2022-2023 FUNDED RESEARCH/EXTENSION PROJECTS
MISSISSIPPI SOYBEAN PROMOTION BOARD

TITLE:	Management of Insect Pest in Mississippi Soybeans, 01-2022, $16,884.
PI:	Don Cook, dcook@drec.msstate.edu MSU-ES/Delta Research & Extension Center
Objective(s):	To provide up to date information on insect management strategies/tools for soybean insect pests. This information will be used to keep recommendations delivered to growers current, by means of the Insect Control Guide for Agronomic Crops, presentations at grower meetings, blog posts, podcasts, and direct communication with growers and consultants. Also, studies on insect damage potential and threshold verification for new and/or uncommon insect pests will be conducted should the opportunity arise.
Duration:	Year 1 of 3
End Results:	Identify and disseminate up-to-date information for producers and consultants to use to make the most informed decisions for managing/controlling soybean insect pests.

TITLE:	Fertility and Agronomic Resource Management Extension & Research for Soybeans (FARMERs) Program, 02-2022, $119,421.
PI:	Corey Bryant, cjb777@msstate.edu, MSU-MAFES/Delta Research and Extension Center
Objective(s):	1) validate and document fertility best management practices effectiveness at the field scale; 2) identify key nutrient management parameters adopted by some of the most productive soybean producers in Mississippi as well as parameters omitted by less productive soybean producers in Mississippi; and 3) guide and facilitate future soil fertility research through the FARMERs program.
Duration:	Year 1 of 3
End Results:	It is estimated that revenue increases and/or savings could approach $5,000,000/year through validating yield increasing practices or reducing unnecessary inputs. Additionally, Mississippi soybean producers will have the information necessary to implement the most recent soil fertility best management practices.

TITLE:	Investigating High Magnesium Soils and the Impacts on Soybean Production, 04-2022, $15,782.
PI:	Dan Prevost/Southern Ag Services, Inc., dan@southernaginc.com, private firm
Objective(s):	The overall aim of this project is to determine the extent that high magnesium may be impacting soybean production and to improve our understanding and management of high magnesium soils.
Duration:	Year 3 of 3
End Results:	Impact perspective is what magnesium levels limit yield?

TITLE:	Impacts of Cover Cropping System on Soybean Grain Yield, Soil Health, Forage Production, and Animal Performance, 06-2022, $69,252.
PI:	Brett Rushing**,** brett.rushing@msstate.edu, MSU-MAFES/Coastal Plain Exp. Station
Objective(s):	Determine the impact of integrated livestock cover crop systems on soybean growth and grain yield and monitor the change in soil physical, chemical, and biological properties during each phase of production while assessing the economic productivity throughout each phase of production.
.	
Duration:	Year 2 of 3
End Results:	Presentations at county Extension meetings, professional society meetings, short courses, grower meetings, etc. Additionally, appropriate data will be published in refereed journals, Extension publications, popular press, and social media accounts. Finally, a master's thesis will be completed by the selected student.

TITLE:	Developing Future Agronomy Leaders Through Day Camp and Individualized Learning Projects, 07-2022, $6,995.
PI:	Bill Burdine bill.burdine@msstate.edu, MSU-ES/NMREC
Objective(s):	Develop an agronomy day camp emphasizing hands-on training for young people through projects and contests
Duration:	Year 4 of 4
End Results:	Day Camp at NMREC, handouts and presentations by participants to provide results from hands-on activities. Project will attract future agronomic leaders and keep Mississippi at the forefront of agriculture research, Extension and consulting.

TITLE:	Low-Cost Precision Agriculture Solutions for Advancing Irrigation Efficiency, 10-2022, $58,779.
PI:	Mary Love Tagert, mltagert@abe.msstate.edu, MSU-ES/ABE
Objective(s):	This experiment will create and apply a sector control VRI prescription on a production soybean field and measure the water savings realized while evaluating whether production fields would benefit from sector control VRI. Also evaluate the economic benefit from VRI adoption and perform a geospatial inventory of surface water storage systems used for irrigation in Northeast Mississippi, to assess the potential for VRI adoption. Information will be shared with producers and other stakeholders, especially those in Northeast Mississippi.
Duration:	Year 2 of 3
End Results:	By informing Northeast Mississippi farmers whether and how to adopt sector control VRI, project results are expected to enhance the economic and environmental sustainability of Mississippi soybean production.

TITLE:	Managing Iron Deficiency Chlorosis (IDC) Through a Cropping System Approach, 11-2022, $42,183.
PI:	Mike Mulvaney, mjm1166@msstate.edu, MSU/MAFES Plant & Soil Sciences
Objective(s):	1. To quantify soybean response at different planting speeds with various seed metering/delivery systems. 2. To determine return on investment for seed metering/delivery systems that enable faster planting.
Duration:	Year 1 of 3
End Results:	There is potential to use off-the-shelf precision seed delivery systems to increase planting speed, so that producers may cover more ground in less time during critical planting. Also determine return on investment for seed metering/delivery systems that enable faster planting. windows.

TITLE:	Managing Iron Deficiency Chlorosis (IDC) Through a Cropping System Approach, 12-2022, $69,185.
PI:	Mary Love Tagert, mltagert@abe.msstate.edu, MSU-ES/ABE
Objective(s):	Determine effect of selected cropping systems on yield of IDC tolerant and intolerant soybean varieties, and evaluate soil moisture sensor data relationship to IDC symptoms in these cropping systems.
Duration:	Year 4 of 4
End Results:	MAFES and MCES publications that will outline management practices that should be used to stabilize yields from soybeans grown on IDC-susceptible sites.

TITLE:	Row-Crop Irrigation Science Extension and Research (RISER) Program, 13-2022, $132,484.
PI:	Drew M. Gholson, drew.gholson@msstate.edu, MSUES-ES/DREC
Objective(s):	Identify, evaluate, and demonstrate new irrigation automation technologies in furrow irrigation; 2) Conduct hands-on training and learning opportunities with producers that have yet to adopt proven irrigation water management practices, and continue to offer assistance for producers who already utilize irrigation water management (IWM) practices.
Duration:	Year 3 of 3
End Results:	Identify, evaluate, and demonstrate new irrigation automation technologies in furrow irrigation; Conduct hands-on training and learning opportunities with producers that have yet to adopt proven irrigation water management practices, and continue to offer assistance for producers who already utilize IWM practices.

TITLE:	Evaluating Fungicide Efficacy, Desiccant Applications, and Delayed Harvest for Soybean Grain Quality, 14-2022, $77,966.
PI:	Tessie Wilkerson, twilkerson@drec.msstate.edu, MSU-MAFES/DREC
Objective(s):	Evaluate the effect of early and mid-season fungicide application in combination with desiccation on seed quality, evaluate desiccation application rates in reducing seed quality in delayed harvest situations, determine the causal agents of reduced soybean seed quality in harvested soybean seed and determine efficacy of fungicide on reducing growth of pathogen causing seed rot in vitro
Duration:	Year 1 of 3
End Results:	Determination of the fungal complex responsible for and its association with seed rot in conducive environments; determination of specific environmental conditions and associated pathogens that promote seed rot in soybeans; development of strategies involving fungicide/insecticide applications and application timing to reduce the impact of seed rot on harvest seed quality of soybeans when conducive environmental conditions are anticipated; and identification of germplasm lines that can be used to develop varieties that are less susceptible to causes of seed damage.

TITLE:	Evaluation of Overseeding of Cover Crops in Dryland Soybeans at Different Timings, 16-2022, $12,916.
PI:	Gurpreet Kaur, Gk340@msstate.edu, MSU MAFES/DREC
Objective(s):	The objective of the proposed research is to determine the optimal cover crop species or mix for overseeding in the dryland soybean crop and its influence on soybean plant population, seed yield, and quality. Also determine the optimal timing for overseeding of cover crops during soybean growing season and evaluate the effect of overseeding various cover crop species on weed suppression
Duration:	Year 2 of 2
End Results:	Farmers growing continuous soybean can opt for cover crops as rotational crops and economic analysis at end of this study will help determine the rotational effect of cover crops on continuous soybean.

TITLE:	Evaluation of Soybean Varieties for Resistance to Cercospora Blight, Frogeye Leaf Spot, Stem Canker, and Seed Quality, 19-2022, $44,610.
PI:	Tom Allen, tallen@drec.msstate.edu, MSU-ES/DREC
Objective(s):	Evaluate Miss. OVT entries for resistance to Cercospora blight, frogeye leaf spot (natural infestations), stem canker (inoculated trials); collect and maintain stem canker isolates from infestations (when they occur) throughout Mississippi; and evaluate OVT entries for differences in mature seed quality when/if conditions promoting poor seed quality occur.
Duration:	Continuation
End Results:	Data that will provide producers information about the level of varieties' disease resistance and/or susceptibility so that tolerant/resistant varieties can be selected to avoid yield losses associated with the above pathogens, and identification of varietal differences in mature seed quality.

TITLE:	Weed Management Programs for Mississippi Soybean Production, 20-2022, $120,121.
PI:	Jason Bond, jbond@drec.msstate.edu, MSU-ES & MAFES/DREC
Objective(s):	Evaluate new and/or currently registered herbicides and herbicide-resistant (HR) technologies for use in Mississippi soybean weed management programs; identify production practices that optimize GR Palmer amaranth control when RR2 Xtend soybean varieties are used; and designing grass weed control strategies that mesh with current herbicide programs in Miss. soybean.
Duration:	Year 1 of 3
End Results:	Identification/development/dissemination of cost effective control strategies for various weed control problems that occur in soybeans, to include control options for GR/HR weeds, management options to prevent or delay development of HR weeds, and assessment of new herbicide technologies and traits in consort with management practices that provide new weed management options.

TITLE:	Effect of Cover Cropping Systems on Dryland Soybean Plant-Vigor, Growth, and Yield, 21-2022, $63,598.
PI:	Mark W. Shankle, mark.shankle@msstate.edu, MSU-MAFES/NMREC
Objective(s):	Determine the effects of cover cropping systems on dryland soybean growth, yield, soil health, and determine their potential economic benefit.
Duration:	Year 6 of 6
End Results:	Identification of an affordable, effective cover cropping system that will contribute to the minimization of inconsistent dryland soybean yield.

TITLE:	Enhancement of Mississippi Soybean Variety Trials Through Entry Standardization, 23-2022, $53,016.
PI:	Brad Burgess, bburgess@pss.msstate.edu, MSU-MAFES/PSS
Objective(s):	Conduct standardized soybean variety trials at multiple Mississippi locations to result in unbiased yield data with varied soybean cultivars.
Duration:	Continuous
End Results:	Soybean yield and trait results data, and seed quality data, that can be used by producers to select varieties for individual production environments throughout Mississippi, and that can be entered into the MSPB soybean variety selection tool on www.mssoy.org.

TITLE:	MSU Seed and Agricultural Technology Short Course Sponsorship, 24-2022, $500.00.
PI:	Daniel Chesser, dchesser@abe.msstate.edu, MSU/MAFES/ABE
Objective(s):	The MSU Seed and Agricultural Technology short course is an annual event (since 2015) held at MSU to impact and strengthen the Seed & Ag. Technology industry/value-chain. The short course promotes industry advancements, provides current trainings and resources, and provides a networking opportunity for industry professionals, stakeholders, and MSU personnel.
Duration:	Year 1 of 2
End Results:	Direct benefits to Mississippi's soybean industry include stakeholder education; technical resources on current and emerging technologies; transfer of ideas/information and developed relationships via networking opportunities. Additionally, soybean industry stakeholders will benefit through Certified Crop Advisor CEU's and MS commercial pesticide applicator recertification credits offered at the short course.

TITLE:	Development of an Automated System to Incorporate Holes in Lay-Flat Irrigation tubing During Initial Development in Mississippi Soybean Production Systems, 27-2022. $68,867.
PI:	Wes Lowe, wlowe@abe.msstate.edu, MSU-MAFES/ABE
Objective(s):	Develop and assess methodologies for hole insertion into lay-flat irrigation tubing. Develop outlet formation methodologies for punched and slitted holes; assess hole performance (flow characteristics over time change in flow, hole integrity, etc.) for each tubing size and over working pressure range of typical irrigation systems in small-scale laboratory experimentation (single hole or equivalent in transverse cross-sectional area of tubing). Assess lay-flat irrigation tubing material and hole performance characteristics in large-scale experimentation (outdoor, multiple holes, timeline to mimic growing season use and conditions).
Duration:	Year 2 of 4
End Results:	Results from this project will impact 1,100,000 irrigated soybean acres in Mississippi. CHS can decrease pumping costs by 25% on average. With an average savings of $9/acre with the use of CHS alone, the development of an innovative automated hole punching system has the potential to save almost $10 million for Mississippi soybean growers.

TITLE:	Insect Management Strategies Using Insect Growth Regulators in Mississippi Soybeans, 28-2022, $11,861.
PI:	Don Cook, dcook@drec.msstate.edu MSU-ES/Delta Research & Extension Center
Objective(s):	To examine the impact of selected insect growth regulators applied at the R3 to R4 growth stages on insect pest infestations and soybean yield.
Duration:	Year 1 of 3
End Results:	Some producers already employ this management strategy. Results from these studies will help refine these strategies and provide more details on the yield and economic impacts of this management strategy.

TITLE:	Delta Agricultural Weather Center, 29-2022, $30,000.
PI:	Mark Silva, ams158@msstate.edu, MSU-DREC
Objective(s):	Continue data collection and dissemination of pertinent agricultural weather data and products required by Delta researchers and producers.
Duration:	Continuous
End Results:	Collection of weather data for Miss. Counties that will be assimilated into the DREC weather website archive to be available as a source for both current and historical weather data for

TITLE:	Impacts of Charcoal Rot (Macrophomina phaseolina) Epidemiology on Drought Resistant Soybean Cellular Metabolism and Accompanying Tissue Microbiome for Identifying Alternative Breeding Targets Under Increasing Environmental Stress, 31-2020, $73,574.
PI:	Richard Baird, reb58@msstate.edu, MSU/MAFES, MBEPP.
Objective(s):	We propose to use culture-independent metabarcoding and metabolomic analyses during year 1 and culture-dependent methods in year 2 to identify and isolate endophytes that specialized in disease resistant plant varieties.
Duration:	Year 1 of 3
End Results:	Using a new approach to understand concurrent physiological, metabolic, and protective microbial changes in drought resistant and susceptible plants during the infection process by *M. phaseolina* has the potential to provide breeders with informed targets for the development of charcoal rot resistant soybean varieties or other protective agronomic approaches. To date much effort and expense has been invested in screening for resistance to *M. phaseolina* in soybeans without the release of commercially successful cultivars. Results from this proposed research can provide alternative approaches in targets for developing resistance varieties in the future, which will greatly increase yields.

TITLE:	Development of Molecular Diagnostic Method for the Diamide Resistance in Soybean Looper, 32-2022, $57,697.
PI:	Seung-Joon Ahn, seungioon.ahn@msstate.edu, MSU-MAFES/ BMB-EPP
Objective(s):	Establish and maintain a resistant strain of soybean looper from Puerto Rico and make comparisons between susceptible and resistant strains of the diamide resistance genes. Also conduct standard diamide bioassays for soybean looper populations collected in Mississippi. Develop a molecular diagnostic marker to detect resistant soybean looper larvae and monitor resistance in field populations with a molecular diagnosis kit.
Duration:	Year 2 of 3
End Results:	Develop a rapid and accurate diagnostic method based on DNA sequences to screen populations of soybean looper for resistance to diamide insecticides.

TITLE:	Soybean Management by Application of Research and Technology (SMART), 36-2022, $212,816.
PI:	Trent Irby, tirby@pss.msstate.edu, MSU-ES/PSS
Objective(s):	Identify and apply key management practices that increase soybean production profitability, provide a hands-on educational opportunity to assess profitable best management practices (BMP's) for soybean producers, collect long-term data for determining specific BMP's that consistently increase yields and profits, and promote BMP's that are proven to sustain profitable Mississippi soybean production.
Duration:	Continuous
End Results:	Demonstrating and showcasing BMP's that are proven to consistently and sustainably improve soybean production in all Mississippi regions, and disseminating this information to producers, extension personnel, and consultants.

TITLE:	Development of a Predictive Model to Determine the Influence of Weather on the Northern Expansion of Red Banded Stink Bug, 39-2022, $49,873.
PI:	Angus Catchot, acatchot@entomology.msstate.edu, MSU-MAFES/ BMB-EPP
Objective(s):	Conduct ditch bank and early cover crop surveys in legumes in the early spring to predict RBSB population and to quantify the role of weather in its range expansion and contraction in Mississippi.
Duration:	Year 2 of 4
End Results:	These analyses will use two landscape-level approaches to evaluate annual range dynamics of RBSB. For the first, we will develop a spatial regression model in which the response variable will be the presence/absence of stink bugs per site per year.

TITLE:	Evaluating Nutrient Availability Following Cover Crops in Mississippi Soybean Production Systems, 41-2022, $29,783.
PI:	Mark Harrison, mph31@msstate.edu, MSU-MAFES /NMREC
Objective(s):	Determine if cover crop systems will improve nutrient availability and subsequent soybean yields in a possible nutrient deficient situation. Determine if cover crop systems will improve nutrient availability and subsequent soybean yields following a routine P and K fall fertilization regime.
Duration:	Year 3 of 3
End Results:	This data would immediately affect producers who intend to plant cover crops and also those who annually apply P and K. This data could also bring heightened awareness to those who do not use these practices or provide economic balance for those producers who wish to implement a cover crop system.

TITLE:	Video Support for Mississippi Soybean Producers, 41-2022, $16,443.
PI:	Elizabeth North, elizabeth.north@msstate.edu, MSU- MSU-OAC
Objective(s):	Identify important soybean production topics and produce video segments that will provide producers with current, timely information needed to address issues related to those topics; video presentations of results from MSPB-funded research projects that will be posted on the MSSOY YouTube channel.
Duration:	Continuous
End Results:	Video segments featuring projects and presentations of results from MSPB-funded projects posted on the MSPB website.

TITLE:	New Shelter Construction for DREC to Support Grain Quality Research “Evaluating Fungicide Efficacy, Desiccant Applications, and delayed Harvest for Soybean Grain Quality”, 42-2022, $96,608.
PI:	Tessie Wilkerson, twilkerson@drec.msstate.edu, MSU-MAFES/DREC
Objective(s):	Construct shelters equipped with overhead irrigation capabilities to create environments for reducing soybean grain quality,
Duration:	Year 1 of 3
End Results:	Results of this research could potentially provide an understanding of the issues causing reduced seed quality and provide additional management options for the associated reduced yield and or dockage at the grain elevator.

TITLE:	Safeguarding Mississippi Soybean Production from Interactive Heat and Drought Stress Induced Yield and Quality Losses, 43-2022, $56,732.
PI:	Raju Bheemanahalli Rangappa, rajubr@pss.msstate.edu, MSU- MAFES/PSS
Objective(s):	Evaluate reproductive and physiology responses of soybeans to interactive heat and drought stress and to quantify the impact of drought and heat stress during the flowering and pod-fill stages in terms of soybean yield and quality dynamics
Duration:	Year 2 of 2
End Results:	The information developed and identified tolerant soybean lines from this project would help growers choose lines suitable to their local environment. The project's outcome or results will be disseminated through presentations, and journal publications, in regional and national meetings and producer meetings.

TITLE:	Sicklepod Extract Formulations as Natural and Effective Deer and Insect Repellent, 51-2022, $68,458.
PI:	Te-Ming Paul Tseng, t.tseng@msstate.edu, MSU-MAFES/PSS
Objective(s):	**P**repare and characterize four formulations of sicklepod extract for improved deer and insect repelling efficacy and select effective formulations for trials in forestry and agronomy research fields using unmanned aerial vehicles (UAVs), plant surveys, and trail cameras to quantify deer and insect use and damage to soybeans in treatment and control plantings.
Duration:	Year 3 of 3
End Results:	The availability of natural anti-herbivory compound formulation(s) identified in this study will lead to an increase in the environmental sustainability of agriculture with reductions in the need for synthetic pesticides. The project will identify anthraquinone formulation(s) (developed using sicklepod seeds) effective in repelling insects and deer (anti-herbivory). The other part of the project is to determine the specific anti-herbivory compounds associated with the anti-herbivory trait. These compounds can be used in identifying genes useful in molecular breeding to breed anti-herbivory traits into soybean. Soybean with significant anti-herbivore property will prevent yield losses incurred due to herbivores especially deer and insects.

TITLE:	Characterize Root Microbial Communities with Growth-Promoting and Anti-Fungal Activities in Soybean, 53-2022, $117,680.
PI:	Sorina C. Popescu, scp319@msstate.edu, MSU-BCH-EPP
Objective(s):	Characterize the growth-promoting and Xylaria-biocontrol activities of rhizobiome microorganisms in soybean and evaluate the impact of Xylaria infection on the composition of soybean rhizobiome.
Duration:	Year 3 of 4
End Results:	**C**haracterize the diversity of rhizobiome microorganisms that cause specific phenotypes in soybeans, test rhizobiome isolates for beneficial activities, and utilize this knowledge to establish methods for improved growth and biological control of soil pathogens. Anticipate having characterized a library of microorganisms for biocontrol and growth-enhancing effects. Results are expected to have an important positive impact on TRD management because they will provide evidence and proof-of-principle for the future development of synthetic rhizobiomes for targeted use against Xylaria sp., ultimately providing new opportunities to enhance soybean production in MS by reducing TRD incidence.

TITLE:	Improving Dryland Soybean Yield, Profit and Health of Dominant Soils Across Mississippi, 62-2022, $33,062.
PI:	Gary Feng, gary.feng@ars.usda.gov, USDA-ARS
Objective(s):	Determine cost-effective, optimal management practices to stabilize dryland yield and economic return from soybean grown on the major soil types/growing environments across Mississippi.
Duration:	Year 1 of 3
End Results:	Determination/identification of optimum soil management practices that should be used to stabilize yield, production costs, and economic return from dryland soybean production across years.

TITLE:	Determining Duration of Residual Control of Soil-Applied Herbicides to Form Total Preemergence Herbicide Programs in Soybean, 63-2022, $41,830.
PI:	Darrin Dodds, dmd76@pss.msstate.edu, MSU–MAFES/PSS
Objective(s):	Evaluate duration of control for labeled soil-applied herbicides in soybean production and determine the rainfall activation requirements for labeled soil-applied herbicides in soybean production. Overall goal is to take information from the two objectives and develop and evaluate total preemergence (PRE) herbicide program for soybean**.**
Duration:	Year 1 of 2
End Results:	The expected end products will be an experiment station bulletin – including a separate guide for rainfall activation of soil-applied herbicides and length of control for soil-applied herbicides, as well as one or more refereed publication(s) that describes the results.

TITLE:	Improving Herbicide Efficacy and Residue Penetration of Herbicides Using Common Adjuvants for Weed Control in Soybean, 64-2022, $40,824.
PI:	Darrin Dodds, dmd76@pss.msstate.edu, MSU–MAFES/PSS
Objective(s):	Evaluate herbicide efficacy and weed control of several commonly available adjuvants for control of Amaranthus spp., prickly sida (teaweed), and barnyardgrass. Research the effectiveness of non-ionic surfactants and silicone-based herbicides at penetrating through cover-crop and crop residues to improve soil contact and herbicide efficacy for soil-applied herbicides. Develop an easy-to-use guide for soybean farmers to aid in making adjuvant purchases for specific herbicide programs in Mississippi.
Duration:	Year 1 of 2
End Results:	This project seeks to determine which adjuvants are most effective in aiding herbicide applications for control of Amaranthus spp., teaweed, and barnyardgrass. Improved herbicide efficacy through the adoption of effective adjuvants will ensure that herbicides work the first time, resulting in maintaining maximum yields for soybean growers. By improving control of weeds at initial application, the potential for herbicide resistance development will be mitigated, and ultimately the return on investment of herbicide programs will improve for Mississippi soybean farmers.

TITLE:	MSSOY Website Hosting and Management, 65-2022, $13,979.
PI:	James R. Loper, randy.loper@msstate.edu, MSU–MSUES
Objective(s):	Establish and configure new web server and hosting software for MSSOY.org. Transition content from OBP hosted servers to new servers. Launch website(s) under new hosting platform. Provide for day-to-day management and editing of web content. Formulate long term plans for websites.
Duration:	Continuous
End Results:	The end product will be the mssoy.org website and its sub-domain websites will be hosted on a commercial hosting service and will be supported by MSU-ES CTO personnel that will work closely alongside MSPB members.

TITLE:	Is Mississippi Irrigation Water Accumulating Salts in Soil and Potentially Limiting Soybean Growth, 66-2022, $17.855.
PI:	Mike Mulvaney, mjm1166@msstate.edu, MSU–MSUES
Objective(s):	Survey on-farm irrigation water quality to assess quantity and types of salts applied to soils in irrigation water and quantify salt concentrations in Mississippi soils
Duration:	Year 1 of 1
End Results:	It is unknown if salt accumulation in soils is yield-limiting under Mississippi conditions. If salt levels approach problematic concentrations, this preliminary research will determine if this is something Mississippi farmers should be concerned about, which would lead to further research. If salt levels in irrigation water and soils do not approach problematic concentrations, no further research is required and Mississippi soybean growers need not worry about amending irrigation water or soils to combat salt concerns.