

FY 2020 Annual Report of Accomplishments and Results

Mississippi
Alcorn State University
Mississippi State University

I. Report Overview

The NIFA reviewer will refer to the executive summary submitted in your FY 2020 Plan of Work located in the Institutional Profile. Use this space to provide updates if needed.

1. Executive Summary (Optional)
<p>This Report of Accomplishments (ROA) is a joint report among the Mississippi State University Extension Service (MSU Extension), the Mississippi Agricultural and Forestry Experiment Station (MAFES), and the Alcorn State University (ASU) School of Agriculture and Applied Sciences (AAS). The report therefore includes Extension and research from Mississippi's 1862 land-grant institution, Mississippi State University (MSU), and its 1890 land-grant institution, Alcorn State University (ASU).</p> <ul style="list-style-type: none">• MSU Extension improves the economic, social, and cultural well-being of Mississippians in all 82 counties by providing research and education in a practical and applicable way in the areas of agriculture and natural resources, 4-H youth development, family and consumer science education, and community resource and economic development; by using the latest technology and teaching techniques to serve clients; by developing and using volunteers to help disseminate programs and information; by cooperating with other groups and agencies; and by maintaining a culturally diverse staff responsive to the needs of various audiences at all socioeconomic levels.• The mission of MAFES is the creation of knowledge through fundamental and applied research in the fields of science related to agriculture, food, natural resources, the natural environment, people, and communities with the goals of providing safe, nutritious, desirable food and fiber products and processes for consumers, and assuring businesses that comprise Mississippi's agricultural industry have the information required to remain competitive in a global marketplace.• With three locations serving 15, southwest Mississippi counties, Alcorn State University's School of Agriculture and Applied Sciences (AAS) draws upon the organization's unique strengths and its comprehensive delivery system in conducting original research and delivering educational programs. Research and education are targeted to limited-resource audiences, those earning 80% or less of Mississippi's Median Household income, to provide youth and adults the opportunity to obtain and apply new knowledge and skills that will empower citizens.

ASU and MSU conducted “business-as-usual” for the half of this reporting year (October 2019-March 2020). Then, Mississippi reported its first case of COVID-19 on March 11, 2020¹. Approximately one week later, universities moved courses online and non-essential personnel were instructed to telework. However, MSU Extension is a vital part of ongoing county and state operations during an emergency as defined in the State Comprehensive Emergency Management Plan,² so MSU Extension, County Offices, Research and Extension Centers, and other Extension units remained open and operational to the extent possible.

Due to new guidelines set forth by the Governor of Mississippi and universities at that time, face-to-face courses, programming, technical assistance, workshops, and various other events that defined everyday operating procedures had to either be cancelled or transitioned to another delivery method. Immediately, MSU Extension began delivering content in a variety of methods (from most utilized to least utilized) including phone, email, or text consultations; Facebook posts; Zoom/interactive video; digital and hardcopy publications; newspaper articles and columns; website; mass media (TV, radio, magazine articles); Twitter; webinars; press releases; Instagram; Facebook Live; YouTube; online courses; Pinterest; blog posts; and podcasts.³ Information from trusted sources related to COVID-19 was in demand; MSU’s Office of Agricultural Communications (AgComm) has at least developed 26 publications and 34 videos since March 2020 related specifically to the coronavirus pandemic (e.g., coronavirus terminology; basic facts and how to choose credible information sources; safety tips; how to engage children while at home; stress and how to cope with it; shopping and meal-planning during the pandemic; preparing for school; small business assistance programs; vaccine education; and agritourism). Additionally, any research studies at MSU that involved in-person or face-to-face activities were halted from March 18, 2020 through June 10, 2020, at which point, special permission could be requested to conduct such research with a guarantee that COVID-19 safety protocols would be followed.

In August 2020, MSU Extension personnel were able to hold small in-door, in-person, face-to-face meetings with 10 people or fewer, if adequate meeting space to apply all safety precautions was available, including six feet of social distancing between each person. Small outdoor meetings with 20 participants or fewer could also be held. Masks were required for everyone in any MSU-controlled meeting as well as floor/ground decals or signs marking social distancing requirements. Beginning in September 2020, meeting requirements were adjusted to 50% of available seating occupancy; however, social distancing requirements of six feet among participants were still required. While these rules allowed small meetings, several events still took place in the virtual environment. Examples of these events are listed below, as reported by MSU Extension Specialists and Agents. *Extension Matters* magazine⁴ also devoted its Fall 2020 release to explain how MSU Extension’s support strengthened clients’ efforts to address the coronavirus pandemic. Some examples of MSU Extension’s efforts include:

- Online versions of MSU Extension’s Hippology and Horse Judging were created and opened to youth and adults nationwide.
- Youth Grab & Go kits were developed that covered a variety of topics and project areas. They could be picked up at local Extension offices and completed at home.
- A virtual 4-H LEGO Camp was held that included experiential learning opportunities and chances to share with youth across the state.

- 4-H Junior Robotics held virtual meetings. Makerspace kits were created that youth could pick up from an Extension office and then build virtually with an Agent.
- A video mini-series called Poultry on the Patio was created to educate the public on selecting and raising backyard poultry. The videos were posted on Facebook and Instagram.
- MSU Extension partnered with the Department of Revenue to develop over 40 hours of content for an online course for Certified Appraiser School.
- MSU Extension created training videos that helped municipalities understand how to conduct virtual meetings.
- MSU Extension Family and Consumer Sciences created a video series to provide virtual programming on Facebook. Twenty-five total videos were recorded for the Back to Basics: Life Skills 101 video series. Topics for these videos ranged from money management to healthy living to basic sewing skills.
- Nutrition and wellness social marketing tools were created that included a Facebook group, written blogs, and video messages to provide evidence-based nutrition information to help people understand the powerful connection between nutrition and wellness and food.
- A short video, Basic Farm Pond Management, was developed and shared via Twitter. The video focused on weed identification and how to select the proper management strategy to ensure that the weeds in question did not adversely affect the pond or endanger the fish.
- MSU Extension Gardening produced daily (rather than the normal weekly) videos focusing on best management practices for the garden and landscape.

COVID-19 pandemic and guidelines affected ASU programmatic delivery methods that resulted in extensive usage of technology for the adherence to safety precautions. ASU utilized remote and virtual technological formats, such as, videos, Zoom interactive video conferencing, social media (Facebook, Instagram, Twitter, Expose, and YouTube), mass media (radio), webinars, and online educational courses. Examples of ASU Extension's programmatic efforts consist of:

- On-line Forage and Weed Control demonstration ASU Extension provided in Claiborne, Jefferson Adams and Hinds that showcased the result of different herbicides application on Stinking Mayweed (a problem weed for cattle producers). Hence, this allowed growers to make decisions on which herbicide they preferred based on their farming operation. Videos were made for future educators and growers training.
- ASU Extension developed and presented webinars on horticulture, row crops, forage management, and soil health relative to microbes.
- ASU Extension developed and produced a short video on Forage Production Weed Identification. The video focused on proper weed identification and techniques to assist grass to recover. This video was uploaded on ASU Extension website and YouTube.
- ASU Extension collaborated with the Jefferson County Board of Supervisors and C & G Organic Farms in June 2020 to September 2020 for distribution of fresh vegetables food boxes to approximately 30,000 Mississippi residents.

- ASU Extension presented a Natchez Market COVID-19 Awareness Day. This event focused on mask wearing, precautionary measures against COVID-19, Farm and Financial Management, and Farm Record Keeping. COVID-19 fact sheets were distributed.
- ASU Extension hosted a virtual “Veteran in Agriculture” Conference which introduced veterans to the area of agriculture and provided methods to assist make farm operations profitable.
- ASU Extension 4-H provided on-line training on patterns and construction on homemade masks, sewn and unsewn. ASU Extension 4-H also partnered with sororities and local church ministries to make the masks for healthcare workers.
- ASU Extension 4-H developed a statewide online “At Home” (4-H.org#4-Hathome) program entitled “Inspire Kids to Do.” This program provided simple skill building activities to help kids learn and have fun.
- A 4-day virtual Science, Engineering, and Technology (SET) camp was developed and presented by Extension 4-H that introduced emerging technologies and highlighted experiments with serial systems platforms, robots, animal health and safety, farm and environmental safety, and Bio-fuels.
- National 4-H Science, Technology, Engineering, and Math (STEM) Challenge was held by ASU Extension 4-H entitled “MARS Base Camp” that focused on space exploration and sending messages to MARS.
- ASU Extension 4-H presented a virtual “Youth Cooking Camp” in Central, Southwest, and Northern Mississippi counties. The Youth Cooking Camp focused of Health and Wellness (preparing healthy meals on a budget, eating more fruits and vegetables, and using food safety principles to prepare and preserve meals.
- ASU Extension 4-H provided “Grab and Go” Feeding Program and distributed 1,500 educational kits/packets at local schools
- ASU Extension Family and Consumer Science provided Head start parents and students COVID-19 information in Jefferson, Adams, Claiborne and Amite Counties. The information included ways to stay safe, such as, social distancing, cleaning, disinfection, and hand washing.
- ASU Extension Family and Consumer Science developed and distributed 20 fact sheets on COVID-19 and Family and Consumer Science topics.
- ASU Extension Family and Consumer Science partnered with local food banks for dissemination of recipes and other nutritional information.

Extension and research entities of Alcorn State University and Mississippi State University continued their work to the extent allowable while following the protocols put into place related to COVID-19. The six integrated program areas addressed by MSU and ASU are:

1. Animal Systems,
2. Plant Systems,
3. Natural Resources,
4. Community Resource and Economic Development,
5. 4-H and Youth Development, and

6. Family and Consumer Science.

These program areas represent areas with the greatest need as identified by community partnerships, environmental scans, researchers, stakeholder input, and Extension staff.

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1. Mississippi State Department of Health. *Mississippi Reports First Positive Case of Coronavirus*. 11 March 2020. <https://msdh.ms.gov/msdhsite/ static/23,21819,341.html>.
 2. Mississippi Emergency Management Agency. *State Comprehensive Emergency Management Plan: 2020 CEMP*. 01 January 2020.
 3. Downey, Laura H. and Peterson, Donna J. *Summary of Responses from Internal Assessment of MSU Extension Agents*. June 2020.
 4. Mississippi State University Extension Service. *Extension Matters*. Volume 6 Number 2. <http://extension.msstate.edu/extension matters/volume-6-number-2>

II. Merit and Scientific Peer Review Processes

The NIFA reviewer will refer to your 2020 Plan of Work. Use this space to provide updates as needed or activities that you would like to bring to NIFA’s attention.

Process	Updates ONLY
1. The <u>Merit Review Process</u>	No updates from 2020 Plan of Work
2. The <u>Scientific Peer Review Process</u>	No updates from 2020 Plan of Work

III. Stakeholder Input

The NIFA reviewer will refer to your 2020 Plan of Work. Use this space to provide updates as needed or activities that you would like to bring to NIFA’s attention.

Stakeholder Input Aspects	Updates ONLY
1. Actions taken to seek stakeholder input that encouraged their participation with a brief explanation	From October 2019 – March 2020, there are no updates to report. However, beginning in March 2020, guidelines set forth by the Governor of Mississippi and Mississippi universities related to COVID-19 led to the cancellation of typical face-to-face methods and meetings. However, communication continued through alternative methods (e.g., Zoom, phone, email).
2. Methods to identify individuals and groups and brief explanation.	No updates from 2020 Plan of Work
3. Methods for collecting stakeholder input and brief explanation.	As suggested above, after COVID-19 appeared, stakeholder input continued to be collected through methods that did not involve in-person contact. Because Extension agents are connected to their communities and Extension specialists have diverse content expertise, they were a trusted source of information for Extension clients as COVID-19 spread across the state. Thus, they saw clients’ needs first-hand. Additionally, agents and specialists began to identify new methods to effectively reach their clients. In Spring 2020, MSU Extension Evaluation Specialists conducted a formal, online, internal assessment of MSU Extension professionals (agents, specialists, associates) to document their perceived needs related to COVID-19, to identify opportunities for Extension, and to determine the professional needs of Extension personnel as they responded to the evolving needs of Extension clients.
4. A Statement of how the input will be considered and brief explanation of what you learned from your stakeholders.	No updates from 2020 Plan of Work, except related to the MSU Extension internal assessment of Extension professionals. Results from the internal assessment revealed the top emerging needs for Extension agents were COVID-19 safety practices and procedures, COVID-19 information, food-related needs, and information about ways to continue serving their Extension clients. Extension specialists and associates reported a need for technical assistance and in-service training (e.g., quality production of Extension programs, technology training, competency development in various topics), equipment to support online work, and online tutorials. This information was used to guide the development of in-service trainings on topics such as best practices for moving from traditional to online programming, conducting evaluation of online programming, work-life balance when working remotely, stress reduction, and COVID-19 information and safe practices. It was also used to help distribute essential equipment and other resources for online work.

IV. Critical Issues Table of Contents

No.	Critical Issues in order of appearance in Table V. Activities and Accomplishments
1.	Animal Systems
2.	Plant Systems
3.	Natural Resources
4.	Community Resource and Economic Development
5.	4-H and Positive Youth Development
6.	Family and Consumer Science

V. Activities and Accomplishments

Please provide information for activities that represent the best work of your institution(s). In your outcome or impact statement, please include the following elements (in any order): 1) the issue and its significance (e.g. who cares and why); 2) a brief description of key activities undertaken to achieve the goals and objectives; 3) changes in knowledge, behavior, or condition resulting from the project or program’s activities; 4) who benefited and how. Please weave supporting data into the narrative.

External Factors

The COVID-19 pandemic national, state of Mississippi, and local municipalities’ guidelines (e.g., no in-person meetings, school closures, restricted travel) were external factors that hindered implementation of programs, events, and activities that may have affected the outcomes reported in impact statements listed below.

No.	Project or Program Title	Outcome/Impact Statement	Critical Issue Name or No.
1.	Improving Seedstock Cattle Value through Increased Producer Education Regarding Cattle Genetics (MSU)	Issue The seedstock segment of beef production in Mississippi is shrinking due to profitability challenges. In addition, many commercial cow-calf producers go outside the state to purchase herd sires and replacement heifers. Some other producers purchase low genetic value herd sires and hurt their own profitability and the reputation of Mississippi cattle by doing so. There is a need for education on the importance of improved	1. Animal Systems

		<p>cattle genetics to operational profitability and vetted sources of high genetic merit seedstock available for purchase by the public.</p> <p>Response MSU Extension, in cooperation with the Mississippi Beef Cattle Improvement Association, is addressing this problem via a wide variety of bull and heifer development programs, bull and heifer marketing programs, genetic improvement educational offerings, and advertising and promotion efforts for cattle producers.</p> <p>Results Mississippi Beef Cattle Improvement Association seedstock cattle sales have shown an increased value in Mississippi bulls by \$500 per animal. Demand for Mississippi herd sires is increasing due to educational and promotional efforts. If half of the herd sires were supplied from Mississippi operations implementing genetic improvement efforts based on extension outreach information, then the added value of this seedstock would contribute more than \$6.2 million in increased returns annually to Mississippi-based bull suppliers. More importantly, the increase in value of production from the use of improved genetics in commercial cattle herds would approximate \$13 million annually and carry over in future years as replacement heifers with these genetics are retained.</p>	
<p>2.</p>	<p>Beekeepers Explore Issues Related to Beekeeping (MSU)</p>	<p>Issue Beekeeping is an agricultural practice that has seen an increase locally. A Beekeepers Association was formed to help address issues surrounding raising bees and producing honey. One issue is the use of pesticides around beehives, and the impacts that may occur from such use.</p> <p>Response A meeting was scheduled that would allow local beekeepers to hear information concerning appropriate steps to consider when using pesticides in areas that contain honeybees and/or beehives. The meeting was scheduled for February 2020 at the MSU Extension office in Alcorn</p>	<p>1. Animal Systems</p>

		<p>County. Unfortunately, the speaker for the event had to cancel. The meeting continued as a roundtable with open discussion of the different issues that local beekeepers were dealing with as well as the use of pesticides.</p> <p>Results Among the 15 attendees, several had been raising bees for many years and offered their insight into many of the issues that were discussed. These included feeding during the winter months, monitoring hives for varroa mites, and planting of cover crops that the bees could utilize and increase honey production. An MSU Extension agent gave a general overview of the importance of managing hives so that they were not detrimentally affected by pesticide use. Attendees (47%) strongly agreed that they increased their knowledge concerning the topics discussed. An evaluation summary also indicated that an additional \$50.00 per hive could be realized with application of the concepts discussed.</p>	
<p>3.</p>	<p>Performance Horse Breeding Program Improves Genetic Quality of Stallions (MSU)</p>	<p>Issue As a Land-Grant University with Extension Outreach programs, MSU Extension should provide resources for horse owners throughout the state. Therefore, the Performance Horse Breeding Program was created as a genetically diverse horse breeding program.</p> <p>Response This program serves two purposes: (1) To serve as a “gold standard” for horse breeding within the show industry sector, which ensures MSU and the Animal and Dairy Sciences (ADS) Department receives recognition for potential donors and sponsors on a national level, and (2) To provide a source of revenue for ADS.</p> <p>Results As a direct result of this program, all stallion breedings have been donated throughout each breeding season. This has a significant indirect impact on quality horse donations each year, thus serving to support both teaching</p>	<p>1. Animal Systems</p>

		<p>and research and our Equestrian Team. Additionally, the sales budget has exceeded its goal every year since 2015, and as of last year, sold horses totaling \$44,000 (\$3,900 average).</p>	
<p>4.</p>	<p>Best Management Practices Assist in Eradicating Cogongrass from Mississippi Farms (ASU)</p>	<p>Issue The Mississippi Department of Agriculture and Commerce recommends a comprehensive survey and control program for cogongrass (<i>Imperata cylindrica</i>) before the invasive weed overtakes pastures, forestland, wildlife habitats, and landscapes in the state. Many counties in Mississippi have active infestations of the weed. Control in many of those areas has become a difficult and expensive battle for landowners and livestock producers. The continued spread of cogongrass is lack of public knowledge about the dangers it posed.</p> <p>Response ASU Extension Specialist and Educators conducted 115 farm visits, 137 verbal discussions, and 12 Web-based Zoom meetings for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of Cogongrass Identification, Cogongrass Vegetative Growth Cycle, Cogongrass Flowering, Dispersal and Distribution, and Cogongrass Habitat and Control Methods. Collaborative efforts were developed with Mississippi State Experiment Station and Natural Resource Conservation to educate about Cogongrass and weed management. These workshops were conducted to change (increase) knowledge and change behavior.</p> <p>Results A total of 161 limited landowners, farmers, and outdoor enthusiasts allowed on-farm hands-on (during Pre-COVID and COVID-19) and social media (Zoom / Microsoft Teams) visits to prevent, identify, and eradicate Cogongrass and implement forage and woodland management practices on their farm. Observation and questions and answers evaluation results showed that 50% of program participants changed (increased) knowledge. Cogongrass was identified on 5% of the visited farms and only three landowners have active Cogongrass present and being eradicated.</p>	<p>1. Animal Systems</p>

		<p>Behavior change was demonstrated through participants' eradication of Cogongrass on their farms.</p>	
<p>5.</p>	<p>Producers Improved Pasture Grass Fed to Livestock (ASU)</p>	<p>Issue Mississippi's 2019 agricultural industry faced the prospect of dipping below \$7 billion for the first time since 2011. However, the value of Mississippi agriculture in 2019 dropped only 0.2% (\$7.25 billion) compared to 2018's \$7.37 billion agricultural industry. Even on the brink of a pandemic, agriculture is still Mississippi's number one industry, employing approximately 17.4% of the state's workforce either directly or indirectly (Mississippi Department of Agriculture, 2019). Limited resource landowners and small farmers desire alternative ways to sustain and increase livestock nutrients through alternative forage management practices.</p> <p>Response ASUEP's Specialist and Educators conducted 11 workshops and five Web-based Zoom meetings for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of improve grasses verses native grasses foraging combinations, benefits of native grasses combinations, risk management practices, and input modifications. Collaborative efforts were developed with two community-based organizations to promote wetland management with the Natural Resource Conservations' Agricultural Conservation Easement Program. These workshops were conducted to change (increase) knowledge and change behavior.</p> <p>Results A total of 143 participants attended the 11 workshops implemented by ASUEP. Eleven (11) limited resource farmers and five (5) landowners implemented improved and native grass management practices on their farms. ASUEP Specialists and Educators transferred knowledge to 11% of the program participants according to the 16 participants change in</p>	<p>1. Animal Systems</p>

		<p>behavior which is evident of their change in knowledge. As a result of the farm visit, farmers were able to maintain pastures by spot and boom spraying invasive weeds. The farmer learned how to use a “hay king” sub-soiler to manage soil conditions that assist in managing weed control.</p>	
<p>6.</p>	<p>Farm Financial Management Program Increase Overall Profitability (ASU)</p>	<p>Issue Financial management skills are necessary components of successful farm businesses. Careless financial oversight can lead to decreased farm profits and increased risks of business failure. Farm financial management workshops provide practical methods for managing farm transactions. For years, women have been viewed as behind-the-scenes to their spouses in the farming industry. Today, the role of women on the farm is constantly changing. The number of women principle operators is on the rise. According to the 2012 Census, there are 969,672 women farmers in the United States. Mississippi accounts for 15,847, which makes up 29% of farmers in Mississippi. Women must pave the way for future generations by getting back to the basics.</p> <p>Response ASUEP’s Specialist and Educators implemented five Farm Management workshops, 158 farm visits, 251 verbal discussions, 17 Web-based Zoom risk management, record keeping and best management practices activities, and hosted a “Veteran in Agriculture” Conference for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of farm management, farm safety, animal handling, farm equipment, specialty crop insurance, risk identification, risk management strategies and principles, and best management practices prioritization. The conference introduced veterans to agriculture and provided innovative techniques to assist them to make their farm operations more profitable. The goals of these programs, events, and activities were to change (increase) knowledge and change behavior (improve skills and techniques).</p> <p>Results</p>	<p>1. Animal Systems</p>

		<p>A total of 187 participants attended Farm Management programs, events, and activities implemented by ASUEP. Sixteen participants implemented best management practices on their farm. Results acquired through observation showed 75% of the program participants gained (increased) knowledge and 60% demonstrated behavior change (skills) through their development of farm plans. The continuous practice of identifying and maintaining best management practices was evident through participant’s knowledge and demonstration of management practices they applied. As a result, participants who utilized the practices increased their 2020 profit by 20%.</p>	
<p>7.</p>	<p>Farm Record Keeping Workshops Educate Farmers Regarding the Importance of Accurate Records (ASU)</p>	<p>Issue The success of any business depends on the accuracy of records. This is especially true for limited-income farmers who are less familiar with the business side of the operation. Failure to track farm expenditures could prove detrimental for tax and legal purposes. Farmers should learn to document expenses for long-term sustainability. Farmers and ranchers lacked the knowledge and understanding of proper record keeping. The farm families cannot plan an efficient operation, nor can they determine if their decisions are appropriate and successful unless a good set of records is kept. Good records do not ensure your farm will be successful, but success is unlikely without them.</p> <p>Response ASUEP’s Farm Outreach Project conducted Farm Record Keeping educational sessions and hands-on demonstrations to assist farmers maintaining proper and accurate records for limited-resource and socially disadvantaged farmers and residents in Mississippi. The Mississippi Farm Record Book Kit was used as a learning tool. The Record-Keeping Kit includes the Mississippi Farm Record Book, Farm Record Notes, calculator, pen, pencil, and 12 pocket file folder. The goal of the Farm Record Keeping program was to change (increase) knowledge, change behavior (practices) using record keeping skills and techniques, and change conditions (increase in income/profit).</p>	<p>1. Animal Systems</p>

		<p>Results A total of 90 participants attended the Farm Record Keeping workshops. As a result, 100% of participants gained knowledge and developed essential skills that were utilized to maintain accurate records. The participants indicated that keeping useful and accurate records were instrumental in the advancement of their farm productions that contributed to an increase in income and profits. The goals/objectives for Farm Record Keeping program to change (increase) knowledge, change behavior (skill development and adaption of record-keeping practices, and change condition (farm production advancement and increase in income/profits) were achieved.</p>	
<p>8.</p>	<p>Trainings Help Farmers Apply for Government Funding (ASU)</p>	<p>Issue One prevalent issue continuing to impact farming success is lack of financial resources. Farmers should have access to adequate resources to effectively operate their enterprises. USDA's Farm Services Agency (FSA) provides financial assistance to farmers; however, the application packets are often too long and difficult to understand. ASUEP's Vendors/Borrowers trainings are designed to provide knowledge and skills necessary to obtain FSA loans. Mississippi farmers and ranchers continue to face difficulties in their farming operation due to the lack of money. To plan an effective operation and make good management decisions, borrowers must have accurate resources. When applying for an FSA loan, borrowers had difficulties in understanding the basics for the completion of the loan application.</p> <p>Response ASUEP implemented two structured training courses on Farm and Financial Management and Production Agriculture to Farm Service Agency (FSA) borrowers throughout Mississippi. The trainings were designed to increase profitability and better prepare farmers for business sustainability using real-world problems through practical exercise and application. Borrowers must obtain a passing score of 70 to help meet the requirements for</p>	<p>1. Animal Systems</p>

		<p>borrowers training as outlined by FSA guidelines. The training courses were implemented to change knowledge and behavior which would lead to increased profitability for their farms.</p> <p>Results A total of 20 borrowers attended the training courses implemented by ASUEP. Participants were qualified to apply for additional loans after completion of the course. Borrowers were introduced to current tools and methods which assisted them in current farming practices and to minimize farm risks. Borrowers gained skills and the understanding of the application process by completing 12 hours of Farm and Financial Management, six hours of Crop Production, and six hours of Livestock Production. After program completion, participants received a Certificate of Completion. The Certificate qualifies the borrowers to receive additional funding from USDA FSA. USDA FSA issued over \$714,169 in funding for borrowers to increase their farm operations to purchase equipment, additional land, and increase profit. Results from this program’s implementation showed participants increased their knowledge (understanding of current tools, methods, and application process) and changed behavior (gained skills in current practices to minimize farm risks).</p>	
<p>9.</p>	<p>Virtual Workshops Are Presented to Farmers Regarding Farm and Financial Management (ASU)</p>	<p>Issue Effective and sustainable farming operations require farmers to make sound management decisions and have availability to sufficient funds. It is essential that farmers and ranchers become knowledgeable and develop skills that contribute to sound decision-making and use effective financial management skills to ensure the success of their farming operations</p> <p>Response ASUEP conducted five virtual workshops on Farm and Financial Management for limited-resource and socially disadvantaged farmers and residents in Mississippi. The topics of the workshops consisted of farm management and decision management, budgeting, financial statements,</p>	<p>1. Animal Systems</p>

		<p>measuring profitability, capital request, financial positions, and financial projections. The goal of this program was to change knowledge.</p> <p>Results As a result, 154 participants attended the Farm and Financial Management virtual workshops implemented by ASUEP. The post evaluation (poll) results from the virtual workshops showed 98% of participants rated their knowledge gained High on a “low to high” scale. The evaluation was completed within five minutes. Based on the evaluation results, the goal of this program was achieved.</p>	
<p>10.</p>	<p>Certified Clean Sweet Potato Seed Increases Yield and Quality (MSU)</p>	<p>Issue Sweet potato seed are storage roots that are stored through the winter in a controlled environment, and then bedded in the field during the spring to produce slips. These slips are cut for use in commercial sweet potato production. If a grower continues the cycle of saving storage roots for seed over several years (generations), the planting stock can become infected with viruses that reduce yield and quality. Additionally, genetic mutations can result in sweet potato roots that are not true-to-type.</p> <p>Response MSU’s Pontotoc Ridge-Flatwoods Branch Experiment Station operates one of the United States’ six Clean Plant Centers for sweet potato and provides the state’s industry with virus-tested and true-to-type Generation Zero (G0) planting material, which is the capstone of our certified clean foundation seed program (CCFS).</p> <p>Results From the G0 clean plant material developed in the lab and propagated in certified greenhouses by MSU’s Pontotoc Ridge-Flatwoods Branch Experiment Station, more than 244,000 G1 slips were provided to growers in 2020. There were 114 acres planted with these G1 slips, which improved marketable storage root yield by 100 Bu/ac when compared to non-certified planting material. Harvested G1 roots are kept as seed in storage</p>	<p>2. Plant Systems</p>

		for bedding the next spring to produce G2 slips. These G2 slips are then transplanted in commercial production fields that yield an estimated 3.5 million bushels of marketable sweet potato, grossing approximately \$81.2 million from the CCFS program in the state of Mississippi.	
11.	Master Gardener Volunteer Program In High Demand (MSU)	<p>Issue Many homeowners and gardeners have their own beliefs about best practices when it comes to home horticulture. There are also a significant number of sources of conflicting information that is now easily accessible for these individuals. Many of these practices and the information available are not research-based and, in some cases, can be detrimental to the success of their home horticulture endeavors. Due to the high demand for horticulture information, MSU Extension Agents seek help meeting client needs through the use of Master Gardener Volunteers (MGV).</p> <p>Response The Master Gardener Volunteer Program delivers 40 hours of research-based training by MSU Extension Specialists on numerous topics related to home gardening (horticulture). Upon completion of the training, the participants are asked to volunteer in their communities and attend educational opportunities annually to remain active in the program.</p> <p>Results MGV are a vital part of the horticulture programming that occurs in counties across Mississippi. In 2020, 747 MGV volunteered a total of 20,038 times reaching 49,181 Mississippians. They drove over 233,000 miles to make these contacts. They provided 18,500 educational hours and 29,100 service hours to local communities. This volunteerism has a value of \$1,210,872. These volunteers provided a work equivalent to 22.9 FTE.</p>	2. Plant Systems
12.	Evaluation of Management Strategies in Crop Production Systems of the Mississippi Black Prairie Region (MSU)	<p>Issue Annually, Mississippi producers spend on average \$250,000,000 on fertilizer. Although a substantial sum is being spent by producers on fertilizer each year, use trends suggest that phosphorus and potassium are being exploited at an extreme rate without replenishment. The use of</p>	2. Plant Systems

		<p>innovative production practices may sustain or further yields while increasing the efficiency with which we supply nutrients to our crops. The ability for producers to have access to up-to-date information regarding these practices is essential to continue toward the sustainability of row crop agriculture in Mississippi.</p> <p>Response MSU conducted research to evaluate nutrient availability differences to a cash crop following cover crop planting, determine nutrient demand for a corn crop following a winter cover crop, evaluate the use of Enhanced Efficiency fertilizers in production systems, and evaluate the optimum planting densities of current crop cultivars. The use of these practices may provide the means for producers of Mississippi to become more sustainable and profitable. Results from this research were disseminated to producers via an invitational plot tour, virtual presentations, and Extension publications.</p> <p>Results To illustrate the impacts of this research, data from 2020 trials were retrieved. Environmentally Smart Nitrogen (ESN) when applied to corn and cotton was observed to produce yields greater than plots receiving no fertilizer and at historical standards. The use of ESN may provide the opportunity to decrease nitrous oxide emissions by up to 57%, while maintaining yields on 1.1 million acres in Mississippi. Additional research on planting densities and cultivars suggests that choosing the correct seeding rate and corn hybrid could result in profit differences of \$57.60 and \$75.60 per acre from the least to the optimum planting density and corn hybrid. Providing producers with up-to-date information will improve the profitability and sustainability of Mississippi production systems.</p>	
<p>13.</p>	<p>Soybean Producers Utilize Best Practices to Improve Profits (MSU)</p>	<p>Issue Mississippi’s soybean producers are faced with many challenges each growing season. Many of these challenges affect Mississippi’s soybean producer’s ability to continue to improve yields and profitability each year.</p>	<p>2. Plant Systems</p>

		<p>Response MSU’s Mississippi Soybean Demo Program was created to serve as a resource to demonstrate new and/or improved practices that may allow for yield improvement, profitability, and sustainability. Demonstration activities implemented include soybean variety selection, fertility challenges, pest management strategies, and irrigation fundamentals. Through this program, long-term data are collected and used to determine specific management recommendations for sustaining or improving yield and profits for Mississippi soybean producers.</p> <p>Results Survey respondents from 2020 agreed/strongly agreed that participation was worth their time, and all would recommend the program to others. Based on 2020 data, the economic impact of selecting a top-performing variety and implementing fungicides to protect yield potential would result in a profit of \$157.48 and \$16.22 per acre, respectively. If all MS soybean producers adopted best management practices as demonstrated in 2020, the potential exists to increase the value of soybean production by over \$350 million. Of the survey respondents, 33% said to have improved their knowledge on soybean variety response to various diseases. Soybean variety response to soil texture knowledge was gained by 67% of participants. Knowledge of soybean variety characteristics was improved by 83% among survey respondents. Lastly, 67% of survey respondents gained knowledge of the performance of newly released soybean varieties. This program is an effective tool for training soybean producers, Extension and research personnel, industry personnel, crop consultants, and students who will become the next generation of agricultural professionals.</p>	
<p>14.</p>	<p>Cotton Variety Trials Needed to Increase Revenue of Mississippi Cotton Farmers (MSU)</p>	<p>Issue Variety selection has become an increasingly difficult task affecting cotton producers over the past decade. Historically, one to two varieties were planted on the majority of the acreage in Mississippi. Cotton varieties are</p>	<p>2. Plant Systems</p>

		<p>being introduced quicker than ever before and a successful variety typically remains on the market for four to five years. Varieties that are not widely adopted by growers typically have a lifespan of two to four years. In addition, varieties are not generally made available for testing by public institutions more than one to two years prior to commercial launch.</p> <p>Response Cotton growers are forced to plant varieties based on limited performance data. This can be problematic for cotton growers since yield performance is at a premium. Annually, MSU researchers evaluate cotton varieties at numerous locations within the cotton growing regions in the state. The purpose of the Mississippi State Official Variety Trials and on-farm variety trials is to provide an unbiased comparison of varieties across a range of environments to aid in variety selection.</p> <p>Results To illustrate this point, data were retrieved from the 2020 Mississippi Agricultural and Forestry Experiment Station cotton variety trials. The top yielding variety produced 1,380 pounds of lint per acre whereas the median performing variety produced 1,154 pounds of lint per acre. Revenue differences based on these numbers are as following: top performing to median performing - \$190.40 per acre. Mississippi cotton growers planted 520,000 acres in 2020 and using the difference between the top performing and median performing variety, improper variety selection can result in up to \$99 million in lost revenue. Improving variety testing programs in cotton will reduce lost revenue and increase income of Mississippi cotton growers.</p>	
15.	<p>Extension Coastal Floral Programs Flourish in Pandemic (MSU)</p>	<p>Issue Mississippi holds potential for commercial cut flower production but there are few flower farms in the state. Floriculture products are considered high value crops and can provide significant income to farms. The Association of Specialty Cut Flower Growers lists 11 Mississippi members out of 2,288 nationally, comprising 0.5 percent of membership. Only three Mississippi</p>	2. Plant Systems

		<p>farms participate with MSU Extension floral programs. Considering that the U.S. imports 80 percent of total flowers consumed, and that Mississippi has abundant resources, local market demand may play a larger role in increasing floriculture production.</p> <p>Response MSU Extension Coastal Floral developed three comprehensive floral design programs benefitting consumers and retail florists since 2016. These programs were all developed from scratch with no U.S. models or precedents. All three programs have online components. When the COVID-19 pandemic forced people to stay home, the public looked to Extension for online educational programs. In response to the public need, MSU Extension Coastal Floral purchased online training equipment and converted the floral studio to an online classroom.</p> <p>Results Despite the 2020 pandemic, 34 consumer and 20 professional florists were trained in floral design. Master Floral Designer (MFD) had pre-pandemic online sections averaging 3 participants (n=9) while pandemic sections averaged 5.6 (n=17), doubling participation. These programs are in their infancy, relying on word-of-mouth advertising, but participant numbers represent a powerful addition to the buying public. Since its inception, 52 people have completed MFD training, gaining knowledge and confidence in buying and arranging floral products. They gained a 62% average increase in posttest scores. Our extension floral design programs for consumers and retail florists have grown, creating a knowledgeable pool of flower buyers, even during a worldwide health and economic crisis.</p>	
16.	<p>One-Shot Weed Management Programs in Mississippi Corn (MSU)</p>	<p>Issue Crop losses from weed interference have a significant effect on net returns for producers. Weeds competition with corn will reduce yields, cause harvesting losses and produce seed that increase the soil seed bank (for future infestation). Weed with low infestation can reduce yields by 10 to 15 percent and with high infestations may reduce yields as much as 50</p>	2. Plant Systems

		<p>percent. Averaged across the seven years, weed interference in corn in the United States and Canada caused an average of 50% yield loss, which equates to a loss of 148 million tonnes of corn valued at over U.S.\$26.7 billion annually (Soltani et al. 2016).</p> <p>Response A field study was conducted in 2020 at the MSU Delta Research and Extension Center to evaluate one-shot herbicide application programs for glyphosate-resistant Palmer amaranth (<i>Amaranthus palmeri</i>), pitted morningglory (<i>Ipomoea lacunosa</i>), prickly sida (<i>Sida spinosa</i>), broadleaf signalgrass (<i>Urochloa platyphylla</i>), and hemp sesbania (<i>Sesbania herbacea</i>) control in Mississippi corn. Corn (Pioneer 1662 YHR) was planted on beds with 40-inch row spacing at a seeding rate of 2.5 seeds ft⁻¹ on May 6, 2020 and emerged on May 14.</p> <p>Results The study was designed as a randomized complete block with 20 herbicide treatments and four replications. The herbicide programs contain eight preemergence (PRE), six postemergence (POST) at V2-V3, and six postemergence at V3-V4 corn stage. A weedy (nontreated) and weed-free check were included in the study. PRE, POST (V2-V3), and POST (V3-V4) provided comparable results in broad-spectrum weed control and corn yield as standard treatment. Weed interference reduced corn yield 79% (nontreated check with 36 bu/A) as compared to the weed-free check (170 bu/A). There are some one-shot herbicide programs (for preemergence and postemergence at V2-V3 or at V3-V4 stage of corn) as good as the standard treatment that could be used in weed management programs in Mississippi corn.</p>	
17.	<p>Nutrient Management Demonstrations Conducted at Mississippi State Fair (ASU)</p>	<p>Issue Producers involved in ASU Extension Advisory Councils are demanding sustainable soil management practices that are cost efficient and environmentally sustainable. Integrated Nutrient Management (INM) is a sustainable tool that can offer good options and economic choices to</p>	2. Plant Systems

		<p>supply plants with a sufficient amount of needed nutrients while reducing total costs, create favorable soil microbial and physiochemical conditions while creating a healthy environment by safeguarding the soil nutrient balance.</p> <p>Response ASUEP’s Specialist and Educators conducted 13 workshops, 20 farm visits, 14 social media (Zoom or Microsoft Teams) and 18 nutrient management educational demonstrations for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of Syrup Crop Bagrass Soil Amendment, Syrup Crop Organic Fertilizer Applications, Integrating Nutrient Management, Organic Manures, Vermicomposting, and Increasing Agriculture Production with Sustainable Practices.</p> <p>Results A total of 13,362 farmers and landowners participated in the integrated nutrient management farm visits, workshops, social media (Zoom or Microsoft Teams) and Educational Demonstrations implemented by ASUEP. The 13 days of the Mississippi State Fair presented a platform to conduct 13 nutrient management demonstrations while directly contacting 12,255 participants and 995 indirect contacts. Ninety-four (94) agronomy crop producers and twenty-eight (28) vegetable producers of the 12,255 participants (1% of the 12,255 direct contacts) completed a Survey monkey.com production survey. The survey completion time was 10 minutes. Survey results indicated that 80% of participants increased their knowledge on integrated nutrient management. Observation evaluation results showed 60% of producers demonstrated proper soil organic matter management techniques, submitted soil tests accurately, and established soil biology and nutrient balance plans. However, national, state, local, and ASU COVID-19 travel guidelines hindered and affected the outcome results indicated above due to the lack of farm visits to observe and verify program implementation.</p>	
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<p>18.</p>	<p>Integrated Pest Management Demonstrations Conducted at Mississippi State Fair (ASU)</p>	<p>Issue Integrated Pest Management (IPM) is a sustainable approach for managing pests by combining biological, cultural, physical, and chemical methods to minimize economic, health, and environmental risks. The aim of IPM programs is to promote natural remedies such as natural predators, insect resistant crops, etc. Farmers using IPM practices can potentially increase income by saving money on costly pesticides.</p> <p>Response ASUEP’s Specialist and Educators conducted 73 farm visits, 9 workshops, 14 social media (Zoom/ Microsoft Teams) and 18 agronomy crop educational demonstrations for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of integrated pest management (IPM) definition, IPM of insect pests in consumer (rural and urban environments) and IPM of plant diseases (rural/urban environments).</p> <p>Results A total of 13,362 farmers and landowners participated in the integrated nutrient management farm visits, workshops, social media (Zoom or Microsoft Teams) and educational demonstrations implemented by ASUEP. The Mississippi State Fair served as a platform to conduct 13 integrated pest management demonstrations while directly contacting 12,255 participants and 995 indirect contacts. Ninth-four (94) agronomy crop producers and twenty-eight (28) vegetable producers of the 12,255 participants (1% of the 12,255 direct contacts) completed a Survey monkey.com production survey. The survey completion time was 10 minutes. Survey results showed 75% of producers gained knowledge and observation evaluation results showed 50% of producers utilized pest management techniques effectively.</p>	<p>2. Plant Systems</p>
<p>19.</p>	<p>Mississippi State Fair Used as a Platform to Discuss High Tunnel and Container Gardening (ASU)</p>	<p>Issue Community gardens are continuing to impact the health and well-being of Mississippi's residents. These cultivated plots increase physical fitness,</p>	<p>2. Plant Systems</p>

		<p>vegetable and fruit consumption, and residential socialization and cohesiveness. Community gardens are especially important in communities with health disparities and an absence of adequate supermarkets. ASUEP actively promotes and conducts community gardening projects in Mississippi's Southwestern Counties and the Mississippi Delta.</p> <p>Response ASUEP's Specialist and Educators conducted 91 farm visits, 17 workshops, 10 social media (Zoom or Microsoft Teams) and 22 high tunnel, container and community gardening educational demonstrations for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of define high tunnel, container garden and community support activity (CSA), how to increase the quality of specialty crops, how to increase the yield of specialty crops, risk management for high tunnel production, value-added methods, and techniques for high tunnel production.</p> <p>Results A total of 13,362 farmers and landowners participated in the High Tunnel and Container Garden farm visits, workshops, social media (Zoom or Microsoft Teams) and educational demonstrations implemented by ASUEP. The Mississippi State Fair presented a platform for ASUEP to conduct 13 High Tunnel and container gardening demonstrations and videos while directly contacting 774 observed participants and 995 indirect contacts. Twenty-Eight (28) vegetable producers and forty-three (43) container gardeners of the 774 observed participants (9.2% of the 774 direct contacts) completed a Survey monkey.com production survey. The survey completion time was 10 minutes. Survey results showed 90% of participants increased knowledge. Observations showed that 80% of participants demonstrated effective techniques in development of high tunnel and container gardens and displayed best management practices and integrated pest management.</p>	
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<p>20.</p>	<p>Farm Financial Management Program Delivered Virtually (ASU)</p>	<p>Issue Financial management skills are necessary components of successful farm businesses. Careless financial oversight can lead to decreased farm profits and increased risks of business failure. Farm financial management workshops provide practical methods for managing farm transactions. For years, women have been viewed as behind-the-scenes to their spouses in the farming industry. Today, the role of women on the farm is constantly changing. The number of women principle operators is on the rise. According to the 2012 Census, there are 969,672 women farmers in the United States. Mississippi counts for 15,847, which makes up 29% of farmers in Mississippi. Women must pave the way for future generations by getting back to the basics.</p> <p>Response ASUEP conducted seven virtual workshops for limited-resource and socially disadvantaged farmers and residents in Mississippi. Topics consisted of financial management, financial statement, budgeting, farm management and decision management, and measuring profitability. This program was implemented to change knowledge and behavior which would lead to increase profitability for their farms. The goal of ASUEP programs, events, and activities conducted was to change (increase) knowledge.</p> <p>Results A total of 311 participants attended ASUEP’s virtual workshops. The post evaluation (poll) results showed that 90% of participants rated their knowledge gained High on a “low to high” scale. Evidence to document the impact was presented through an online Zoom poll conducted after the conclusion of each training session. The evaluation was completed within five minutes. Based on the results, the goal of the programs, events, and activities implemented by ASUEP to change (increase) knowledge was achieved.</p>	<p>2. Plant Systems</p>
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<p>21.</p>	<p>Heir Property Workshops Provide No-Cost Interactions with Attorneys (ASU)</p>	<p>Issue According to the Census Bureau, eighty percent (80%) of land owned by blacks has been lost since 1910 due to heir property. Heir property refers to the land passed down from generation-to-generation from landowners who die without a will. For years, there have been many common problems with heir property. Some owners may want to sell the land, while others want to live on it or farm. It is not easy to receive loans or government assistance with heir property. Mississippians must be educated on heir property, the importance, the laws affiliated with it, and sharing the knowledge with future generations.</p> <p>Response ASUEP conducted 10 workshops on Land and Property Rights and Heir Property for limited-resource and socially disadvantaged farmers and residents in Mississippi. The workshops were designed to educate farmers and landowners on land ownership and heir property, common problems that affected heir property, and techniques to use to avoid heir property. The goal of these workshops was to change (increase) knowledge.</p> <p>Results A total of 348 participants attended the Land and Property Rights and Heir Property workshops. Mississippi farmers and landowners gained knowledge and were provided one-on-one interactions with attorneys specializing in Land and Property Rights and Heir Property. Farmer and landowner interactions occurred at no cost. Participants learned the proper steps to take that would help eliminate their issues with heir property. Through observation and a question/answer session, 100% participants changed (increased) knowledge.</p>	<p>2. Plant Systems</p>
<p>22.</p>	<p>Direct Marketing Virtual Workshops Presented to Increase Success at Local Farmers Markets (ASU)</p>	<p>Issue Locally grown produce makes fresh fruits and vegetables readily accessible and can boost local economies. Small farmers need a market to sell their produce. Providing fresh produce directly to local supermarkets fulfills consumers' needs and provides a viable market for small farmers.</p>	<p>2. Plant Systems</p>

		<p>Response ASUEP implemented four virtual workshops via Canvas and Zoom on Direct Marketing for limited-resource and socially disadvantaged farmers and residents in Mississippi. Workshop topics consisted of direct marketing, market research, marketing risk, branding and promotion, and how to sell.</p> <p>Results A total of 228 farmers and producers attended the virtual workshops. Post evaluation (poll) results showed that 93% of participants rated their knowledge gained High on a “low to high” scale. Evidence to document the impact was through an online Zoom poll conducted at the end of training to capture real-time data. The evaluation was completed in five minutes.</p>	
<p>23.</p>	<p>Landowners Increase Conservation Practices through Using Natural Resource Enterprises (MSU)</p>	<p>Issue A majority of imperiled lands and natural resources in Mississippi, including wetlands, coastal marshes, and river basins are in private ownership. Therefore, for conservation to be successfully implemented on these private lands, landowners and producers usually must realize incentives to their lands and incomes before they undertake conservation practices. Research conducted at Mississippi State University has shown that private landowners, forest landowners, and agricultural producers diversify incomes and increase conservation on their lands by developing fee-access outdoor recreational enterprises</p> <p>Response Landowners were found to diversify incomes from forests and other lands in the U.S. through fee access wildlife-related recreation, including hunting, angling, wildlife watching, and other nature-based activities (Jones et al. 2018). The Natural Resource Enterprises (NRE) Program through MSU Extension educates private landowners, resource agencies, and local community leaders about recreational enterprises, natural resources conservation, and the integration of these activities with</p>	<p>3. Natural Resources</p>

		<p>sustainable forestry, agriculture, and rural development through Extension workshops, virtual workshops, and videos.</p> <p>Results To measure on-the-ground impacts from NRE programming, an NRE Landowner Survey Study was conducted during 2020. A 20-page mail questionnaire was sent to past workshop participants. Findings revealed 75 new NRE's (25% of respondents) were established on private lands generating one million dollars in new incomes to landowners and local communities. Respondents conducted conservation practices on 73,800 acres due to workshop participation and operated new NRE's on nearly 20,000 acres. Total landownership reported was 110,000 acres across 11 U.S. states (Alaska, Alabama, Arkansas, Florida, Louisiana, Mississippi, New York, North Carolina, Oklahoma, Tennessee, and Texas).</p>	
<p>24.</p>	<p>Forestry Extension Agents Teach Proper Forest Management (MSU)</p>	<p>Issue Many forest landowners lack detailed knowledge about proper forest management, tax issues regarding forest land ownership, and other important forestry issues. Without this knowledge, landowners are not realizing the full potential for their forest lands.</p> <p>Response MSU Extension Forestry faculty and staff conduct multiple programs across the state covering a variety of topics requested by forest landowners. These programs are conducted as short meetings of 20-40 minutes; workshops lasting 3-4 hours; field days with hands-on learning, and virtually. Topics are tailored to each individual meeting based on input from forest landowners and County Extension Agents.</p> <p>Results Most individuals completing evaluations were landowners (n=164); attended 2.2 forestry programs on average; and 58 (25.3%) had implemented forestry practices since attending, impacting 39,366 total acres. Top practices were prescribed burning, reforestation, and thinning.</p>	<p>3. Natural Resources</p>

		<p>In addition, 117 individuals planned to implement practices on 34,007 acres within 0-2 years (69.3%). The majority indicated programs helped them avoid poor/bad management decisions or unnecessary costs (n=136; 70.8%). The majority (n=119; 68.8%) estimated programs helped them save and/or earn \$2,614,950 (n=32). Participants (n=165; 84.2%) shared information with family members or landowners not in attendance. Participants owned and/or managed 464,190 acres of forestland in 53 Mississippi counties and in two other states.</p>	
<p>25.</p>	<p>Research and Education to Advance Conservation and Habitat (MSU)</p>	<p>Issue Intensification of conventional agriculture has led to increases in degradation of soil and water resources. Significant investments in land management improvements by federal and state governments and producers through conservation programs warrant the need for documentation of conservation effectiveness and continued extension efforts to increase awareness and adoption. Moreover, considering continued threats to water quality and quantity, it's critical to document the many benefits (agronomic, environmental, and economic) accrued by these conservation efforts of Mississippi's farmers.</p> <p>Response The MSU Extension REACH program worked with partners to secure \$1.4 million to support program-related efforts and published two popular articles, three Extension manuals, and seven peer-reviewed scientific articles in areas of soil and water conservation. The program produced digital media content which included 20 episodes of our Coffee & Conservation Podcast, five professional development Conservation Webinars, weekly outreach and education through three social media platforms, and a monthly digital newsletter. We also co-hosted a 2-day event for farmer-to-farmer learning for producers to learn more about their practices.</p> <p>Results</p>	<p>3. Natural Resources</p>

		<p>Education and outreach were delivered via social media posts and newsletters reached over 10,681 stakeholders. Technical assistance was provided to 30 individuals and professional development webinars educated 114 stakeholders. Eleven producers were engaged in on-farm research, implementing over 1,200 acres of cover crops. A conservation demonstration and producer exchange event was attended by 27 farmers/farm advisors who reported managing 39,360 acres of land in 12 counties in four different states. In standardized program evaluations, 67-90% of attendees reported using conservation practices, 67% reported they were very likely to adopt a conservation practice they learned about at the event, and 70% were very likely to recommend a conservation practice to another farmer.</p>	
<p>26.</p>	<p>Local Foods Industry Learns Marketing Skills (MSU)</p>	<p>Issue Mississippi has a lack of healthy foods with much of the state located in a food desert. The state is also lagging in direct-to-consumer sales from farms in comparison to other states in the surrounding area. The state needs improvements in methods to market its local foods industry and use this as an avenue for economic development.</p> <p>Response MSU Extension Grow Your Brand program continued working to address the needs of the local foods industry by developing content for the local flavor microsite, implementing an agritourism webinar series for local food producers, a web course, and a podcast series. Hosted a marketing local foods workshop for Women for Agriculture (WFA), worked with Mississippi Department of Agriculture and Commerce (MDAC) to improve training for market managers, and applied for funding to enhance local food capacity along the Tenn Tom Waterway.</p> <p>Results The WFA workshop, Lunch Break Series, Local Food Course, Farmers Market workshop, and Podcast series educated over 200 producers, market managers, and business owners about producing and marketing</p>	<p>4. Community Resource and Economic Development</p>

		<p>local food. Knowledge improved by approximately 50% for those attending the lunch break series. Received over \$450,000 in funding to build local food capacity in five counties. A walk-in cooler was purchased and installed at the Aberdeen Farmers Market, and five counties are receiving new logos and branding for their markets.</p>	
<p>27.</p>	<p>Delta Counties Benefit from the Mississippi High Obesity Program (MSU)</p>	<p>Issue For decades, the obesity pandemic has gripped Mississippi and particularly impacts the Mississippi Delta. Limited availability of fruits and vegetables and healthy food options in Delta counties combined with inaccessible stores in surrounding counties due to lack of public transportation and private vehicles has exacerbated health disparities. Low self-reported rates of physical activity are also prevalent. Twelve Mississippi counties suffer from an adult obesity rate of 40% or more. Clinical and community solutions must be provided to address the obesity epidemic.</p> <p>Response MSU Extension was awarded a five-year, \$5.5 million grant in 2018 to prevent and reduce obesity in the twelve Mississippi counties with an adult obesity rate of 40% or more. The Mississippi High Obesity Program (HOP) facilitates coalitions in nine of these counties and provides over \$25,000 in mini grants to each county annually. Team members provided coalition-development assistance, conducted SWOT analyses, mapped assets and conducted needs assessments, created action plans, ensured sustainability through the adoption of Master Plans, and evaluated and shared findings.</p> <p>Results After two years, the program now supports 58 community-led projects including food pantries, community gardens, active transportation routes to everyday destinations, and overarching initiatives such as client choice food policies and signage, healthy menu transformations, and more. The Lexington Food Pantry was formed during COVID-19. Emergency funding</p>	<p>4. Community Resource and Economic Development</p>

		was provided to two food pantries that needed shelving for increased food procurement due to more clients. The Mississippi HOP Team has provided over 14 training and development opportunities in 2019-2020, including webinars about food insecurity and food insecurity stigma, grantsmanship, and crafting vision and mission statements. The team has leveraged almost \$50,000 in in-kind contributions and cash donations for projects.	
28.	Grenada County Expands Rural Economic Development (MSU)	<p>Issue Elected officials need research-based information regarding the potential impacts of economic development projects to aid in decision making at the local level.</p> <p>Response MSU Extension has built relationships with and provides education and analysis to economic development stakeholders and decision makers such as economic development organizations, elected officials, chambers of commerce, and main street associations. Greater Grenada Partnership regularly requests feedback and analysis on economic development projects and initiatives. In 2020, MSU Extension provided an economic analysis regarding forest industry sector expansions for the Greater Grenada Partnership to use in meetings with the Grenada County Board of Supervisors and additional elected officials and economic development stakeholders.</p> <p>Results Forest industry manufacturing will be expanding in Grenada County with an additional 43 jobs and a corporate investment of \$12.5 million.</p>	4. Community Resource and Economic Development
29.	Needs Assessment Conducted to Align ASUEP with Community Needs (ASU)	<p>Issue Small, rural communities in Mississippi are plagued with a multitude of issues. Poor access to healthy foods, inadequate schools, failing infrastructures, and lack of unity among residents are common in small municipalities. Finding common ground is not always easy in small communities. Unfortunately, it is a necessary component for positive solutions. ASUEP is committed to helping residents identify needs and</p>	4. Community Resource and Economic Development

		<p>work toward communal interests through its Environmental Scanning process.</p> <p>Response ASUEP conducted a needs assessment and a community profile. ASUEP also partnered with Jefferson County Board of Supervisors and C & G Organic Farms through distribution of fresh vegetable food boxes to community residents during COVID-19 pandemic from June 2020 to September 2020. This collaboration distributed 7,500 meals per month. The purpose of the meetings was (a) to identify community needs for alignment of Extension’s programs with those identified needs and (b) to provide community members research-based information and strategies for community engagement. The target audience consisted of local communities and their leaders, community members interested in improving their communities, community-based organizations, nonprofit organizations, cooperatives, entrepreneurs, and limited-resource individuals and families in Mississippi. Educational programs were developed and/or purchased around community needs. Weekly radio programs (on and off campus) promoted planned state and county-level programs and featured segments on topics relevant to ASUEP's planned program areas. The meetings were implemented to change (increase) knowledge. The purpose of food distributions was community outreach and to align ASU Extension with community needs. The distribution of vegetable food boxes to community residents was to change condition.</p> <p>Results As a result of ASUEP implementation of a needs assessment and community profile meetings, 48 participants attended. A total of 30,000 community residents received vegetable food boxes through the collaboration of ASUEP, Jefferson County Board of Supervisors, and C & G Organic Farms. The implementation of ASUEP’s needs assessments and community profile meetings were beneficial in identifying community needs/concerns, distribution of research-based information, and provided</p>	
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		<p>a platform to convey Extension’s services offered to the general public. Results acquired from observation and questioning session showed 80% of participants’ knowledge increased relative to ASUEP and the services it offered, and 65% indicated that they would apply community engagement strategies to encourage and recruit others to become more active in the community. The goal to change (increase) knowledge was achieved. As a result of ASUEP community outreach, the goal to change (improve) condition was achieved. COVID-19 contributed to loss of employment and lack of substantial finances for many residents. The available of funds to purchase foods was drastically limited. The vegetable food boxes distribution was community outreach that assisted residents’ have access to healthy foods without any out-of-pocket cost. The collaboration between ASUEP and other organizations provided hardship relief to limited-resource and underserved families within the community. In addition, families’ accessibility to food increased and they were able to save much of their available, on-hand funds.</p>	
<p>30.</p>	<p>Youth Develop Appreciation for Scientific Method Through the Soybean Plant (MSU)</p>	<p>Issue Enrollment in Agronomy/Plant Science has declined over the last decade; however, MSU Agronomy graduates have a 100% placement rate within 6 months. This indicates a need for more trained agronomists and the high demand for MSU graduates. Crop production is facing a potential shortage of highly trained and energetic field agronomists, research scientists, and related industry personnel to take the place of retiring personnel.</p> <p>Response A three-part statewide program was developed targeted at inspiring youth to become interested in and seek careers in row crop production, agricultural sciences, and specifically, soybean cultural practices. The program uses the following projects: (1) Agronomy Day Camp – events hosted at North Mississippi Research and Extension Center (NMREC) and Mississippi Delta Community College (MDCC) showcase many facets of row crop production and related fields of study; (2) Science Experiments – youth design and conduct their own experiments. Summary reports are</p>	<p>5. 4-H and Positive Youth Development</p>

		<p>submitted, and winners are selected by a team of agronomists; and (3) Agronomy Bowl – Sr. age 4-H youth compete in a bowl competition.</p> <p>Results Due to COVID-19, the Agronomy Day Camp and the Agronomy Bowl were cancelled. The science experiment portion was completed. A total of 83 youth registered and conducted science experiments during 2020. The youth learned about the scientific method, developed research projects, conducted the projects, and submitted final reports. A team of agronomists scored the projects and winners were selected for Sr., Jr., and Group categories. Most youth reported enjoying the activity and indicated they intend to participate again in 2021. The youth learned critical thinking skills, attention to detail, and plant science theory. It is expected that several youth from 2020 will consider enrolling at MSU in plant sciences and pursue a career in agriculture.</p>	
<p>31.</p>	<p>Livestock Quality Assurance Training Increases Animal Care (MSU)</p>	<p>Issue Consumers are concerned about the safety of the food that they eat. It is of the utmost importance that livestock producers know that they are at the foundation of the food supply, and their practices have a direct impact on the quality of food products that consumers will be eating. Educating youth livestock producers on proper management of their livestock will increase food safety and quality for the end user.</p> <p>Response The MSU Extension-Benton County Office offered a 4-H Livestock Quality Assurance Training. The program teaches youth livestock producers about good production practices when raising livestock and educates them on their impact on the safety and quality of the food supply. To increase the participation in this program, it is required that all 4-H livestock exhibitors and their families complete this training before they are allowed compete in any 4-H livestock shows.</p> <p>Results</p>	<p>5. 4-H and Positive Youth Development</p>

		<p>In 2020, the 4-H Livestock Quality Assurance training attracted three participants. Participant feedback indicated that all participants increased their knowledge about livestock quality assurance. Participant feedback also indicated a notable increase in the implementation of more responsible animal care.</p>	
<p>32.</p>	<p>Resource Conservation Programs Encourage Youth to Pursue Science-Based Majors (MSU)</p>	<p>Issue Young people's understanding of natural processes and resource conservation (including wildlife) is deficient leaving students ill-equipped to deal with complex issues facing society, including problems such as quality and quantity of water; sustainable use of soil, water, and other natural resources; and conservation of threatened plant and animal species.</p> <p>Results In previous years, MSU Extension has employed many outreach efforts to address this issue, including multi-day summer Conservation Camps, special events for Scouts, 4-H Wildlife Habitat Education Program (WHEP), and train-the-trainer workshops. The goal of these programs is to educate and excite students about wildlife and natural resources and address the knowledge deficit. Because of the COVID-19 pandemic and students' fatigue with online education, 2020 youth education efforts were limited.</p> <p>Response The senior-level WHEP competition at the 2020 Club Congress consisted of short educational paragraphs followed by comprehension questions. Eighteen youth participated and demonstrated knowledge gains with average scores of 90%. A train-the-trainer workshop indicated all 15 4-H volunteers gained wildlife science knowledge that they were planning to share with youth in their clubs. Evaluations of these programs indicate that approximately 10% of participants later enroll in science-based majors at MSU.</p>	<p>5. 4-H and Positive Youth Development</p>

<p>33.</p>	<p>Using Pillowcases to Learn Emergency Preparedness (MSU)</p>	<p>Issue Children and youth are a remarkably overlooked population group when it comes to engagement in emergency preparedness education (Ronan & Johnston, 2001). This runs counterproductive to effective individual, family, and community preparedness and resilience. In an era seemingly defined by an increasing number of natural disasters and emergency scenarios and capitalized by the sheer strength and destruction of many of these events, society must provide plentiful opportunities to directly engage youth in the preparedness discussion.</p> <p>Response MSU Extension’s Pillowcase Project is a youth preparedness program designed for youth aged 8 to 11. This program is a nationally recognized, American Red Cross-developed initiative. The Pillowcase Project utilizes a “Learn, Practice, Share” framework to engage children in emergency preparedness by focusing on a specific hazard. It also teaches students about personal and family preparedness, local hazards, and basic coping skills. In Itawamba County 40 third-grade students engaged in disaster preparedness and survival skills through hands-on activities and a workbook. Upon completion, students received a sturdy pillowcase to build their personal emergency supplies kit.</p> <p>Results Two weeks after the program, phone interviews were conducted with the two third grade teachers, and 80% of students had gained the knowledge and skills to put together a completed emergency kit. That same number of students shared the knowledge they had gained during the Pillowcase Project with their parents or guardians and put together emergency kits as a family.</p>	<p>5. 4-H and Positive Youth Development</p>
<p>34.</p>	<p>Youth Learn about Bullying from Local 4-H Leaders (ASU)</p>	<p>Issue More than 160,000 children miss school every day because they fear being attacked by their peers. Statistics reveal that 56% of a school's population has personally witnessed some type of bullying incident. Seventy-one</p>	<p>5. 4-H and Positive Youth Development</p>

		<p>percent (71%) of students in a research study perceived bullying as a major problem at school. Children should not be subjected to bodily harm in learning environments. Anti-bullying programs can decrease bullying incidents and subsequent suicides. Aside from reflecting problem attitudes (rebellion, poor self-concept, invulnerability) that make sexual involvement more likely, intoxication also clouds judgment and weakens resistance to sexual overtures.</p> <p>Response Ten (10) bullying programs, events, and activities were conducted by ASUEP 4-H Youth Development Educators. Activities were held at local schools, community centers, churches, and on ASU's campus. Workshop topics included recognizing bullying personality traits, reasons for bullying behavior, cyber bullying, reporting bullying incidents, and internet safety. Educators also conducted three (3) alcohol and substance abuse activities, four (4) workshops on preventing teenage pregnancy, four (4) sexually transmitted infections (STIs) workshops, and one peer-pressure workshop. These programs, events, and activities were implemented to change (increase) knowledge and change behavior.</p> <p>Results A total of 2,898 youth participated in the online and in-person workshops implemented by ASUEP Educators. Bullying activities increased awareness of dangers and consequences related to bullying acts. Students learned to safely engage on social media sites such as Facebook, Twitter, Instagram, and Expose. Oral program evaluations revealed 92% of students understood program content. Student-led follow-up activities demonstrated mastered skills to make wise decisions and to think critically in dangerous situations. Ninety (90%) of students demonstrated proper techniques to avoid and defuse bullying incidents and resist other risky behaviors. Based on the evaluation results, 92% of students' knowledge increased, and 90% of students changed behavior through adoption and</p>	
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		usage of skills to diffuse bullying incidents. The goals of the programs, events, and activities implemented by ASUEP were achieved.	
35.	<p>Leadership Development Program Prepares Youth for Leadership Roles in Schools and Communities (ASU)</p>	<p>Issue Adequate leadership skills are essential for youth to be able to acquire leadership roles in their schools and communities. These skills are also needed in team building, problem solving, and decision-making. Once these skills are obtained, youth will be effective leaders in their schools, communities, and other organizations.</p> <p>Response To improve youth leadership skills, ASUEP 4-H Staff implemented 10 Leadership Development programs. The workshops were delivered through two online and in-person educational sessions. The goals of the Leadership Development program were to increase knowledge and improve skills needed to become effective leaders and secure leadership roles in their clubs, schools and communities. The first session focused on Understanding Leadership, Types of Leadership Styles, and Developing Leadership and Team Building Skills. The second session involved hands on activities that explored Effective Communication, Decision-Making, and Listening Skills.</p> <p>Results A total of 5,675 youth participated in ASUEP’s programs, events, and activities. According to the post-test results, 46% of the youth participating in the program learned essential characteristics required to become and effective leader; 42% understood the concept of verbal and nonverbal communication; 31% reported that they could use the decision-making process to make important decisions; 46% felt that the team building skills they obtained would help them work better on teams; and 49% understood the definition of leadership and could list the three types of leadership styles. The post-test instrument time for completion was 10 -15 minutes, depending on the length of the survey and number of</p>	5. 4-H and Positive Youth Development

		<p>participants. Based on the post-test results, 49% of students gained knowledge and understood leadership concepts and styles; 31% and 46%, respectively, developed and utilized decision-making and team-building skills that enhanced their leadership processes and practices. The objectives of this programmatic area were achieved.</p>	
<p>36.</p>	<p>4-H Relies on Adults Volunteers to Recruit, Organize, and Manage (ASU)</p>	<p>Issue A caring adult volunteer is the backbone of any youth development program. The core of the ASUEP is the adult volunteer leaders. They are needed to recruit 4-H club members, manage school and community-based clubs, and contribute to 4-Hers personal, social, and mental growth and well-being.</p> <p>Response ASUEP 4-H Youth Educators conducted 8 programs, events, and activities to recruit and train 4-H volunteer leaders to recruit youth, organize and manage school and community clubs. The goal of the programs, events, and activities was to change knowledge (increase volunteer leaders' knowledge in student recruitment, organization processes, and maintenance of 4-H clubs). Topics consisted of volunteerism, leadership, officer training, parliamentary procedures, public speaking, club recruitment, development and maintenance, and youth competition and projects.</p> <p>Results A total of 405 potential volunteers attended the programs, events, and activities implemented by ASUEP. As a result of the programs, events, and activities, 20 volunteers assumed responsibility and helped prepare 4-Hers for local, state, and district competitions; 10 volunteers attended a state-wide forum that strengthened and expanded their leadership skills; and 15 school and community clubs were organized and maintained that consisted of 500 members. Training sessions strengthened volunteers' leadership competencies and abilities. One volunteer hour in Mississippi is</p>	<p>5. 4-H and Positive Youth Development</p>

		<p>worth \$25.43/per hour. Volunteers serving ASUEP contributed approximately 1,525 hours for a total economic value of \$38,780.</p>	
<p>37.</p>	<p>ASU 4-H Encourages Youth to Pursue STEM Careers (ASU)</p>	<p>Issue Science, Technology, Engineering, and Math (STEM) are the wave of the future. Experts with the Pew Research Center credit technological innovation with almost half of United State economic growth over the past 50 years, and nearly all of the 30 fastest growing occupations in the next decade will require at least some background in STEM. The 4-H Science program mandates Extension to use math and science related activities to challenge young minds. 4-H science programs encourage young people to pursue occupations in science and technology. Featured components of the program are robotics, rocketry, environmental science, computer science, agriscience, biotechnology, and veterinary science.</p> <p>Response ASUEP 4-H Specialist and Educators conducted a four-day Science, Engineering, and Technology (SET) camp for elementary, middle, and high school students. Emerging technologies was the primary focus of the camp. Participants experimented with unmanned aerial systems platforms (UAS&P), robots, animal health and safety, farm and environmental safety, and biofuels. Additional activities conducted in 2020 included National 4-H STEM Challenge entitled “MARS Base Camp,” which focused on space exploration and various ways to send messages to Mars. Youth attending the 4-H science challenge activity learned skills like mechanical engineering, physics, computer science, and agriculture. The goal of the science, engineering, and technology camp was to improve skills and increase knowledge.</p> <p>Results As a result of 610 youth participating in 4-H Science activities, 70% of the participants had a new interest in STEM fields and careers. Fifty percent of participants were less intimidated by science and technology and eagerly</p>	<p>5. 4-H and Positive Youth Development</p>

		<p>engaged in other events and activities. A week-long 4-H Science program at most major universities costs approximately \$500 per camper. The 500 youth participating in ASU's 4-H Science events and activities saved a shared total of \$35,500.</p>	
<p>38.</p>	<p>Job Readiness Skills Are Needed for Mississippi Youth Entering the Workforce (ASU)</p>	<p>Issue Most young people in Mississippi leave high school without sufficient job readiness skills to successfully transition from school to work. They usually don't understand or know about career opportunities. They are also unprepared for college or trade school. Most small communities do not have enough youth job opportunities, which forces them work in other states. To successfully navigate these transitions, educational training is necessary to prevent communities from becoming drained of future workers, community leaders, and economic resources.</p> <p>Response ASUEP's Specialist and Educators conducted 45 workshops utilizing the career/workforce development program at schools statewide. Subject matter included performing job searches, completing manual and online applications, resume writing, appropriate workplace apparel, and interview techniques. The Working-Class curriculum was used for content delivery. Activities appealed to students' diverse learning styles. More than 5,297 direct and indirect contacts were made within this program.</p> <p>Results A total of 5,297 participants attended the career/workforce development program implemented by ASUEP. Pre and posttest surveys were administered to participants. The survey instruments time for completion was 10 -15 minutes, depending on the length of the survey and the number of participants. Survey results indicated that 55% of participants understood delivered content; 49% stated they intended to set realistic future career goals; and 67% agreed to use knowledge gained to identify and explore current employment opportunities, make informed decisions, and use job readiness skills to seek and secure a job.</p>	<p>5. 4-H and Positive Youth Development</p>

<p>39.</p>	<p>Nutrition Health and Wellness Program Encourages Healthy Eating Habits and Food Preparation Skills (ASU)</p>	<p>Issue Young people in Mississippi, like most youth nationwide, do not consume adequate amounts of healthy foods. Working parents are often too busy to prepare healthy meals, forcing them to eat whatever is available. 4-H Healthy Habits and 4-H Food Smart Families are programs designed to teach children healthier eating habits and food preparation skills. Children who learn to prepare their own meals are more independent and are in control of the foods they consume. These habits are often carried into adulthood.</p> <p>Response ASUEP’s 4-H Youth Specialist, 4-H Youth Health Ambassadors, and volunteer leaders conducted eight three-day online youth cooking classes, 80 online Nutrition Health and Wellness educational programs and activities, and 10 Physical Fitness activities. 1500 educational packets were distributed through the Grab and Go Feeding Program at local schools. The cooking classes were premier activities for the 4-H Health and Wellness education workshops, events, and activities. Activities were conducted in Central, Southwest, and Northern Mississippi counties. Youth learned the importance of (1) eating more fruits and vegetables, (2) drinking more water, (3) choosing healthier snacks, (4) eating breakfast, (5) preparing healthy meals on a budget, and (6) using food-safety principles to prepare and preserve foods. The goals of the Health and Wellness Program were to change (increase) knowledge and change behavior through utilization of healthier eating practices and engagement in physical fitness activities.</p> <p>Results A total of 29,492 youth and families participated in online cooking classes, virtual workshops, events, and activities implemented by ASUEP. Participants retained knowledge and developed skills to prepare healthy, balanced meals. As a result, 77% of participants agreed to eat more fruits and vegetables; 80% vowed to drink more water and fewer sugary beverages; 76% said they would prepare and choose healthier snacks over</p>	<p>5. 4-H and Positive Youth Development</p>
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		<p>calorie latent ones; and over 88% reported preparing meals at least 4 days per week for themselves and their families after attending the classes. Participants saved approximately \$350 each, resulting in a \$400,750 economic impact for Mississippi and limited-income families. Participants' knowledge retention and assertions to demonstrate healthy eating practices showed knowledge and behavior change.</p>	
<p>40.</p>	<p>Financial Strategies to Reduce Your Family Dollar (MSU)</p>	<p>Issue COVID-19 caused Extension employees to take on the task of finding new ways to get our knowledge to our clients. In times of economic difficulty, everyone benefits from learning ways to save money.</p> <p>Response MSU Extension agents in Oktibbeha and Itawamba counties conducted a workshop on Financial Strategies to Reduce the Family Dollar via Facebook Live for Itawamba County's September edition of What's Happening. Topics discussed included knowing your family budget, ways to stretch your budget, take inventory of what you have to reduce double buying items, weekly/monthly meal planning and prepping, and discounts, coupons, and rebate programs.</p> <p>Results Participant comments included statements such as:</p> <ul style="list-style-type: none"> • "I have saved over \$92.99 (rebates not included) in my first attempt to saving money at grocery stores. Second trip was also over 55 % saving." • "So glad this is done where I can go back and watch as many times as I wish." • "Great information especially with COVID 19. Always wanted to try couponing but never knew how to start. I cannot wait to go try coupon." 	<p>6. Family and Consumer Science</p>

		<ul style="list-style-type: none"> • “I understand couponing now. Knowing how to coupon can help so many people in this COVID 19 times, any way we can save is so important.” 	
41.	Financial Management Skills Prepare Students for the Real World (MSU)	<p>Issue Family and Consumer Education courses where financial management would be taught is not a requirement for high school students. The total U.S. consumer debt is currently at \$13.86 trillion. In 2019, US Bank reported that only 14% of American households follow a budget. Youth need to learn about the financial responsibilities of adulthood and how to budget money.</p> <p>Response MSU Extension agents send letters to local schools to inform teachers about the “Welcome to the Real World” program and how it is conducted. Upon being contacted by the teacher, a date is set to deliver the program which takes approximately 45 minutes. The remainder of the classroom time is dedicated to both written and oral evaluation and explanation. If time allows, a question-and-answer session follows.</p> <p>Results In 2020, a total of 182 students participated in the program. A standard evaluation revealed that 94% agreed that participating in this program would help them in the future; 95% agreed that money management was important; 20 participants ran out of money and had to make cutbacks to their budget. Comments from participants implied learning the importance of putting needs before wants, getting a college education, and always be prepared for unexpected expenses by having a savings account.</p>	6. Family and Consumer Science
42.	Dining with Diabetes Goes Virtual (MSU)	<p>Issue Thirty-four million people in the United States have diabetes. 371, 662 Mississippians have diabetes, and 810,000 have prediabetes. Diabetes has become a public health crisis. COVID-19 halted all face-to-face Dining with Diabetes (DWD) programming.</p>	6. Family and Consumer Science

		<p>Response</p> <p>The Dining with Diabetes email challenge was created to ensure National Extension Dining with Diabetes programming continued during the COVID-19 crisis. The purpose of the email challenge was to have continuity in diabetes education and meet the needs of past, present, and future DWD participants with evidence-based diabetes education throughout the pandemic. A committee of five educators/specialists from Kansas State Extension, Mississippi State University Extension, Purdue Extension, and the University of Idaho Extension created the four-week challenge.</p> <p>Results</p> <p>The DWD email challenge directly reached 608 participants when conducted in May and November 2020. Results from November training indicated that 82.25% of participants learned new information to manage diabetes better. 81.25% of participants indicated they made positive progress towards meeting SMART goals they set. 84.38% of participants indicated they would recommend the email challenge to a friend, family, or coworker.</p>	
<p>43.</p>	<p>Program Brings Awareness to Youth Experiencing Mental Health Challenges (MSU)</p>	<p>Issue</p> <p>One in five youth will experience a mental health challenge at some point during their life, and 17.1 million youth under the age of 18 have or have had a psychiatric disorder – more than the number of children with cancer, diabetes, and AIDS combined. Many adults who work with young people are unaware of how common mental health concerns are among youth, lack knowledge of the signs and symptoms of mental health problems in youth, and do not have the skills to help a youth who may be facing a mental health problem or crisis, such as a suicide.</p> <p>Response</p> <p>MSU Extension provides Youth Mental Health First Aid (MHFA), an 8-hour workshop designed to teach parents, family members, caregivers, teachers, school staff, and other adults who regularly interact with young people how to help an adolescent (age 12-18) who is experiencing a</p>	<p>6. Family and Consumer Science</p>

		<p>mental health or addiction challenge or is in crisis. The course introduces common mental health challenges for youth, reviews typical adolescent development, and teaches a 5-step action plan for how to help young people in both crisis and non-crisis situations. Thirty-five Lowndes County Sheriff's Office staff completed the Youth MHFA training.</p> <p>Results Using a scale where 5 = strongly agree and 1 = strongly disagree, respondents indicated that "As a result of this training, I feel more confident that I can...": "Recognize the signs a young person may be dealing with a mental health problem, substance use challenge or crisis" (3.6), "Offer a distressed young person basic 'first aid' level information and reassurance about mental health and substance use challenges" (3.7), "Be aware of my own views and feelings about mental health problems, substance use challenges and disorders" (3.7). This evaluation data suggests that the Lowndes County Sherriff's Office staff gained new skills that will help them in their work with young people who may be experiencing a mental health problem or crisis.</p>	
<p>44.</p>	<p>Responding to Sudden Lifestyle Changes During a Pandemic (MSU)</p>	<p>Issue Mississippians face many lifestyle-related chronic diseases that can be alleviated with healthier living. Because everyday lifestyles for most adults changed during the year of 2020 (due to COVID-19), adults were becoming less active and developing bad eating habits.</p> <p>Response MSU Extension agents collaborated to address the needs of Mississippians by offering Walk-a-Weigh in a virtual format using closed Facebook Groups. Two groups were created in the Northeast and Northwest regions. Live group discussions were conducted each week along with posts pertaining to motivation, tips, or recipes. Agents presented live, interactive presentations to keep participants engaged. The closed group format allowed individuals to comment freely and engage with agents.</p>	<p>6. Family and Consumer Science</p>

		<p>Results</p> <p>Evaluation results from the Northeast Region showed that 50% of participants (n=48) started using an activity tracker, 42.86% drank more water than sugary drinks, and 39.29% were more physically active throughout the week while participating in the program. This program helps individuals realize what they should be consuming every day, how much of each food group they should be consuming, and how to be more physically active.</p>	
<p>45.</p>	<p>Senior Adult Nutrition and Physical Activity Important for Good Health (ASU)</p>	<p>Issue</p> <p>Two behavior changes that can help enhance the lives of older adults and improve their overall health and well-being are (1) eating at least 3½ cups of fruits and vegetables every day (1½ cups of fruit and 2 cups of vegetables), and (2) participating in at least 30 minutes of moderate-intensity physical activity most days. Eating a diet rich with fruits and vegetables and physical exercise is very important for senior adults' ages 60-74-year-olds. Fruits and vegetables provide important nutrients and fiber that help maintain good health. Seniors and other individuals who eat large amounts of colorful fruits and vegetables may decrease the risk of developing diabetes, decrease the risk of heart disease, high blood pressure, and some cancers. Adding 30 minutes of physical exercise most days to a diet rich with fruits and vegetables help older adults prevent or delay the effects of chronic disease; decrease mild stress, anxiety, and depression; build and maintain healthy bones, muscles, and joints; improve strength; increase balance to reduce the risk of falling; and improves sleeping ability.</p> <p>Response</p> <p>ASUEP's Educators conducted 48 educational lessons in collaboration with organizations in Adams, Franklin, Jefferson, and Wilkinson Counties to encourage older adults to eat more fruit and vegetables and get at least 30 minutes of physical activity most days. ASUEP's goal was to educate (change knowledge) and empower health challenged individuals to learn and try different, effective health and wellness practices and approaches</p>	<p>6. Family and Consumer Science</p>

		<p>(change behavior) that allowed them to enhance their lives and improve their overall health and well-being. The following series of lessons were taught: Fruit and Vegetable Consumption, Physical Activity, Benefits of Eating a Diet Rich with Fruits/Vegetables, and Getting 30 Minutes of Physical Activity Most Days.</p> <p>Results A total of 5,151 people participated in ASUEP Nutrition, Health and Wellness programming. Participants from Adams, Franklin, Jefferson, and Wilkinson Counties were evaluated. A survey was administered to participants and time allotted for completion was 15 minutes. Survey results indicated that 50% of participants had a general knowledge about fruit and vegetable consumption and getting physical activity 30 minutes most days; and 25% of participants had little to no knowledge of the subjects. Educators noted that there were only a few local places to buy quality, fresh fruit and vegetables. Many of these counties are considered food deserts. Two counties have local small physical fitness centers that are rarely used. Based on survey results, 50% of participants' knowledge about fruits and vegetables increased. The same 50% of participants changed behavior through increased consumption of fruits and vegetables and engagement in 30 minutes of physical activity appropriately three times per week.</p>	
<p>46.</p>	<p>Active Parenting Program Teaches Basic Parenting Skills to Improve Family Well-Being (ASU)</p>	<p>Issue Parenting may come naturally for some; others need additional support and guidance to understand child development, to respond appropriately to their child's needs, and to cope with the challenges of parenting. Parent education provides participants with knowledge, resources, and support to develop parenting skills to enhance child and family well-being. It can also help parents or caregivers learn the tools and strategies to provide a positive and nurturing home environment where their children will thrive physically, emotionally, and cognitively. Teaching parents basic parenting skills can be a great way to foster family support and family well-being. Family well-being occurs when all family members are safe and healthy.</p>	<p>6. Family and Consumer Science</p>

		<p>When youth are coached and instructed on life skills, they can learn important lessons that are necessary for interaction with others and their families. Engaging families as active participants in problem-solving and goal setting can help them identify and use their own strengths to address the challenges they face. When families are healthy, safe, and economically stable, their children's health and well-being can thrive.</p> <p>Response ASUEP's Educators collaborated with organizations in Adams, Franklin, Jefferson, and Wilkinson Counties to conduct 19 activities. Parents were trained to use basic life skills practiced to enhance their lives and the lives of their families. Educators used the Active Parenting Curriculum that contained a series of six lessons. The Active Parenting Question/Answer observations, worksheets, role play, and check-list observations were used to assess knowledge gained. Educators taught lessons on the following topics: understanding nonverbal messages, making decisions- big and small, managing personal resources, resolving conflicts, and looking to the future. The goal of this program's implementations was to change (increase) knowledge.</p> <p>Results ASUEP implementation of the Active Parenting Program total participants was 125. The participants were assessed through usage of observation evaluation. There was 100% participation from all participants in a related activity (role-play). Participants were asked questions and gave examples on each topic covered. Educators observed that all participants believed that having life skills is an essential part of being able to meet the challenges of everyday life. The participants relayed that having basic life skills will help them to find new ways to problem solve, understand their actions, take responsibility for their actions, and develop a better sense of self-awareness. Based on results from participant observations (role-play) and their oral responses to questions from the Active Parenting Program lessons, they demonstrated a change (increase) in knowledge.</p>	
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<p>47.</p>	<p>Money Smart Curriculum Empowers Financially Challenged Individuals (ASU)</p>	<p>Issue More than half of Americans report living paycheck-to-paycheck and experiencing financial crisis because of inadequate savings, too much debt, and poor planning. ASUEP works with community partners to help people acquire the knowledge, skills, and motivation they need to build financial security. We believe financial security is the cornerstone of prosperous communities, nurturing neighborhoods, and strong families. Financial literacy and education can be more effective when they help people develop skills in knowing how to achieve specific goals, rather than transmitting knowledge of particular facts about financial products and services. Effective financial literacy approaches are structured to help consumers: (a) know when and how to locate information for making financial decisions; (b) understand how to interpret information for decision-making; and (c) have skills and confidence to act and implement their decision.</p> <p>Response ASUEP Educators implemented two activities in collaboration with organizations in Adams, Franklin, Jefferson, and Wilkinson Counties to teach financial management skills using the Money Smart Curriculum. Workshops centered on educating and empowering financially challenged individuals as they learned effective financial management techniques that would generate financial stability and place families on a path to financial freedom. The lesson series taught financial well-being, budgeting, and parenting. The goals of conducting this program were to change (increase) knowledge, change behavior (practices/skills), and change condition (financial stability).</p> <p>Results A total of 25 participants attended the Money Smart Curriculum workshops presented by ASUEP. As a result of the Money Smart Curriculum implementation, participants were assessed with a financial well-being questionnaire to evaluate their current financial well-being, financial</p>	<p>6. Family and Consumer Science</p>
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		<p>security, and freedom of choice. The assessment was conducted during each activity. The timeframe for completion of the questionnaire was 15 minutes. Questionnaire results showed that all participants scored above the national average of 50% and two groups scored 60% within the high financial well-being range. This indicated that most people in these groups could come up with \$2,000 for an emergency, could always stay on budget, and very few have experienced a credit rejection or are concerned about credit rejection. Fifty percent (50%) of groups scored very high according to the financial well-being score range. This range indicated that these participants could have high levels of savings or more in liquid savings, could make automated deposits into a savings or retirement account, and have health insurance. The remaining groups had a medium high financial well-being score range. Participants in this range are assumed to have automated deposits into a savings or retirement account, always pay off credit card debts, and sometimes or often experience food insecurity or hardship. Based on participants' questionnaire results, the goals of this programmatic outcome were achieved.</p>	
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