can ultimately be responsible, but particularly those that we use most to target sedges.

Essentially the injury occurs in a seemingly random pattern, but you get very bright yellow tissue. Sometimes there is not particular standout symptomology of a particular deficiency. You also will be unlikely to find a true deficiency upon tissue sampling. The plant is basically sick from herbicide caused by environmental conditions and the conditions of the soil it’s growing in.

The answer is the same as for DPS – drain. Take the water off for a few days if the injury appears on a large enough area of the field. Upon re-flooding it will grow out of it.

Particularly with this situation – don’t be too quick to dismiss what could be a real nutrient deficiency. While you’re draining, have tissue and soil samples analyzed to be sure that nothing stands out that could be a compounding factor.

Fig. 4. Appearance of Zn deficiency caused by ALS herbicide and environmental conditions.



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Additional Information

Arkansas Rice Updates are published periodically to provide timely information and recommendations for rice production in Arkansas. If you would like to be added to this email list, please send your request to rice@uaex.edu.

This information will also be posted to the Arkansas Row Crops blog (<http://www.arkansas-crops.com/>) where additional information from Extension specialists can be found.

More information on rice production, including access to all publications and reports, can be found at <http://www.uaex.edu/rice>.

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