

2020 Monroe County Crop Demonstrations and Research Trials



Monroe County Cooperative Extension Service

Andrew Sayger- County Extension Agent Agriculture

**Monroe County
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The mission of the Cooperative Extension service is to strengthen agriculture, communities, and families by connecting trusted research to the adoption of best practices. We not only work in agriculture, but also in 4-H youth development, Family and Consumer Sciences, Community Development, Wildlife and Nature and much more. As county extension agents, we take our research recommendations combined with practical advice and strive to improve the lives of those in our communities. We work for YOU.

This demonstration booklet is tailored to the producers of Monroe County. We conduct these demonstrations and research trials every year with a goal of helping and strengthening our local producers and crops. As the county agriculture agent, I am here to serve you. I hope you find the information in this report helpful to your operations. If you have any questions, comments, suggestions or would like to discuss any information, please feel free to contact me with the information below. Please contact me anytime throughout the year if I can help. Remember, I work for YOU.

I would also like to point out that we send out ag updates via text, email, and paper mail throughout the year. We have a lot of contacts on these lists and they find it useful. I may send out an update or two per week during the growing season and less during the off season. If you would like to be on the list, contact me with the information below.

Sincerely,
Andrew Sayger

Monroe County Extension Agent – Agriculture
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2020 Monroe County Demonstrations and Cooperators

Kevin and John Thompson: Irrigation Best Management Practices

Ronnie George: Cotton Multiplier Program

Lance Gray: Soybean Multiplier Field

Curtis Nash: Soybean Research Verification Program

Curtis Nash: Rice Research Verification Program

Tim Gannon: Rice GRADE Trial

Tim Gannon: Row Rice PREP Trial

Chad Hornsby: Rice Multiplier Fields (2)

Derrick Young: Rice IPM Multiplier Field

Larry Greene: Rice IPM Multiplier Field

Todd Smith: Hybrid Corn Variety Demonstration

Medford and Sons Farming: Xtend Variety Trial

Kevin Thompson: Enlist Variety Trial

Southwestern Corn Borer Monitoring Trap Catches

Bollworm Monitoring Trap Catches

Monroe County Crop History

Monroe County Annual Update

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Irrigation Best Management Practices in Corn

Producer- Kevin Thompson and John Thompson

Location- Hwy 49 south of Brinkley (34.8419560, -91.1875541)

The 77-acre corn field was comprised of mostly silt loam soils. The soils have a history of sealing over after the initial irrigation so that water infiltration into the soil profile is reduced. The field was divided in half to set up a control side and an experiment side. Each side was watered from two separate risers. Herbicides, fertility, planting rate and other practices were the same for both sides. There was 9.8 inches of rainfall recorded on the fields from June to August.



Control side

The control side flow was 1700 gallons per minute. A pipelanner program was ran to determine hole sizes to punch in the polypipe. The producer irrigated this side 5 times. **A total of 14,828,200 gallons of water, or 14.4-acre inches, was used over the growing season measured by a flowmeter.**

Experiment side

The experiment side flow was 700 gallons per minute. A pipeplanner program was ran to determine hole sizes to punch in the polypipe. This side was divided into two sets with a surge valve placed at the riser. A set of soil moisture sensors was also placed on this side $\frac{3}{4}$ of the way down the row at 6, 12, and 18 inches deep in the soil profile. This side was also irrigated 5 times. **A total of 8,527,442 gallons of water, or 9.2-acre inches, was used over the growing season measured by a flowmeter.**

Results

In this particular field the surge valve helped move water down into the soil profile on the experiment side. The surge valve sends pulses of water down the row and moves into a soak cycle. This allowed the water to soak into the soil instead of running through the field and into the ditch. The moisture sensors helped plan timely irrigations when the crop was ready for it. The sensors helped us to see that water was soaking into the top 18" of soil. They were also a tremendous help to terminate irrigation. Each side yielded 190 bu/acre. **The difference was we used 6,300,758 gallons less water, or 5.2-acre inches less, to produce the same yield.**

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**2020 Cotton Multiplier Program
Phillips and Monroe County**

Ronnie George – Producer

Robert Goodson – County Extension Agent

Andrew Sayger – County Extension Agent

Planting date: May 10, 2020

Harvest date: October 21, 2020

Variety: DP 1646

Field Size: 75 acre field 25 acres under pivot

Herbicide Program: Glyphosate and Warrant (2 applications)

Two application of Pix (190 and 16 oz)

Insect Program: Four (4) Applications for Tarnished Plant Bugs

Irrigation: Pivot Irrigation 3 Times, In season rainfall 3.6 inches. , events based on moisture sensors. Producer decision to terminate on Aug 15. Irrigation energy cost \$15.96/ac

There was 23.9 inches of rainfall recorded from May 10th – Oct. 21st

Defoliation: Two Applications: 1. Dropp and Prep 2. Def and Prep

Yield 1,150 lbs lint per acre for entire field

Production Cost (All based on Extension budgets)

Operating Expenses: 611.20

Fixed Costs 176.93

Total Cost 788.13

Total income: 851.00/ac (1150 lb lint at \$0.74 per lb)

Arkansas
ROW CROP VERIFICATION



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Irrigation
irrigation

Date	Plant Nodes Data
June 16	12 nodes
June 30	14-15 nodes
July 7	10 NAWF
July 21	9 NAWF
July 28	7 NAWF
Aug 4	5 NAWF



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Soybean Multiplier Demonstration

Producer: Lance Gray
Agent: Andrew Sayger
Location: Blackton (34.6712830, -91.1167937)

Season Review:

The field was approximately 103 acres, soil type Foley Calhoun Bonn, was located on Highway 49 west of Blackton in Monroe County followed by the previous year rice crop. After land preparation was complete, a fertilizer application of 0-60-75 was applied following soil test recommendations and bedded. The field was planted on May 20th with Beck's 4667X2 at 160,000 seed/acre with Escalate seed treatment on 60" beds with 30" row spacing. 36 oz of Intimidator was applied at planting. The field emerged to 145,000 plants per acre on June 4. On July 2, Glyphosate at 2 pints/acre and Dual at 1 pint/acre was applied. No insecticides were warranted as insects never reached threshold levels. A small amount of frogeye was noted at R5, no fungicide was necessary. The field was furrow irrigated 3 times with 9-acre inches. A total of 17.9 inches of rainfall was recorded from planting until irrigation termination. The field was harvested on October 26th yielding 58 bushels per acre.

Irrigation Overview:

Soil moisture sensors was used at 6, 12, 18, and 30 inches to help determine irrigation needs and crop water use. There was water infiltration down to 30 inches until R4 growth stage. After this stage the soil sealed over some and water did not filtrate down into the profile past 18 inches. The producer said the sensors really helped on planning the next irrigation according to when the crop needed it. The sensors saved at least one irrigation if not two irrigations. The producer said the sensors were a major help in determining irrigation termination. He would have irrigated but the sensors showed that the crop had enough moisture in the soil to finish the crop and the crop wasn't using as much moisture at that point in the season.



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Soybean Research Verification Program

Producer: Curtis Nash
Agent: Andrew Sayger
Coordinator: Chad Norton
Location: (34.7175038, -91.1493339)



Arkansas
**ROW CROP
VERIFICATION**

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University of Arkansas System



Season Review:

The 70-acre field, soil type Foley-Calhoun-Bonn, was located on highway 49 just north of Henderson corner in Monroe County and followed by the previous year rice crop. After land preparation was complete and prior to planting, 90 pounds of potassium was applied following soil test recommendations and bedded. The field was planted on May 16th with Asgrow AG46X6 at 140,000 seed/acre with CruiserMaxx seed treatment on 30" beds. A pre-emerge herbicide application was made on May 17th of 1 quart/acre Cornerstone and 1 pint/acre Dual Magnum. The field emerged to a plant population of 137,000 plants per acre. A post-emerge herbicide application of 22 oz/acre Roundup PowerMax plus 1.33 pints/acre Dual Magnum was made on June 15th followed by another herbicide application prior to canopy closure of 22 oz/acre Roundup PowerMax on June 30th. A small amount of frogeye was noted later in the season, but no fungicide was warranted. Insects never reached threshold levels. The field was irrigated 5 times utilizing pipe planner and soil moisture sensors for timing irrigations. A total of 18.2 inches of rainfall was recorded during the growing season. The field was harvested October 28th yielding 67 bushels per acre adjusted to 13% moisture.

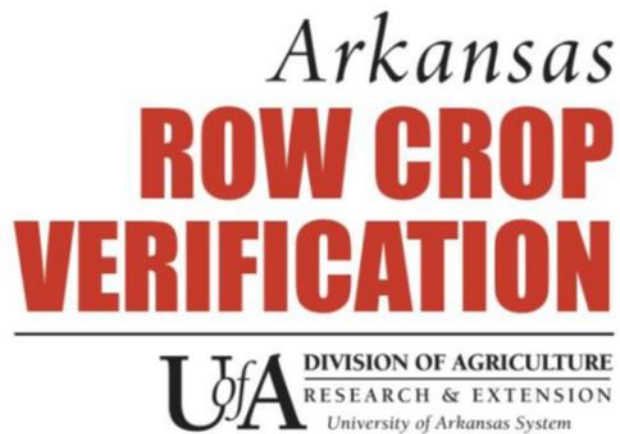
Please refer to our uaex.edu website under the farm and ranch tab, or the Arkansas row crops blog in early 2021 for a complete economic analysis of the Soybean Research Verification Program report.

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Rice Research Verification Program

Producer: Curtis Nash
Agent: Andrew Sayger
Coordinator: Ralph Mazzanti
Location: (34.7162830, -91.1465320)



Season review:

The 145-acre field was contour levees and located north of Henderson corner on Highway 49. The field was primarily comprised of a silty clay loam soil. The field was fallow the previous year and was disked, diamond harrowed, land planed, and fertilized with an 0-45-60 prior to planting. The field was drill seeded at 7.5-inch row spacing on May 21st with RiceTec XP753 at 22 lbs/acre. Glyphosate at 1 quart/acre and Command at 1 pint/acre was applied immediately after planting by ground. Levees were pulled following herbicide application. Emergence was observed on May 27th with a stand count of 6.4 plants per sq/ft. The field had tremendous grass pressure along with nutsedge and aquatics. On June 10th, 0.4 oz/acre Regiment + 1 quart/acre Facet + .75 oz/acre Permit Plus + 1 pint/acre Triple Play was applied by plane. On June 18th, 4 quarts/acre of Duet + .25 oz/acre Permit was applied. Prior to flood, 270 lbs/acre Urea with NBPT + 100 lbs/acre MESZ was applied on June 18th as well. The field was flooded in 7 days and good nitrogen incorporation was achieved. Levees were sprayed on July 8th by mud master with .6 oz Regiment + 11 oz of Facet. A late boot application of Urea was applied by July 22nd at 65 lbs/acre. The field has a history of smuts and a smut prevention application was made on July 16th with 6 oz/acre of Propiconazole. Stink bugs reached threshold and were treated on September 3rd with 2.1 oz/acre Lambda-Cy. The field was started draining by September 9th. The field was harvested on October 3rd yielding 188 bushels/acre at 15% moisture. Milling yield was 57/70. A total of 13.35 inches of rainfall was recorded in the growing season with 30 acre-inches of irrigation.

Please refer to our uaex.edu website under the farm and ranch tab, or the Arkansas row crops blog in early 2021 for a complete economic analysis of the Rice Research Verification Program report.

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Rice G.R.A.D.E Trial

The Rice G.R.A.D.E trial was conducted at Tim Gannon's near Blackton at (34.65353, -91.1411) on a Grenada silt loam and Foley Calhoun Bonn soil types. The field was contour levees. The varieties were replicated 4 times across the field. The field was planted on May 20th and emerged on May 16th. Average plant stands across all plots was 24 plants per sq foot with a low of 22 and a high of 28 plants per sq foot. The field was harvested on October 5th. All in season production practices, applications and irrigation was made according to the producer's common practices.

Variety	WT(#) @ harvest	BU@harvest	CUT AREA(AC.)	HARVEST MOISTURE	wt. @12%	bu(12% moisture)	dry bu/AC	TWT	total	head	MRY	HRY	BROKEN
JEWEL	2400	53.33	0.310	16.3	2282.7	50.7	163.6	43.6	110.5	92.7	68	57	11.0
DIAMOND	2636	58.58	0.310	16.7	2495.2	55.4	178.9	42.5	105.9	86.3	65	53	12.1
CLL15	2218	49.29	0.310	15.6	2127.3	47.3	152.5	41.1	105.6	89.5	65	55	9.9
DIAMOND	2502	55.60	0.310	18.1	2328.6	51.7	166.9	37.3	105.8	83.6	65	52	13.7
CLL15	2084	46.31	0.310	18.2	1937.2	43.0	138.9	39.3	107.1	91.1	66	56	9.9
JEWEL	2360	52.44	0.310	17.6	2209.8	49.1	158.4	41.1	109.1	91.2	67	56	11.0
JEWEL	2540	56.44	0.310	17.6	2378.4	52.9	170.5	40.4	109.9	91.4	68	56	11.4
CLL15	2322	51.60	0.310	16.4	2205.9	49.0	158.1	40.5	106.9	89.7	66	55	10.6
DIAMOND	2784	61.87	0.310	17.6	2606.8	57.9	186.9	41.0	107.7	84.3	66	52	14.4
DIAMOND	2780	61.78	0.310	16.9	2625.2	58.3	188.2	40.2	106.9	76.9	66	47	18.5
CLL15	2362	52.49	0.310	17.7	2209.0	49.1	158.4	38.1	106.3	85.1	66	53	13.1
JEWEL	2634	58.53	0.310	18.2	2448.4	54.4	175.5	39.6	109.3	86.1	67	53	14.3

Average dry bu/ac	
CLL15	152.0000778
DIAMOND	180.2598926
JEWEL	167.0576519
Grand Total	166.4392074

	Avg MRV	Avg HRY
CLL15	65.72531	54.84568
DIAMOND	65.78704	51.09568
JEWEL	67.71605	55.7716
Grand Total	66.40947	53.90432

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Row Rice PREP Trial

Cooperator: Tim Gannon

Agronomist: Jarrod Hardke

Technicians: Donna Frizzell, Trent Frizzell

Agent: Andrew Sayger

Discussion:

The field was on 30" beds with polypipe ran across the top of field. The top of the field was never flooded. Water was flushed through every few days. The bottom of the field was allowed to back up water and remained in a more flooded environment during the growing season. The cultivars in the trial at the top of the field endured more disease pressure, while those at the bottom did not.

Cultivar Top	Diamond	Jewel	CLL15	CLL16	CLL17	Jupiter	Titan	RTXP 753	RT 7521 FP	RT 7301
50% Heading Date	7-29	7-30	7-30	8-4	8-3	8-8	7-30	7-30	8-1	7-30
Canopy Height @ Maturity (in.)	31	31.5	23.25	29.75	26.25	26.75	26.75	27.5	28.5	29

Cultivar Bottom	Diamond	Jewel	CLL15	CLL16	CLL17	Jupiter	Titan	RTXP 753	RT 7521 FP	RT 7301
50% Heading Date	7-29	7-30	7-30	8-4	8-3	8-8	7-30	7-30	8-1	7-30
Canopy Height @ Maturity (in.)	31	31.5	23.25	29.75	26.25	26.75	26.75	27.5	28.5	29

Yield information will be published in early 2021 by the rice agronomy department. Please refer to our website or contact the agent for this information.

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Monroe County Rice Multiplier Field-1

Cooperator: Chad Hornsby
Agent: Andrew Sayger
ANR Educator: Hank Chaney

It was a 62-acre field. The previous crop was soybeans. The soil type was a silt loam. The field has a high soil pH and is low in Potassium. A fertilizer blend of 100 lbs./A of MESZ and 100 lbs./A of Potash was applied and field cultivated prior to planting. The variety planted was CLL15. It was treated with Zinc and Release. Seeding rate was 75 lbs/A. The final plant population was 15 plants/sq.ft. There have been issues controlling Barnyard Grass in this field. The producer has had Barnyard Grass samples screened for herbicide resistance. All of the Barnyard Grass samples were resistant to Propanil, Facet, RiceStar and Clincher. Command @ 12.8 ozs/A was applied aerially as a pre-emergence treatment and activated by rainfall. A post emergence aerial application of Command @ 8 ozs./A+ Prowl @ 2.1 pts/A was applied 2 weeks later and immediately activated. This treatment lengthened herbicide residuals and maintained grass control. The rice was in the 1-2 leaf stage at the time of application. This was followed by a post emergence aerial herbicide application of Newpath @ 4 oz/A + Propanil 4 qts./ A for control of Red Rice, Yellow Nutsedge and Palmer Pigweeds. The rice was 3-4 leaf. This was followed 2 weeks later by another post emergence aerial herbicide application of 4 ozs/A of Newpath for Red Rice and Yellow Nutsedge control and to ensure the field was weed free going into flood. The rice was 4-5 leaf. Season long weed control was estimated to be 95% because there were very few weed escapes. The field was basically clean or weed free. A fertilizer application of 50 lbs/A of DAP + 50 lbs/A of Urea was applied when the rice was in the 3-leaf stage to address Phosphorous needs. This was followed by a 90 unit/A (200 lbs/A) pre-flood nitrogen application applied on a dry soil surface during the optimum time frame according to the DD50. Urea was applied 4 weeks later at a rate 45 units/A (100 lbs/A). Rice Stinkbugs never reached treatment thresholds. The field was treated with Propiconazole at mid-boot for smut control. Shortly after mid-season, there was a significant amount of Brown Spot that developed throughout the field. Brown spot is normally associated with stress. May have been the need for more Potash. Addressing fertility may be the key for yield improvement.

Yield: 170 Bu/A

Look for the full economic analysis to be published in early 2021.

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Monroe County Rice Multiplier Field-2

Cooperator: Chad Hornsby
Agent: Andrew Sayger
ANR Educator: Hank Chaney

It was a 75-acre field. The previous crop was soybean. The soil type was a silt loam. The field has a high soil pH and is low in potassium. The variety planted was CLL15. It was treated with Zinc and Release. The seeding rate was 75 lbs/A. The final plant population was 11 plants/sq.ft. Barnyard grass control is a major problem in this field. Barnyard grass samples have been screened for herbicide resistance. Results indicate resistance to Propanil, Facet, RiceStar and Clincher. Command @ 12.8 ozs/A + Facet @ 32 ozs/A was aerially applied as a pre-emergence treatment and activated by rainfall. This application provided 3 weeks of residual control. A post emergence herbicide application of Newpath @ 4 oz/A + Command @ 8 ozs/A was applied aerially to 2-3 leaf rice to lengthen herbicide residual and maintain grass control. MESZ @ 100 lbs/A was applied the same day. A major issue occurred two weeks later. This and the grower's other rice fields did not have levee gates installed and a tropical depression was forecasted to dump 4+ inches of rainfall. This was further complicated by a significant flush of two leaf Barnyard Grass throughout the field but it was particularly bad in the east end of the field. We realized by the time the field got dry enough to apply preflood nitrogen, the Barnyard Grass would be tillering and there would not be any way to control it. The producer realized and understood the gravity of the situation. He installed all of the levee gate by himself. A post emergence herbicide application of Newpath @ 4 ozs. /A and 113 units (250 lbs/A) of Urea was applied the next day on a dry soil to 4-5 leaf rice. The pre-flood nitrogen was applied within the optimum time frame according to the DD50. The flood was delayed in anticipation of 4+ inches of rain. It only rained a 1 ½ inches. A post emergence aerial herbicide application of Blazer @ ½ pint/A was applied for Hemp Sesbania control prior to flag-leaf emergence. With the exception of one streak of Barnyard Grass, season long weed control was estimated to be 90%. A 56-unit (100 lbs/A) application of Urea + 60 units (100 lbs) of Potash was applied at mid-season 4 weeks later. The field was treated with Propiconazole at mid-boot for smut control. Rice Stinkbug did not reach treatment level. Shortly after mid-season, there was a significant amount of Brown Spot that developed throughout the field. There were areas in the field where the rice didn't tiller very well. Fertility may need to be addressed in order to further increase yields. Producer observed what appeared to be more cold-water injury on this variety.

Yield:145 Bu/A

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Rice IPM Multiplier

Cooperator: Derrick Young
Agent: Andrew Sayger

The Rice IPM Multiplier fields are a replica of the Rice Research Verification Program.



Season Review:

The 16-acre field is a Calloway silt loam, straight levee field located just east of Brinkley. After field work of the previous year rice crop was complete, a fertilizer blend of 0-40-90-10 was applied prior to planting to according to soil test recommendations. The field was drill seeded at 7.5" row spacings on June 4 with RiceTec XP753 at 22 lbs/acre. Command at 12.8 oz/acre + Facet L at 25 oz/acre was also applied June 4 by plane and activated the next day by rainfall. Emergence was observed on June 10 with a stand count of 8 plants per sq/ft. On June 18, Command at 8 oz/acre + Propanil at 3 qt/acre was applied and flushed after application. Prior to flood, Urea + NBPT was applied at 260 lbs/acre to dry ground according to DD50 timing on July 9 and flooded. A late boot application of Urea was applied August 4 at 100 lbs/acre into the flood. The field never reached threshold for rice stinkbugs nor was there any disease pressure. The field was drained on September 16. The field was harvested October 5 yielding 201 bushels/acre. Total rainfall during the growing season was 19.9 inches.

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Rice IPM Multiplier

Cooperator: Larry Greene

Agent: Andrew Sayger

The rice multiplier fields are a replica of the Rice Research Verification Program.

Season Review:

The 92-acre field was contour levees and located near Keevil in Monroe County off Highway 17. The field is a jackport silty clay loam. After field preparation was complete, Diamond was planted at 90 lbs/acre on 7.5" row spacings on May 21. Seed treatment was not used but was recommended in the future. Glyphosate at 2 quarts/acre + Command at 1.3 pints/acre was applied by ground for new grass sprouting and residual grass control on May 22. Emergence was observed May 27 with a final plant stand of 15 plants per sq/ft. On June 3 the field was very dry and grass was breaking through. On June 6, 40 oz/acre Facet L + 2 quarts/acre Propanil + 1 oz/acre Permit + 1% COC was applied and flushed. Prior to flood, 290 lbs/acre Urea + NBPT was applied to dry ground according to DD50 timing. On June 23 the field was flooded but too deep in many places. The flood was pulled down to a muddy state. On July 1, Regiment at .5 oz/acre was applied to control a flush of barnyardgrass. During the week of July 6, the rice was sickly. There were multiple factors involved including root pruning, blackened roots, possible delayed phytotoxicity syndrome and fish hooking. The weather had also been cloudy and rainy. As a result, the field was drained and allowed to dry for a few days. On July 15, 100 lbs/acre AMS + 50 lbs/acre MESZ was applied and flooded back up. The rice looked better after this and 100 lbs/acre Urea was applied into the flood on July 25. Leaf blast had been present in the field and on August 15, 12 oz/acre of Azoxystrobin was applied at 30-50% panicles emerged from the boot. The field was drained on September 16. The field was harvested on October 7. Yield was estimated to be 145 bushels/acre from measuring the grain bin. Total rainfall during the growing season was 18.6 inches.



Left: Leaf Blast

Right: Fish hooking symptoms for delayed phytotoxicity syndrome (DPS).



Corn Standardized County Hybrid Trials Information Sheet

County:	Monroe	Crop:	Corn
Grower:	Todd Smith		
County Agent:	Andrew Sayger, Robert Goodson		
Location of Field:	Roe	GPS:	34.61828 -91.37743
Soil Type:	Stuttgart Silt Loam		
Previous Crop:	Soybeans		
Planting Date:	May 1, 2020		
Row Width:	30"		
Planting Population:	36,000		
Harvest Date:	September 15, 2020		

Fertility: (lb/ac)	N	P	K	S	Zn
--- Preplant	70	80	90	10	1
--- Sidedress	250				
--- Pretassel					
Total Fertility:	320	80	90	10	1

Irrigation Type: Furrow Number of Times: 3

Hybrid	Adj. Yield ¹	Plot size acres	Weight	Yield	% Moisture	Plant Stand ²	Lodging Score ³	Test Weight
Progeny 2015 VT2P	201.83	0.463	5,178	199.71	14.6	35,000	3	59.6
Gateway 5716	213.46	0.463	5,502	212.20	15.0	35,000	3	58.9
Pioneer 2042VYHR	197.56	0.463	5,190	200.17	16.6	36,000	3	59.7
Local LC1898 TC	214.93	0.463	5,586	215.44	15.7	34,000	3	58.8
Dyna-Gro 55VC80 VT2P	214.96	0.463	5,580	215.21	15.6	35,000	3	58.8
Armor 1575 VT2P	228.24	0.463	5,876	226.63	14.9	33,000	3	58.8
Dekalb D65-99 TRE	197.77	0.463	5,140	198.24	15.7	34,000	3	58.1
Progeny 9114 VT2P	212.48	0.463	5,602	216.06	16.9	35,000	3	59
Pioneer 1847VYHR	232.93	0.463	6,018	232.10	15.2	36,000	3	58.8
Local LC1577 VT2P	231.31	0.463	5,962	229.94	15.0	35,000	3	58.6
Dyna-Gro 58VC65 VT2P	236.54	0.463	6,104	235.42	15.1	36,000	3	58.3

¹ Yield is adjusted to 15.5% moisture.

² Plant Stand is given as plants per acre.

³ Lodging score - 1 is no lodging, 10 is completely lodged.

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Xtend Variety Trial

Crop:	Soybeans	Producer:	Medford and Sons Farming
Location:	Rich	GPS:	(34.7800706, -91.1834979)
Soil Type:	Jackport Silty Clay Loam	Row Width:	30"
Previous Crop:	Rice	Planting Rate:	140,000
Planting Date:	6/1/2020	Harvest Date:	10/21/2020
Irrigation:	Furrow irrigated once		

Pesticide Rate per Acre and Product	Fertilizer (N-P-K-S-Zn)
1 qt Boundary Preplant fb 1.5 pints Flexstar/ 2 pints Glyphosate on 7/15 (weed control was great)	Preplant 100 lbs. potash, 50 lbs. DAP
Besiege applied on 8/17 for corn earworms	

Variety	Plant Stand K's	Adjusted Yield (Bushels/Acre) ¹	% Moisture at Harvest	Lodging Score ²	Shatter Score ³	Test Weight	Plot Size acres
Armor 46-D09	88.5	38.75	13.8	1	4	50.3	0.85
GoSoy 48X19	98	33.51	14.8	1	3	53.3	0.84
Progeny 4821RX	82	37.11	14.9	1	2	52.3	0.83
Credenz 4869X	100	32.14	13.2	1	2	54.0	0.77
Delta Grow 48X05	100	34.18	13.8	1	2	54.9	0.73
Pioneer 46A86X	114	27.92	13.7	1	2	52.4	0.69
Armor 48-D25	109	28.90	13.8	1	3	53.4	0.65
GoSoy 47X19	116	26.70	14.2	1	2	54.0	0.64
Progeny 4970RX	109	30.85	13.9	1	2	55.0	0.63
Credenz 4570X	117	37.60	13.4	1	2	53.3	0.60
Delta Grow 46X65	111	44.20	13.5	1	1	54.0	0.58
Pioneer 48A60X	117	45.54	12.4	1	2	54.3	0.57
Dyna Gro S46XS60	106	49.15	12.9	1	1	53.6	0.55

¹ Yield adjusted to 13% moisture

² 1 is no lodging, 10 is completely lodged

³ 1= 0% 2=1-3% 3=4-8% 4=9-19% 5=20%+

Notes:	These are non-replicated demonstration plots. For a better picture of a varieties potential, growers are encouraged to compare this data with data collected from University of Arkansas System Division of Agriculture replicated tests. This research data is printed annually and is available on-line at http://arkansasvarietytesting.com/
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Monroe County Cooperative Extension Service

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Enlist Variety Trial

Crop:	Soybeans	Producer:	Kevin Thompson
Location:	Fargo	GPS:	(34.9418340, -97.1698384)
Soil Type:	Grenada Silt Loam	Row Width:	30
Previous Crop:	Rice	Planting Rate:	140,000
Planting Date:	6/5/2020	Harvest Date:	10/22/20
Irrigation:	Furrow irrigated 4 times		

Pesticide Rate per Acre and Product	Fertilizer (N-P-K-S-Zn)
32 oz Liberty, 32 oz Roundup Powermax and 1.3 pints Metolachlor applied June 15 th	Preplant 150 lbs. potash 50 lbs. MESZ
Rotary hoe was also ran for weed suppression	

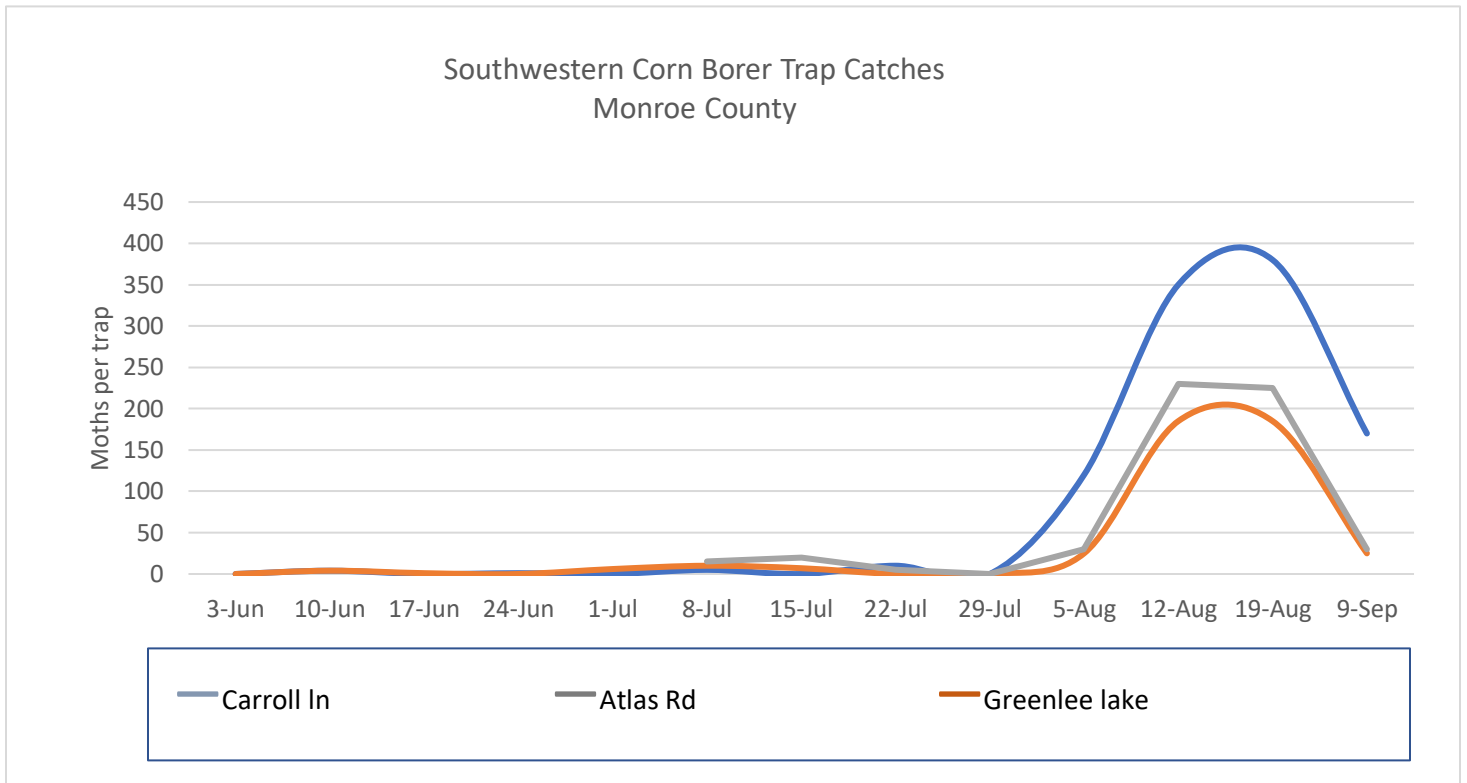
Variety	Plant Stand in k's	Adjusted Yield (Bushels/Acre) ¹	% Moisture at Harvest	Lodging Score ²	Shatter Score ³	Plot Size acres
Go Soy 481E19	87.5	41.89	11.1	1	1	0.84
Delta Grow 48E10	81.5	41.20	10.3	1	1	0.84
Progeny 4775E3S	96.5	43.87	11.2	1	1	0.84
Pioneer 49T62E	108	47.92	11.4	1	1	0.84
Dyna Gro S45ES10	112	48.58	11.5	1	1	0.84
Go Soy 463R20S	123	49.74	11.5	1	1	0.84
Delta Grow 48E49	96.5	51.64	11.1	1	1	0.84
Progeny 4682E3	127	53.01	11.3	1	1	0.84

¹ Yield adjusted to 13% moisture	² 1 is no lodging, 10 is completely lodged	³ 1= 0% 2=1-3% 3=4-8% 4=9-19% 5=20%+
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Notes:	These are non-replicated demonstration plots. For a better picture of a varieties potential, growers are encouraged to compare this data with data collected from University of Arkansas System Division of Agriculture replicated tests. This research data is printed annually and is available on-line at http://arkansasvarietytesting.com/
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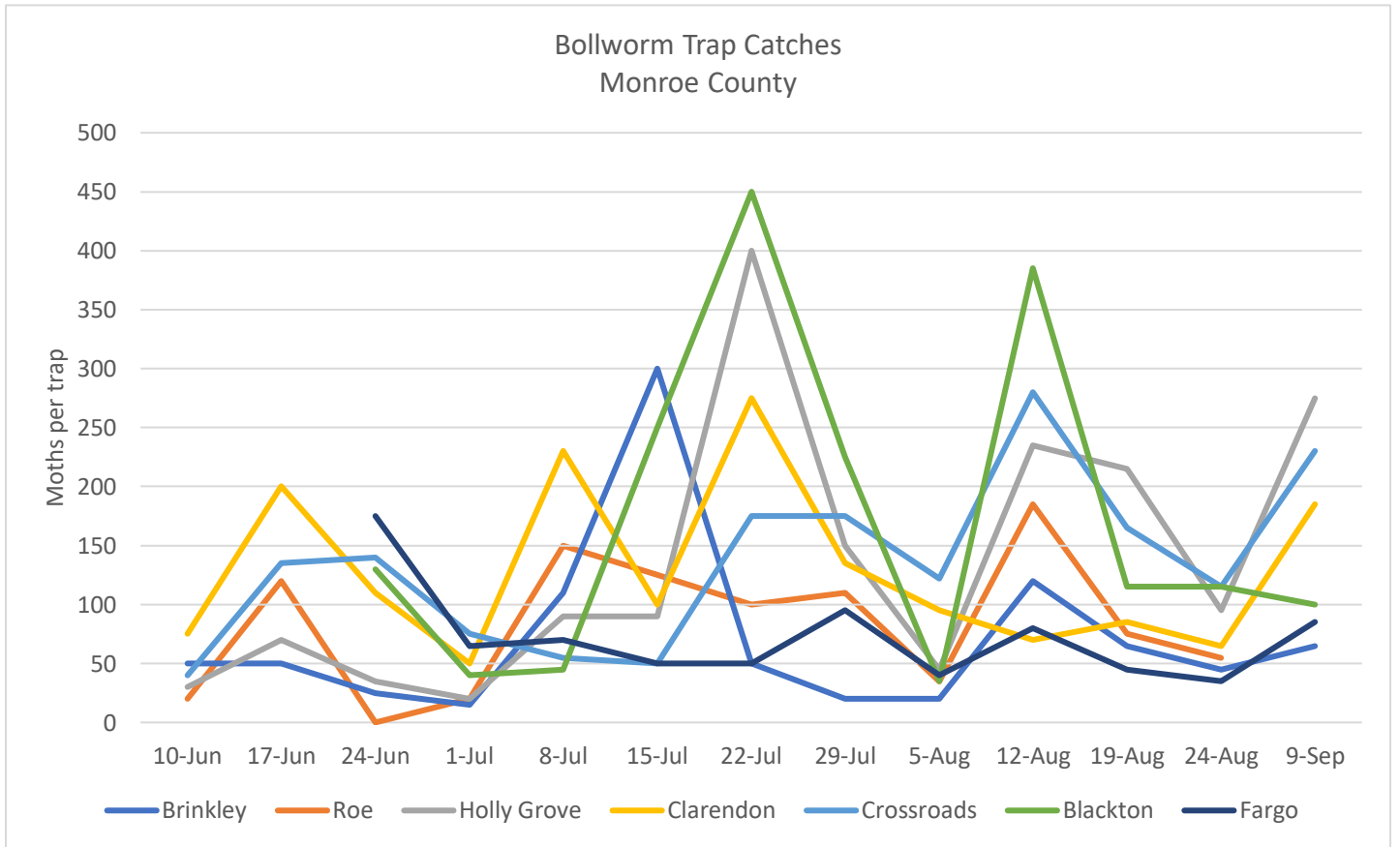
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Location Name	Latitude	Longitude	3-Jun	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	9-Sep
Carroll Ln	34 35.959 N	91 07.104 W	0	4	0	1	0	5	0	10	0	120	350	380	170
Atlas Rd	34 50.299 N	91 08.169 W	0	4	1	0	6	10	7	0	0	25	185	185	25
Greenlee lake	34.87707	91.15315						15	20	5	0	30	230	225	30

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	10-Jun	17-Jun	24-Jun	1-Jul	8-Jul	15-Jul	22-Jul	29-Jul	5-Aug	12-Aug	19-Aug	24-Aug	9-Sep
Brinkley	50	50	25	15	110	300	50	20	20	120	65	45	65
Roe	20	120	0	20	150	125	100	110	35	185	75	55	
Holly Grove	30	70	35	20	90	90	400	150	45	235	215	95	275
Clarendon	75	200	110	50	230	100	275	135	95	70	85	65	185
Crossroads	40	135	140	75	55	50	175	175	122	280	165	115	230
Blackton			130	40	45	250	450	225	35	385	115	115	100
Fargo			175	65	70	50	50	95	40	80	45	35	85

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3 Year Monroe County Crop History			
	2017	2018	2019
Rice			
County Acres	36,000	45,900	34,000
County Avg yield	168.4	166.6	155.3
State Acres	1,104,000	1,422,000	1,126,000
State Avg yield	166.4	167.1	166.2
Corn			
County Acres	29,000	26,500	29,600
County Avg yield	182.1	173.2	169.6
State Acres	595,000	645,000	725,000
State Avg yield	183	181	175
Cotton			
County Acres	2,712	5,260	15,400
County Avg yield	na	na	1,184
State Acres	438,000	480,000	610,000
State Avg yield	1,177	1,133	1,185
Soybeans			
County Acres	118,500	97,100	72,000
County Avg yield	47.2	47.3	47.2
State Acres	3,500,000	3,210,000	2,610,000
State Avg yield	51	50.5	49
Wheat			
County Acres	5,500	4,900	na
County Avg yield	63.1	59	na
State Acres	125,000	95,000	50,000
State Avg yield	52	55	52

Your Monroe County

Cooperative Extension Service

www.uaex.edu/counties/monroe

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DIVISION OF AGRICULTURE

RESEARCH & EXTENSION

University of Arkansas System

Annual Update

2020 Monroe County Extension Education Outreach

Total Educational Contacts: 78,481

Total County Volunteer Hours: 1,956

Value of Volunteer Time (# of Hours X \$27.20): \$53,203.20

Agriculture & Natural Resources

Overview of Programs:

- 19,100 Total Educational Contacts
 - 4751 were Direct Contacts
- 865 Farm / Site Visits
- 18 On-Farm Demonstrations
- 1,392 Volunteer Hours at a \$37,862 Value to County
- 23 Master Gardeners
- 4 Master Gardener Projects

Key Programs & Activities Conducted:

- 15 producers adopting crop best management practices representing 35,000 acres
- 35 producers adopting Integrated Pest Management practices



Monroe County 4-H

Overview of Program:

- 15,681 Total Educational Contacts –
 - 7,434 were Direct Contacts
- 39 4-H Members
- 4 4-H Clubs
- 10 4-H Volunteer Leaders
- 531 Volunteer Hours at a \$14,443.20 Value to the County

Key Programs & Activities Conducted:

- State Rice is Nice Recipe Contest winner
- 2 Virtual Vet Science Camp participants



- Shooting Sports- BB Team – 6 shooters placed 7th at State Match
- 4 Dairy Foods Contest Participants
- 6 Ross Photo Contest Participants
- 3 State Record Book Winners
- State Poster Art Winner
- Bass Fishing Clinic

Your Monroe County

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**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

University of Arkansas System

Annual Update

Family & Consumer Science

Overview of Program:

- 11,929 Total Educational Contacts
 - 3,737 were Direct Contacts
- 25 Volunteer Hours at a \$680 Value to the County
- 2700 SNAP-Ed Contacts
 - 1,351 were Direct Contacts
- 15 Community Partnerships

Key Programs & Activities Conducted:

- Preschool & Elementary Nutrition Education
 - 1456 Direct Contacts
- Adult Nutrition Education
 - 2,281 Direct Contacts
- Elementary & High School Financial Matters
 - 107 Elementary 23 High School
- ServSafe Manager Certification
 - 2 Certifications Earned
- Early Childhood & Child Care Professional Development Courses
 - 952 Total Hours Earned



Community & Economic Development

Overview of Program:

- 9,495 Total Educational Contacts
 - 2,351 were Direct Contacts
- 8 Volunteer Hours at a \$217.60 Value to the County

Key Programs & Activities Conducted:

- 2020 Census Education – displays, handouts, in-person classes
- 2020 Voter Education – displays, handouts
- Dissemination of information pertaining to Funding Opportunities, Tax Schools, & training opportunities related to all aspects of Community & Economic Development
- Leadership opportunities with 4-H members

Time & Effort Related to COVID-19

Overview of Program:

- March 15 – Sept. 30, 2020
- 394 Agent Hours
- 19,624 Total Social Media Contacts
- 11 Newsletters Pertaining COVID-19 Information
- 4 News Articles Published
- 90 Phone Calls
- 13 Soil Samples taken at drop-box

As I have mentioned, demonstration work in the county is the backbone of our agriculture program. I want to say thank you to everyone that participated in this year's work. Thank you to all the state agronomist and their research crews, the verification coordinators, state specialist, irrigation specialist, ANR educators and many more. Their help is much appreciated to make these programs possible. Thank you to Diane Cunningham for helping assemble the demonstration book and distributing information throughout the year.

I want to say a very special thank you to our area producers. Thank you for allowing us to conduct research and trials on your farms. Our work would not be possible without your assistance. I hope our work benefits you as much as you help us.

2020 Demo Cooperators

Curtis Nash	Chad Hornsby	Larry Greene	Derrick Young
Lance Gray	Todd Smith	Ronnie George	Tim Gannon
Kevin Thompson	John Thompson	Jon Carroll	Jim Carroll
Ryan Medford	Lonnie Medford	Doug Medford	

Thank you!!