



Mississippi County Cooperative Extension Service

2020 Demonstrations and Programs

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Mississippi County – Agriculture

For more than a century, the University of Arkansas Cooperative Extension Service has provided reliable, practical answers and technology for producers. Our county programs have included on-farm variety demonstration of corn, cotton, soybeans, rice, wheat, and peanuts.

We also develop demonstrations and programs to help improve irrigation efficiency, weed control, insect/disease pest management, and crop fertility.

In addition to row crop agriculture in Mississippi County, we work with home lawn/gardeners. The Mississippi County Cooperative Extension Service nurtures the relationship between Arkansans and gardening in many ways including school/community gardens and the Arkansas Master Gardener Program. We have started working through our 4H agent to deliver Ag in the classroom programs to help Mississippi County students/youth recognize the importance of agriculture to our county.

Agriculture agents have partnered with the Family and Consumer Sciences agent to provide programming and support for a community garden in Manila and a school garden at Manila Elementary. These programs are part of the CDC Grant ArDROP and are used to provide more access to healthier living choices for Mississippi County Residents.

Variable Rate Planter Response and Accuracy Demonstration

Cooperator: Bell Planting Company

Agent: Ray Benson

Planted: April 7, 2020

Harvested: September 19, 2020

Relevance

Seed costs represent one of the major crop expenses in row crop production. Producers have expressed interest in managing inputs by using prescription (variable) seeding rates. For such practices to be viable, the accuracy of precision planters need to be documented.



Figure 1. measuring variable rate planter accuracy.

Response

A prescription of 10 seeding rates was uploaded to a variable rate planter to test the accuracy of precision planting. Prescribe rates of corn were planted to 150 ft plots and replicated two times. Target seeding rates ranged from 20,000 to 42,500 per acre and were planted in 2,500 seed per acre increments (figure 2). Stand counts were collected from each plot and compared to the prescription rate.

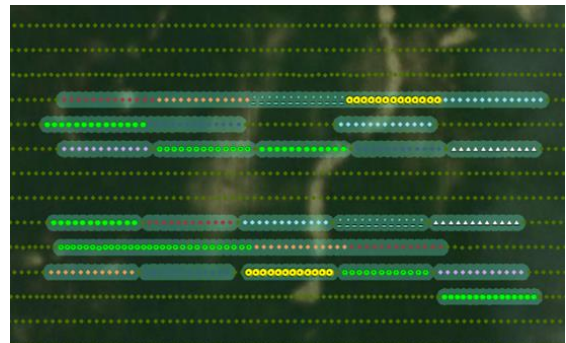


Figure 2. As-applied seeding rate map of corn seeding rate study, Bell Farms 2020.

Results:

In general, counted populations were extremely close to the target seeding rate planted by prescription (Figure 3). On average, less than a 3.0% difference was observed between actual plant populations and the prescribed target seeding rate (Table 1). Based on this demonstration, precision planting of variable seeding rates are likely possible and may be a way for producers to improve efficiency.

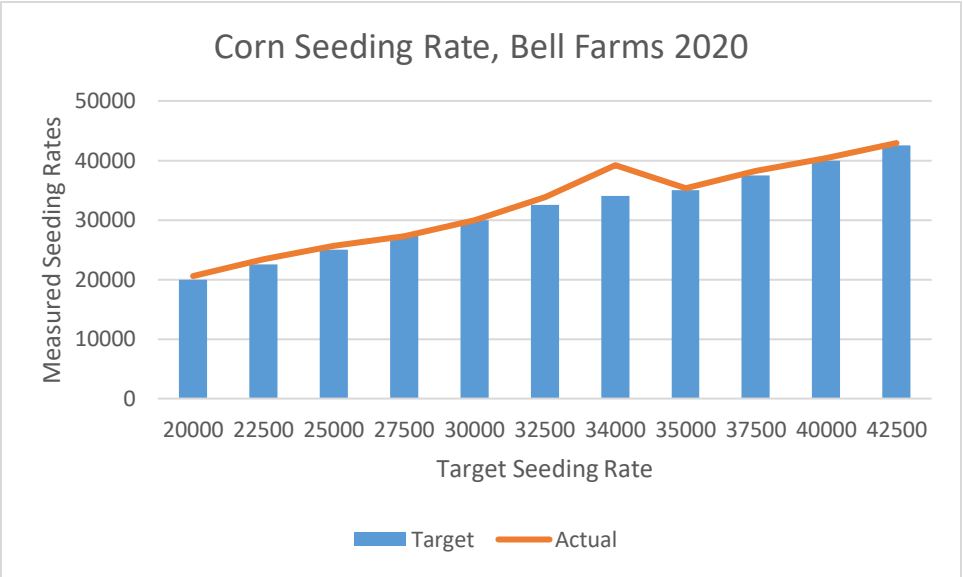


Figure 3. Actual plant populations vs. target prescription seeding rate, Bell Farms 2020.

Table 1. Planting rate evaluation of each row of a 12-row variable rate planter, Bell Farms 2020.

	Row #												
Target Rate	1	2	3	4	5	6	7	8	9	10	11	12	Average
20000	110.0%	100.0%	100.0%	90.0%	110.0%	110.0%	100.0%	110.0%	100.0%	90.0%	120.0%	100.0%	102.7%
22500	106.7%	106.7%	97.8%	106.7%	106.7%	97.8%	106.7%	97.8%	106.7%	97.8%	106.7%	106.7%	103.4%
25000	96.0%	96.0%	104.0%	104.0%	104.0%	104.0%	104.0%	104.0%	104.0%	88.0%	104.0%	104.0%	101.8%
27500	101.8%	94.5%	94.5%	101.8%	101.8%	94.5%	101.8%	101.8%	101.8%	101.8%	94.5%	94.5%	98.5%
30000	93.3%	106.7%	100.0%	100.0%	93.3%	100.0%	106.7%	106.7%	100.0%	86.7%	106.7%	106.7%	101.2%
32500	104.6%	104.6%	104.6%	116.9%	98.5%	104.6%	104.6%	104.6%	92.3%	104.6%	104.6%	92.3%	102.9%
34000	100.0%	105.9%	105.9%	105.9%	117.6%	111.8%	111.8%	117.6%	111.8%	111.8%	117.6%	117.6%	112.3%
35000	91.4%	102.9%	102.9%	102.9%	97.1%	102.9%	102.9%	108.6%	102.9%	102.9%	102.9%	102.9%	102.9%
37500	101.3%	101.3%	101.3%	101.3%	106.7%	101.3%	101.3%	106.7%	96.0%	106.7%	106.7%	106.7%	103.3%
40000	95.0%	105.0%	100.0%	105.0%	105.0%	100.0%	95.0%	100.0%	105.0%	100.0%	105.0%	105.0%	102.3%
42500	98.8%	103.5%	98.8%	103.5%	98.8%	103.5%	103.5%	98.8%	94.1%	103.5%	103.5%	98.8%	101.0%
Average	99.9%	102.5%	100.9%	103.5%	103.6%	102.8%	103.5%	105.1%	101.3%	99.4%	106.6%	103.2%	102.9%

Mississippi County IPM Program – Bollworm/TBW Trapping

Agent: Ray Benson

Location: Multiple Locations – county wide program

Relevance:

Crops like cotton and soybeans are susceptible to economic injury from pests like the bollworm and tobacco budworm. Control is increased when applications are timed to early growth stages of the pest. Pheromone trapping can identify when populations are increasing and help producers/consultants adjust scouting procedures to manage the crop.

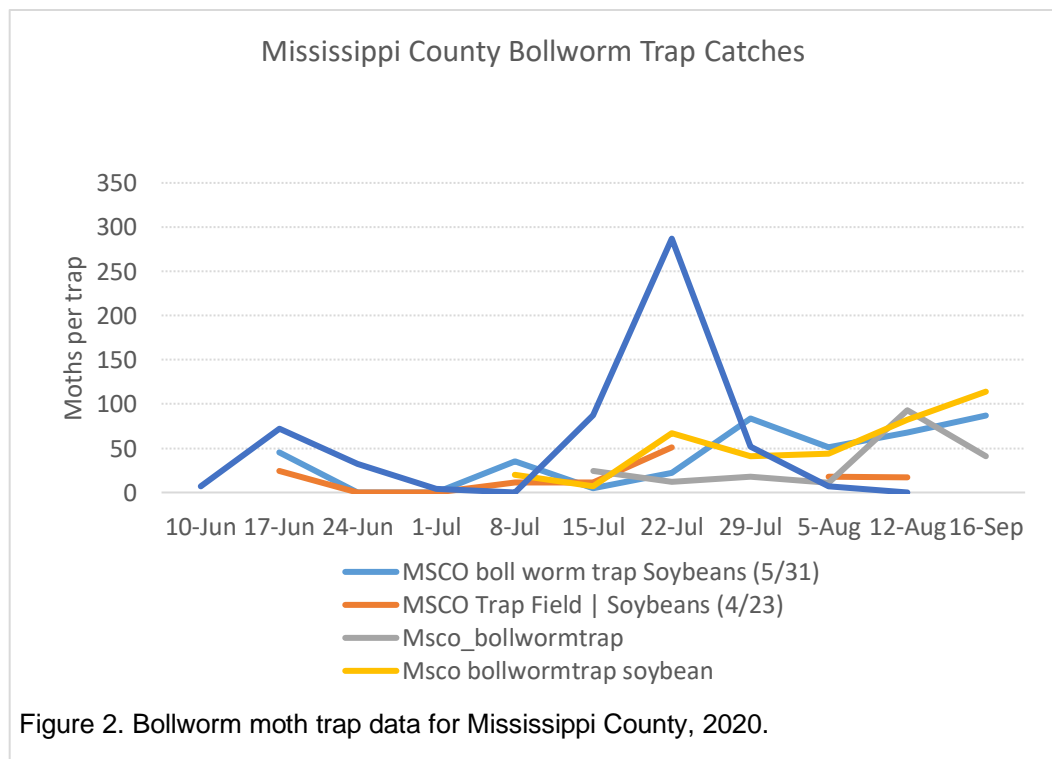


Response:

Mississippi County agents developed IPM plans to monitor bollworm/tobacco budworm (TBW) populations in the county. Chemical control options are expensive and timing critical. Pheromone traps help monitor pest populations and alert producers when scouting schedules need to be adjusted.

Results:

Weekly trap counts indicated that populations remained low for much of the 2020 season (Figure 2). Results were shared with producers and consultants via social media, text messages and news articles.



Mississippi County Corn Verification

Producer: Gary Chandler Farms
Agent: Shawn Lancaster
Location: Bassett
Planted: April 6, 2020
Harvested: 10/20/2020
Previous Crop: Soybeans
Planting Population: 34,000
Row Width: 38in
Variety: Dekalb 70-27 VT Double Pro
Yield: 192.5 Bushels/A

Total Fertility (lbs/Ac)	N	P	K	S	Zn
	279	0	34	29	2

The Mississippi County corn research verification field was located south of Dyess on a Sharkey-Steele Complex soil. The field was 82 acres and previous crop was soybeans. A mixed pre-plant fertilizer of 60-0-34-5-1 was applied on April 4. On April 6, the field was planted to DeKalb 70-27 VT Double Pro at 34,000 seeds/acre on 38-inch row followed by a herbicide application of 10.3 ounces of Verdict per acre. The field emerged on April 19 to a final plant population of 34,000 plants per acre. On May 4, the grower made a fertilizer application of 100 pounds of urea, 100 pounds of ammonium sulfate, and 3 pounds of zinc sulfate per acre. On May 18, a herbicide application of 3.6 pints per acre of Halex GT, 2 quarts per acre of atrazine, and one percent crop oil. On May 22, 200 pounds per acre of urea and pre-tassel application of urea of 130 pounds per acre was made on June 15. Total fertilizer for the field was 279-0-34-29-2. The field was irrigated four times. The field was harvested on September 20 and yielded 192.5 bushels per acre adjusted to 15.5% moisture.



Mississippi County IPM Program – Southwestern Corn Borer Trapping

Agent: Ray Benson

Location: Multiple Locations – county wide program

Relevance:

Many Mississippi Co. producers are interested in growing non-GMO crops for the feed industry. Non-GMO crops often receive a premium and may be a way to help increase farm revenue. Non-GMO crops like corn may be more susceptible to damage from pests and should be monitored closely.

Response:

Mississippi County agents developed IPM plans to monitor southwestern corn borer (SWCB) populations in the county. Non-GMO corn is susceptible to damage from the SWCB. Chemical control options are expensive and timing critical. Pheromone traps help monitor pest populations and alert producers when treatment options may be justified.



Results:

Weekly trap counts indicated that populations remained below treatment thresholds during the 2020 season (Figure 2). Results were shared with producers and consultants via social media, text messages and news articles. Based on the trap monitoring program in the county, Mississippi County producers did not make applications for SWCB in non-GMO corn during the 2020 season.

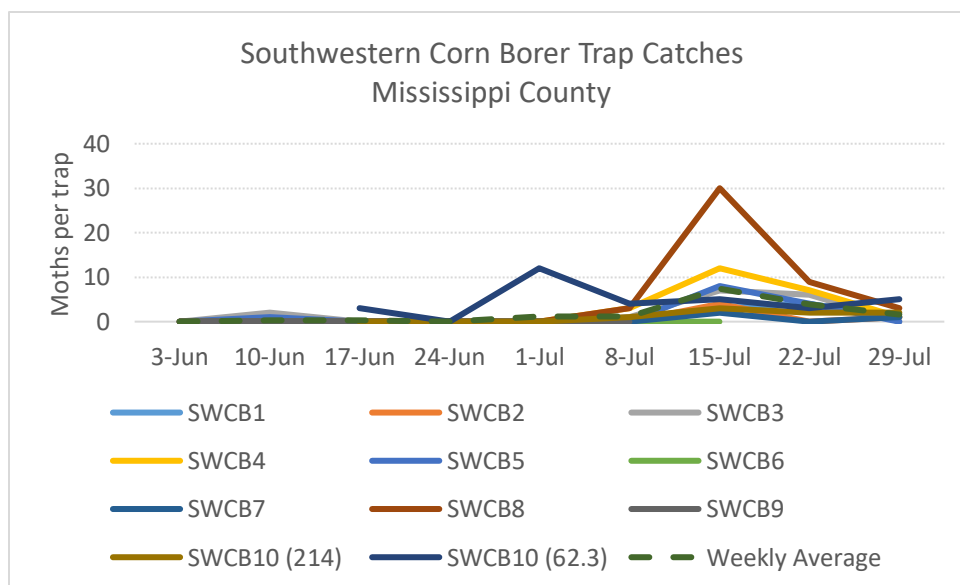


Figure 2. Southwestern Corn Borer trap catches in Mississippi County, 2020.

Fall Herbicide for Lawn Winter Weed Suppression

Cooperator: Mississippi Co. Master Gardeners

Agent: Ray Benson



Relevance:

The Mississippi Co Extension Council and Ag subcommittee recommended more programs designed to demonstrate best management practices (BMP) for lawn care and maintenance. Winter weed suppression may reduce the need for post-emergence control and limit off-target injury to ornamental plants.

Response:

Mississippi County Extension agents established a demonstration of fall applied lawn herbicide strips to compare the control of winter weeds. Simazine, Pendimethalin, and Metolachlor were applied on November 25, 2019 at rates of 1 quart/a, 3.6 pints/a, and 2 pints/a respectively. A non-treated area was maintained as a check (Figure 2). Treatments were rated for winter weed control on February 28, 2020.



Figure 2. Winter weed population in untreated area of the demonstration lawn.

Results:

Fall application of residual herbicides provided good suppression of the winter weeds that are common to most lawns in Mississippi County (Figure 3). Based on visual ratings collected on February 28, 2020, all three herbicides provided some level of control (compared to the untreated check). All provided excellent suppression of chickweed and clover. Additionally, Simazine provided better control of henbit than either Pendimethalin or Metolachlor. In addition to weed control ratings,



Figure 3. 2020 lawn herbicide demonstration. From left to right, plots were treated with Metolachlor, Pendimethalin, and Simazine.

general observations indicated that fall herbicide application would likely reduce the number of early spring mowings.

Mississippi County Peanut Variety Demonstration

Producer: Greg Lyerly Family Farms

Agent: Ray Benson

Location: Leachville

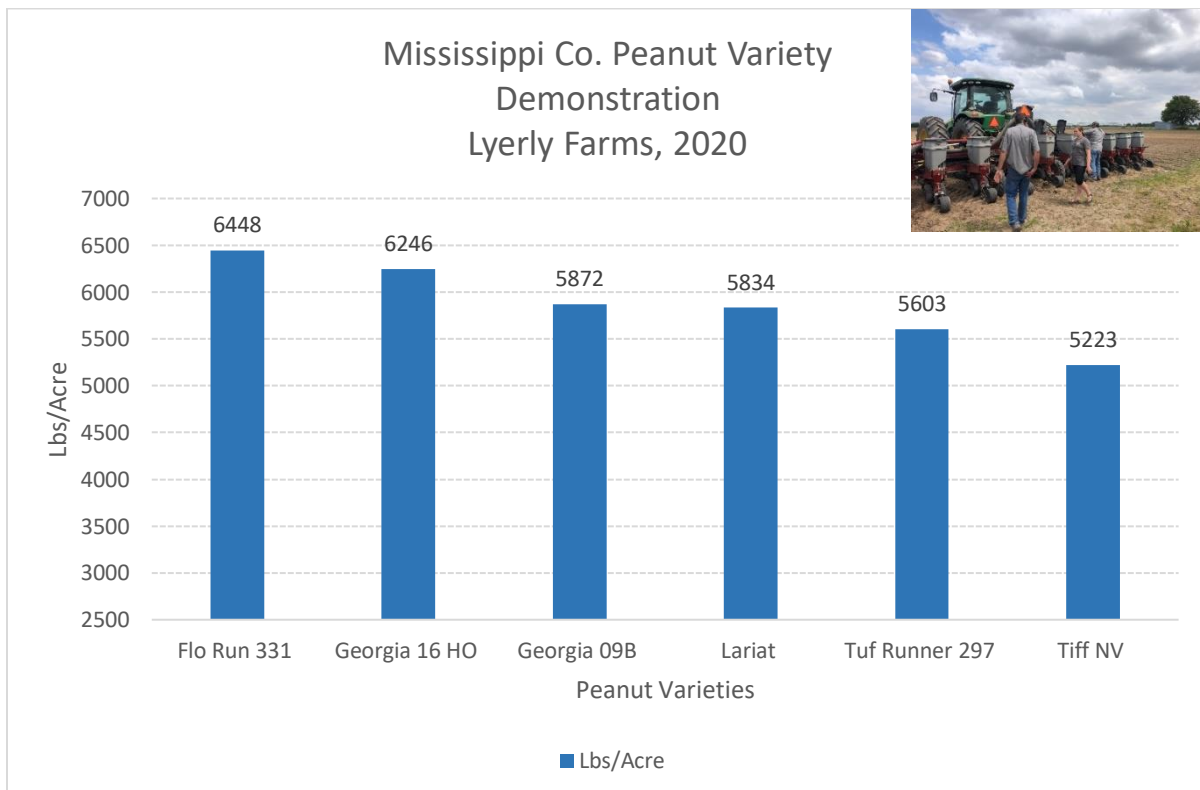
Planted: May 21, 2020

Harvested: 11/9/2020



Fertility (lb/ac)	N	P	K	S
Pre-plant	0	0	0	0
Mid-season	0	0	0	0
2 nd Split	0	0	0	0
Total	0	0	0	0

Results:



Mississippi County Peanut Variety Demonstration – 2nd Location

Producer: Donner Farms

Agent: Ray Benson

Location: Manila

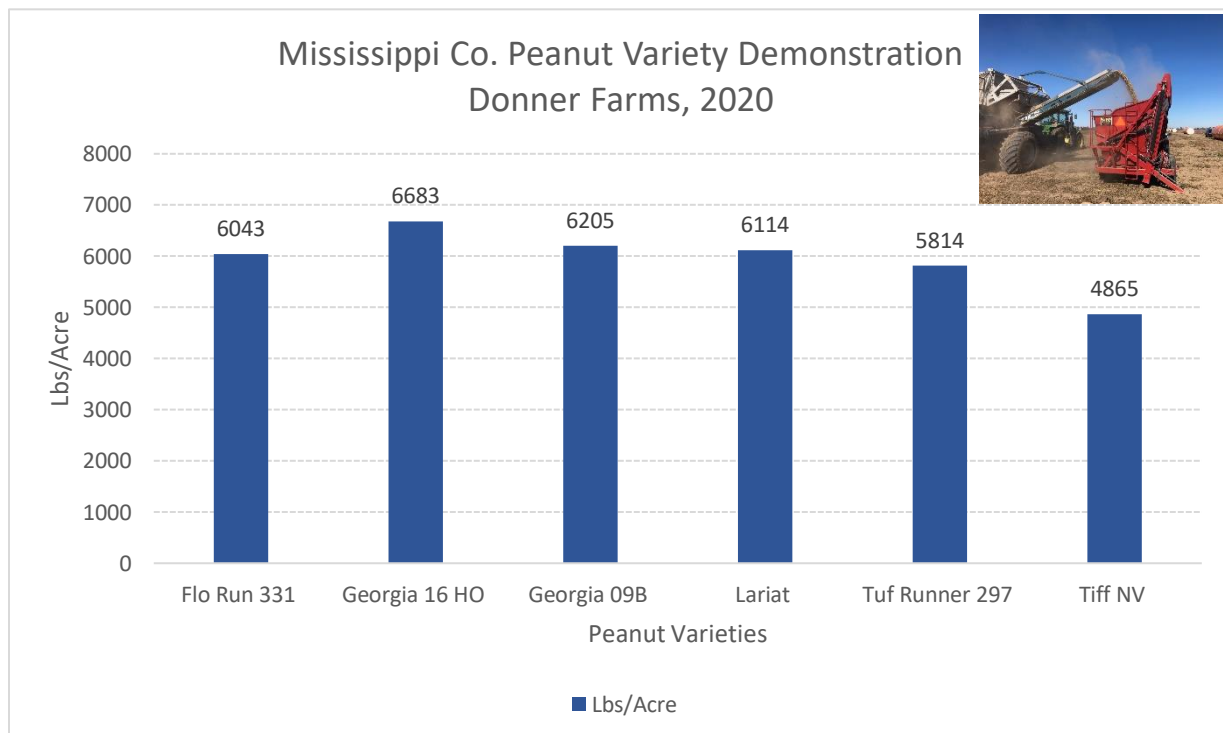
Planted: May 22, 2020

Harvested: Nov 12, 2020



Fertility (lb/ac)	N	P	K	S
Pre-plant	0	0	0	0
Mid-season	0	0	0	0
2 nd Split	0	0	0	0
Total	0	0	0	0

Results:



Spring Lawn Herbicide Demonstration

Cooperator: Mississippi Co. Master Gardeners

Agent: Ray Benson

Relevance:

The Mississippi Co Extension Council and Ag subcommittee recommended more programs designed to demonstrate best management practices (BMP) for lawn care and maintenance. Controlling lawn weeds before they emerge can help homeowners maintain their lawns and reduce the amount of pesticide sprayed during the summer.

Response:

Mississippi County Extension agents established a pre-emerge lawn herbicide demonstration to show levels of control of crabgrass and goosegrass in established bermudagrass.

Results:

All pre-emerge herbicide products provided excellent control of crabgrass for 90 days after application (Table 1). Control of goosegrass was excellent through 60 days after application but started to breakdown by the June 1st rating. Based on observations made in this demonstration, residual pre-emergence herbicide will help prevent the establishment both crabgrass and goosegrass in Bermudagrass lawns.



Figure 1. Pre-emerge lawn herbicide demonstration plots, NEREC 2020.

Table 2. Goosegrass and crabgrass control ratings for lawn pre-emergence herbicides, Mississippi Co. 2020.

<i>Herbicide</i>	<i>Rate (per acre)</i>	<i>Crabgrass Control May 1st</i>	<i>Crabgrass Control June 1st</i>	<i>Goosegrass Control May 1st</i>	<i>Goosegrass Control June 1st</i>
<i>Prodiamine</i>	16 oz	10	10	10	7
<i>Prodiamine</i>	32 oz	10	10	10	9
<i>Indaziflan</i>	5 oz	9	10	10	7
<i>indaziflan</i>	10 oz	10	10	10	8
<i>Metolachlor</i>	1.3 pints	10	10	10	9
<i>Metolachlor</i>	2.6 pints	10	10	10	8
<i>Dimethenamid</i>	32 oz	9	10	10	5
<i>Pendimethlin</i>	4.2 pints	10	10	10	6
<i>Simazine</i>	1 quart	9	10	10	7
<i>Simazine</i>	2 quarts	10	10	10	8
<i>Check plot</i>	0	0	0	0	0

¹Ratings are based on visual assessments of each plot and are scored from 0-10. A score of 10 is equal to 100% control.

Corn In-Furrow Starter Fertilizer Demonstration

Cooperator: Wildy Family Farms

Agent: Ray Benson

Planted: April 8 through April 22, 2020

Harvested: September 6 - 20, 2020

Relevance

Producers are often present advertisements that starter fertilizers help improve corn yields. Several producers asked for help evaluating starter (in-furrow) fertilizer in Mississippi County.

Response

Side-by-side comparisons were established at planting for 6 corn fields in Mississippi County during the 2020 production season. Within each field, treatments of starter fertilizer were applied at planting and included strips with no in-furrow fertilizer and adjacent strips receiving 5 gallons per acre of starter fertilizer. The in-furrow fertilizer used in this demonstration had an analysis of 10-20-5-1(S) -0.4 (Zn). Production during the season was consistent across all treatments and was based on the producer's standard practices. All plots were harvested using producer's equipment and yield monitor data were spatially joined to treatment plots to calculate yield per acre within each treatment.

Results:

Yields from the in-furrow starter fertilizer treatment demonstration ranged from a low of 205 bu/a to a high of 264 bu/a (Figure 3). Averaged across the 6 fields in this demonstration, yields were 4 bushels/acre higher in plots receiving no in-furrow starter fertilizer. At the rates used in this demonstration, in-furrow starter fertilizer added \$30.32 to the cost of production without any increase in yield. Coupled with the yield differences observed in these demonstrations, the addition of in-furrow starter fertilizer reduced revenue by \$46.32 per acre (assuming \$4.00 per bushel corn prices).



Figure 4. Typical starter fertilizer advertisement for corn production.

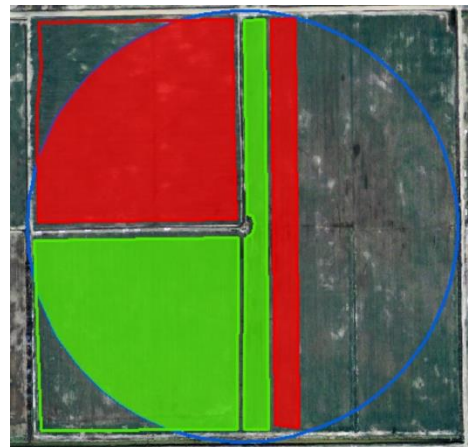


Figure 5. As-applied map of in-furrow fertilizer plots. Red area received no in-furrow fertilizer and green areas received 5 gal per acre applied in-furrow at planting. Wildy Farms, 2020.

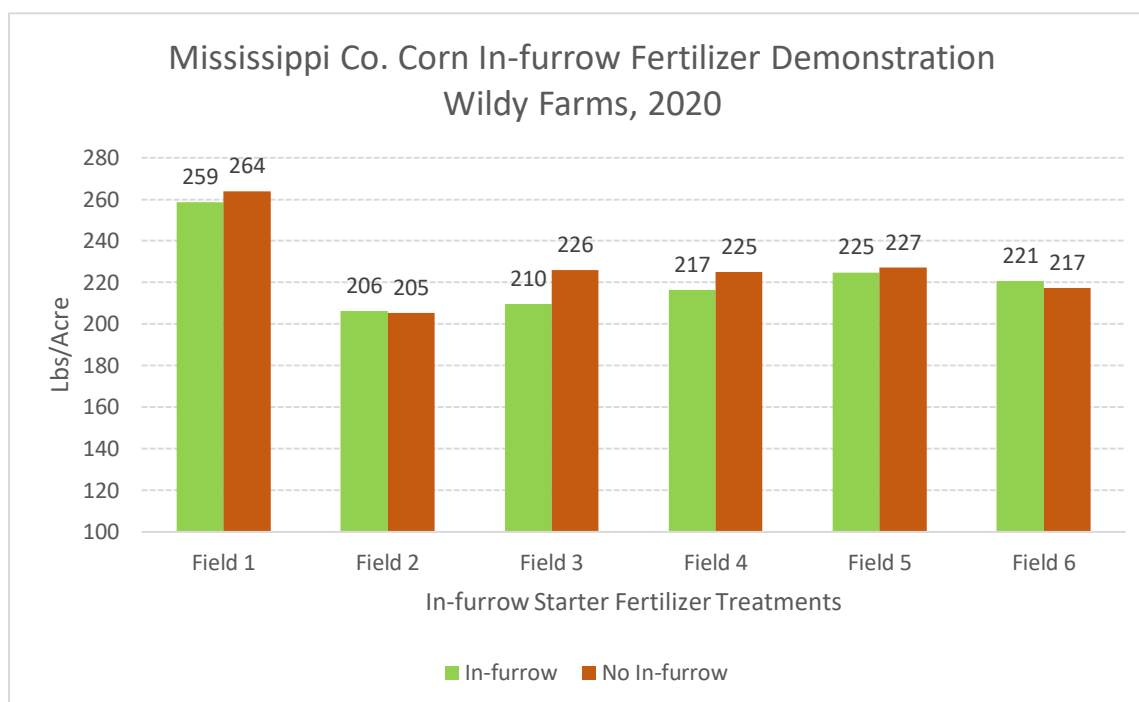


Figure 6. In-furrow starter fertilizer yields, Wildy Farms, 2020.

Table 3. Field information and yield data from in-furrow starter fertilizer demonstration, Wildy Farms, 2020.

Field	Hybrid	Planting	Harvest	Yield	
				In-furrow	UTC
Field 1	AMP 1257 Conv	4/8	9/6	259	264
Field 2	AMP 1257 Conv	4/18	9/12	206	205
Field 3	AMP 1257 Conv	4/22	9/20	210	226
Field 4	AMP 1257 Conv	4/22	9/20	217	225
Field 5	AMP 1257 Conv	4/11	9/18	225	227
Field 6	DG 57CC51 370	4/11	9/18	221	217
Avg				223	227

Corn Seeding Rate Study

Cooperator: Bell Planting Company

Agent: Ray Benson

Planted: April 7, 2020

Harvested: September 19, 2020

Relevance

Seed costs represent one of the major crop expenses in corn production. Identifying the seeding rate that maximizes economic return is one way to help producers become more efficient and profitable.

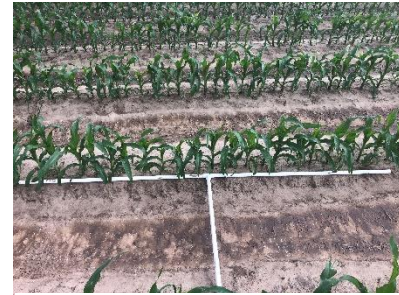


Figure 7. Corn seedling population, Bell Farms 2020.

Response

Corn was planted at 10 different seeding rates ranging from a target of 20,000 to 42,500 seeds per acre. The test was planted using the producers variable rate planter and 'as-applied' maps (figure 2.) were used to identify seeding rate plots. Plots were managed throughout the growing season based on the producer's standard practices. All plots were harvested using producer's equipment and yield monitor data were spatially joined to seeding rate plots to calculate yield per acre within each treatment.

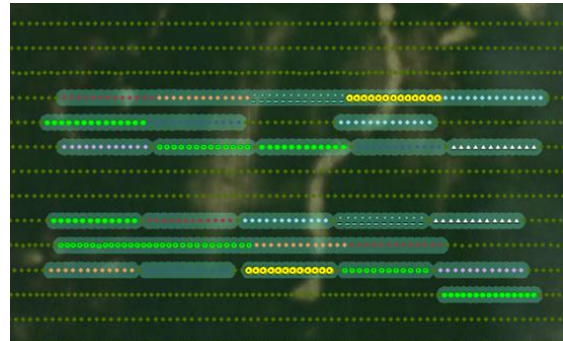
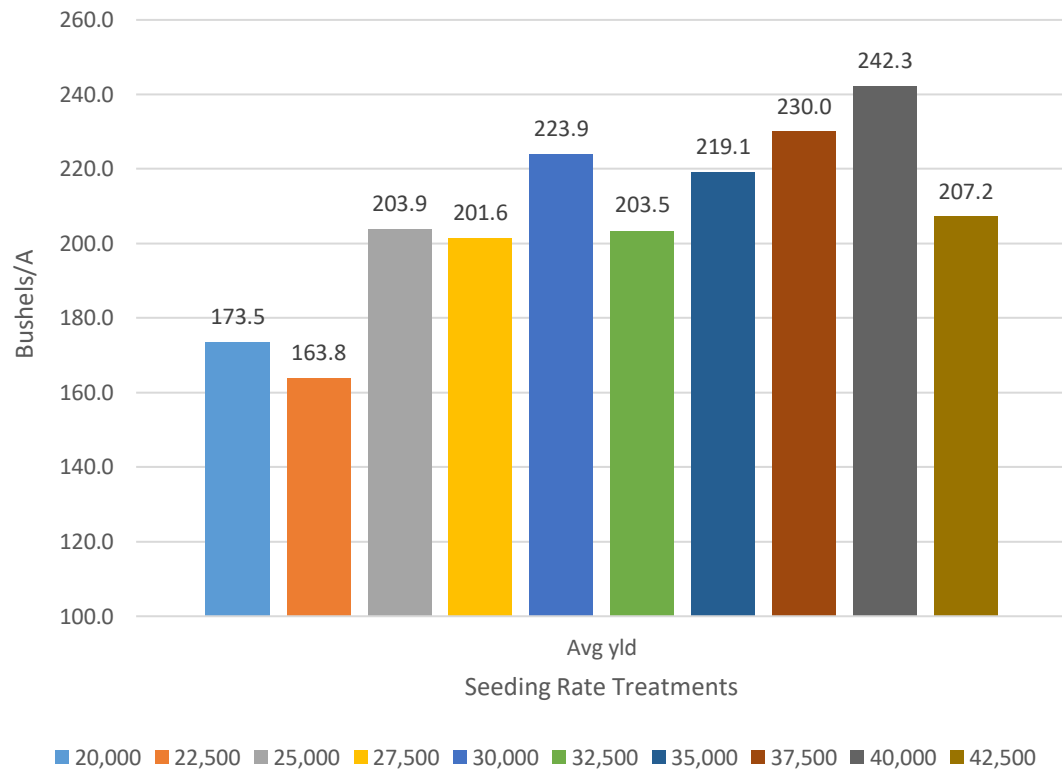


Figure 8. As-applied seeding rate map of corn seeding rate study, Bell Farms 2020.

Results:

Yields from the seeding rate treatments ranged from a low of 173.5 bushels per acre to a high of 242.3 bushels per acre. Seeding rates of 20,000 and 22,500 seeds/a resulted in the lowest yields in this demonstration. Generally, yields tended to increase as seeding rate per acre increased. Cost of seed per acre however, should be considered when determining optimal planting populations.

2020 Corn Seeding Rate Study, Bell Planting Co.



Large Plot Corn Hybrid Demonstration

Cooperator: Jason Bennett

Agent: Shawn Lancaster

Planted: May 20, 2020

Harvested: October 2, 2020

Fertilizer: 225-40-30

Relevance

Having on-farm hybrid plots continue to be a priority recommendation of our county Agriculture sub-committee and County Extension Council. These demonstrations provide a tool to allow producers to evaluate variety/hybrid performance across different environments in Mississippi Co. On-farm demonstration strips may help producers select the most adapted hybrids and maximize economic returns.



Figure 9. Corn hybrid harvest, Bennett Farms 2020.

Response

A selection of thirteen corn hybrids was planted in Mississippi Co. on May 20, 2020. The plots were 6 rows wide and approximately 850 feet long and planted using the producer's equipment. All production inputs were managed by the producer and based on his general production practices. Lodging was rated just prior to harvest and all plots were harvested on October 2, 2020 using the producers combine (figure 2) and grain cart.



Figure 10. Corn hybrid plot harvest, Bennett Farms 2020.

Results:

Yields were determined from yield monitor data and adjusted for moisture. Hybrid yields ranged from 147 bushels per acre to a high of 212 bushels per acre (Table 1). The lowest yields tended to be associated with hybrids that had the greatest amount of lodging in this field. Based on data from this demonstration, hybrid selection could account for a yield difference of up 65 bushels per acre. At \$4.00 per bushel, the highest yielding hybrid in this demonstration provided \$260 higher revenue than did the lowest yielding hybrid.

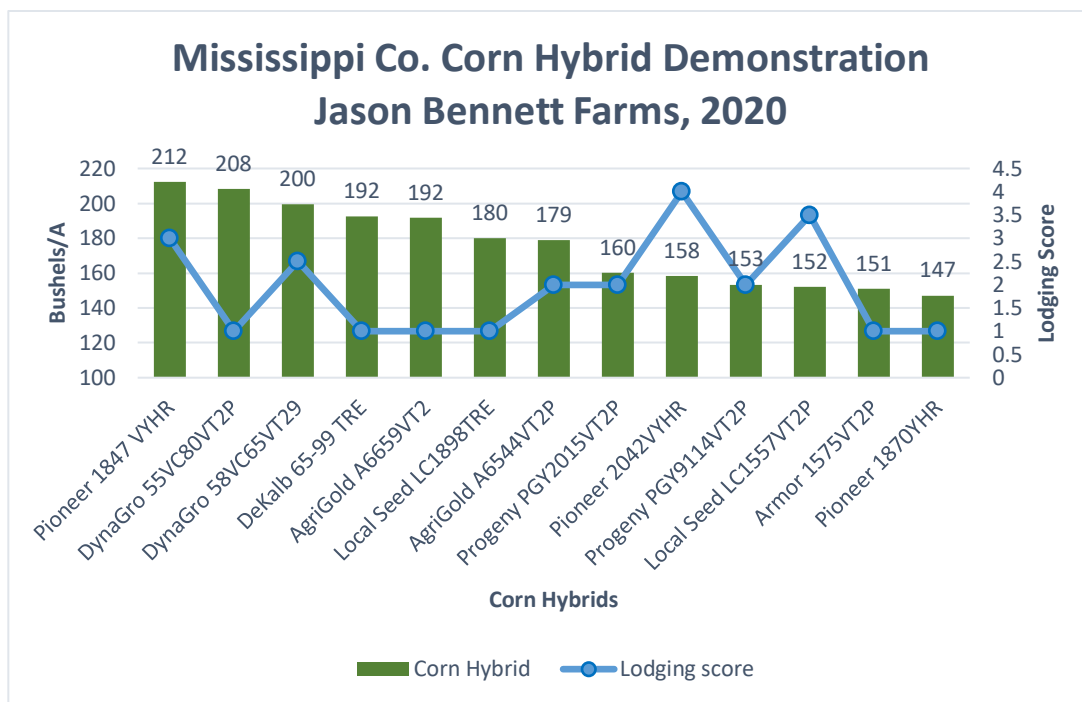


Table 4. 2020 Mississippi Co. corn hybrid plot yields, Jason Bennett Farms.

Hybrid	Lodging score	Yield
Pioneer 1847 VYHR	3	212.4
DynaGro 55VC80VT2P	1	208.4
DynaGro 58VC65VT29	2.5	199.5
DeKalb 65-99 TRE	1	192.4
AgriGold A6659VT2	1	191.7
Local Seed LC1898TRE	1	179.9
AgriGold A6544VT2P	2	178.9
Progeny PGY2015VT2P	2	160.2
Pioneer 2042VYHR	4	158.4
Progeny PGY9114VT2P	2	153.4
Local Seed LC1557VT2P	3.5	152.1
Armor 1575VT2P	1	151.1
Pioneer 1870YHR	1	147.1

Large Plot Soybean Variety Demonstration

Cooperator: Felts Farms
Agent: Shawn Lancaster
Planted: April 28, 2020
Harvested: October 3, 2020

Relevance

Having on-farm hybrid plots continue to be a priority recommendation of our county Agriculture sub-committee and County Extension Council. These demonstrations provide a tool to allow producers to evaluate variety/hybrid performance across different environments in Mississippi Co. On-farm demonstration strips may help producers select the most adapted cultivars and maximize their economic returns.



Figure 11. On-farm soybean variety plots, Felts Farms 2020.

Response

A selection of soybean cultivars was planted in Mississippi Co. on April 28, 2020. The plots were 6 rows wide and ran the full length of the field (approximately 1650 ft). All production inputs were managed by the producer and based on his general production practices. Applications, including planting, were made using the cooperating producer's equipment. Treatments for insects or diseases were consistent across all cultivars in the demonstration. Whole plots were machine harvested on October 3, 2020 using the producers combine (figure 2).



Figure 12. Soybean variety plot harvest, Felts Farms 2020.

Results:

Yields were determined from yield monitor data and adjusted for moisture. Soybean yields ranged from 73.2 bushels per acre to a high of 82.2 bushels per acre (Table 1). Based on data from this demonstration, variety selection could account for a yield difference of up 9 bushels per acre. At \$10.00 per bushel, the highest yielding variety in this demonstration provided almost \$90.00 higher revenue per acre than did the lowest yielding variety.

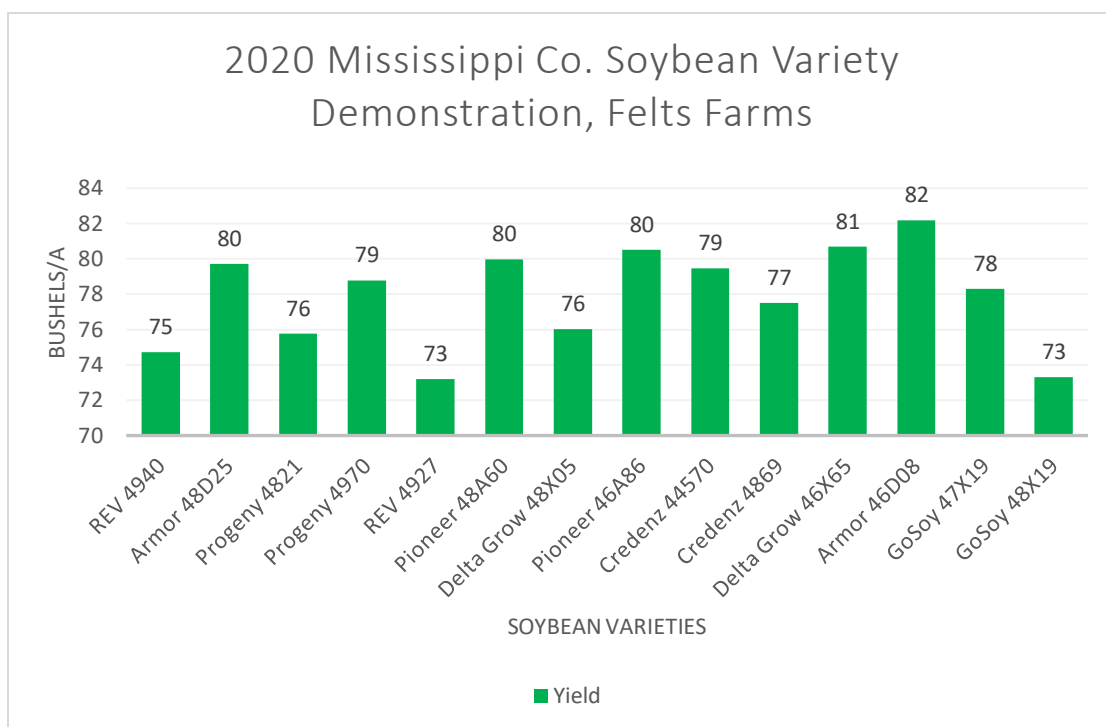


Table 5. 2020 Mississippi Co. soybean variety plot yields, Felts Farms.

Variety	Moisture	Yield/A
Armor 46D08	13.8	82.2
Delta Grow 46X65	12.4	80.7
Pioneer 46A86	13.1	80.5
Pioneer 48A60	12.4	80.0
Armor 48D25	12.7	79.7
Credenz 44570	13.2	79.5
Progeny 4970	16.0	78.8
GoSoy 47X19	13.7	78.3
Credenz 4869	13.0	77.5
Delta Grow 48X05	14.8	76.0
Progeny 4821	13.7	75.8
REV 4940	13.9	74.7
GoSoy 48X19	12.5	73.3
REV 4927	13.2	73.2

Mississippi County Cotton Variety Demonstration – North Location

Producer: Wildy Family Farms

Agent: Ray Benson

Location: Manila

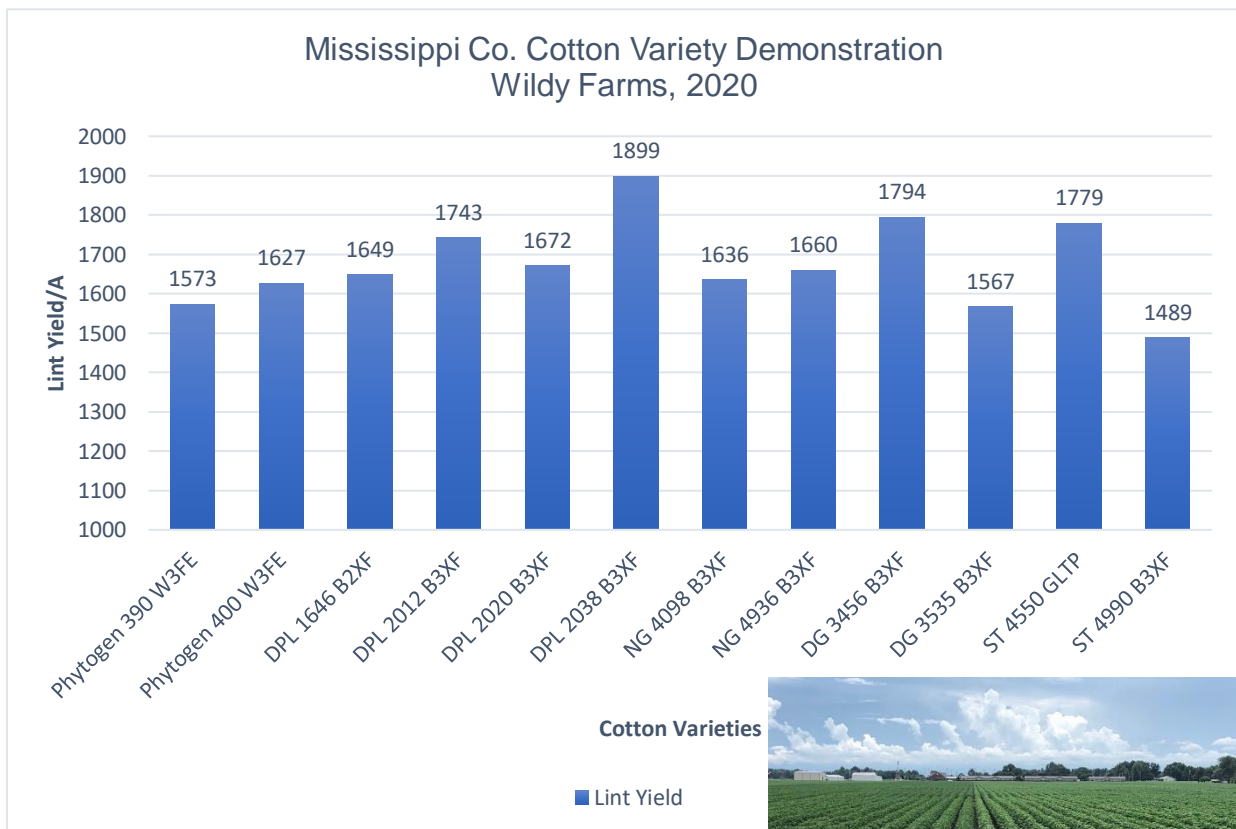
Planted: May 25, 2019

Harvested: 11/9/2020



Fertility (lb/ac)	N	P	K	S
Pre-plant	0	20	80	0
Mid-season	80	0	0	15
2 nd Split	34	0	0	12
Total	114	20	80	27

Results:



Mississippi County 4-H

4-H is the premier youth development program conducted by the University of Arkansas System, Division of Agriculture, Cooperative Extension Service.

*4-H--the four H's we emphasize are: Head, Heart, Hands, and Health--*is designed to prepare young people to step up to the challenges in their communities and provide youth with the skills to lead for a lifetime. The core elements of 4-H include youth leadership, youth-adult partnerships, life skills learning, and community service. 4-H programs are grounded in the belief that youth learn best by doing. 4-H members complete hands-on projects in areas like science, health, agriculture, and citizenship in a positive environment where they receive guidance from adult mentors and are encouraged to take on proactive leadership roles.

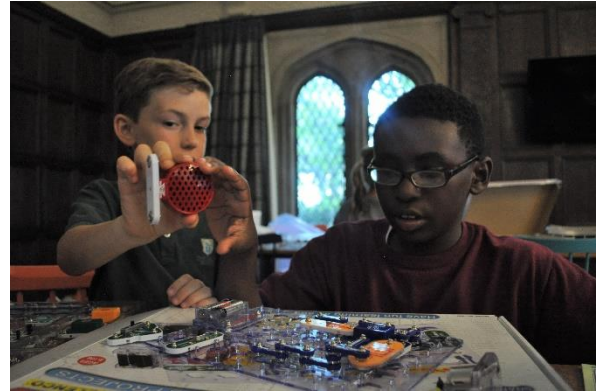
The mission of 4-H is to provide opportunities for youth to acquire knowledge, develop life skills, form attitudes, and practice behavior that will enable them to become self directing, productive, and contributing members of society.

4-H STEM Initiative

Mississippi County 4-H Youth Development

Relevance:

In the 21st century, scientific and technological innovations have become increasingly important as we face the benefits and challenges of both globalization and a knowledge-based economy. To succeed in this new information-based and technological society, students need to develop their capabilities in STEM (Science, Technology, Engineering, & Mathematics) to levels much beyond what was considered acceptable in the past. 4-H STEM activities create critical thinkers, increases science literacy, and empowers the next generation of innovators.



4-H STEM participants investigate circuitry hands-on through SNAP circuits. Members learn the basics of building a circuit through 102 increasing in difficulty activities.

Response:

4-H curriculum uses scientific inquiry to spark interest in STEM subjects. Monthly and bi-monthly 4-H STEM activities were delivered to 285 youth in three school districts in-school and after-school settings. A total of 121 STEM programs were conducted.

STEM topics included Scientific Method, Gravity Maze, Whose Poo, Arkansas Mammals, SNAP Circuits, and Newton's Laws. All activities focused on gaining first-hand understanding of science while developing problem solving, creative, and critical thinking skills.



4-H STEM participants investigate Newton's second law of motion by building a ballistic catapult out of Legos.

Results:

4-H STEM experiences help youth gain life skills to identify problems, strategize, compare results, reason, and make decisions. According to year-end evaluation, youth reported the ability to set up an experiment to answer a question (89.7%), build connections to explain why things happen in an experiment (86.3%), and apply learned information to conduct science activities outside of school (81.9%).

Eighty-four percent of youth reported they like science. As a result of 4-H STEM activities, youth developed techniques to use the scientific method (99.7%) and gather information to make decisions (94.6%). All youth applied scientific principles and theories through hands-on experiments. All youth reported increasing their knowledge on STEM subjects with 124 youth contemplating a STEM career.

4-H Youth Leadership Program (YLP)

Mississippi County 4-H Youth Development

Relevance:

The Mississippi County community is experiencing a deficiency in youth leadership and community involvement. The development of youth leadership contributes greatly to the positive development of both young people and their communities. As youth develop leadership skills, they become better able to solve community problems and enhance their civic participation. The 4-H YLP provides experiences to develop youth leadership skills, social responsibility, and civic awareness. Developing youth leaders is essential in training quality future Mississippi County leaders.



With the financial support of corporate sponsor Nucor-Yamato Steel, 4-H YLP participants compete for three college scholarships awarded based on participation, essay, service-project implementation, and group presentations. Pictured above Macie S. leads a cooking class to help younger youth learn about healthy eating. Macie won a \$1,000 scholarship for her work in the 4-H YLP program.

Response:

Up to six high school juniors are selected from each school district (38 youth total) to participate in the YLP. Monthly session topics include community service-learning, personality assessments, leadership styles, teambuilding, and communicating with a diverse audience. Targeted life skills included critical thinking, decision making, managing conflicts, & goal setting.

Activities focused on understanding, self-responsibility, working toward mutual goals, project management, and evaluation processes. Participants are required to complete an essay, community service-learning project, and a group presentation.

Youth completed a service-learning project of their own choosing to address an identified need in their school. Participants used their leadership, organizational, communication, and decision-making skills in planning and implementing the project.

Results:

4-H YLP experiences help youth gain life skills in conflict resolution, self-motivation, and responsible citizenship. According to a year-end evaluation, youth reported the ability to assess the needs of their community (94.3%), apply knowledge in ways that solve “real-life” problems (94.3%) and developed skills to work through disagreements with others (97.1%).

As a result of the 4-H Youth Leadership Program, youth gained confidence in public speaking (91.4%), and taught others new skills (88.6%), and all youth applied communication and critical thinking skills.

Through the YLP, all youth planned, organized, and implemented team service-learning projects based on identified needs ranging from emergency preparedness to combating school bullying. All youth applied leadership skills during their service-project and group presentation.

Mississippi County – Family & Consumer Sciences

Family and Consumer Sciences, known as FCS, was founded as **Home Economics**. Today we study and apply the sciences that affect the ways humans relate with their environment, whether it's their home, food, or finances.

FCS can deliver programs that help:

Improve your health.

- Healthy eating
- SNAP-Ed
- Managing diabetes
- Physical Activity

Improve your relationships.

- Personal happiness tips
- Marriage resources
- Parenting resources

Improve your finances.

- All about credit
- Money management
- Retirement & estate planning

FCS also helps with:

- Food Safety
- Aging
- Child Care Training
- Extension Homemakers
- Emergency Preparedness

Adults Get Fit with Extension Exercise

Relevance

The Miss. Co. FCS subcommittee has repeatedly identified nutrition, obesity and increased physical activity among their top five concerns. In Mississippi County, 42% of adults are obese. Regular exercise contributes to a reduction in obesity.

Response

Miss. Co. FCS Agent partnered with the Department of Community Education at Arkansas Northeastern College to offer Extension Get Fit exercise program twice weekly starting October 2019 through September 30, 2020. Several months of scheduled exercise sessions were interrupted due to COVID-19 restrictions (March 17, 2020-Aug. 11, 2020 no sessions).

Results

Sessions of one hour of exercise each session totaled 49 and participants totaled 53 with 8 guests in 3 different program cycles. A variety of Extension Get Fit exercise routines were utilized focused on strength training, flexibility, aerobics, and stretching. Leslie Sansone ESBA DVD was also utilized on walking. Survey results included: overall satisfaction with class-100%; improved health-90%; physically stronger-80%; have more energy-90%; sleep better-100%; joints less painful-80%; and more active-100%.

Quotes from Participants

In response to how has the class helped you, the following quotes were shared:

Quality has improved. Look forward to class each day.

I have not lost weight because I have not changed eating habits but I feel better and have better balance.

Great class. Thank you.

I loved exercise, balance, flexibility. I feel better. Thank you so much!



Extension Get Fit class participants exercising to Leslie Sansone walking DVD.

Teens Eat Smart and Get Active

Relevance

The Miss. Co. FCS subcommittee has repeatedly identified nutrition, obesity and increased physical activity among their top five concerns. In Mississippi County, 42% of adults are obese. For teens and children, 40.9% are overweight or obese.

Response

Miss. Co. FCS Agent partnered with four SNAP Ed eligible school districts to provide nutrition education with an emphasis on increasing physical activity to address the high overweight/obese rates for youth. High school students at Gosnell and Manila H. S. were taught 20 lessons using the Eating Smart Being Active curriculum. OrganWise Guys was taught to first graders at Gosnell & Carroll Smith (Osceola) Elementary students and to kindergarten students at Gosnell Elementary. Stats for Elementary Schools: 158 lessons plus parent letters to 305 students.

Results

As a result of the Eating Smart Being Active program, 88% of high school students surveyed reported knowledge gained in MyPlate and 65% increased physical activity/exercise. Other results are: 34% plan to or follow MyPlate guidelines in making healthy food choices, 79% practice handling food safely, and 38 have decreased consumption of sugar sweetened beverages.

Quotes from Participants

In response to question, what did you find most helpful from Eating Smart Being Active (ESBA) program? students wrote:

- Eat smart all day.
- The consequences of the unhealthy foods you eat.
- Can eat cheaper, but still healthy.
- Trying new things does not hurt and can actually be good sometimes.
- Read (food label) before you buy.
- The better I eat, the better I feel.
- The importance of eating fruit.
- You need 60 minutes of exercise daily.

In response to question, is there anything you do differently as a result of ESBA? Explain. Students wrote:

- I stopped drinking sodas every day.
- Drink more water.

- Eat more vegetables.
- I get up every time there is a commercial.
- I watch what is put in food, check dates and observe.



FCS Agent pictured (center back) with Mrs. Mary Smith's FACS class, Manila H.S., receiving their Eating Smart Being Active SNAP Ed incentives for program participation.