



# Arkansas Rice Update

Dr. Jarrod Hardke

March 31, 2015

No. 2015-6

## Planting Progress

The weather out there hasn't exactly made an optimist out of anyone. The northeastern corner of the state caught rain and snow(!?) on Friday. South of Jonesboro, things started rolling on Saturday (3/28) with the first confirmed rice planting of the season, and things have really picked up steam the last few days. I'm sure there may have been a field somewhere that was water-seeded earlier last week, but no confirmation on that yet.

The forecast for the Delta looks pretty grim for the rest of the week. Significant rain chances (50-80%) are currently forecast through Friday, but there is some variation in the forecast between the northern and southern halves of the state. If you're keeping score at home, that means rain on the first of April, which the old saying indicates will lead to 15 days of rain in April. That happened a lot in 2014, we'll see if it holds true in 2015.

There have been a number of questions about using AV-1011 seed treatment in rice this year to protect seed from bird depredation. As of today (3/31) we're still waiting on authorization from EPA, but we **DO NOT** have it yet. I hope to receive it early this week, but that's now too late for some. As soon as I hear anything I'll spread the word far and wide.

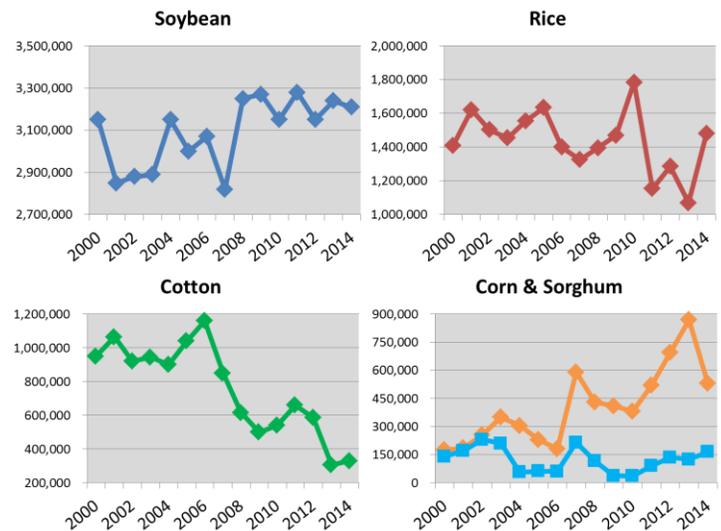
The USDA Prospective Plantings report was released today (3/31). A summary of the report for Arkansas row crops is listed in **Table 1** along with 2013-2014 acreage. The rice acreage projection is in line with my estimate of 1.45 million acres total and 225,000 acres of

medium-grain. The other commodities are also in line with expectations at this point. A lot can and likely will change in the next few weeks. See **Figure 1** for recent row crop acreage trends.

**Table 1. USDA-NASS Prospective Plantings for 2015 (with 2013-2014 acreage).**

Crop	2013	2014	2015
Rice	1,076,000	1,486,000	1,441,000
LG	955,000	1,270,000	1,220,000
MG	120,000	215,000	220,000
Corn	880,000	540,000	530,000
Cotton	310,000	335,000	230,000
Sorghum	130,000	170,000	250,000
Soybean	3,270,000	3,240,000	3,450,000

**Figure 1. 2000-2014 Harvested Acreage for Soybean, Rice, Cotton, and Corn/Sorghum.**



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## Only Use Labelled Products

As usual this time of year, plenty of calls have come in asking about the use of various products in rice. Please keep in mind there may be some products mentioned/recommended for use in rice that DO NOT have a label for use in Arkansas. Avoid these products as their use may affect end use of your crop. When in doubt – check the label. If still in doubt – contact the Arkansas State Plant Board.

## Phosphorus and Potassium Fertilization

“Can I cut my fertilizer program to save money this year?” Like most answers, this one is gray at best. It’s true that if your soil test values for P and K are not down to critical levels, it’s possible you could survive the year by applying lower rates.

Keep in mind that if you’re going down that road – a K deficiency is easier to correct than a P deficiency. By that I mean that we can mostly correct a K deficiency all the way to the boot stage. By the time a P deficiency shows up (if it’s ever obvious; “hidden hunger”) we can’t do much to fix it beyond midseason. The yield increase from P fertilizer applied at midseason is usually less than when P is applied earlier.

The other aspect to consider is nutrient removal by this year’s crop. A 200 bushel rice crop will remove 60 lbs P<sub>2</sub>O<sub>5</sub> per acre and 32 lbs K<sub>2</sub>O per acre – that’s what will be carried out in the grain. With that in mind it would be very wise to ensure you have a sufficient amount of both P and K to cover the amount that will be used by the crop. Commodity prices won’t fix themselves overnight, so shorting on fertilizer this year to save a little money may result in a

larger total expense next year. For the Nutrient Removal Fact Sheet (FSA-2176):

<http://www.uaex.edu/publications/pdf/FSA-2176.pdf>

## Be Smart with Seeding Rates!

As we look for ways to trim costs in 2015 seeding rate is an area that will get constant attention. But I will caution you to worry less about reducing seeding rates for the sake of reducing the seeding rate. Worry more about selecting the proper seeding rate and correctly calibrating your drill to deliver that rate. The RICESEED program (<http://riceseed.uaex.edu>) was developed with this very idea in mind. Using this program, seeding rate selection is much easier and can be done at the computer or from your phone/tablet.

We need to move past the idea of planting every rice cultivar based on a general “pounds of seed per acre” number. Instead, we should be focusing on number of seeds per acre or seeds per square foot. For varieties, optimum seeding rate is 30 seed per square foot and for hybrids, optimum seeding rate is 12 seed per square foot (optimum refers to a silt loam soil, rice behind soybean, good seedbed preparation, and optimum planting time).

Why can’t I just go with a “pounds per acre” rate? Currently grown rice cultivars vary from 16,000 to 22,000 seed per pound. If you planted 75 lbs per acre of cultivars at each end of that, that’s 1.2 million seed versus 1.65 million seed. Per acre, that’s a difference of 450,000 seed – not a small difference.

So, whether you use the RICESEED program to select your seeding rate or not – pay

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attention to the number of seeds per pound for your selected cultivars. This number can usually be found on the bag. If the number isn't there – you can consult the RICESEED update (attached or online: <http://www.arkansas-crops.com/wp-content/uploads/2015/03/Riceseed-Update-2015.pdf>) for a general seed per pound number. Or, and this is preferred, weigh the seed you have in hand to determine your seed per pound. We base our counts for RICESEED on the weight of 1,000 seed (preferred), but that does take a while to count out. So, at a minimum, count a few sets of 100 seed to use as a basis for determining your number of seeds per pound.

For instance, if you have a bag of Roy J and want to determine the seeds per pound, count out three sets of 100 seed and weigh them on a scale that can read in grams. If your counts are 2.2 g, 2.4 g, and 2.4 g, then your average is 2.33 g per 100 seed. Divide 45,400 by 2.33 and you get 19,485 seeds per pound.

To plant 30 seed per square foot you would need 67 lbs of seed per acre (43,560 ft<sup>2</sup>/acre X 30 seed/ft<sup>2</sup> / 19,485 seed/lb).

## Effect of Row Spacing

Row spacing work (**Table 2**) was done several years ago to demonstrate the difference between 7-inch rows and 10-inch rows. You can see Table 1 for yourself, but the clear idea is that across regions, years, and soil types, the 7-inch row spacing provides a yield advantage over the 10-inch row spacing. To get more bang for your buck, stick with the narrower row spacing (and drill rather than broadcast seed when you can).

**Table 2. Influence of seeding method on rice grain yield during 2004 and 2005.**

Row Spacing	2004		
	RREC	SEREC	LH
	bu/acre		
7 in.	189	153	185
10 in.	166	147	173
LSD (0.05)	4*	3*	5*

Row Spacing	2005		
	RREC	SEREC	NEREC
	bu/acre		
7 in.	164	150	199
10 in.	140	146	176
Broadcast	155	146	174
LSD (0.05)	5*	7	7*

RREC = Rice Research & Extension Center; SEREC = Southeast Research & Extension Center; LH = Lake Hogue; NEREC = Northeast Research & Extension Center. Data from Frizzell et al. 2006, BR Wells Rice Research Studies.



The improved DD50 program is now up and running at <http://DD50.uaex.edu>. Changes have been made to improve your experience on both your computer and your **mobile devices**. Please let us know what you think about the changes and usability of the program.

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## All About N-STaR

For answers to frequently asked questions about N-STaR, please visit:

<http://www.arkansas-crops.com/2015/03/30/frequently-asked-questions/>.

## Trends in Net Returns for AR Field Crops

A summary of trends in net returns for Arkansas field crops from 2008-2014 is

available here: [http://www.arkansas-crops.com/wp-content/uploads/2015/03/FlandersNetReturns\\_2014.pdf](http://www.arkansas-crops.com/wp-content/uploads/2015/03/FlandersNetReturns_2014.pdf).

## 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 [jhardke@uaex.edu](mailto:jhardke@uaex.edu).

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

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

## Acknowledgements

We sincerely appreciate the support for this publication provided by the rice farmers of Arkansas and administered by the Arkansas Rice Research and Promotion Board.

The authors greatly appreciate the feedback and contributions of all growers, county agents, consultants, and rice industry stakeholders.

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