

Curriculum Vitae

Rocky W. Lemus

Box 9555 ♦ 256 Dorman Hall ♦ Mississippi State Univ. ♦ Mississippi State, MS 39762

Cell: (662) 418-9897 ♦ Office: (662) 325-7718 ♦ Fax: (662) 325-8742

Email: Rocky.Lemus@msstate.edu

Website: <http://forages.pss.msstate.edu>

Education

Virginia Polytechnic Institute and State University, Blacksburg, Virginia

Doctor of Philosophy: January 2004

Crop and Soil Environmental Sciences (CSES)

Dissertation: [Switchgrass as an Energy Crop: Fertilization, Cultivar, and Cutting Management](#)

Iowa State University, Ames, Iowa

Master of Science: May 2000

Agronomy - Crop Production and Physiology

Thesis: Cultivar and Fertility Effects on Switchgrass Biofuel Production in Southern Iowa

Iowa State University, Ames, Iowa

Bachelor of Science: August 1996

Biology

Minor: Agronomy - Crop Science

Farming

- Co-owner of Cole's Ridge Farm Dairy Goats
- Breeding and production improvement of Nubian and LaMancha Dairy Goats
- DHI practices
- Cheese production

International Experience

Collaboration on the Farmer-to-Farmer Program in Guatemala to develop forage management recommendations for dairy goats through the CABPRO program. Program sponsored by Partners of the Americas-USAID. May 28 – June 11, 2023.

Collaboration on the Farmer-to-Farmer Program in Guatemala to develop forage management recommendations for dairy goats through the CABPRO program. Program sponsored by Partners of the Americas-USAID. November 27 – December 11, 2022.

USDA Foreign Agriculture Service Research Project in Costa Rica, 2020-2023.

Collaboration on the Farmer-to-Farmer Program in Dominican Republic to adopt soil testing protocols and develop fertilizer recommendations. Program sponsored by Partners of the Americas-USAID and La Escuela del Ambiente. August 22-29, 2020

USDA Foreign Agriculture Service Development Program, Uzbekistan, 2019.

USDA Foreign Agriculture Service, Venezuela, 2019.

Presentations to Livestock Producers in Panama. Volunteer. November 5-6, 2018.

Invited Visiting Scientist. University of Costa Rica. San Jose Costa Rica. August 20-27, 2017.

Invited Speaker at the International Dairy New Technology Conference. Taian, Shandong, China. July 12-15, 2017.

USDA Foreign Agriculture Service, Pakistan, 2013.

Collaboration with the International Center for Tropical Agriculture (CIAT). Sustainable Grassland Intensification Project. Managua, Nicaragua. September 2014-Present.

Collaboration on the Farmer-to-Farmer Program in Nicaragua to develop forage management recommendations for small producers. Program sponsored by Partners of the Americas-USAID and the Nicaraguan National Livestock Commission. August 14-30, 2013.

Collaboration on the Farmer-to-Farmer Program in Nicaragua to develop forage management recommendations for small producers. Program sponsored by Partners of the Americas-USAID and the Nicaraguan National Livestock Commission. September 14 – 26, 2012.

Presentations to Livestock Producers in Panama. Volunteer. August 28, 2012.

Grant Collaborator with University of Puerto Rico, International Center for Tropical Research and the University of Florida, 2012.

Class Leading Instructor to Panama. Tropical Agriculture. Iowa State University. December 27, 1999 – January 15, 2000.

Professional Experience

Mississippi State University Extension Service, Plant and Soil Sciences

Extension/Research Professor, Leader of the Center for Forage Management & Environmental Stewardship, Extension Forage Specialist (75% Extension, 25% Research) – July 2019 to present.

Associate Extension/Research Professor, Leader of the Center for Forage Management & Environmental Stewardship, Extension Forage Specialist (75% Extension, 25% Research) – July 2012 to 2019.

Assistant Extension/Research Professor, Extension Forage Specialist (75% Extension, 25% Research) – April 2011 to June 2012.

Assistant Extension Professor (100% Extension) – July 2007 to April 2011.

- Serve as the statewide Extension Forage Specialist.
- Supervise and coordinate the forage variety testing program.
- Development of forage management programs, forage quality evaluation, variety testing, and on-site farm assessment for Mississippi's forage and livestock producers.
- Forage research and evaluation (cool- and warm-season grasses, legumes, fertility and hay production, grazing systems).

Texas A&M University-Commerce, Commerce, TX – Agricultural Sciences

Assistant Professor (80% Teaching, 10% Research, 10% Extension) – August 2004- to June 2007

- Undergraduate teaching, research, and extension.

Ohio State University, Columbus, OH – Carbon Management and Sequestration Center

Postdoctoral Researcher – February 2004 to August 2004

- Establishment of native warm-season grasses and development of C sequestration budgets for bioenergy crops.

Virginia Polytechnic Institute and State University, Blacksburg, Virginia – Crop and Soil Environmental Sciences

Graduate Research Assistant – June 2000 to January 2004

- Conducted research in switchgrass biomass including field studies as well as greenhouse studies related to N use efficiency and fertility responses.
- Conducted harvest management practices on different switchgrass cultivars across five different states in the upper Southeast.

Virginia Polytechnic Institute and State University, Blacksburg, Virginia – Crop and Soil Environmental Sciences

Volunteer Extension Aid – Powell River Project – August 2000 to December 2003

- Identification of forage species adapted to the poor soil conditions endemic to mining sites in southwest Virginia and the application of bio-solids to improve fertility of marginal lands.

Iowa State University, Ames, IA

Graduate Research Assistant – June 1997 to May 2000

- Conducted research on switchgrass biomass for biofuel production in the Chariton Valley, Iowa.
- Determined harvest managements and nitrogen effects on biomass production.
- Collected data on cultivar performance and adaptation (biomass, height, disease, maturity).
- Forage Quality Analysis.
- Used global positioning systems to determine yield variability according to landscape positions.
- Data analysis.
- Assisted Chariton Valley RC&D in switchgrass CRP management programs.
- Provided annual reports to the Oak Ridge National Laboratory (U.S. Department of Energy).

Iowa State University, Ames, Iowa

Research Intern - May 1996 to August 1996

- Assisted on soybean seed germination in experimental plots.
- Research project to determine the effects of the cupule on germination of eastern gamagrass seed lots.
- Laboratory analysis for seed germination using water imbibition and tetrazolium (TZ) test.

Career Related Skills

Bilingual: fluent in English and Spanish.

Experience with laboratory instruments and procedures: Ion chromatography, sequential fiber analysis (ADF, NDF, ADL), micro-Kjeldahl procedure, near infra-red spectroscopy (NIRS), ISIScan, WinISI, Lachat, CN Vario Max analyzer, CNS Vario EL Cube, soil analysis (chemical and physical properties).

Proficient in the use of spreadsheet (Excel, Lotus, and Quattro Pro), database (Access), graphic (Sigma Plot and Excel), word processing (Word, Word Perfect, and Lotus), visual aids (PowerPoint), statistical programs (ARM, SAS and Sigma Stat), Webpage Design (Publisher, Macromedia, FrontPage, Flash, Dreamweaver, Web Plus, ACDSec, XPage), global positioning (Arc view), and Farm Works.

Skilled in the use of computer yield and nutrient uptake model (ALMANAC).
Remote Sensing: NDVI, LAI, Crop Circle, SigmaScan.
Livestock Artificial Insemination.
Grain Grading Certification. Virginia Department of Agriculture and Consumer Services.
Certified Prescribed Burn Manager, Mississippi Forestry Commission.
FFA Certified Unmanned Aerial Vehicle (UAV).

Awards

2023: Outstanding Paper Award. Journal of Crop, Forage, & Turf Management.
2023: Distinguished Service Award. The National Association of Agricultural County Agents.
2023: Nominated to the American Society of Professional Animal Scientists as a High Qualified Individual member.
2022: Outstanding Extension Professional Award. Mississippi State University Extension Service.
2018: Agronomist of the Year. Mississippi Chapter of the American Society of Agronomy.
2017: Outstanding Associate Editor. Crop, Forage, and Turf Management Editorial Board. American Society of Agronomy.
2017: Achievement Award. The National Association of Agricultural County Agents.
2017: MACAA Achievement Award.
2017: MACAA Video Recording, 3rd place.
2017: MACAA Communications Award, Published Photo and Caption, 2nd place.
2017: MACAA Communications Award: Individual Newsletter, 1st place.
2017: Communications Award: Newsletter by Individual. The National Association of Agricultural County Agents.
2017: William White Award. Division of Agriculture, Mississippi State University.
2016: MACAA Mid-Career Programming Excellence Award.
2015: MACAA Individual Newsletter, 2nd place.
2015: MACAA Audio Recording, 2nd place.
2014: Extension/Outreach Superior Faculty Award. Regions Bank, DAFMV, Mississippi State University.
2014: Merit of Award. American Forage & Grassland Council.
2013: Mark E. Keenum Outstanding Extension Faculty Award. Mississippi State University Extension Service.
2012: William White Award. Division of Agriculture, Mississippi State University.
2012: Early Career Award in Technology Transfer. Southern Branch of the American Society of Agronomy.
2011: Wesley Farmer Outstanding Specialist Award. Mississippi Association of County Agricultural Agents.
2011: William White Award. Division of Agriculture, Mississippi State University.
2011: Mississippi State Pride Award. Department of Plant and Soil Sciences.
2011: Gamma Sigma Delta Extension Award of Merit. Gamma Sigma Delta Agricultural Society, MSU Chapter.
2010: Mississippi State Pride Award. Department of Plant and Soil Sciences.
2007: Junior Faculty Research Award, Texas A&M University-Commerce.
2002: Charles I. Rich Graduate Scholarship Award, CSES, Virginia Tech.
1996: Iowa State University, Campus Leadership Award.
1995: Panamanian Student Association Leadership Award.
1992-96: Caribbean and Latin America Scholarship Program (CLASP II), 1992-1996.

- Thomas Jefferson Fellowship sponsored by the United States Agency for International Development (USAID).

Professional Affiliations

[American Society of Animal Science](#), 2011 to present – Member.

[American Forage and Grassland Council](#), 2007 to present – Member.

- 2021-present, Board of Directors
- 2021-present, Chair Forage Marketing Task Force
- 2014-present, Chair, Emerging Scientist Competition
- 2015-2019 Foundation Board Member

[American Society of Agronomy](#), 2000 to present – Member.

- 2013-2018, AJ Associate Editor
- 2013-2018, CFTM Associate Editor
- 2019-present, CFTM Technical Editor

[Crop Science Society of America](#), 2000 to present – Member.

[Gamma Sigma Delta, Agricultural Honor Society](#), 2003 to present – Member

[Mississippi and National Association of Agricultural County Agents](#), September 2010 to present – Member

[Mississippi Agronomy Society](#), 2010 to present - Member

- 2011-present Organizing Committee
- 2014 President

[Mississippi Cattleman Association](#), 2007 to present.

[Mississippi Farm Bureau Federation](#), 2011 to present.

[Mississippi Forage and Grassland Council](#), 2010 to 2014 – Chair

[National Cattleman's Beef Association](#), 2007 to present – Member

[NIRS Forage & Feed Testing Consortium](#), 2011 to present – Member

- 2013-present Board of Directors
- 2013-present Biofuel Committee
- 2016 Vice-president
- 2016-present Instrumentation Committee
- 2018-2020

[National Forage Testing Association](#), 2013 to present – Member

- 2015-present Board Member
- 2016-present, Check Sample Committee
- 2016-present, Chair, Proficiency & Standards Committee
- 2018-present, Public Sector Task Force
- 2018-present, Software Migration Committee
- 2019, Chair, Annual Meeting/Workshop Committee
- 2019, Vice-president
- 2020, President

[Soil Science Society of America](#), 2000 to present – Member

[Southern Extension and Research Activity-Information Group \(SERA-IEG-8\)](#), 2008 to present – Member

[American Society of Agronomy \(Texas Chapter\)](#), 2007 – Board Member

[Virginia Forage and Grassland Council](#), 2003 – Member

[Iowa Forage and Grassland Council](#), 1998 to 2000 – Member

[Alpha Zeta Honorary Agricultural Fraternity](#), Iowa State University, 1995 to 1996.

[Iowa State University Honors Program](#), 1992-1993.

Professional Development

2020: Introduction to the Symposium Conference and Presentation Platform. November 16.

2020: Travis Clemensen. An Overview of NIRS Technology and Its Benefits in Forage Quality Testing. NIRSC. May 28.

2020: Walker, D. The Importance of Forage Analysis. NIRSC Webinar. May 26.

2020: New Technologies in Forage Quality Analysis. Blue Sun Scientific Webinar. April 23.

2018: Comar A., and T. Duminil. Integrating Drones to the R&D System. Webinar, Doraine

- Research and Software Consulting. November 29.
- 2018: Anil K. Chaudhary. Social Network Analysis: An Innovative Way to Design and Evaluate your Extension Programs. NAEPSPD Webinar. Pennsylvania State Univ. April 19.
- 2017: J. McCollom and T. Steing. How to Make Great Video Software Demonstrations with TechSmith Camtasia. Webinar. August 30.
- 2017: Preparing Budget and Budget Justification for your NFS ATE Proposal. Mentor-Connect Outreach and Technical Assistance Workshop. National Science Foundation and South Carolina Advanced Technological Education and Center of Excellence February 23.
- 2017: Small-Scale Evaluation. Mentor-Connect Outreach and Technical Assistance Workshop. National Science Foundation and South Carolina Advanced Technological Education and Center of Excellence February 23.
- 2017: Mentor-Connect Outreach and Technical Assistance Workshop Cohort 5. National Science Foundation and South Carolina Advanced Technological Education and Center of Excellence. New Orleans, February 1-3.
- 2017: Ray Smith. Pasture Condition Scoring Workshop. American Forage and Grassland Annual Conference. Roanoke, VA. January 25.
- 2016: Lauren Broyles. Writing Winning Grant Proposals. Grant Writer's Seminars and Workshops. Mississippi State University. November 18.
- 2016: FSLA Training for Managers. Mississippi State University Human Resource Management. November 10.
- 2016: Basic Fire Safety Training. Mississippi State University. September 27.
- 2016: Allen, D. and J. Paine. "Using and interpreting social media analytics." NAEPSPD/Southern Region PSD-PLN Extension Virtual Summer School. Webinar. August 17.
- 2016: Hagemeyer, M. "Social Media Conduct." NAEPSPD/Southern Region PSD-PLN Extension Virtual Summer School. Webinar. August 16.
- 2016: Jeannette, K. and B. Scott. "Social Media as Programming - Expanding Extension's Potential in a Social World." NAEPSPD/Southern Region PSD-PLN Extension Virtual Summer School. Webinar. August 15.
- 2016: [Detergent Fiber Sequential Analysis and Filter Bag Technology: Methodology and Practical Application](#). Brian Layton. ANKOM TECHNOLOGIES. Webinar. July 14.
- 2106: [The Future of Dietary Fiber Analysis](#). Barry McCleary. ANKOM TECHNOLOGIES. Webinar. June 9.
- 2016: NIR Calibration Development for FOSS and UNITY NIR Platforms. David McIntosh. Univ. of Tennessee. Knoxville, TN. May 25-26.
- 2015: Tools of the Trade: Technology. Extension Annual Conference. November 11.
- 2015: Tools of the Trade: Evaluation. Extension Annual Conference. November 11.
- 2015: BasicPlus CPR, AED and First Aid for Adults. Mississippi State University. October 23.
- 2015: Responsible Conduct of Research (RCR). Collaborative Institutional Training Initiative Program (CITI). Online. August 20.
- 2015: CAYUSE 424. Sponsor Programs. Mississippi State University. January 8.
- 2014: Faculty Leadership Program. Mississippi State University. September 2014 – April 2015.
- 2014: Southern Region Extension Climate Academy (SRECA). Athens, GA. September 3-5.
- 2014: ArcGIS I: Introduction to GIS. ESRI, Mississippi State University. May 20-21.
- 2013: Prescribed Burning Short Course. Mississippi Forestry Commission. Louisville, MS. April 9-11.
- 2013: S-290 Intermediate Wildland Fire Behavior Course.
- 2012: Instrument details of the new NIRS DS2500 and NIRS DA1650. Foss North America. Webinar. September 7, 2012.
- 2012: Introduction to Preparing Communities for Animal, Plant, and Food Incidents (AWR-117). Department of Homeland Security. June 22, 2102.
- 2012: Sigma Plot V12.2 – From Data to Presentation. Webinar. February 23, 2012.
- 2011: Incident Command Training. Department of Homeland Security: ICS 100, 200 and 700.
- 2011: Camtasia 7.1. Mississippi State University. September 27, 2011.
- 2011: Introduction to Dreamweaver CS5.5. Mississippi State University. September 13, 2011.
- 2011: Near Infrared Spectroscopy Training. Nobel Foundation. Ardmore, OK. July 18-10.
- 2011: Artificial Insemination School. Mississippi State University. March 17-19.
- 2010: EndNote: EndNote Cite While You Write. Mississippi State University. November 10.

2010: EndNote: Building an EndNote Library. Mississippi State University. November 10.
 2008: Introduction to Microsoft Access 2007 II. Information Technology Services. Mississippi State University. March 27.
 2008: Introduction to Microsoft Access 2007. Information Technology Services. Mississippi State University. March 20.
 2007: Preparing MAFES and MSUES faculty for promotion. MAFES/MSU-ES In-Service Training Session III. Mississippi State University. November 7.
 2007: Podcasting 101. MAFES/MSU-ES In-Service Training Session I. Mississippi State University. November 6.
 2007: Presentation Skills: More than a pretty PowerPoint. MAFES/MSU-ES In-Service Training Session II. Mississippi State University. November 6.
 2007: Introduction to Microsoft Access 2003. Information Technology Services. Mississippi State University. October 24.
 2007: Introduction to Flash MX 2004. Information Technology Services. Mississippi State University. September 27.
 2007: Intermediate Dreamweaver MX 2004. Information Technology Services. Mississippi State University. August 28.
 2007: Introduction to Dreamweaver MX 2004. Information Technology Services. Mississippi State University. August 21.
 2007: Harassment Training Module. Office of Diversity and Equity Programs. Mississippi State University. July 26.
 2007: IDEA Training. Texas A&M University-Commerce, April 12.
 2006: Junior Faculty Workshop. Prairie View A&M University, November 2-4.
 2006: The Craft & Mechanics of Competitive Grant Writing. Workshop organized by the Office of Graduate Studies and Research. October 26, 2006.
 2005: Insights to Writing Successful Grant Proposals. Workshop organized by the Grant Resource Center/Graduate College. Texas A&M University-Commerce, April 14.

University, Professional, and Community Service

University

2023 – Present: Faculty Senate, Mississippi State University – Extension Senator.
 2023 – Present: Extension Representative in the MSU Grievances Committee.
 2020: Evaluator. MSU Graduate Teaching Assistant Training: Micro-teaching Evaluation. Spring. January 3. 13 Graduate Students.
 2018 – Present: Honor Code Council.
 2018: Graduate Student Symposium. Judge of the Life & Biomedical Sciences/Engineering PhD Oral Session.
 2011 – 2017: Faculty Senate, Mississippi State University – CALS Senator.

- Student Affairs Committee (2011-2014)
- Ancillary Affairs Committee (2015-2017)

 2014: Chair, 5-year Review Plan for Animal & Dairy Sciences, Provost Office.
 2013 – Present: Faculty Research Advisory Council, Faculty Senate.
 2013: MSU Graduate Student Symposium. Judge. March 23.
 2013: GTA Workshop Classroom Evaluations. Judge. January 5.
 2012: MSU Graduate Student Symposium. Judge. April 14.
 2009 – Present: Graduate Faculty Level 2.
 2004-07: Associate Member of the Texas A&M University-Commerce Graduate Faculty.
 2006: Member of the Fall Commencement Ceremonies Committee, Texas A&M-Commerce.
 2006: Lion's Movers Program, Texas A&M-Commerce.

College

2020 – Present: Division of Agriculture, Forestry and Veterinary Medicine Faculty Senate.
 2016: CALS/MAFES Service Award Committee.

2015 - Present: Search Committee Member, Experimental Statistician, DAFVM.
 2015: DAFVM-Regions Bank Superior Faculty Awards Selection Committee.
 2015: Mississippi Science and Engineering Fair, Region V. Judge of the Botany Section. Mississippi State University. April 9.
 2013: Mississippi Science and Engineering Fair, Region V. Judge of the Earth, Space and Environment Division. Mississippi State University. February 19.
 2012: Mississippi Science and Engineering Fair, Region V. Judge of the Botany Section. Mississippi State University.
 2012: Gamma Sigma Delta Awards Committee.
 2011: Mississippi Science and Engineering Fair, Region V. Judge of the Earth, Space and Environment Section. Bagley College of Engineering. Mississippi State University.
 2010: Mississippi Science and Engineering Fair, Region V. Judge of the Botany Division. Mississippi State University.
 2010 - Present: Mississippi Wildlife Black Prairie Restoration Initiative. Mississippi Wildlife and Fisheries and National Bobwhite Conservation Initiative.
 2010 – Present: MSU Ag Ecology Working Group, September 2010 to present.
 2010 – Present: MSU Dairy Focus and Research Facilitation Group.
 2010 – Present: Forage/Livestock Priority Programming Group, 2007 to present.
 2010 – Present: Mississippi State South Farm Forage Management Planning Group.
 2008: Hiring Committee, Facilities Coordinator position at Prairie Research Station.
 2006: Member of the Research Development Plan for the Viticulture Program, Texas A&M-Commerce.

Department

2023: Reviewer, Gerald O. Mott Meritorious Graduate Student Award in Crop Science.
 2022: Search Committee, Climatologist. Plant and Soil Sciences
 2022: Search Committee, Crop Production Agronomist, Brown Loam. Plant and Soil Sciences
 2020: Grants and Contracts Specialist Search Committee.
 2019: Promotion and Tenure Committee Ad Hoc. Food Science and Nutrition.
 2019: Search Committee, Plant Stress Physiologist. Plant and Soil Sciences.
 2019-present: Promotion and Tenure Committee. Plant and Soil Sciences.
 2017: MAFES Search Committee, Ag Statistician.
 2013: Chair, Search Committee for the Newton Research Station Forage Faculty Position.
 2013-14: PSS representative to the Extension Specialist Plan of Work Workshop.
 2013-14: Search Committee, Animal & Dairy Sciences, Prairie Research Unit.
 2011: Search Committee, Plant and Soil Sciences Department Head.
 2011: Vice-chair Mississippi Weed Science Committee.
 2011: Chair, Mississippi Grazing School Series. In partnership with USDA-NRCS and Mississippi Soil and Water Conservation Commission.
 2010: Chair, Mississippi Forage and Grazing Land Conference.
 2008: Chair, Pasture and Forage Short Course. Mississippi State University.
 2008 – Present: Mississippi State Soil Testing Advising Council Committee.
 2008 – Present: Weed Control Guidelines Publication Committee.
 2007 – Present: Agronomic Crops Priority Programming Group.
 2006: Member of the Committee for the Interdepartmental Science Website, Texas A&M-Commerce.
 2004-07: Advisor for the Texas A&M University-Commerce Equestrian Team, Texas A&M-Commerce.
 2004-07: Advisor for the Texas A&M University-Commerce Rodeo Team, Texas A&M-Commerce.

State

Mississippi Goat Association
 2017 – Present: Member
 2022 – Present: Vice-president

2019: Judge of the Poster Symposium. Mississippi Academy of Sciences.
2018 – 2020: Board Member, Southern Browsers Goat Association.
2017: MACAA Extension Programs Committee.
2015: Chair, Animal Science Committee. Mississippi Association of County Agricultural Agents.
2015: MS-ASA Agronomist of the Year Selection Committee.
2014: President, American Society of Agronomy, Mississippi Chapter.
2013: Judge for the Oral Presentations, Mississippi Environthon. Mississippi Soil & Water Conservation Commission.
2013: Vice-president, American Society of Agronomy, Mississippi Chapter.
2013: Chair, Animal Science Committee. Mississippi Association of County Agricultural Agents.
2012: Chair, Mississippi Forage and Grassland Conference.
2011 – Present: Board Member, American Society of Agronomy. Mississippi Chapter.
2010 – Present: South MS Gain-on-Forage Bull Test Committee.
2010 – 2014: Present: Executive Secretary, Mississippi Forage and Grassland Council.
2010: USDA/NRCS Deep Water Horizon Oil Spill Organic Sorbent Materials Assessment Team.
2008 – Present: NRCS, Mississippi State Technical Committee.
2008 – Present: Non-Insured Crop Disaster Assistance Program (NAP). Grazing Independent Assessor. Farm Agency Service.
2007 – Present: Mississippi Grazing Lands Conservation Initiative Coalition (GLCI) Steering Committee.

Regional

Sunbelt Ag Expo – Southeast Hay Contest

2020-present: Committee Member

Southern Cover Crop Consortium

2018-2021: Board Member

American Society of Agronomy, Southern Branch

2019: Judge of the MS Poster Competition. Birmingham, AL. February 3-5.
2017: Judge of the PhD Poster Competition. Mobile, AL. February 5-7.
2016: Judge of the Undergraduate Crops Poster Competition. San Antonio, TX. February 7-9.
2014: Moderator for the Graduate Student Oral Competition. Dallas, TX. February 2-4.
2014: Judge of the Undergraduate Crops Poster Competition. Dallas, TX. February 2-4.
2012: Session Moderator. Birmingham, AL. February 5-7.
2011: Chair, Graduate Student Poster Competition-Crops & Soils. Corpus Christi, TX. February 6-8.
2010: Chair, Graduate Student Oral Competition-Crops & Soils. Orlando, FL. February 7-9.
2010: Judge of the Poster Student Competition. Orlando, FL. February 7-9.

Southern Pasture and Forage Crop Improvement Conference

2009-Present: Executive Committee, Southern Pasture and Forage Crop Improvement Conference.
2022: Chair, Editorial Committee. 75th Southern Pasture and Forage Crop Improvement Conference Proceedings.
2021: Moderator of the 74th SPFCIC Virtual Poster Presentation.
2021: Chair, Editorial Committee. 74th Southern Pasture and Forage Crop Improvement Conference Proceedings.
2019: Chair, Editorial Committee. 73rd Southern Pasture and Forage Crop Improvement Conference Proceedings.
2018: Chair, Editorial Committee. 72nd Southern Pasture and Forage Crop Improvement Conference Proceedings.
2017: Chair, Editorial Committee. 71st Southern Pasture and Forage Crop Improvement Conference Proceedings.
2016: Chair, Editorial Committee. 70th Southern Pasture and Forage Crop Improvement Conference Proceedings.

- 2015: Chair, Editorial Committee. 69th Southern Pasture and Forage Crop Improvement Conference Proceedings.
- 2014: Chair of Local Program for the 68th Southern Pasture and Forage Crop Improvement Conference. Biloxi, MS.
- 2013: Chair, 67th Southern Pasture and Forage Crop Improvement Conference. Tyler, TX
- 2013: Chair, Editorial Committee. 67th Southern Pasture and Forage Crop Improvement Conference Proceedings.
- 2012: Chair, Editorial Committee. 66th Southern Pasture and Forage Crop Improvement Conference Proceedings.
- 2011: Chair, 66th Southern Pastures and Forage Crop Improvement Conference. Utilization Section. Aiken, South Carolina. May 16-18.

International

23rd International Grassland Congress

- 2022 – present: Program Organizing Committee
 - Proceeding papers reviewer
- 2022 – present: Two Thematic Sessions, Chair

National

NCBA, U.S. Round Table for Sustainable Beef (USRSB)

- 2022-present: Outreach Working Group: Grazing Management Taskforce

American Forage and Grassland Council

- 2021-present: Board of Directors.

American Forage and Grassland Foundation Board

- 2015 – 2018: American Forage and Grassland Council (AFGC) Foundation Board
- 2016 – 2019: John Baylor Scholarship Selection Committee

National Institute of Food and Agriculture, USDA

- 2016 – 2019: USDA/NIFA Proposal Review Panel

American Forage and Grassland Council

- 2013: Judge for the Producer Spoke Person Competition. Winston-Salem, NC. January 9.
- 2023: Co-Chair and Moderator of the Emerging Scientist Competition. Winston-Salem, NC. January 10.
- 2022: Co-Chair and Moderator of the Emerging Scientist Competition. Wichita, KS. January 7.
- 2021: Co-Chair and Moderator of the Emerging Scientist Competition. Savannah, GA. January 5.
- 2020: Co-Chair and Moderator of the Emerging Scientist Competition. Greenville, SC. January 6.
- 2019: Co-Chair and Moderator of the Emerging Scientist Competition. St. Louis, MO. January 7.
- 2018: Co-Chair and Moderator of the Emerging Scientist Competition. Louisville, KY. January 16.
- 2017: Co-Chair of the Emerging Scientist Competition. Roanoke, VA. January 23.
- 2014: Judge for the Undergraduate Forage Bowl. Memphis, TN, January 12-14.
- 2014: Chair, Forage ID Contest, Memphis, TN, January 12-14.
- 2014: Chair, Forages and Southern Livestock Management Session, Memphis, TN, January 12-14.
- 2013: Judge for the Emerging Scientist Competition and Bowl Competition. Covington, KY. January 6-9.
- 2012: Judge for the Emerging Scientist Competition (Oral and Poster). Louisville, KY. January 8-10.
- 2011: Judge for the Emerging Scientist Competition (Oral and Poster). French Lick, IN. June 12-15.
- 2010: Judge for the Emerging Scientist Competition. Springfield, MO. June 21-24.
- 2008-13, Undergraduate Forage Bowl Competition Committee.

Technical Editor

2019-present: Crop, Forage and Turf Management: Forage Systems. American Society of Agronomy.

Associate Editor

2013-2019: [Agronomy Journal](#). American Society of Agronomy.
2016-present: [Crop, Forage and Turf Management](#). American Society of Agronomy.
2014-Present: [International Journal of Plant & Soil Science](#).
2013-16: [Forage and Grazinglands](#). American Society of Agronomy.

External Reviewer

2023: Southern Sustainable Agriculture Research and Education Research and Education Grant Technical Review.
2022: Southern Sustainable Agriculture Research and Education Research and Education Grant Technical Review.
2022: External Reviewer of Promotion and Tenure Application. The Ohio State University.
2022: External Reviewer of Promotion and Tenure Application. Auburn University.
2021: External Reviewer of Promotion and Tenure Application. University of Florida.
2021: External Reviewer of Promotion and Tenure Application. Washington State University.
2020: External Reviewer of Promotion and Tenure Application. Oklahoma State University.
2020: External Reviewer of Promotion and Tenure Application. University of Maine.
2020: External Reviewer of Promotion and Tenure Application. University of Florida.
2020: External Reviewer of Promotion and Tenure Application. Washington State University.
2019: Publication Reviewer: Educational Aids Blue Ribbon Awards Competition. American Society of Agricultural and Biological Engineers.
2018: Program and Supplemental and Alternative Crops (SACC) Program. U.S. Department of Agriculture. July 20. Washington, D.C.
2018: External Reviewer of Promotion and Tenure Application. University of Georgia.
2017: External Reviewer of Promotion and Tenure Application. University of Georgia.
2017: Review Panel for the National Institute of Food and Agriculture. Alfalfa and Forage Research Program and Supplemental and Alternative Crops (SACC) Program. U.S. Department of Agriculture. July 22-23. Washington, D.C.
2017: Review Panel for the Foundation for Food and Agriculture Research's (FFAR). New Innovator in Food and Agriculture Research Awards. U.S. Department of Agriculture. May 31. Online.
2017: Review Panel for the Foundation for Food and Agriculture Research's (FFAR). Addressing Challenges in Food and Agriculture: Seeding Solutions. U.S. Department of Agriculture. May 1. Online.
2014-215: External Reviewer of Promotion & Tenure Applications for IFAS Extension, University of Florida.

National Forage Testing Association

2015 – Present: National Forage Testing Association (NFTA) Board.

- 2020 – 2021: President
- 2019 –2020: Vice-president
- 2015-2020: Chair, Proficiency and Standards Committee
- 2015-2018: Check Sample Committee
- 2017-2023: Chair, Public Sector Task Force
- 2017-2020: Software Migration Task Force
- 2021 – 2023: Conference Program Co-chair.

NIRS Forage Feed Testing Consortium

2022-present: Education Committee, Chair
2020-2021 – Past President and Ex Board Officio
2013-2020: Executive Committee
2018-2019: President, NIRS Forage and Feed Testing Consortium
2017: Vice-president, NIRS Forage and Feed Testing Consortium
2013-16: Calibration and Equation Development Committee

2012-15: Biofuels Committee.

Peer Journal Reviewer

[Acta Agriculturae Scandinavica, Section B - Plant Soil Science](#), 2011 to present.
[Agroforestry Systems](#), 2010 to present.
[Agronomy Journal](#), 2007 to present.
[Animal Science](#), 2010 to present.
[Applied Animal Science](#), 2020 to present.
[Bioenergy Research](#), 2009 to present.
[Biomass and Bioenergy](#), 2009 to present.
[Crop Science](#), 2010 to present.
[Environmental Biotechnology](#), 2010 to present.
[Geoderma](#), 2010 to present.
[Global Change Biology Bioenergy](#), 2010 to present.
[International Research Journal of Agriculture](#), 2010 to present.
[Journal of NACAA](#), 2011 to present.
[National 4-H Programs of Distinction](#), 2009 to 2010.
[National Resource and Conservation Service](#), 2010 to present.
Mississippi Agricultural and Forestry Experiment Extension, 2007 to present.
Mississippi State University Extension Service, 2007 to present.
[Soil Science](#), 2012 to present.
[The Professional Animal Scientist](#), 2012 to present.
[Texas Journal of Agriculture and Natural Resources](#), 2004 to 2007.

Community/Other

2019: Natchez Pilgrimage. Provided 22 hours of community service at different historic houses.
2019: Aberdeen Pilgrimage. Provided 8 hours of community service at different historic houses.
2019: Columbus Pilgrimage. Provided 8 hours of community service at different historic houses.
2018: Columbus Pilgrimage. Provided 16 hours of community service at different historic houses.
2018: Natchez Pilgrimage. Provided 12 hours of community service at different historic houses.
2017: Columbus Pilgrimage. Provided 16 hours of community service at different historic houses.
April 1-8.
2011: Give Tuscaloosa. Participated on a group of MSU faculty, staff, graduate and undergraduate students that help with debris removal in Tuscaloosa following the April tornado.
2010-11: Marshall County, Cattlemen Association Scholarship Selection Committee.
2002-03: Classroom Improvement Committee, Virginia Tech.
2001-03: Crop Judging Assistant Coach, Chicago Board of Trade National Collegiate Crops Teams, Virginia Tech.
2002-03: Crop and Soil Environmental Sciences, Graduate Student representative to the Graduate Student Assembly.
2000-02: Virginia Tech Agronomy Graduate Club President.
2000-03: Investigative board and judicial panel, Virginia Tech Graduate Honor System.
1998-99: Agronomy Graduate Club Secretary, Iowa State University.
1994-96: Panamanian Student Association President, Iowa State University.
1992-96: Representative to the International Student Council (ISC), Iowa State University.
1993-94: International Senator for the Iowa State University Government of the Student Body.
1995: VEISHA Co-chair for the Cultural Festival, Iowa State University.

Refereed Publications

Journal Articles

(1) Lemus, R., B. Rushing, and J.W. White. 2023. [Brachiaria \(*Urochloa*\) Cultivar Response to Nitrogen Fertilizer as A Summer Forage Crop in the Southern USA](#). J. NACAA Vol. 16 (2).

- (2) **Lemus, R.** 2023. [Effects of Planting Method and Seeding Rate on Forage Production and Nutritive Value of Annual Ryegrass](#). J. NACAA Vol. 16 (1).
- (3) **Lemus, R.,** and J.A. White. 2023. Warm-season Annual Grasses as Pinpoint Grazing Opportunities. *In: Proceedings of the XXV International Grassland Congress*. May 14-19. Covington, KY.
- (4) **Lemus, R.,** and J.A. White. 2023. Efficiency, Yield, and Nutritive Value of Perennial Warm-season Grass Under Liquid Fertilizer Applications. *In: Proceedings of the XXV International Grassland Congress*. May 14-19. Covington, KY.
- (5) Rushing, J.B., J.C. Lyles, K.R. Waddell, and **R. Lemus**. 2023. [Grazing cover crops in continuous corn production in east-central Mississippi](#). Agronomy J. <https://doi.org/10.1002/agj2.21326>
- (6) White, J., and **R. Lemus**. 2023. [Ryegrass Cultivar in Overseeded and Conventional Establishment](#). J. CFTM. <https://doi.org/10.1002/cft2.20216>
- (7) **Lemus, R.,** and J.A. White. 2022. [Establishment of Bahiagrass and Bermudagrass with Annual Warm-season Grasses as Companion Crops](#). J. NACAA Vol. 15 (2). Online.
- (8) **Lemus, R.,** and J.B. Rushing. 2022. [Planting Date and Cultivar Effects on Alfalfa Forage Production in Mississippi](#). J. NACAA Vol. 15 (2). Online.
- (9) Hamm, B.T., and **R. Lemus**. 2022. [Performance of Teff Grass Cultivars for Biomass Yield and Nutritive Value under Fall Planting Conditions](#). J. NACAA Vol. 15 (2). Online.
- (10) Rushing, B. Bass, **R. Lemus**, J. Maples, and J. Lyles. 2022. [The Effects of Grazing Cover Crops on Animal Performance and Soybean Production](#). J. CFTM. <https://doi.org/10.1002/cft2.20203>
- (11) Hamm, B.T., and **R. Lemus**. 2022. [Teff Grass Production and Tolerance to Post-Emergence Herbicides](#). J. NACAA Vol. 15 (1). Online.
- (12) Peavey, T., **R. Lemus**, J.D. Rivera, and J.A. White. 2022. [Utilizing Crabgrass and Pearl Millet as Pinpoint Grazing Systems for Yearling Beef Cattle in Mississippi](#). J. NACAA Vol. 15 (1). Online.
- (13) Rushing, B., **R. Lemus**, J. Maples, J. Gilchrist, and J. Lyles. 2022. [Stocker cattle performance on inter-seeded alfalfa bermudagrass pastures in Mississippi](#). J. CFTM. <https://doi.org/10.1002/cft2.20164>
- (14) **Lemus, R.,** R., Van der Hoek, Y.C. Newman, M. Mena, K.A. Albrecht. 2021. [Effect of Maturity and Drying Method on the Nutritive Value of Tropical Grasses in Nicaragua](#). *In: Proceedings of the Joint XXIV International Grassland & XI International Rangeland Congress*. October 25-29. Nairobi, Kenya.
- (15) Rushing, B, **R. Lemus**, J. Maples, J.D. Rivera, and J. Lyles. 2021. Beef Cattle Feed Cost as Impacted by Hay Yield and Quality. Agron J. <https://doi.org/10.1002/agj2.20806>
- (16) White, J.A., **R. Lemus**, J. Varco. 2021. The recovery of ¹⁵N in the aerial biomass of alfalfa-bahiagrass mixtures. J. CFTM. <https://doi.org/10.1002/cft2.20104>
- (17) **Lemus, R.** and J.A. White. 2021. [Performance of Cattle Grazing Stockpiled Tall Fescue as Late Fall Supplemental Grazing in the Upper Southern USA](#). J. NACAA Vol 14 (1). Online.
- (18) **Lemus, R.,** M. Cox, and J.D. Rivera. 2021. [Annual Ryegrass Response to Seasonal RyzUp Smartgrass® Application](#). J. NACAA. J. NACAA Vol 14 (1). Online.
- (19) **Lemus, R.,** J.A. White, and J.I. Morrison. 2020. [Effect of Gibberellic Acid and Nitrogen Application on Biomass and Nutritive Value of Annual Ryegrass](#). J. CFTM. <https://doi.org/10.1002/cft2.20089>
- (20) **Lemus, R.,** J.A. White, and J.I. Morrison. 2020. [Impact of Cool-season Legume Interseedings or Time Nitrogen Applications on Yield and Nutritive Value of Annual Ryegrass](#). J. CFTM. <https://doi.org/10.1002/cft2.20090>
- (21) **Lemus, R.** and D. Walker. 2020. [Nitrogen Influence on Stockpiling of 'Jesup' Tall Fescue Lines with Diverse Fungal Endophytes](#). J. CFTM. <https://doi.org/10.1002/cft2.20084>.
- (22) **Lemus, R.,** J.D. Rivera, K.J. Han, and A.A.A. Fox. 2020. [Long-term Comparison of the Nutritive Value of Forage Species Grown in the Southern USA](#). J. NACAA Vol. 13 (2). Online
- (23) Rushing, J.B., **R. Lemus**, and J.C. Lyles. 2020. [The effects of N and accumulation interval on stockpiled cool-season forage in the Coastal Plain](#). J. CFTM. <https://doi.org/10.1002/cft2.20088>
- (24) Rushing, J.B., **R. Lemus**, G.J. Maples, and J.C. Lyles. 2020. [Impact of poultry litter application on alfalfa grown in Mississippi](#). J. CFTM 6: e20049. <https://doi.org/10.1002/cft2.20049>
- (25) Rushing, J.B., **R. Lemus**, and J.C. Lyles. 2019. [Harvest Frequency and Native Warm-season Grass Species Influence Nutritive Value](#). J. CFTM: 1-9. <https://doi.org/10.2134/cftm2019.04.0030>

- (26) Rushing, J.B., **R. Lemus**, M. Thornton, J.A. White, and J.C. Lyles. 2019. [Yield of Native Warm-season Grasses in Response to Nitrogen and Harvest Frequency](https://doi.org/10.2134/agronj2018.01.0009). *Agron J.* 111 (1) :1–7 <https://doi.org/10.2134/agronj2018.01.0009>
- (27) Rushing, J.B., **R. Lemus**, and J.C. Lyles. 2019. [Nitrogen Fertilization and Moderate Accumulation Intervals Can Maximize Stockpiled Warm-Season Forage Grasses](https://doi.org/10.2134/agronj2018.07.046). *Agron. J.* 111 (3):193-199. <https://doi.org/10.2134/agronj2018.07.046>
- (28) Rivera, J.D., **R. Lemus**, and J.A. White. 2018. Effects of a Urea Based Hay Injection Treatment on Beef Cow Hay Intake and Forage Quality. *J. NACAA* Vol. 11 (1). [Online](#).
- (29) **Lemus, R.**, J.D. Rivera, and J.A. White. 2017. Using Microbial Inoculants to Improve Fermentation and Nutritive Value of Annual Ryegrass Baleage. *J. NACAA* Vol. 10 (2). [Online](#).
- (30) Hankins, C.S., M.S. Cox, W.L. Kingery, S.G. Shanmugam, P. Gerard and **R. Lemus**. 2017. [Crop Growth and Nutrient Uptake from an Inceptisol and Vertisol with High Biochar Application Rates](#). *Intern. J. Ag. Environ. Res.* 3 (5): 3965-3989.
- (31) **Lemus, R.** and J.A. White. 2016. Potential Production of Teff Grass as a Forage Crop in Mississippi. *J. NACAA* Vol. 9 (2). [Online](#).
- (32) Rushing, J.B., U.K. Saha, **R. Lemus**, L. Sonon and B.S. Baldwin. 2016. [Analysis of Some Important Forage Quality Attributes in Southeastern Wildrye \(*Elymus glabriflorus*\) using Near-Infrared Spectroscopy](https://dx.doi.org/10.4236/ajac.2016.79060). *Amer. J. Anal. Chem.* 7: 642-662. <https://dx.doi.org/10.4236/ajac.2016.79060>
- (33) Rivera, J.D., M.L. Gipson, R.G. Gipson and **R.W. Lemus**. 2016. [Effects of supplement or fertilizer on forage quality, and performance of stocker cattle grazing warm-season pastures](https://dx.doi.org/10.1071/AN15197). *Animal Prod. Sci.* [Online](https://dx.doi.org/10.1071/AN15197). <https://dx.doi.org/10.1071/AN15197>
- (34) Rivera, J.D., **R.W. Lemus**, M.L. Gipson, and R.G. Gipson. 2015. [Effects of Polymicrobial Bioinoculant on Yield, Quality and *In Situ* Digestibility of Sorghum Sudangrass in South Mississippi](#). *Agrotechnol* 4 (2): 136.
- (35) White, J.A. and **R. Lemus**. 2015. Alfalfa establishment, performance, and persistence in Mississippi when planted into a bermudagrass sward. *Amer. J. Plant Sci.* 6 (13): 2220-2226. [Online](#).
- (36) **Lemus, R.**, and J.A. White. 2015. Weed Control in Bermudagrass and Effects on Biomass Production and Quality. *J. NACAA*. Vol. 8 (1). [Online](#).
- (37) White, J.A. and **R. Lemus**. 2014. Utilization of Annual Warm-season Grasses as a Biofuel Source and Feedstock By-Product. *Amer. J. Plant Sci.* 5 (21): 3280-3287. [Online](#).
- (38) White, J.A. and **R. Lemus**. 2014. Long-term Summary of Ryegrass Varieties and Ploidy Types in Mississippi. *Amer. J. Plant Sci.* 5 (21): 3151-3158. [Online](#).
- (39) Munshaw, G., J.M. Layton, B.R. Stewart, H.W. Phillely, and **R. Lemus**. 2014. The Germination and Responses of Five Bermudagrass Cultivars to Seed Coating and Temperature. *HortSci* 49 (9): 1225-1229. [Online](#).
- (40) **Lemus, R.**, and R. Lal. 2014. Soil organic carbon and nitrogen stocks under long-term bioenergy cropping systems in the Southern USA. *J. Renewable Ag.* 2 (3): 38-48. DOI:10.12966/jra.09.01.2014. [Online](#).
- (41) **Lemus, R.**, D.J. Parrish, and D. Wolf. 2014. Switchgrass ecotype/cultivar selection and cutting management in the upper southeast USA. *The Scientific World J.* Vol. 2014. Article ID 937594: 1-10. <https://dx.doi.org/10.1155/2014/937594>. [Online](#).
- (42) **Lemus, R.**, D.J. Parrish, D.D. Wolf. 2014. Switchgrass Response to Nitrogen and Phosphorous During First Growth after Seeding. *Basic Res. J. Ag. Sci. Rev.* 3 (4): 13-22. [Online](#).
- (43) **Lemus, R.**, J.I. Morrison, and J.A. White. 2013. Cumulative Forage Production in Monoculture and Additive Annual Ryegrass Mixes with Cereal Rye. *J. NACAA*. Vol. 6 (2). [Online](#).
- (44) **Lemus, R.**, K. Crouse, M. Cox, J. Varco, J.A. White, and J.I. Morrison. 2013. Effect of AVAIL and Nutrisphere-N Application on Annual Ryegrass Production and Quality. *J. NACAA*. Vol. 6 (2). [Online](#).
- (45) **Lemus, R.**, D. Rivera, and B. Johnson. 2013. Evaluation of Ryegrass Management on Growth and Performance of Growing Beef Heifers. *J. NACAA*. Vol. 6 (1). [Online](#).
- (46) **Lemus, R.**, M.J. Mowdy, and A. Davis. 2013. Herbicide Evaluation for Smutgrass Control Using the Weed Wiper Method. *J. NACAA*. Vol. 6 (1). [Online](#).
- (47) Foster, A.J. and **R. Lemus**. 2012. Effect of Tall Fescue Endophyte Strains and Nitrogen Fertilization on Soil Aggregate Stability. *Intl. J. Sci.* Vol. 1:1-19.

- (48) Chesser Jr. G.D., J.D. Davis, J.L. Pursell, D.E. Rowe, and **R. Lemus**. 2012. Moisture Determination in Switchgrass Windrows Using Electrical Resistance Probes. *J. ASABE* 28(5) 632-629.
- (49) **Lemus, R.**, and D.J. Parish. 2009. Herbaceous crops with potential for biofuel production in the USA. *CABS Reviews*. 4, No. 057. <https://doi.org/10.1079/PAVSNNR20094057>.
- (50) **Lemus, R.**, D.J. Parrish, and D.D. Wolf. 2009. Nutrient Uptake of 'Alamo' Switchgrass Used as an Energy Crop. *Bioenerg. Res.* <https://doi.org/10.1007/s12155-009-9032-3>.
- (51) **Lemus, R.**, D.J. Parrish, and O.A. Abaye. 2008. Nitrogen-Use Dynamics in Switchgrass Grown for Biomass. *Bioenerg. Res.* 1(2): 153-162. DOI:10.1007/s12155-008-9014-x.
- (52) **Lemus R.**, E.C. Brummer, C.L. Burras, K.J. Moore, M.F. Barker, N.E. Molstad. Effects of nitrogen fertilization on biomass yield and quality in large fields of established switchgrass in southern Iowa, USA. 2008. *Biomass and Bioenergy*, 32(12): 1187-1194. <https://doi.org/10.1016/j.biombioe.2008.02.016>.
- (53) Munshaw, G. C., E. H. Ervin, C. Shang, S. D. Askew, and **R. Lemus**. 2006. Influence of late-season iron, nitrogen, and seaweed extract on fall color retention and cold tolerance of four bermudagrass cultivars. *Crop Sci.* 46:273-283.
- (54) Blanco-Canqui, H., R. Lal, and **R. Lemus**. 2005. Soil Aggregate Properties and Organic Carbon for Switchgrass and Traditional Agricultural Systems in the Southern USA. *Soil Science* 170 (12): 998-1012.
- (55) Evanylo, G.K., Abaye, A.O., Dundas, C., Zipper, C.E., **Lemus, R.**, Sukkariyah, B., and Rockett, J. 2005. Herbaceous vegetation productivity, persistence, and metals uptake on a biosolids-amended mine soil. *J. of Env. Qual.* 34 (5): 1811-1819.
- (56) **Lemus, R.**, and R. Lal. 2005. Bioenergy crops and carbon sequestration. *Critical Rev. Plant Sci.* 24 (1): 1-21.
- (57) **Lemus R.**, E. C Brummer, K. J. Moore, N. E. Molstad, C. L. Burras, and M. F. Barker 2002. Biomass yield and quality of 20 switchgrass populations in southern Iowa, USA. *Biomass and Bioenergy* 23 (6): 433-442.

Book Chapters

- (1) McIntosh, D., B. J. Aderson-Husmoen, R. Kern-Lunbery, P. Goldblatt, **R. Lemus**, T. Griggs, L. Bauman, S. Boone, G. Shewmaker, and C. Teutsch. 2022. Guidelines for Optimal Use of NIRSC Forage and Feed Calibrations in Membership Laboratories (Second Edition). The University of Tennessee Press, Knoxville, TN.
- (2) Newman, Y., and **R. Lemus**. 2013. *Forrajes de las Americas* (Spanish translation of Southern Forages: Modern Concepts of Forage Crop Management). In cooperation with D.M. Ball, C.S. Hoveland, and G.D. Lacefield. Norcross, GA: International Plant Nutrition Institute (IPNI).
- (3) **Lemus, R.** 2013. Nutrient Management in Biofuel Crop Production. In: Baraht, S (ed.). *Biofuel Crop Sustainability*. Wiley-Blackwell, ISBN: 978-0-470-96304-3.
- (4) **Lemus, R.** 2013. Basic Agronomic and Physiological Principles of Forage Production. In: Karki, U (ed). Sustainable Year-round Forage Production and Grazing/Browsing Management for Goats in the Southern Regions. Handbook for Training Field Extension and Technical Assistance Personnel. Tuskegee Univ. Coop. Ext. Serv. Pub. TUAG0213-01. pp 13-63.

Extension Publications Developed or Contributed To

- (1) Lemus, R., and L. Rios de Alvarez. 2023. Mineral Requirements and Impact in Dairy and Meat Goat Production. Mississippi State Univ. Coop. Ext. Pub 3929.
- (2) Maples, J., J. Byrd, **R. Lemus**, and L. Oldhman. 2022. Forage 2022 Planning Budgets. Budget Report 2020-08. Mississippi State Univ., Dept. of Ag Econ.
- (3) Maples, J., J. Byrd, **R. Lemus**, and L. Oldhman. 2021. Forage 2021 Planning Budgets. Budget Report 2020-08. Mississippi State Univ., Dept. of Ag Econ.
- (4) **Lemus, R.**, D. Rivera, J. Maples, and J. Johnson. 2020. Estimating Dry Hay Value. Mississippi State Univ. Coop. Ext. Serv. Pub 3431.
- (5) Cavinder, C., C. Heaton, and **R. Lemus**. 2020. Forage Management Considerations for Horses in Mississippi. Mississippi State Univ. Coop. Ext. Serv. Pub. 3421.

- (6) **Lemus, R.** and B. Rushing. 2019. Forage Establishment in Mississippi: Recommended Planting Rates, Planting Depths and Planting Dates for Common Forage Species. Mississippi State Univ. Coop. Ext. Serv. [Pub 3396](#).
- (7) Maples, J., B. Goodrich, **R. Lemus**, and B. Rushing. 2018. Forage Risk Management Using Pasture, Rangeland, and Forage Insurance. Mississippi State Univ. Coop. Ext. Serv. [Pub 3288](#).
- (8) **Lemus, R.** 2018. Baleage Production Tips. Mississippi State Univ. Coop. Ext. Serv. [Pub-3260](#).
- (9) **Lemus, R.** 2018. Tips for Overseeding Annual Ryegrass or Small Grains into Perennial Warm-season Pastures in the South. Mississippi State Univ. Coop. Ext. Serv. [Pub-3255](#).
- (10) **Lemus, R.** 2018. Identifying Common Winter Weeds in Your Pastures. Mississippi State Univ. Coop. Ext. Serv. [Pub-3228](#).
- (11) **Lemus, R.** 2018. Lespedeza Types Used as Forage Crops in the Southern USA. Mississippi State Univ. Coop. Ext. Serv. [Pub-3208](#).
- (12) **Lemus, R.** 2018. Invasive Species in Pasture Systems: Chinese Tallowtree. Mississippi State Univ. Coop. Ext. Serv. [Pub-3185](#).
- (13) **Lemus, R.** 2017. Making the Transition from Expired CRP Land to Forage Production. Mississippi State Univ. Coop. Ext. Serv. [Pub-3177](#).
- (14) **Lemus, R.** 2017. Selecting Small Cereal Grains for Forage Production. Mississippi State Univ. Coop. Ext. Serv. [Pub-3165](#).
- (15) **Lemus, R.** 2017. Self-reseeding Potential of Forage Annual Clovers in the South. Mississippi State Univ. Coop. Ext. Serv. [Pub-3153](#).
- (16) **Lemus, R.** Annual Ryegrass Production in Mississippi: Long-term Yield Production. Mississippi State Univ. Coop. Ext. Serv. [Pub-3130](#).
- (17) **Lemus, R.** Reduce Seed Cost by Properly Calibrating Your Drill. 2017. Mississippi State Univ. Coop. Ext. Serv. [Pub-3112](#).
- (18) Parman, B., J. Byrd, **R. Lemus**, and L. Oldham. 2017. Forage Planning Budgets. Mississippi State Coop. Ext. Service. [Pub-3030](#).
- (19) Weed Control Guidelines. 2017. Mississippi State Univ. Ext. Serv. [Pub-1532](#).
- (20) Weed Control Guidelines. 2016. Mississippi State Univ. Ext. Serv. [Pub-1532](#).
- (21) **Lemus, R.** 2015. Forage and Manure Analysis Laboratories. Mississippi State Univ. Coop. Ext. Serv. [Pub-2897](#).
- (22) **Lemus, R.,** D. Rivera, J. White. 2015. Hay Quality and How It Affects Your Feeding Program. Mississippi State Univ. Coop. Ext. Serv. [Pub-2895](#).
- (23) Weed Control Guidelines for Mississippi. 2015. Mississippi State Univ. Ext. Serv. [Pub-1532](#)
- (24) **Lemus, R.** 2014. Silvopasture: Grazing Systems Can Add Value to Trees. Mississippi State Univ. Coop. Ext. Serv. [Pub-2847](#).
- (25) **Lemus, R.** and J. White. 2014. Forage Brassicas for Winter Grazing Systems. Mississippi State Univ. Coop. Ext. Serv. [Pub-2845](#).
- (26) Rushing, J.B. and **R. Lemus**. 2014. Native Warm-season Grass as a Forage in Mississippi: Grazing Management. Mississippi State Univ. Coop. Ext. Serv. [Pub-2843](#).
- (27) **Lemus, R.** 2014. Steps to Successfully Establishing Warm-season Forages. Mississippi State Univ. Ext. Serv. [Pub-2838](#).
- (28) **Lemus, R.,** and J. White. 2014. Brix Level in Your Forage: What Does It Mean? Mississippi State Univ. Coop. Ext. Serv. [Pub-2836](#).
- (29) Rushing, J.B. and **R. Lemus**. 2014. Native Warm-season Grass as a Forage in Mississippi: Establishment. Mississippi State Univ. Coop. Ext. Serv. [Pub-2830](#).
- (30) Weed Control Guidelines for Mississippi. 2014. Mississippi State Univ. Ext. Serv. [Pub-1532](#).
- (31) Weed Control Guidelines for Mississippi. 2013. Mississippi State Univ. Ext. Serv. [Pub-1532](#).
- (32) **Lemus, R.** 2012. Important Fire-Ant Free Hay Certification in Mississippi. Mississippi State Univ. Coop. Ext. Serv. [Pub. 2733](#).
- (33) **Lemus, R.,** and J. Gordon. 2012. Prescribed Burning for Pasture Management. Mississippi State Univ. Coop. Ext. Serv. [Pub. 2726](#).
- (34) Weed Control Guidelines for Mississippi. 2012. Mississippi State Univ. Ext. Serv. [P-1532](#).
- (35) **Lemus, R.,** B. Baldwin, and D. Lang. 2011. Agronomic Suitability of Bioenergy Crops in Mississippi. Mississippi State Univ. Coop. Ext. Serv. [Pub-2713](#).
- (36) **Lemus, R.** 2011. Establishing Hybrid Bermudagrass in Mississippi. Mississippi State Univ. Coop. Ext. Serv. [Pub-2711](#).

- (37) **Lemus, R.**, and D. Rivera. 2011. Pasture and Grazing Management under Drought Conditions. Mississippi State Univ. Coop. Ext. Serv. [Pub-2710](#).
- (38) **Lemus, R.** 2011. Urea-based Fertilizers in Forage Production. Mississippi State Univ. Coop. Ext. Serv. [Pub-2678](#).
- (39) **Lemus, R.** 2011. Selecting an Annual Ryegrass for Winter Grazing. Mississippi State Univ. Coop. Ext. Serv. [Pub-2672](#).
- (40) **Lemus, R.** 2011. Breaking Down Soil Compaction: Does It Increase Forage Production? Mississippi State Univ. Coop. Ext. Serv. [Pub-2657](#).
- (41) Weed Control Guidelines for Mississippi. 2011. Mississippi State Univ. Ext. Serv. P-1532.
- (42) **Lemus, R.**, and M. Tomaso-Peterson. 2010. Gray Leaf Spot “Blast” in Annual Ryegrass. Mississippi State Univ. Coop. Ext. Serv. [Pub-2633](#).
- (43) **Lemus, R.** 2010. Forage Management Diagnostic Form. Mississippi State Univ. Coop. Ext. Serv. [F1108](#).
- (44) **Lemus, R.** 2010. Forage Disease Diagnostic Form. Mississippi State Univ. Coop. Ext. Serv. [F1107](#).
- (45) Parish, J.A., J.D. Daniel, H.T. Bolland and **R. Lemus**. 2010. Beef Cattle Grazing Management. Mississippi State Univ. Coop. Ext. Serv. [Pub-2629](#).
- (46) **Lemus, R.** 2010. Perennial Peanut as a Forage Crop. Mississippi State Univ. Coop. Ext. Serv. [Pub-2624](#).
- (47) **Lemus, R.** and D. Rivera. 2010. Hay Calculator for Livestock Producers. Excel-based V2009.1. Mississippi State Univ. Coop. Ext. Serv. [Pub-2590](#).
- (48) Weed Control Guidelines for Mississippi. 2010. Mississippi State Univ. Ext. Serv. P-1532.
- (49) **Lemus, R.**, and L. Oldham. 2009. Fertilizer Calculator for Pastures in Mississippi. Excel-based V.5.0. Mississippi State Univ. Coop. Ext. Serv. [Pub-2562](#).
- (50) **Lemus, R.** 2009. Guidelines for Pasture Establishment. Mississippi State Univ. Coop. Ext. Serv. [Pub-2541](#).
- (51) **Lemus, R.** 2009. Hay Storage: Dry Matter Losses and Quality Changes. Mississippi State Univ. Coop. Ext. Serv. [Pub-2540](#).
- (52) **Lemus, R.** 2009. Hay Testing and Understanding Forage Quality. Mississippi State Univ. Coop. Ext. Serv. [Pub-2539](#).
- (53) **Lemus, R.**, J.R. Parish, and J.A. Parish. 2009. Fencing Systems for Pasture Management. Mississippi State Univ. Coop. Ext. Serv. [Pub-2538](#).
- (54) Weed Control Guidelines for Mississippi. 2009. Mississippi State Univ. Ext. Serv. P-1532.
- (55) **Lemus, R.** 2008. Strategic Points to Better Manage Pasture Fertilization. Mississippi State Univ. Coop. Ext. Serv. [Pub-2497](#).
- (56) **Lemus, R.** 2008. Establishing a Forage Fertility Program. Mississippi State Univ. Coop. Ext. Serv. [Pub-2496](#).
- (57) Weed Control Guidelines for Mississippi. 2008. Mississippi State Univ. Ext. Serv. P-1532.
- (58) **Lemus, R.** and J.A. Parish. 2007. Fertility and pasture planning for winter forages. Mississippi State Univ. Coop. Ext. Serv. [Pub-2463](#).
- (59) **Lemus, R.** 2007. Extending the grazing season: Stockpiled Tall Fescue. Mississippi State Univ. Coop. Ext. Serv. [Pub-2461](#).
- (60) **Lemus, R.** 2007. Managing small pasture for horses. Mississippi State Univ. Coop. Ext. Serv. [Pub.-2460](#).
- (61) **Lemus, R.** 2007. Pasture management and grazing guide for livestock producers. Mississippi State Univ. Coop. Ext. Serv. [Pub-2459](#).
- (62) **Lemus, R.**, J.R. Parish, and J.A. Parish. 2007. Assessing needs and need sources: How much forage do you have? Mississippi State Univ. Coop. Ext. Serv. [Pub-2458](#).
- (63) **Lemus, R.** 2007. Summer drought: Opportunity for dollar spot disease outbreak in tall fescue. Mississippi State Univ. Coop. Ext. Serv. [Pub-2455](#).

Abstracts

- (1) Lemus, R. 2024. Assessment of Soil Health Quality Parameters in Mississippi Forage Systems. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [Online]*. Mobile, AL. January 8-10. *Volunteered*.

- (2) Lemus, R. 2024. Efficiency, Yield, and Nutritive Value of Perennial Warm-season Grass Under Liquid Fertilizer Applications. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Mobile, AL. January 8-10. *Volunteered.*
- (3) Lemus, R. 2024. Grazing Management of Cool-season Grasses and Late Maturing Clovers. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Mobile, AL. January 8-10. *Volunteered.*
- (4) Ross, M., and R. Lemus. 2024. Productivity and Nutritive Value of Warm-season Annual Legumes in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Mobile, AL. January 8-10. *Volunteered.*
- (5) Dewberry, C., and **R. Lemus**. 2023. Evaluation of Nontraditional Annual Warm-season Legumes for Forage, Cover Crop, and Wildlife. *In: Proceedings of the Southern Cover Crop Conference.* Baton Rouge, LA. February 14-15.
- (6) McIntosh, D., C. Sams, D. Butler, G. Bates, R. Florence, B. Husmoen, and **R. Lemus**. 2023. Alternative Methods for Determining Forage Mineral Content Using Near-Infrared Spectroscopy Instrumentation. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Winston-Salem, NC. January 8-11. *Volunteered.*
- (7) **Lemus, R.**, J.A. White, and J.B. Rushing. 2023. Brachiaria Cultivar Response to Nitrogen Fertilizer as a Summer Annual Forage Crop in the Southern USA. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Winston-Salem, NC. January 8-11. *Volunteered.*
- (8) **Lemus, R.**, J.A. White, and J.B. Rushing. 2023. Impact of Seeding Rate on Yield and Return Cost of Annual Cool-season Grasses. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Winston-Salem, NC. January 8-11. *Volunteered.*
- (9) Cabtree, J.B., R.L. Palfreyman, **R.W. Lemus**, L.M. Fultz, and C.P. Bagley. 2022. Title: Focusing on Improved Forage Production and Soil Health in Rotationally Grazed Pastures in South Louisiana. 1. Forage Quality. *In: Proceedings of the LSU/Southern AgCenters Annual Conference.* Baton Rouge, LA. December 12-13. *Volunteer.*
- (10) Picado-Pérez, T., **R. Lemus**, D. Rivera, and L. Villalobos. 2022. Nutritive and Fermentative Traits of African Stargrass (*Cynodon nlemfuensis Vanderyst*) Forage Preserved for Silage and Haylage. *In: Proceedings of the American Society of Agronomy Annual Meeting.* Baltimore, MD. November 6-9. *Volunteered.*
- (11) Mullican, N., E. Larson, L.J. Krutz, **R.W. Lemus**, W.E. Maples, and J.A. Bond. 2022. Incorporating Cover Crops into Successful Corn Production Systems. *In: Proceedings of the American Society of Agronomy Annual Meeting.* Baltimore, MD. November 6-9. *Volunteered.*
- (12) **Lemus, R.**, and J.B. Rushing. 2022. [Nitrogen Use Efficiency in Cool-season Annual Grasses in Mississippi](#). *In: Proceedings of the 75th Southern Pasture & Forage Crop Improvement Conference.* Asheville, NC. July 26-28. p. 13. *Volunteered.*
- (13) **Lemus, R.** and J. Sawyer. 2022. A review of forage sample grinding techniques and the downstream effect on NIR nutrient determination. *In: Proceedings of the Midwest AOAC and NFTA Joint Annual Meeting.* Manhattan, KS. June 6-8. *Invited.*
- (14) Rivera, J.D., and **R. Lemus**. 2022. Using NIR technology to improve supplement use efficiency in beef cows over winter months. *In: Proceedings of the Midwest AOAC and NFTA Joint Annual Meeting.* Manhattan, KS. June 6-8. *Invited.*
- (15) Dearborn, L., L. Rios de Alvarez, **R. Lemus**, L. Downey, M. Pesato, G. Rico Mendez, J. Graves, and J. Maples. 2022. Preliminary evaluation of small ruminant production systems in Mississippi and the Southern US. *In: Proceedings of joint Animal Science Society of America and the Canadian Animal Science Society Annual Meeting.* Oklahoma City, OK. June 26-30. *Volunteer.* J. Anim. Sci Vol. 100, Suppl. S3: 401.
- (16) Hamm, B.T., and **R. Lemus**. 2022. Evaluation of Teff Grass Cultivars as a Fall Forage in Mississippi. *In: Proceedings of the American Society of Agronomy Southern Branch.* New Orleans, LA. February 12-14. *Volunteered.*
- (17) Hamm, B.T., and **R. Lemus**. 2022. *In: Proceedings of the American Society of Agronomy Southern Branch.* New Orleans, LA. February 12-14. *Volunteered.*
- (18) Picado-Pérez, T., L. Villalobos, **R. Lemus**, and D. Rivera. 2022. Motivations and Issues Faced by Livestock Producers Preserving Forages. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line].* Wichita, KS. January 9-12. *Volunteered.*

- (19) Peavey, M.T., **R. Lemus**, J.D. Rivera, and J.A. White. 2022. Comparative Animal Performance of Crabgrass Cultivars as Pinpoint Grazing Systems. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Wichita, KS. January 9-12. *Volunteered*.
- (20) **Lemus, R.**, and J.A. White. 2022. Warm-season Annual Grasses as Companion Forage Crop for Establishing Warm-season Perennial Grasses. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Wichita, KS. January 9-12. *Volunteered*.
- (21) Rushing, B., **R. Lemus**, J.C. Lyles, B. Bass, and K. Waddell. 2021. [Grazing management impacts on forage mass and nutritive value in Mississippi](#). *In: Proceedings of the 74th Southern Pasture & Forage Crop Improvement Conference*. Montgomery, AL. April 27-28. p. 11. *Volunteered*.
- (22) Peavey, T., **R. Lemus**, J.D. Rivera, and J.A. White. 2021. Comparison of Warm-season Annual Grasses as Supplemental Grazing. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Savannah, GA. January 3-6. *Volunteer*.
- (23) Baxter, L., D. McIntosh, G. Bates, D. Combs, D. Hancock, **R. Lemus**, K. Taysom, D. Undersander, and R. Ward. 2021. Calculated Parameters Used. *In: Forage Nutritive Analysis Reporting*. In the 77th Annual American Forage and Grassland Conference Proceedings. American Forage and Grassland Council. Savannah, GA. *Invited*.
- (24) **Lemus, R.**, J.B. Rushing, J.A. White, and J. Maples. 2020. Integrated Alfalfa Production Systems in Mississippi. *In: Proceedings of the American Society of Agronomy Southern Branch*. Louisville, KY. February 1-3. *Volunteered*
- (25) O'Neal, N., **R. Lemus**, J.D. Rivera, J.B. Rushing, and N. Frank. 2020. [Influence of Planting Date on Summer Annual Grass Biomass and Nutritive Value](#). *In: Proceedings of the American Society of Agronomy Southern Branch*. Louisville, KY. February 1-3. *Volunteered*
- (26) Simmons, C., **R. Lemus**, and B. Rushing. 2020. [Influence of Fertilizer Additives on Crabgrass \(*Digitaria sanguinalis*\) Biomass Production](#). *In: Proceedings of the American Society of Agronomy Southern Branch*. Louisville, KY. February 1-3. *Volunteered*.
- (27) **Lemus, R.**, J.D. Rivera, J.A. White, and J.G. Maples. 2020. Animal Performance in Grazing Winter Annuals Grasses with Late Maturing Clovers. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Greenville, SC. January 5-8. *Volunteered*.
- (28) Rushing, J.B., **R. Lemus**, J.G. Maples, and J.C. Lyles. 2020. Impact of Poultry Litter Application on Yield and Quality of Alfalfa Grown in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Greenville, SC. January 5-8. *Volunteered*.
- (29) McIntosh, D., G. Bates, P. Berghazi, N. Labbe, E. Eckelkamp, **R. Lemus**, and B. Anderson. 2019. The impact of moisture content on forage nutritive predictions using Near Infrared Spectroscopy (NIRS) on prepared ground samples and how this affects producers and researchers. In Proceedings for the Western Alfalfa and Hay Symposium. Nov. 19-21. Reno, NV. Can be accessed at: <https://alfalfa.ucdavis.edu/+symposium/>
- (30) Simmons, C., **R. Lemus**, and C. Bass. 2019. Influence of Trichoderma Spp. on Biomass Production and Nutritive Value of Cool-season Annual Grasses. In: Proceedings of the Mississippi Academy of Sciences Summer Symposium. Starkville, MS. July 11. *Volunteered*.
- (31) Rushing, B., **R. Lemus**, C. Lyles. 2019. Alfalfa Utilization in Southern Pasture Systems to Improve Beef Production. *In: Proceedings of the 73rd Southern Pasture & Forage Crop Improvement Conference*. Roanoke, VA. May 21-23. p. 28. *Volunteered*.
- (32) Rudds, L., **R. Lemus**, and C. Schmidt. 2019. Impact of Trichoderma Species in Biomass Production and Nutritive Value of Warm-season Annual Grasses. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Birmingham, AL. February 3-5. *Volunteered*.
- (33) Rushing, J.B., **R.W. Lemus**, and J.C. Lyles. 2019. Effects of N and Harvest Frequency on Forage Quality and Yield of Native Grasses. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Birmingham, AL. February 3-5. *Volunteered*.
- (34) Schmidt, C., **R. Lemus**, and L. Rudds. 2019. Evaluation of BMR Forage Systems for Beef Cattle Performance in Mississippi. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Birmingham, AL. February 3-5. *Volunteered*.
- (35) Rushing, J.B., **R. W. Lemus**, J.G. Maples, and J.C. Lyles. 2019. Impact of Poultry Litter Application on Yield and Quality of Alfalfa Grown in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. St. Louis, MO. January 6-9. *Volunteered*.

- (36) **Lemus, R.** and J.B. Rushing. 2019. Crabgrass Cultivar Response to Nitrogen Fertilizer Additives. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. St. Louis, MO. January 6-9. *Volunteered*.
- (37) **Lemus, R.** and J.A. White. 2018. Impact of Microbial Inoculants on the Quality and Fermentation Stability of Alfalfa Round Bale Baleage. *In: Proceedings of the 2018 North American Alfalfa Improvement Conference*. Logan, UT. June 4-6. *Invited*.
- (38) **Lemus, R.**, J.B. Rushing, and J.A. White. 2018. Impact of Potassium Fertilization, Harvest Frequency, and Grazing Management in Alfalfa Persistence across the Southeastern U.S. *In: Proceedings of the 2018 North American Alfalfa Improvement Conference*. Logan, UT. June 4-6. *Invited*.
- (39) Maples, J.G., J.B. Rushing, **R.W. Lemus**, and J.C. Lyles. 2018. "Economic Analysis of the Application of Poultry Litter on Alfalfa Production in Mississippi". Selected Poster, Southern Extension Economics Committee Annual Meeting. Myrtle Beach, South Carolina. June 11-13, 2018. *Invited*.
- (40) Rushing, J.B., **R. Lemus**, J. Maples, and J.C. Lyles. 2018. Impact of Poultry Litter Application on Yield and Quality of Alfalfa Grown in Mississippi. *In: Proceedings of the 72nd Southern Pasture & Forage Crop Improvement Conference*. Fayetteville, AR. May 14-16, 2018. p. 15. *Volunteered*.
- (41) **Lemus, R.** and J.A. White. 2018. Annual Ryegrass Production Following the Application of Biowash 100. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 14-17. *Volunteered*.
- (42) **Lemus, R.** and J.A. White. 2018. Impact of Microbial Inoculants in the Fermentative Process of Bahiagrass/Alfalfa Haylage. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 14-17. *Volunteered*.
- (43) Rushing, B., R. Lemus, M. Thornton, and C. Lyles. 2018. Stockpiling Perennial Warm-season Grasses. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 14-17. *Volunteered*.
- (44) Rivera, D., **R. Lemus**, and J. Maples. 2017. Forage and Nutrient Management of Grazing Beef Cattle. *In: Proceedings of the Deep South Stocker Backgrounder Conference*. Starkville, MS. August 3-4, 2017. *Invited*.
- (45) **Lemus, R.** and J.A. White. 2017. Sod-seeding Methods for Alfalfa into Bahiagrass (*Paspalum notatum* L.). *In: Proceedings of the 71st Southern Pasture & Forage Crop Improvement Conference*. Knoxville, TN. June 5 – 7, 2017. p. 27. *Volunteered*.
- (46) **Lemus, R.**, J.A. White and K.K. Crouse. *Response of Bahiagrass Cultivars to Nitrogen Fertilization and Cutting Frequency*. 2017. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Mobile, AL. February 5-6. *Volunteered*
- (47) **Lemus, R.**, J.A. White, and J.D. Rivera. 2017. Stockpiling Tall Fescue for Winter Grazing in North Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Roanoke, VA. January 22-24. *Volunteered*.
- (48) Rushing, **R. Lemus**, and M. Thornton. 2017. Stockpiling Warm-season Forage Grasses in East-central Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Roanoke, VA. January 22-24. *Volunteered*.
- (49) White, J.A., **R. Lemus**, and J.D. Rivera. 2017. Impact of Sorghum-sudan Hybrid on Animal Performance Under Mississippi Conditions. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Roanoke, VA. January 22-24. *Volunteered*.
- (50) Rivera, J.D., M.L. Gypson, R.G. Gypson, **R.W. Lemus**. 2016. Relationship between Forage Quality Parameters and Mineral Intake in Grazing Beef Cattle. *In: Proceedings of the Amer. Soc. Anim. Sci. Annual Meeting [CD-Rom]*. Salt Lake City, UT. July 19-23.
- (51) **Lemus, R.**, J.A. White, K.K. Crouse, and M. Cox. 2016. Impact of Gypsum Application on Bermudagrass (*Cynodon dactylon*) Forage Production and Soil Properties. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. San Antonio, TX. February 7-9. *Volunteered*
- (52) White, J. and **R. Lemus**. 2016. Evaluation of Alfalfa Hay When Using a Hay Preservative in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Baton Rouge, LA. January 10-13. *Volunteered*.
- (53) **Lemus, R.**, J.A. White, and J.D. Rivera. 2016. Impact of Grass/legume Mixture in Winter Grazing Systems. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Baton Rouge, LA. January 10-13. *Volunteered*.

- (54) **Lemus, R.**, J.D. Rivera, K.J. Han, and A.A.A. Fox. 2016. Long-term analysis of Forage Quality in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Baton Rouge, LA. January 10-13. *Volunteered*.
- (55) Flint, G. and **R. Lemus**. 2015. Poultry Litter Use in Forage Systems. *In: Proceedings of the 69th Southern Pasture & Forage Crop Improvement Conference*. Apalachicola, FL. March 30 – April 1, 2015. p. 22. *Volunteered*.
- (56) **Lemus, R.** and J. White. 2015. Harvest Date and N Application Impact in Bermudagrass Forage Production and Quality. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Atlanta, GA. February 1-3. *Volunteered*
- (57) Morrison, J.I., B.S. Baldwin, P.D. Meints, **R.W. Lemus**, J.M. Phillips, T. Rinehart, D.E. Costich, J.D. Richwine. 2015. Selection and Breeding to Eliminate Physiological Dormancy in Eastern Gammagrass [*Tripsacum dactyloides* (L.) L]. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Atlanta, GA. February 1-3. *Volunteered*
- (58) White, J. and **R. Lemus**. 2015. Effect of Bermudagrass Yield to Application Timing and Rate of ESN Coated Urea. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Atlanta, GA. February 1-3. *Volunteered*
- (59) Rivera, J.D., **R.W. Lemus**, J.A. White, and P.J. Slusher. 2015. Effects of a Liquid Hay Additive on Hay Quality and Hay Preference of Grazing Beef Cows. *In: Proceedings of the Southern Branch of American Society of Animal Science Annual Meeting [On-line]*. Atlanta, GA. February 1-3, 2015. *Volunteered*.
- (60) **Lemus, R.**, J. White and D. Rivera. 2015. Effects of Inoculants in Annual Ryegrass Baleage. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. St. Louis, MO. January 11-14. *Volunteered*.
- (61) **Lemus, R.** and J. White. 2015. Impact of Fertility in Tall Fescue Forage Types. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. St. Louis, MO. January 11-14. *Volunteered*.
- (62) White, J. and **R. Lemus**. 2015. Evaluation of Cool-season Grass/Legume Mixtures in Mississippi. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. St. Louis, MO. January 11-14. *Volunteered*.
- (63) Nagel, D., **R. Lemus**, T. Horgan, M. Ely, and T. Freeman. 2014. Influence of Plant Population and Morphology of *Vigna unguiculata* cg. *Unguiculata* on Pulse Yield and Forage Quality. *In: Proceedings of the 29th International Horticultural Congress*. Queensland, Australia. August 17-122. *Volunteered*.
- (64) Karki, U., L. Karki, N. Gurung, **R. Lemus**, S. Hart, K. Cearley, S. Enloe, E. Jolley, and M. Edmonson. 2014. Sustainable Year-Round Forage Production and Grazing/Browsing Management Education Program. *In: Proceedings of the American Society of Animal Science Annual Meeting [On-line]*. Kansas City, MO. July 20-24. *J. Anim. Sci. Vol. 92, E-Suppl. 2/J. Dairy Sci. Vol. 97, E-Suppl. 1: 523*. *Volunteered*.
- (65) **Lemus, R.**, J.A. White, P. Shlusher, K. Crouse, M.S. Cox, and J.J. Varco. 2014. Bermudagrass as Affected by Rate and Timing of Nitrogen Fertilization. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Dallas, TX. February 1-4. *Volunteered*
- (66) Shlusher, P., **R. Lemus**, J. White, M. Phillips, D. Lang, B. Rude. 2014. Effects of Legumes and N Applications in Tall Fescue Yield and Quality. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Dallas, TX. February 1-4. *Volunteered*.
- (67) White, J.A., and **R. Lemus**. 2014. The Potential of Mixed Alfalfa/Bermudagrass Systems in Mississippi. *In: Proceedings of the Southern Branch of the American Society of Agronomy*. Dallas, TX. February 1-4. *Volunteered*.
- (68) **Lemus, R.**, and Y.C. Newman. 2014. International Forage Outreach Program in Nicaragua. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Memphis, TN. January 12-14. *Volunteered*.
- (69) **Lemus, R.**, J.A. White, K. Crouse, M. Cox, and J.A. Varco. 2014. Nitrogen Use Efficiency in Forage Production Systems. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Memphis, TN. January 12-14. *Volunteered*.
- (70) Slusher, P., **R. Lemus**, J.A. White, C. Young and J. Byrd. 2014. Managing Seed Suppression in Kentucky-31 Tall Fescue by Herbicide and Mechanical Practices. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Memphis, TN. January 12-14. *Volunteered*.

- (71)White, J.A. and **R. Lemus**. Tetraploid and Diploid Ryegrass Performance in Mississippi. 2014. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Memphis, TN. January 12-14. *Volunteered*.
- (72)**Lemus, R.**, J.A. White, K. Crouse, and M. Cox. 2014. Timing and Frequency of Fertilizer Application in Bermudagrass. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Memphis, TN. January 12-14. *Volunteered*.
- (73)Lang, D.J., J. Duckworth, D. Russell, J.J. Read, J.A. White and **R.W. Lemus**. 2013. Growth of Bermudagrass with White Clover or Nitrogen. *In: Proceedings of the American Society of Agronomy Annual Meeting*. Tampa, FL. November 3-6, 2013. *Volunteered*.
- (74)Rivera, J.D. and **R.W. Lemus**. 2013. Effects of supplement or fertilizer on forage quality, and performance of stocker cattle grazing warm-season pastures in South Mississippi. *In: Proceedings of the Amer. Soc. Anim. Sci. Annual Meeting*. Indianapolis, IN. July 8-12.
- (75)Morrison, J.I., **R. Lemus**, B. Baldwin, P. Meints and G. Munshaw. 2013. Efficacy of Seed Coatings, Chemical and Hormonal Treatments to Hasten Germination and Improve Overall Establishment of Native Warm-Season Grasses in Mississippi. *In: Proceedings of the 67th Southern Pasture & Forage Crop Improvement Conference*. Tyler, TX. April 22-24, 2013. p. 27. *Volunteered*.
- (76)White, J., and **R. Lemus**. 2013. Long-term Environmental Effects on Tall Fescue Endophyte Types in Mississippi. *In: Proceedings of the 67th Southern Pasture & Forage Crop Improvement Conference*. Tyler, TX. April 22-24, 2013. p. 23. *Volunteered*.
- (77)**Lemus, R.**, J. White, K. Crouse, J. Morrison, J. Varco, and M. Cox. 2013. Evaluation of Fertilizer and Bio-soil Enhancers in Bermudagrass Forage Production. *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Orlando, FL, Feb. 3-5, 2013. *Volunteered*.
- (78)White, J.A. and **R. Lemus**. 2013. Managing Roundup Ready® Alfalfa Inter-seeded into Bermudagrass Systems in Mississippi. *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Orlando, FL, Feb. 3-5, 2013. *Volunteered*.
- (79)White, J. and **R. Lemus**. 2013. Evaluation of Annual Warm-Season Grasses as Dual-Purpose Energy and Forage Feedstock. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Covington, KY. January 6-9. *Volunteered*.
- (80)**Lemus, R.** and J. White. 2013. Evaluation of Annual Cool-season Grass Inter-seeded with Legumes and Harvested for Forage. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Covington, KY. January 6-9. *Volunteered*.
- (81)Rivera, J.D. and **R.W. Lemus**. 2012. Effect of N Source on Cattle Grazing Warm-season Pastures. *In: Proceedings of the American Society of Agronomy Annual Meeting*. Cincinnati, OH. October 21-24, 2012. *Volunteered*.
- (82)**Lemus, R.**, J.I. Morrison, J. Varco and D. Lang. 2012. Effects of Commercial Agricultural Bio-stimulants on Yield and Quality of Forage Bermudagrass in Central Mississippi. *In: Proceedings of the 66th Southern Pasture & Forage Crop Improvement Conference*. San Juan, Puerto Rico. June 6-9, 2012. p. 22. *Volunteered*.
- (83)White, J.A. and **R. Lemus**. 2012. Evaluation of 12 Conventional Alfalfa Varieties for Use in Mississippi. *In: Proceedings of the 66th Southern Pasture & Forage Crop Improvement Conference*. San Juan, Puerto Rico. June 6-9, 2012. p. 36. *Volunteered*.
- (84)**Lemus, R.**, J.I. Morrison and S. Wright. 2012. *Effect of RyzUp Smartgrass 40SG on Annual Ryegrass Production*. *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Birmingham, AL, Feb. 5-7, 2012. *Volunteered*.
- (85)**Lemus, R.**, J.I. Morrison, J. Varco and D. Lang. 2012. *Effect of Fertilizer Enhancers in Forage Bermudagrass Production*. *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Birmingham, AL, Feb. 5-7, 2012. *Volunteered*.
- (86)**Lemus, R.**, J.A. White and J.I. Morrison. 2012. *Utilization of Annual Warm-season Grasses as Biofuel Source and Feedstock Bi-product*. *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Birmingham, AL, Feb. 5-7, 2012. *Volunteered*.
- (87)**Lemus, R.**, J.I. Morrison, J.A. White and B. Booker. 2012. Impact of Inter-seeded Legume and Nitrogen Rate on Yield and Forage Quality of Annual Ryegrass. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 8-12.
- (88)**Lemus, R.**, K.K. Crouse, J. Varco, J.I. Morrison and B. Booker. 2012. Fertilizer Effect on Nutrient Use Efficiency and Mineral Composition in Annual Ryegrass. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 8-12.

- (89) Morrison, J.I., **R. Lemus**, K.K. Crouse, J. Varco, and D. Lang. 2012. Nutrient Management Strategies in Bermudagrass Production. *In: Proceedings of the American Forage and Grassland Council Annual Meeting [On-line]*. Louisville, KY. January 8-12.
- (90) **Lemus, R.** 2011. [Overseeding Bermudagrass for Pasture and Hay Production](#). *In: Proceedings of the 28th Annual Meeting of the Tennessee Forage and Grassland Council*, Nashville, TN. November 4, 2011. *Invited*.
- (91) Baldwin, B., **R. Lemus** and D. Lang. 2011. Grassy Feedstocks for Biomass Energy. Biofuels Conference. Mississippi State University, October 5-7, 2011. *Volunteered*.
- (92) Lang, D., J. Duckworth, B. Shankle, N.R. Buell, B. Robinson, and **R. Lemus**. [Establishment of switchgrass on reclaimed coal mine soil](#). *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. San Antonio, TX. October 16-19, 2011. *Volunteered*.
- (93) Chesser, Jr. G.D., J.D. Davis, J.L. Pursell, D.E. Rowe, and **R. Lemus**. 2011. [Using Electrical Resistance Probes for Moisture Determination in Switchgrass Windrows](#). Paper No. 1111253. Annual Meetings of the American Society of Agricultural and Biological Engineers. Louisville, KY. August 7-10, 2011. *Volunteered*.
- (94) **Lemus, R.**, J.I. Morrison, K. Crouse, and B. Booker. 2011. Fertilizer use efficiency in annual ryegrass. *In: Proceedings of the 64th Southern Pasture and Crop Improvement Conference [CD-Rom]*. Aiken, S.C. May 14-16, 2011. *Invited*.
- (95) **Lemus, R.**, J. Morrison, and B. Rushing. [Evaluation of sorghum varieties as a bioenergy crop and forage quality](#). *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Corpus Christi, Texas, Feb. 6-8, 2011. *Volunteered*.
- (96) **Lemus, R.**, D. Rivera, and B. Johnson. [Evaluation of ryegrass management on growth and performance of growing beef heifers](#). *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Corpus Christi, Texas, Feb. 6-8, 2011. *Volunteered*.
- (97) **Lemus, R.**, M. Mowdy, and A. Davis. [Smutgrass control using the weed wiper approach](#). *In: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]*. Corpus Christi, Texas, Feb. 6-8, 2011. *Volunteered*.
- (98) Long, W.B., G.C. Munshaw, B.R. Steward, J.H. Massey, and **R.W. Lemus**. [The Effect of Exogenous Fructose on Creeping Bentgrass Heat Tolerance](#). *In: Annual Meetings Abstracts [CD-Rom]*. American Society for Horticultural Science. Palm Desert, CA, August 2-5, 2010. *Volunteered*.
- (99) **Lemus, R.** Stockpiling Elite Tall Fescue Cultivars. *In: Annual Meetings Abstracts [CD-Rom]*. Southern Branch of the American Society of Agronomy. Orlando, FL, February 6-9, 2010. *Volunteered*.
- (100) Oldham, J.L. and **R. Lemus**. [Addressing Plant Nutrient Price Volatility in Mississippi Extension Programming](#). *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. Pittsburg, PA, November 1-5, 2009. *Invited*.
- (101) **Lemus, R.** [Stockpiling Capabilities of Elite Tall Fescue Cultivars](#). *In: Annual Meeting Abstracts [CD-Rom]*. 63rd Southern Pasture and Forage Crop Improvement Conference. Lexington, KY, May 10-12, 2009. *Volunteered*.
- (102) **Lemus, R.** and J. Weirich. [Assessment of Forage Production in Mississippi](#). *In: Annual Meeting Abstracts [CD-ROM]*. 63rd Southern Pasture and Forage Crop Improvement Conference. Lexington, KY, May 10-12, 2009. *Volunteered*.
- (103) Foster, A.J., W.L. Kingery, **R. Lemus**, and M.S. Cox. [Fertilization Effects on P Removal and Soil Aggregate Stability of Elite Tall Fescue Cultivars under Stockpiling](#). *In: Annual Meeting Abstracts [CD-ROM]*. Southern Pasture and Forage Crop Improvement Conference. Lexington, KY, May 10-12, 2009. *Volunteered*.
- (104) **Lemus, R.**, L. Oldham, K. Crouse. 2008. Soil Nutrient Recommendations for Switchgrass Production in Mississippi. *In: Annual Meeting Abstracts [CD-Rom]*. Southern Plant Nutrient Management Conference State Report. Olive Branch, Mississippi, November 4-5, 2008. *Invited*.
- (105) Parish, D.J. and **R. Lemus**. 2008. [Nutrient Cycling in Switchgrass Grown for Biomass](#). *In: Annual Meeting Abstracts [CD-Rom]*. Symposium – Nutrient Cycling in the Production of Bioenergy Crops. ASA, CSSA, and SSSA, Madison, WI. Houston, TX. October 5-9, 2008. *Invited*.
- (106) **Lemus, R.** Role of the Extension Service in Addressing Needs of Hispanic Farmers. 2008. *In: Proceedings 62nd Southern Pasture & Forage Crop Improvement Conference, Extension Work Group*. Knoxville, TN, May 12-14, 2008. [CD-Rom]. *Invited*.

- (107) **Lemus, R.**, L.C. Garcia, and D. Colbert. [Soil Organic Carbon and Nitrogen Pools Changes under Long- term Bioenergy Crops](#). *In*: Proceedings of the AFGC/SRM Conference. Building Bridges: Grasslands to Rangelands. Louisville, Kentucky, Jan. 26-31, 2008. [CD-Rom]. *Volunteered*.
- (108) **Lemus, R.** and R. Lal. [Carbon Sequestration under Long-term Switchgrass Plots on Five Soils in the Upper Southeastern USA](#). *In*: Proceedings of the AFGC/SRM Conference. Building Bridges: Grasslands to Rangelands [CD-Rom]. Louisville, Kentucky, Jan. 26-31, 2008. *Volunteered*.
- (109) Parish, J.R., R.H. Watson, B. Macoon, J.G. Foster, **R. Lemus**, and A.S. Hubbard. [Productivity and persistence in Mississippi of chicory \(*Cichorium intybus* L.\) cultivars bred for high and low sesquiterpene lactones](#). *In*: Proceedings of the AFGC/SRM Conference. Building Bridges: Grasslands to Rangelands [CD-Rom]. Louisville, Kentucky, Jan. 26-31, 2008. *Volunteered*.
- (110) Parish, J.R., J.A. Parish, R.H. Watson, T.F. Best, **R. Lemus**, and Allen S. Hubbard. [Forage chicory \(*Cichorium intybus*\) as an alternative grazing crop for stocker cattle operations](#). *In*: Proceedings of the AFGC/SRM Conference. Building Bridges: Grasslands to Rangelands. Louisville, Kentucky, Jan. 26-31, 2008. [CD-Rom]. *Volunteered*.
- (111) Parish, J.R., J.A. Parish, A.S. Hubbard, R.H. Watson, **R. Lemus**, and J.H. Bouton. [Evaluation of conventional and Roundup Ready® grazing tolerant alfalfa cultivars in the Deep South USA](#). Proceedings of the AFGC/SRM Conference. Building Bridges: Grasslands to Rangelands. Louisville, Kentucky, Jan. 26-31, 2008. [CD-Rom]. *Volunteered*.
- (112) **Lemus, R.** Application date and efficiency of fertilizer sources in tall fescue stockpiling. *In*: Proceedings of the Southern Branch of the American Society of Agronomy [CD-Rom]. Dallas, Texas, Feb. 5-7, 2008. *Volunteered*.
- (113) **Lemus, R.**, L.C. Garcia, and D. Colbert. Soil carbon and nitrogen measurements under different crops and land management. *In*: [Proceeding of the Southern Branch of the American Society of Agronomy](#). Dallas, Texas, Feb. 5-7, 2008. *Volunteered*.
- (114) Carmichael, L.S., K. M. Washer, B. C. Housewright, **R.W. Lemus**, and C. P. Bagley. 2007. Preconditioned Cattle Sales Through NETBIO. I. Determination of Price Differences between Three Livestock Markets. Sigma Xi Sixth Annual Student/Faculty Research Forum. Texas A&M University-Commerce, Commerce, TX, April 26, 2007. *Volunteered*.
- (115) Carmichael, L.S., K. M. Washer, B. C. Housewright, **R.W. Lemus**, and C. P. Bagley. 2007. Preconditioned Cattle Sales Through NETBIO. II. Determination of Market Premiums for Cattle Marketed under the NETBIO Protocol. Sigma Xi Sixth Annual Student/Faculty Research Forum. Texas A&M University-Commerce, Commerce, TX, April 26, 2007. *Volunteered*.
- (116) Chappell, J., J.D. Norris, **R.W. Lemus**, B.C. Housewright and C.P. Bagley. Effects of Preconditioning on Stress Indicators and Animal Performance. Sigma Xi Sixth Annual Student/Faculty Research Forum. Texas A&M University-Commerce, Commerce, TX, April 26, 2007. *Volunteered*.
- (117) **Lemus, R** and C. Garcia. 2007. Soil organic carbon and nitrogen pools changes under long-term bioenergy crops. Sigma Xi Sixth Annual Student/Faculty Research Forum. Texas A&M University-Commerce, Commerce, TX, April 26, 2007. *Volunteered*.
- (118) Chappell, J., C.P. Bagley, and **R. Lemus**. 2006. Effects of preconditioning regimen on Stress related hormone levels and performance in growing cattle. *In*: Meeting Abstracts, p. 6. 4th Annual TAMU Pathways Student Research Symposium. November 10-11. Prairie View A&M, Prairie View, TX. *Volunteered*.
- (119) Taylor, S., D.A. Harp, K.L. McDowell, and **R. Lemus**. 2005. Quantifying landscape microclimates and related cold injury. [HortScience 40 \(4\): 1079](#). *Volunteered*.
- (120) **Lemus, R.**, D.J. Parrish, C. Anderson-Cook, and B. G. Pepper. 2004a. Ammonia volatilization from urea applied to soil under switchgrass (*Panicum virgatum*) management. June 12-16, Roanoke, VA. June 12-16, Roanoke, VA. *In*: American Forage and Grassland Council. Proceedings 13: 230-234. *Volunteered*.
- (121) **Lemus, R.**, D. J. Parrish, and C. Anderson-Cook. 2004b. Seedling switchgrass response to N and P when grown in a soilless substrate. June 12-16, Roanoke, VA. *In*: American Forage and Grassland Council. Proceedings 13: 513-517. *Volunteered*.
- (122) **Lemus, R.**, D. Parrish, C. Anderson-Cook, B. Pepper, M. Alley, O. Abaye, and A. Niemiera. 2003. Efficient fertilization strategies for switchgrass production. *In*: Annual Meetings Abstracts [CD-Rom]. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.

- (123) **Lemus, R.**, D. Parrish, D. Wolf, and C. Anderson-Cook. 2003. Effects of cutting frequency, cultivar, and ecotype on switchgrass production. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (124) Parrish, D., **R. Lemus**, M. Alley, C. Anderson-Cook, and A. Niemiera. 2003. N and P use in greenhouse-grown switchgrass. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (125) Abaye, O., V. Mulkey, J. Guay, **R. Lemus**, and T. Shanklin. 2003. Evaluation of matua prairie grass and matua prairie grass alfalfa mixtures for animal performance. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (126) Abaye, O. A., **R. Lemus**, G. Evanylo, C. Zipper, and S. Hutton. 2002. Forage species' persistence on a reclaimed mine soil treated with biosolids. *In Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (127) Parrish, D. J., D. D. Wolf, and **R. Lemus**. 2002. Managing switchgrass as a biofuels crop. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (128) **Lemus, R.**, D. Parrish, and D. Wolf. 2002. Estimating N dynamics under field conditions to improve switchgrass production in Virginia. *In: Proceedings of the Third Eastern native Grass Symposium [CD-Rom]*. Chapel Hill, NC: October 1-3, 2002. *Volunteered*.
- (129) **Lemus, R.**, D. Parrish, D. Wolf, M. Alley, C. Anderson-Cook, and O. Abaye. 2002. Estimating nitrogen use efficiency under field conditions to improve switchgrass production in Virginia. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (130) **Lemus, R.**, A. O. Abaye, G. K. Evanylo, C. E. Zipper, and S. J. Hutton. 2002. Long-term success of forage species planted for reclamation at Powell River project. *In: Proceedings of the Third Eastern native Grass Symposium [CD-Rom]*. Chapel Hill, NC: October 1-3, 2002. *Volunteered*.
- (131) **Lemus, R.**, O. Abaye, C. Zipper, and G. Evanylo. 2001. Establishment and potential productivity of forages in partially reclaimed soils. *In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (132) Parrish, D.J., D.D. Wolf, and **R. Lemus**. 2001. Ten years of study of switchgrass as a biofuel crop. *Agron. In: Annual Meetings Abstracts [CD-Rom]*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (133) **Lemus, R.**, N.E. Molstad, E. C. Brummer, L. Burras, and K.J. Moore. 1999. Switchgrass management for yield potential and biomass quality in the Chariton Valley, Iowa. *In: Annual Meetings Abstracts*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (134) Molstad, N.E., **R. Lemus**, L. Burras, E. C. Brummer, and K.J. Moore. 1999. Switchgrass production for biofuel in Southern Iowa: Soil morphology and selected soil properties related to yield. *In: Annual Meetings Abstracts*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.
- (135) **Lemus, R.**, N.E. Molstad, E.C. Brummer, L. Burras, and K.J. Moore. 1998. Switchgrass management and productivity in the Chariton River Valley, Iowa. *In: Annual Meetings Abstracts*. ASA, CSSA, and SSSA, Madison, WI. *Volunteered*.

Bulletins

- (1) White, J., **R. Lemus**, D. Rivera, B. Rushing, and J.R. Saunders. 2017. Mississippi Native Grass Variety Trials, 2016. [Inf. Bull. 523](#).
- (2) White, J., **R. Lemus**, J.R. Saunders, D. Rivera, and B. Rushing. 2017. Mississippi Annual Cool-season Forage Crop Variety Trials, 2016. [Inf. Bull. 522](#).
- (3) **Lemus, R.** and J.A. White. 2017. Evaluation of Cover Crop Mixes for Agronomic Performance and Forage Quality Under Mississippi Conditions. [Research Report 24 \(18\), pp. 1-8](#).
- (4) White, J., **R. Lemus**, J.R. Saunders, D. Rivera and B. Rushing. 2017. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2016. [Inf. Bull. 519](#).
- (5) White, J., **R. Lemus**, and D. Rivera. 2017. Mississippi Warm-season Forage Crop Variety Trials, 2016. [Inf. Bull. 518](#).
- (6) White, J., **R. Lemus**, J.R. Saunders, D. Rivera, and B. Rushing. 2016. Mississippi Annual Cool-season Forage Crop Variety Trials, 2015-16. [Inf. Bull. 512](#).
- (7) White, J., **R. Lemus**, and D. Rivera. 2016. Mississippi Warm-season Forage Crop Variety Trials, 2014. [Inf. Bull. 510](#).
- (8) White, J., **R. Lemus**, J.R. Saunders, and D. Rivera. 2016. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2015. [Inf. Bull. 509](#).

- (9) White, J., **R. Lemus**, B. Rushing, and D. Rivera. 2016. Mississippi Native Grass Variety Trials, 2014. [Inf. Bull. 508](#).
- (10) Lemus, R., W. White, and C. Massey. 2015. Impact of Grazing Summer Annuals Grasses on Livestock Performance. [MAFES Bulletin IB499](#).
- (11) White, J., **R. Lemus**, J.R. Saunders, D. Rivera, and B. Johnson. 2015. Mississippi Annual Cool-season Forage Crop Variety Trials, 2014-15. [Inf. Bull. 501](#).
- (12) White, J., **R. Lemus**, B. Rushing, and D. Rivera. 2015. Mississippi Native Grasses Variety Trials, 2014. [Inf. Bull. 497](#).
- (13) White, J., **R. Lemus**, J.R. Saunders, and D. Rivera. 2015. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2014. [Inf. Bull. 496](#).
- (14) White, J., **R. Lemus**, and D. Rivera. 2015. Mississippi Warm-season Forage Crop Variety Trials, 2014. [Inf. Bull. 483](#).
- (15) White, J., **R. Lemus**, J.R. Saunders, D. Rivera, and B. Johnson. 2014. Mississippi Annual Cool-season Forage Crop Variety Trials, 2013-14. [Info. Bull. 488](#).
- (16) White, J., **R. Lemus**, B. Rushing, B. Johnson, J.R. Saunders, D. Rivera and P. Slusher. 2014. Mississippi Biomass Feedstock Variety Trials, 2013. [IS 1363](#).
- (17) White, J., **R. Lemus**, J.R. Saunders, and D. Rivera. 2014. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2013. [Inf. Bull. 486](#).
- (18) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald, and P. Slusher. 2014. Mississippi Warm-season Forage Crop Variety Trials, 2013. [Inf. Bull. 483](#).
- (19) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald, and B. Johnson. 2013. Mississippi Annual Cool-season Forage Crop Variety Trials, 2012-13. [Inf. Bull. 479](#).
- (20) White, J., **R. Lemus**, J.R. Saunders, and L. Fitzgerald. 2013. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2012. [Inf. Bull. 476](#).
- (21) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald, and B. Johnson. 2012. Mississippi Annual Cool-season Forage Crop Variety Trials, 2011-12. [Inf. Bull. 470](#)
- (22) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald. 2013. Mississippi Perennial Cool-season Forage Crop Variety Trials, 2012. [Inf. Bull. 476](#).
- (23) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald. 2013. Mississippi Warm-season Forage Crop Variety Trials, 2012. [Inf. Bull. 474](#).
- (24) White, J., **R. Lemus**, J.R. Saunders, L. Fitzgerald, B. Johnson, J. Morrison. 2012. Mississippi Annual Cool-season Forage Crop Variety Trials. [Inf. Bull. 470](#).
- (25) Riley, J.M., J. Byrd, R. Lemus and L. Oldham, 2012. [Forage Planning Budgets](#).
- (26) White, J., **R. Lemus**, D. Lang and J. Morrison. 2011. Mississippi Warm-season Forage Crop Variety Trials. [MAFES Inf. Bull. 467](#).

Reports

- (1) Maples, G. Evans, J. Johnson, G. Gill, J., J. Byrd, **R. Lemus**, and L. Oldham. 2022. Forage 2022 Planning Budgets. Mississippi State University, Department of Agricultural Economics. Budget Report 2022-06.
- (2) Maples, G. Evans, J. Johnson, G. Gill, J., J. Byrd, **R. Lemus**, and L. Oldham. 2020. Forage 2020 Planning Budgets. Mississippi State University, Department of Agricultural Economics. Budget Report 2020-08.
- (3) **Lemus, R.** and J.A. White. 2016. Annual Ryegrass Performance in Mississippi: Five-year Yield Summary. Mississippi State University Extension. September. DOI: <https://10.13140/RG.2.2.36038.27205>
- (4) **Lemus, R.**, J.A. White, C.K. Crouse and M. Cox. 2016. Changes in Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. Three-year Research Report.
- (5) **Lemus, R.**, J.A. White, and J.D. Rivera. 2015. Evaluation of Annual Ryegrass/Berseem Clover Grazing Potential. 2015 Annual Research Report.
- (6) **Lemus, R.**, J.A. White, and K. Crouse. 2015. Use of BioWash 100 on Annual Ryegrass Production and Quality. 2014 Annual Research Report.

- (7) **Lemus, R.**, J.A. White, C.K. Crouse and M. Cox. 2015. Changes in Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. 2014 Annual Research Report.
- (8) **Lemus, R.**, J.A. White, K. Crouse and M. Cox. 2013. Changes in Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. 2012 Annual Research Report.
- (9) **Lemus, R.**, J.A. White, K. Crouse and M. Cox. 2013. Effect of Bio Stimulants in Forage Yield and Quality of Bermudagrass. 2012 Annual Research Report.
- (10) Rivera, J.D., **R.W. Lemus** and J.A. White. 2013. Evaluation of Injectable Hay Additive on Quality and Intake of Bermudagrass/bahiagrass Mixed Hay by Beef Cows. *In: Animal & Dairy Sciences Annual Report.* Mississippi State University.
- (11) **Lemus, R.** and Y. Newman. 2013. Forage Quality and Pasture Planning. Farmer to Farmer Program. United States Agency of International Development. August.
- (12) **Lemus, R.** and Y. Newman. 2013. Forage Quality and Pasture Planning in Nicaragua. Farmer to Farmer Program. United States Agency of International Development. July.
- (13) Rivera, J.D. and **R.W. Lemus**. 2013. Effects of Supplement or Fertilizer on Forage Quality and Performance of Stocker Cattle Grazing Warm-season Pastures in South Mississippi. *In: Animal & Dairy Sciences Annual Report.* Mississippi State University.
- (14) Rivera, J.D., J.A. White, M.L. Gibson, and **R.W. Lemus**. 2013. Effect of Various Nitrogen Fertilizer Sources on Biomass and Forage Quality of Annual Ryegrass. *In: Animal & Dairy Sciences Annual Report.* Mississippi State University.
- (15) Rivera, J.D., **R.W. Lemus** and J.A. White. 2013. Evaluation of Injectable Hay Additive on Quality and Intake of Bermudagrass/bahiagrass Mixed Hay by Beef Cows. *In: Animal & Dairy Sciences Annual Report.* Mississippi State University.
- (16) **Lemus, R.**, Y. Newman, and A. Vanegas. 2012. Pasture Management and Soil Fertility in Nicaragua. Farmer to Farmer Program. United States Agency of International Development. September.
- (17) **Lemus, R.** and J. White. 2012. Comparison of Tall Fescue Varieties under Fertility Treatments. SERA-IEG8-2012 Annual Report.
- (18) **Lemus, R.**, J.I. Morrison, J. White., J. Varco and M. Cox. 2012. Timing of RyzUp SmartGrass Application on Annual Ryegrass Production. Annual Report.
- (19) **Lemus, R.** and J. Varco. 2010. Nitrogen Uptake, Residual Effects, and N Translocation in Alamo Switchgrass Measured by ¹⁵N-labelled Fertilizer. Sustainable Energy Research Center: SERC II. Department of Energy. Mississippi State, MS. December 8, 2010.
- (20) **Lemus, R.** 2010. Forage Research Trials and Demonstrations Update. Annual Report. Mississippi State, MS. November 10, 2010. Collaborators: David Lang, Keith Crouse, Jac Varco, Daniel Rivera, Billy Johnson, and Jimmy Ray Parish. 2010 Forage Research and Demonstration Report. Forage Extension Program. Department of Plant and Soil Sciences, Mississippi State University.
- (21) **Lemus, R.** Stockpiling Capabilities of Elite Tall Fescue Cultivars. 2009. *In: C. Young (ed.). SERA-IEG8-2009 Annual Report: Tall Fescue Workshop.* Lake Barkley State Resort Park, Cadiz, KY. October 4-6, 2009.
- (22) **Lemus, R.**, and J.R. Parish. 2008. [Evaluation of Elite Tall Fescue Cultivars under Stockpiling Conditions.](#) *In: C. Young (ed.). SERA-IEG8-2008 Annual Report: Tall Fescue Toxicosis/Endophyte Workshop.* Natchez Trace State Park, Wildersville, TN. October 19-21, 2008.
- (23) Forster, A.J., W.L. Kingery, **R. Lemus**, and M.S. Cox. 2008. [Evaluation of Elite Tall Fescue Cultivars under Stockpiling Conditions: P Removal and Aggregate Stability.](#) *In: C. Young (ed.). SERA-IEG8-2008 Annual Report: Tall Fescue Toxicosis/Endophyte Workshop.* Natchez Trace State Park, Wildersville, TN. October 19-21, 2008.
- (24) 2008. Pasture Fertilization. [Lauderdale County April Beef Newsletter.](#) Alabama Coop. Ext Service.
- (25) Brummer, E. C., C. L. Burras, M. D. Duffy, K. J. Moore, **R. Lemus**, N. Molstad, V. Nanhou, and W. Waver. 2000. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance. Final Report. Dept. of Energy, Oak Ridge National Laboratory.
- (26) Brummer, E. C., C. L. Burras, M. D. Duffy, K. J. Moore, **R. Lemus**, N. Molstad, V. Nanhou, and W. Waver. 1998. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance. Annual Report. Dept. of Energy, Oak Ridge National Laboratory.

Newsletters

8 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2023.

8 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2022.

11 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2021.

11 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2020.

11 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2019.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2018.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2017.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2016.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2015.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2014.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2013.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2012.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2011.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2010.

2010. Hay Storage Loss. [Lauderdale County August Beef Newsletter](#). Alabama Coop. Ext Service.

2010. Stockpiling. [Lauderdale County August Beef Newsletter](#). Alabama Coop. Ext Service.

2010. Spring Grazing and Grass Tetany in Beef Cattle Production. [Lauderdale County February Beef Newsletter](#). Alabama Coop. Ext. Serv.

12 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2009.

2009. Forage Research Trials and Demonstrations Update. Annual Report. Mississippi State, MS. November 12, 2009.

11 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2008.

3 Contributions to the Agronomy Notes in 2007, Department of Plant and Soil Sciences, Mississippi State University.

4 Monthly **Newsletters** sent to clientele (producers, county agents, consultants, and industry representative) during 2007.

Popular Press

Articles

- (1) Eight Articles in the 2023 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (2) Ten Articles in the 2022 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (3) Ten Articles in the 2021 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.

- (4) Ten Articles in the 2020 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (5) Ten Articles in the 2019 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (6) Lemus, R. 2019. [An Odd Winer Has Impacted Pasture Growth](#). Hay & Forage Grower. March 12.
- (7) Ten Articles in the 2018 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (8) **Lemus, R.** 2018. [Transitioning from Expired Conservation Reserve Program Land to Forage Production](#). Progressive Forage Grower Issue 8: 13-15.
- (9) Ten Articles in the 2017 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (10) **Lemus, R.** 2017. Grazing summer annuals. [The Carolina Cattle Connection](#). Vol. 21 (2): 22.
- (11) **Lemus, R.** 2016. [Forage Road Trip – Mississippi](#). Hay and Forage Grower. September 13.
- (12) **Lemus, R.** 2016. [Forage Road Trip – Mississippi](#). Hay and Forage Grower. August 9.
- (13) **Lemus, R.** 2016. [Forage Road Trip – Mississippi](#). Hay and Forage Grower. July 5.
- (14) **Lemus, R.** 2016. [Forage Road Trip – Mississippi](#). Hay and Forage Grower. May 31.
- (15) **Lemus, R.** 2016. [Forage Road Trip – Mississippi](#). Hay and Forage Grower. April 26.
- (16) **Lemus, R.** 2016. Can Weeds Be Environmental Indicators in Pasture Systems? [The Carolina Cattle Connection](#). February, Vol. 30 (2), pp. 6-7.
- (17) Lemus, R., and G. Flint. 2016. Sugarcane Aphid in Summer Annual Crops. [The Carolina Cattle Connection](#). February, Vol. 30 (2), pp. 18.
- (18) **Lemus, R.** 2016. [Bermudagrass, bahiagrass use less water than cool-season perennials](#). Progressive Forage Grower. March 16.
- (19) Ten Articles in the 2015 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (20) **Lemus, R.** and J.W. White. 2015. [Alfalfa in Mississippi: A New Window of Opportunity in Forage Production](#). Univ. of Georgia Extension Service. October.
- (21) Lemus, R. 2015. Brix Level in Your Forage: What does it mean? [The Carolina Cattle Connection](#). February, Vol. 29 (2): 34-35.
- (22) **Lemus, R.** 2015. Establishing Warm-season Forages. [The Carolina Cattle Connection](#). February, Vol. 29 (2): 20-21.
- (23) 10 Articles in the 2014 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (24) **Lemus, R.** 2014. [Self-reseeding Potential of Clovers](#). Progressive Forage Grower. Vol. 15 (4): 12-13.
- (25) **Lemus, R.** 2014. Grazing Winter Annuals. [The Carolina Cattle Connection](#). Vol. 28 (2): 8-9.
- (26) **Lemus, R.** 2014. Spring Weed Control. [The Carolina Cattle Connection](#). Vol. 28 (2): 10-11.
- (27) **Lemus, R.** 2014. [Hay Testing and Understanding Forage Quality](#). Premier 1 Horse Newsletter. January.
- (28) Ten Articles in the 2014 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (29) **Lemus, R.** 2013. [Pasture and Grazing Management under Drought Conditions](#). Progressive Forage Grower. August.
- (30) **Lemus, R.** 2013. [Targeted Multi-species grazing: Should you try it?](#) Progressive Forage Grower. Vol 14 (5): 33-34.
- (31) **Lemus, R.** 2013. Marketing and Selling Hay. Mississippi Market Bulletin. Vol. 85 (10). May 15.
- (32) **Lemus, R.** 2013. [What is Mob Grazing and Does It Really Provide Advantages?](#) Progressive Forage Grower. Vol 14 (4): 16-18.
- (33) White, J.A. and **R. Lemus**. 2013. [Seeding Conventional Alfalfa into Bermudagrass Pasture](#). Hay & Forage Grower. March 8.
- (34) **Lemus, R.** 2013. Inoculating Forage Legumes. [Progressive Forage Grower](#). February 26.
- (35) Lemus, R. 2013. Inter-seeding Warm-season Pastures with Winter Annuals. [Progressive Forage Grower](#). February 1.
- (36) **Lemus, R.** 2013. Marketing and Selling Hay. [Progressive Forage Grower](#). January 1.
- (37) Ten Articles in the 2013 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.

- (38) **Lemus, R.** 2012. Improving Hay Production – Does Proper Fertilization Pay Off? [Progressive Dairyman](#). Issue 9, November 21: 53-54.
- (39) **Lemus, R.** 2012. Livestock Fencing Systems for Pasture Management. [Progressive Forage Grower](#). 13 (9): 28-30.
- (40) **Lemus, R.** 2012. Producers Brace the Heat to Learn During the 2012 North Mississippi Grazing School. [Progressive Forage Grower](#). July 11.
- (41) **Lemus, R.** 2012. Improving Hay Production – Does Proper Fertilization Pays Off? [Progressive Forage Grower](#). Issue 5, May 15, 2012/[Mississippi Market Bulletin](#) 84(10): 1.
- (42) **Lemus, R.** 2012. Mississippi State University Extension Hosts Cool-season Forage Tour. [May 8, 2012](#).
- (43) **Lemus, R.**, J.R. Parish, and J.A. Parish. 2012. Livestock Fencing Systems for Pasture Management. Part 2. [Progressive Forage Grower](#). 13 (4): 6
- (44) **Lemus, R.** 2012. Hay 101: Tuning Harvest and Curing Process. [Progressive Forage Grower](#). 13 (2): 4-5.
- (45) Ten Articles in the 2012 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (46) **Lemus, R.**, J.R. Parish, and J.A. Parish. 2011. Livestock Fencing Systems for Pasture Management. Part 1. [Progressive Forage Grower](#). 15 (8): 27-27
- (47) **Lemus, R.** Tips for Establishing and Managing a Winter Pasture. [Progressive Forage Grower News](#). August 11, 2011
- (48) **Lemus, R.** Establishing Hybrid Bermudagrass. [Progressive Forage Grower](#). 12 (5), May 4, 2011.
- (49) **Lemus, R.** Hay 101: Tuning the Hay Harvest and Curing Process. [Mississippi Market Bulletin](#). Vol. 100 (10), May 15, 2011.
- (50) Nine Articles in the 2011 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (51) **Lemus, R.** How well-established is your pasture? [Progressive Forage Grower](#). 11 (8): 24-26, November 15, 2010.
- (52) **Lemus, R.** Preserving the Value of Hay through Proper Storage. [Mississippi Market Bulletin](#). Vol. 99 (10), May 15, 2010.
- (53) **Lemus, R.** and J. Weirich. Making Pasture Weed Control Decisions. [Mississippi Market Bulletin](#). Vol. 99 (7). April 1, 2010.
- (54) **Lemus, R.** 2010. The Philosophy of Science in Agriculture. [CSA News](#) 55(01): 18-19.
- (55) Ten Articles in the 2010 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (56) **Lemus, R.**, J.R. Parish, and J. Parish. 2008. Livestock Fencing System for Pasture Management. [The Beef Site](#). August 2009.
- (57) **Lemus, R.** 2009. Guidelines for Pasture Establishment. [The Cattle Site](#). July 2009.
- (58) **Lemus, R.** Proper Management of Hay Production Helps Assure a Positive Return. [Mississippi Market Bulletin](#). Vol. 98(10). May 15, 2009.
- (59) Ten Articles in the 2009 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (60) **Lemus, R.**, and J. Parish. 2008. Assessing Needs and Feed Sources: How Much Pasture Do I Have? [The Cattle Site](#). January 2008.
- (61) Ten Articles in the 2008 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (62) Three articles in the 2007 [Cattle Business in Mississippi Magazine](#). Mississippi Cattlemen's Association Monthly Publication.
- (63) **Lemus, R.** and J.A Parish. 2007. Fertility and winter pasture planning. [Gulf Coast Cattlemen Magazine](#). September 2007.

Popular Press Interviews

- (1) 2024. Nathan Gregory. Extreme weather makes winterkill tough to stop. Ag Communications. MSU Extension Service. February 5.
- (2) 2023. Bonnie Coblenz. [Prolonged drought has reduced hay production](#). AG Communications. MSU Extension Service. October 20.

- (3) 2023: Callie Hanson. Quality forage can save money in the long run. Gulf Coast Cattlemen Magazine. September.
- (4) 2023: Bonnie Coblenz. [State's beef cattle industry faces high production costs](#). AG Communications. MSU Extension Service. May 8.
- (5) 2023: Carrie Valseka. [Made in the Shade: Explaining Silvopasture](#). Progressive Cattle. March 7.
- (6) 2023. Lindsay Allen. When it Rains...or Doesn't! Gulf Coast Cattlemen Magazine. February
- (7) 2022: Ginger Rowsey. [2023 Cattle futures strong, can producers hang on?](#) Delta Farm Press. November 15.
- (8) 2022: Bonnie Coblenz. [Crop harvest in Mississippi is going well, average yields](#). AG Communications. MSU Extension Service. October 10.
- (9) 2022: Becky Mills. Bale Grazing – A Win-win Practice. Gulf Coast Cattlemen Magazine. October.
- (10)2022: Callie Hanson. Ryegrass packs a punch as cool season forage on the Gulf Coast. Gulf Coast Cattlemen Magazine. August.
- (11)2021: Becky Mills. Flooded – Too Much of a Good Thing. Gulf Coast Cattlemen Magazine. December.
- (12)2021: Ginger Rowsey. [Practice Good Summer Grazing Management](#). Delta Farm Press. June 28.
- (13)2021: Susan Collins-Smith. [Dairy goats grow in popularity among small farmers, 4-H'ers](#). Mississippi Landmarks. Spring. 17 91): 19.
- (14)2021: Mike Rankin. [TDN is TDN... is it?](#) Progressive Forage. January 26.
- (15)2020: Risa Demasi. [Cover Crop Corner: Extending the Grazing Season to Add Value to Cull Cows](#). Seed Today. October 22.
- (16)2020: Loretta Sorensen. Aeration: The Right Answer for Your Compaction Issues? [Working Ranch Magazine](#). November.
- (17)2020: Bonnie Cloblenz. [Fall brings caterpillars to state's lawns, grasses](#). Mississippi Crop Report. September 18.
- (18)2020: Robert Fears. Match Cattle Production Cycles with Available Forage. Gulf Coast Cattlemen. September.
- (19)2020: Robert Fears. [Plan Now to Improve Summer Grazing](#). Progressive Forage. September 20.
- (20)2020: Mike Rankin. [Annual Ryegrasses Anchor Winter Grazing](#). Hay & Forage Grower. August 25.
- (21)2020: Lyndsey Allen. Winter Pastures Reduce Hay Needs. Gulf Coast Cattlemen Magazine. August.
- (22)2020: Becky Mills. Pasture Recovery and Grazing Management. Gulf Coast Cattlemen Magazine. February.
- (23)2020: [Pasture Weed Control Planning](#). Walden Farm & Ranch. February 6.
- (24)2019: Sarah Hill. [Gain Soil Health Benefits, Extra Income by Grazing Cover Crops](#). No-Till Farmer. November 29.
- (25)2019: Susan Collins-Smith. [Forage producers fight weather, pests for crop](#). Mississippi State University Extension Service. August 1.
- (26)2019: Emily Horton. Don't Wait: Prepare Gulf Coast Ground for Winter Forage Now. Gulf Coast Cattlemen Magazine. August.
- (27)2019: Robert Fears. Relatively New Legume Varieties. Gulf Coast Cattlemen Magazine. July
- (28)2019: Nathan Gregory. [Small ruminant workshop assists goat, sheep producers](#). Mississippi State University Extension. April 2.
- (29)2019: Chel Terrell. Heat Things Up: Time to Burn Bermudagrass Hay Fields. Gulf Coast Cattlemen Magazine. February. pp. 34-36.
- (30)2018: Karen Brasher. [The Queen of Forages: Alfalfa making a comeback in the Magnolia State](#). MAFES Discovers. December.
- (31)2018: Lindsay Allen. When it Freezes Over. Gulf Coast Cattlemen Magazine. November. pp. 18-21.
- (32)2018: Nathan Gregory. [Pest Weaken Hay Production](#). Mississippi Forage Crop Report. August 23.
- (33)2018: Laura Mushrush. Balansa clover increases ADG of cattle and forage biomass in recent study. Cattle Business in Mississippi. August.

- (34)2018: Robert Fears. Stocking Rates are Critical on Winter Pastures – Proper Planning Starts Now. Gulf Coast Cattlemen Magazine. August, pp. 26-28.
- (35)2018: Becky Mills. Save Money with Stockpiling: Using Bermudagrass for Standing Hay Can Cut the Winter Grocery Bill for Your Cows. Gulf Coast Cattlemen Magazine. August, pp.18-20.
- (36)2018: Bonnie Clobentz. [Spring Rains Pushed Hay Production Little Behind](#). Mississippi Crop Report. June 8.
- (37)2018: Robert Fears. [Wrap It Right For Good Haylage](#). Beef Producer Magazine. May 2.
- (38)2018: Becky Mills. Make Hay While Winter Annuals Shine. Gulf Coast Cattlemen Magazine. March, pp.34-37.
- (39)2017: Lindsay Allen. Better Balance: Flexibility and Continuous Monitoring are Key to a Successful Grazing Program. Gulf Coast Cattlemen Magazine. October, p. 92-94.
- (40)2017: Karen Brasher: [Native Warm-season Forage Trials](#). MAFES Discovery. Issue 6, pp. 53.
- (41)2017: Heather Thomas. [Get the Jump on Grasshoppers](#). Angus Journal. July, p. 62-66.
- (42)2017: Nathan Gregory. Drought Project to Dock from Hay Harvest. [Mississippi Forage Crop Report](#). April 21.
- (43)2017: Robert Fears. Improperly Stored Hay Leads to Quality Loses. [Beef Producer](#). May
- (44)2017: Becky Mills. [Stockpile for Savings: Stockpiling Bermudagrass Can Be a Cheaper and Less Time-Consuming Alternative to Feeding Hay](#). Progressive Farmer. April.
- (45)2017: Becky Mills. Rx for Drought Stressed Pastures. Gulf Coast Cattlemen Magazine. February. pp. 20-22.
- (46)2017: Robert Fears. Efficient Fertilizer Management: Prioritizing Budget Spends Dollars Wisely. Gulf Coast Cattlemen Magazine . February. pp. 28-31.
- (47)2017: Robert Fears. [Prepare a Hay Management Plan](#). Progressive Forage Grower. January.
- (48)2016: R. Nathan Gregory. [State's hay directory helps drought-affected producers](#). Press Release. October.
- (49)2016: Robert Fears. Management of Annual Ryegrass/Legume Winter Pastures. [Land & Livestock Post Newsletter](#). September.
- (50)2016: Mike Rankin. [What's Behind Fall Grazing Door No. 3?](#) Hay and Forage Grower. August 30.
- (51)2016: R. Nathan Gregory. [Disease Pressures Drive Forage Production Down](#). Mississippi Forage Crop Report. August.
- (52)2016: Heather Thomas. Mob Grazing – A Tool to Improve Pasture Production and/or Cattle Performance. [Gulf Coast Cattlemen Magazine](#). August.
- (53)2016: Sydney Sleep. [Boost Returns from Grazed Sorghums](#). Hay & Forage Grower. June.
- (54)2016: Barb Anderson. [Boost Grazing with Berseem Clover](#). Angus Journal. June.
- (55)2016: Karen Brasher. [Where the Grass is Greener](#). MAFES Discovery. Summer. p. 30-33.
- (56)2016: Robert Fears. [Minimize Hay Needs with Year-round Pastures](#). Beef Producer Magazine. May.
- (57)2016: Linda Breazeale. [Spring Conditions Challenge Forages](#). Mississippi Crop Report. May 6.
- (58)2016: [Poultry Litter Provides Nutrients, Risks](#). Hay & Forage Grower. March.
- (59)2016: Mike Rankin. [The Greatest Grazing Sin](#). Hay & Forage Grower. January.
- (60)2015: Jack Weatherly. [Official: rains have softened the drought, but a wet winter may be in the offing](#). Mississippi Business Journal. November 5.
- (61)2015: Brian Hefty. [Ag PhD Radio](#). Pasture Weed Control. Sirius XM Radio. September 23.
- (62)2015: Linda Breazeale. MSU Forage Tests: Helping Companies and Producers. [Mississippi LandMarks Magazine](#) 11 (3): 4-5.
- (63)2015: Jack Weatherly. [Drought burns pastures, fields, posing threat to cattle](#). Mississippi Business Journal. October 8.
- (64)2015: Robert Fears: [Fencing for Short Duration Grazing](#). Progressive Cattlemen. September.
- (65)2015: Robert Fears: Which Grazing System is More Appropriate for Your Operation. Drovers. July.
- (66)2015: Linda Breazeale. [MSU Forage Variety Testing Help Producers, Companies](#). Mississippi Agricultural News. November 5.
- (67)2015: Bonnie Clobentz. [International Focus Enhances Mississippi State Opportunities](#). Global Insight – Mississippi State University International Institute. Fall. p. 6-7.
- (68)2015: Linda Breazeale. [Summer rains help pastures, hay fields](#). Mississippi Crop Report. August 7.

- (69)2015: Robert Fears. Considering Winter Pastures Instead of Hay. [Gulf Coast Cattlemen Magazine](#). August.
- (70)2015: Robert Fears. [Bare Ground: Detrimental to Water Conservation and Ecological Functions](#). Land & Livestock Post Newsletter. July.
- (71)2015: Robert Fears. [Developing a Forage Management Plan for Herd Rebuilding: Forage Production Calendar](#). Progressive Forage Grower. May.
- (72)2015: Linda Breazeale. [Hay, forage producers wage war on fire ants](#). Mississippi Agricultural News. May 19.
- (73)2015: Bonnie Coblenz. MAFES Variety Trials Provide Vital Information to Crop Producers. [Mississippi LandMarks](#) 11 (1):22-23.
- (74)2015: Robert Fears. Triggers for Destocking. [Progressive Forage Grower](#). Vol. 16 (6):21-23
- (75)2015: Robert Fears. [Weed Management Strategies for Pastures and Hay Fields](#). Progressive Forage Grower Newsletter. April 28.
- (76)2015: Robert Fears. [Stuck up: Determining Stocking Rates for Introduced Forages](#). Land & Livestock Post Newsletter. April.
- (77)2015: Clifford Mitchell. Managing the Forage System: Cover Crops and Legumes Provide Quality Alternatives. [Gulf Coast Cattlemen Magazine](#). February.
- (78)2015: Robert Fears. How to Survive Drought – Monitoring is the Key. [Gulf Coast Cattlemen Magazine](#). February.
- (79)2014: Bonnie Coblenz. [MSU Variety Trials Info Aids Famer's Decisions](#). November 25.
- (80)2014: Chel Terrell. Save Up to Graze Later. [Gulf Coast Cattlemen Magazine](#). August.
- (81)2014: Rick Mooney. [Wet Spring Sets Back Mississippi Forages](#). E-hay Weekly. May 6.
- (82)2014: Susan Collins-Smith. [Weather May Stall Summer Forage Crops](#). Mississippi Crop Report. April 17.
- (83)2014: Rick Mooney. [Hay Feeding Accelerates in Cold Southeast](#). E-hay Weekly. February 25.
- (84)2014: Linda Breazeale. [Timing Effects Freeze Impacts](#). Mississippi Crop Report. January 17.
- (85)2014: Clifford Mitchell. [Increasing Desirable Forage: Fertilization and Weed Control Jump Start Grazing System](#). Gulf Coast Cattlemen. February.
- (86)2013: Tim W. McAlavy. [Forage-Based Dairying Challenges](#). Mississippi LandMarks. Vol. 9 (3): 20-21.
- (87)2013: Rick Money. [Weather, Pests Taper Mississippi Hay Yields](#). E-hay Weekly. October 29.
- (88)2013: Bonnie Coblenz. [Field Days, Conference Build Forage Expertise](#). October 18.
- (89)2013: Tina Parker. [Cooler Days Turn Grazing Toxic](#). Arkansas Democrat-Gazette. October 9.
- (90)2013: Linda Breazeale. [Pasture, Forages Face New Battles](#). Mississippi Crop Report. August 9.
- (91)2013: Rick Money. [Bernudagrass Stem Maggots On The Move](#). E-hay Weekly. July 15.
- (92)2013: Barb Anderson. Freshen Up Those Winter Pastures. Progressive Farmer.
- (93)2013: Keri C. Lewis. [Hay Producers Eager for Warm, Sunny Days](#). Mississippi Crop Report.
- (94)2013: Meg Henderson. MSU Researchers Discover New Advantages to Old Grazing Methods.
- (95)2013: Alan Newport. [Is Hay Nutrient Removal Still an Underrate Factor?](#) Progressive Farmer.
- (96)2013: Rick Mooney. Traffic Slows at online Jay Listing Sites. [E-hay Weekly](#). March 5.
- (97)2012: Keri Collins Lewis. [State's Ag Producers Set Multiple Records in 2012](#). Mississippi Agricultural News. December 13.
- (98)2012: Rick Mooney. [Need Hay? Look South and East](#). E-Hay Weekly. November 27.
- (99)2012: Boyd Kidwell. Blurb: Pigweeds, Sandburs and Thistles are Trying to Gain a Foothold on Drought-damaged Pastures. Progressive Farmer.
- (100) 2012: Becky Mills. Grass Tetany – Prevention is the Key. [Gulf Coast Cattlemen Magazine](#). December.
- (101) 2012: Keri Collins Lewis. [State's Growers Make Hay While the Sun Shines](#). October 26.
- (102) 2012: Keri Collins Lewis. [Hay Inspection Needed for Some Interstate Sales](#). September 12.
- (103) 2012: Fae Holin. In-Field Forage Tester Scores High. September. [Hay and Forage Grower](#).
- (104) 2012: Linda Breazeale. Portable Equipment Aids Farmer's Forage Decisions. Summer. [Mississippi LandMarks](#) 8 (3): 12.
- (105) 2012: Linda Breazeale. [2012 Drought Will Shrink Livestock's Profit Margins](#). Mississippi Crop Report. June 20, 2012.
- (106) 2012: Bonnie Coblenz. [State's Dairies Struggle with Record Input Costs](#). June 8, 2012.
- (107) 2012: Linda Breazeale. [Portable Equipment Aids Farmer's Forage Decisions](#). June 1, 2102.
- (108) 2012: Clifford Mitchell. Quality and Yield: Managing hay from field to feeding. [Progressive Cattleman](#). June 1.

- (109) 2012: Robert Fears. Know What's in Your Pasture. [Land & Livestock Post](#). April 1.
- (110) 2012: Chel Terrell. Testing Eliminates the Guesswork: Knowing what's in that hay removes the indecision from winter feeding. [Beefmaster Cowman](#).
- (111) 2012: Clifford Mitchell. Building Forage Quality: Legumes benefit grazing system. [Gulf Coast Cattlemen Magazine](#).
- (112) 2011: Keri Collins Lewis. [Bale Peanuts, Ratoon Corn for Hay With Care](#). [Mississippi Market Bulletin](#). Vol. 100 (21): November 1, 2011.
- (113) 2011: Linda Breazeale. [Tropical Storm Helps Mississippi's Crops](#). September 9.
- (114) 2011: Bonnie Coblenz. [Security Concerns Prompt Fertilizer Regulation Interest](#). September 8.
- (115) 2011: Rick Mooney. [State Forage Report: Mississippi](#). E-hay Weekly. August 30.
- (116) 2011: Clifford Mitchell. Winter feed quality depends on proper handling of hay. [Progressive Cattlemen Magazine](#). August 11.
- (117) 2011: Linda Breazeale. Hay, grass shortage could be widespread. MSU Ag Communications. [Mississippi Crop Report](#). [Wisconsin Ag Connection/Progressive Forage/Clinton News/News360/AgWatch Network/Mississippi Business Journal](#). July 22.
- (118) 2011: Robert Fears. Managing Cattle in a Drought. [Cattle Management](#). June 17.
- (119) 2011: Hembree Brandon. Cool-season forages can boost production, cut feed costs. [Delta Farm Press](#). April 5.
- (120) 2011: Jennifer Kisner. Weed control in spring and summer pastures. Purina's Winter Check Point Newsletter.
- (121) 2011: Robert Fears. Know Grazing Capacity. [Gulf Coast Cattlemen Magazine/Cattle Management](#). February.
- (122) 2011: Chel Terrell. Forage/hay testing. [Gulf Coast Cattlemen Magazine](#). January.
- (123) 2010: Cliff Covington. Hunters who plant clovers tend to get lucky. [Louisiana Sportsman](#). July 29.
- (124) 2010: Linda Breazeale. Pastures, forages battle armyworms. MSU Ag Communications. [Mississippi Crop Report](#). [Tunica Times/The Beef Site/The Dairy Site](#). July 23.
- (125) 2010: Rick Mooney. [State Forage Report: Mississippi](#). E-hay Weekly. April 19.
- (126) 2009: Robert Fears. Herbicide + Management – Shredding = Savings. [Gulf Coast Cattlemen Magazine](#). November 13.
- (127) 2009: Bonnie Coblenz. Cropping Method Holds Potential for Cattle, Trees. [MSU Ag Communications/Southern States/Angus E-List/Forage and Grazinglands](#). July 16.
- (128) 2009: Linda Breazeale. State's hay, pastures battle rains, drought. [MSU Ag Communications/Southern States](#). July 10.
- (129) 2009: Robert Fears. Reduce Feed Costs with a Year-Round Forage Supply. [Gulf Coast Cattlemen Magazine](#). July 10.
- (130) 2009: Rick Mooney. [State Forage Report: Mississippi](#). E-hay Weekly. January 20.
- (131) 2008: Rick Mooney. [State Forage Report: Mississippi](#). E-hay Weekly. August 25.
- (132) 2008: Drapala, Patti. Economics temper forage, hay gains. [Mississippi Agricultural News](#). [MSU Ag Communications/Delta Farm Press](#). May 23.
- (133) 2008: Del Deterling. Our Ultimate Guide to Hay: Mowing, growing, buying, selling: Growers and other experts show how to get most for your money. [Progressive Farmer](#), p. 49-53.
- (134) May.2008: Clifford Mitchell. Cowboy or grass farmer: Grazing system improves land and benefits livestock. [Gulf Coast Cattlemen Magazine/Cattle Today](#). February.
- (135) 2007: Drapala, Patti. Savvy producers can survive hay shortage. [Mississippi Agricultural News](#). MSU Ag Communications. September 20.

Media

Forage Production and Browse Grazing Management. 2014. Tuskegee University. [Educational Video](#).

Maintenance and update of the [Forage Website](#) (85,475 hits) for producers in Mississippi and the [Mississippi Hay Directory](#) (33,274 hits).

Mississippi Forages in [Facebook](#) and [Twitter](#).

Lemus, R., J. Parish, and D. Lang. Forage Resource CD. 2012. Grazing School Series.

Lemus, R., D. Lang, D. Rivera, J. Parish, J. Byrd. Forage Resource CD. 2011. Grazing School Series.
Abaye, O., T. Butler, R. Smith, L. Snyder, and **R. Lemus**. The Forage Game. 2006-2011. AFGC Forage Bowl. American Forage and Grassland Council Annual Meetings.

Encyclopedia

Lemus, R., and R. Lal. 2004. Bioenergy crops: A carbon balance assessment. [Encyclopaedia of Soil Science](#). Marcel Dekker, Inc., New York.

Radio & Television Appearances

[Farmweek](#) is an agricultural news show devoted to presenting a variety of educational information to the public. It allows Mississippi State University specialists, scientists and other agencies to present useful information and land management advice directly to viewers. It is produced by the [Office of Agricultural Communications](#) for the [Mississippi State University Extension Service](#).

- 2024: AG PhD. [Tips for Growing Quality Hay](#). January 10.
- 2023: Goat Gab. [Hay 911](#). December 20.
- 2023: [In the Markets: drought and heat affecting the cattle business around the country](#). Farm Week. Mississippi State University Extension Service. September 21.
- 2023: AG PhD. Sirius Radio. [Weed Control in Pastures](#). August 8.
- 2023: AG PhD. Sirius Radio. [Alfalfa Production](#). April 12.
- 2023: AG PhD. Sirius Radio. [Bermudagrass](#). February 13.
- 2022: AG PhD. Sirius Radio. [Late Season Alfalfa Management](#). September 1.
- 2021: Goat Gab. [Dairy Goat Forage Considerations](#). December 19.
- 2021: AG PhD. Sirius Radio. [Pasture Management](#). August 17.
- 2021: AG PhD. Sirius Radio. [Managing Pastures](#). April 29.
- 2021: AG PhD. Sirius Radio. [Alfalfa Production](#). March 24.
- 2021: AG PhD. Sirius Radio. [Bermudagrass](#). February 18.
- 2021: AG PhD. Sirius Radio. [Pastures Crop Protection Programs](#). January 20.
- 2020: AG PhD. Sirius Radio. [Late Season Alfalfa Management](#). September 9.
- 2019: AG PhD. Sirius Radio. [Alfalfa Treatments](#). November 7.

- 2018: [Hay Production Field Day](#). Farm Week. Mississippi State University Extension Service. June 1.
- 2018: [Small Ruminant Workshop](#). Farm Week. Mississippi State University Extension Service. March 30.
- 2017: [Pasture Summit. Cattlemen to Cattlemen](#). RFDTV, February 28.
- 2017: [The Long-Term Effects of the Drought for Farmers](#). WCBI (CBS), Starkville, January 3.
- 2015: [Minority Farmers Program](#). WBCBI (CBS), Okolona, May 22.
- 2014: [Mississippi Forage and Grassland Conference](#). WBCBI (CBS), Verona, November 14.
- 2014: [MS Pastures Damaged by Artic Blast](#). Farm Week. Mississippi State University Extension Service.
- 2012: [North Mississippi Grazing School](#). Farm Week. Mississippi State University Extension Service.
- 2012: North Mississippi Grazing School. WTVA (NBC), Tupelo. June 29.
- 2011: [Warm-season Forage Tour](#). Farm Week. Mississippi State University Extension Service. August 19.

[Farm and Family](#) is a production of the Mississippi State Extension Service and Ag Communications. The radio shows feature interviews with experts and agricultural officials about timely topics related to Mississippi agriculture. Producers: Tim Allison (2007 to 2008) and Amy Myer (2008 to present).

- (1) 2019: [Seed Cost, Productivity, and Return of Cool-season Grasses](#). September 10.
- (2) 2019: [Management Practices: Improve Hay Production](#). 15 and August 8.

- (3) 2019: [Gearing Up Your Summer Forage Production](#). June 27.
- (4) 2019: [Summer Forage Production in Mississippi](#). May 23.
- (5) 2019: [Management Practices to Improve Hay Production](#). April 30.
- (6) 2019: [Small Ruminant Livestock Workshop](#). April 9.
- (7) 2019: [Flooding Impact Grazing Systems](#). March 7.
- (8) 2019: [Type of lezpedezas as forage crops](#). February 21.
- (9) 2018: [Temporary Livestock Fence](#). Jodi Henke. Successful Farming/Living the Country Life. November 5.
- (10)2018: [Small Ruminant Workshop](#). February 15.
- (11)2018: [Types of Lespedeza as Forage Crops in Mississippi](#). January 30.
- (12)2017: [Mid-summer and Fall Management for Forage Production](#). August 8.
- (13)2017: [Warm-season Forage Tour](#). May 15.
- (14)2017: [Pasture Recovery after Drought](#). March 2.
- (15)2016: [Management Practices to Improve Hay Production](#). May 17.
- (16)2016: [Preparing for the 2016 Forage Production Season](#). March 8.
- (17)2015: [Preparing Ahead for Winter Grazing](#). December 21.
- (18)2015: [Tuning Up Grazing & Feeding Practices](#). October 19.
- (19)2015: [Grazing Management & Feeding Practices](#). October 12.
- (20)2015: [Mineral Concentration of Forages](#). September 15.
- (21)2015: [Pests & Diseases in Forage Crops](#). July 28.
- (22)2015: [Managing Nitrogen in Hay Production](#). June 30.
- (23)2015: [Summer Forage Production in MS](#). May 12.
- (24)2015: [The Center for Forage Management and Environmental Stewardship](#). January 19.
- (25)2014: [Tuning Up Grazing Management and Feeding Practices](#). October 27.
- (26)2014: [Managing Nitrogen in Hay Production](#). June 9.
- (27)2014: [Preparing Your Forages for Spring Grazing](#). March 25.
- (28)2014: [Grazing Cool Season Annual Forages](#). March 11.
- (29)2013: [Grazing Winter Annual Forage Crops](#). December 31.
- (30)2013: [Preparing for Winter Feeding: What is the Quality of My Hay?](#) November 19.
- (31)2013: [Pests & Diseases in Forage Crops](#). July 22.
- (32)2013: [Mineral Content of Forages](#). May 13.
- (33)2013: [Spring Weed Control in Forages](#). April 29.
- (34)2013: [Self Re-seeding Potential for Annual Clovers](#). February 4.
- (35)2012: [Nutrient Deficiencies in Forage Crops](#). December 25.
- (36)2012: [What is the Value of Hay?](#) November 27.
- (37)2012: [Mississippi Forage & Grassland Conference](#). October 30.
- (38)2012: [Southwest MS Grazing School](#). October 22.
- (39)2012: [Over-seeding Pastures with Winter Annuals](#). September 10.
- (40)2012: [Requirements for Fire Ant Free Hay](#). September 3.
- (41)2012: [Use of Bio-soil Stimulants in Forage Production](#). August 20.
- (42)2012: [Forage Livestock Disorders](#). July 17.
- (43)2012: [Warm-season Annual Legumes](#). July 10.
- (44)2012: [Wise Use of Fertilizer in Hay Production](#). June 12.
- (45)2012: [North Mississippi Grazing School](#). June 11.
- (46)2012: [Improving Hay Production – Proper Fertilization](#). April 23.
- (47)2012: [The Use of Bio-soil Stimulants in Forage Production](#). March 19.
- (48)2012: [Prescribed Burning for Pastures](#). February 27.
- (49)2012: [Improving Your Winter Grazing Efficiency](#). January 31.
- (50)2011: [Overseeding Pastures with Winter Annuals](#). November 29.
- (51)2011: [Warning on Peanut & Warm Season Grasses](#). October 24.
- (52)2011: [Establishing, Managing Winter Pasture](#). September 13.
- (53)2011: [Dealing with High Fertilizer Prices in Forage Production](#). August 29 and October 11.
- (54)2011: [Improving Hay Production & Preservation](#). August 16.
- (55)2011: [Establishing & Maintaining a Winter Pasture](#). August 15.
- (56)2011: [Improving Hay Production & Preservation](#). July 19.
- (57)2011: [Grazing Management under Drought Conditions](#). July 5.
- (58)2011: [Establishing Hybrid Bermudagrass](#). April 26.
- (59)2011: [Preparing for Spring and Early Summer Planting](#). April 12.

- (60)2011: Soil Compaction in Pastureland. February 11.
- (61)2011: Feeding Hay More Efficiently. January 11.
- (62)2010: Optimizing Winter grazing. December 27.
- (63)2010: The Mississippi Forage and Grassland Conference. October 25.
- (64)2010: Selecting an Annual Ryegrass Variety. October 4.
- (65)2010: Blast Disease in Annual Ryegrass. September 13.
- (66)2010: Armyworms. August 31.
- (67)2010: Improving Nitrogen Use Efficiency in Hay Production. April 26.
- (68)2010: Controlling Weeds in Pastures. March 22.
- (69)2010: Making Baleage to Maintain Forage Quality. March 2.
- (70)2010: Grazing and Feeding Under Cold Temperatures. February 23.
- (71)2010: Monitoring Mold when Feeding Hay. January 11.
- (72)2009: Forage Related Disorders in Livestock Production II. December 7.
- (73)2009: Forage Related Disorders in Livestock Production I. November 30.
- (74)2009: Utilizing Forage Brassicas for Winter Grazing Systems. October 26.
- (75)2009: Planting Clovers & Reducing Nitrogen Use. October 20.
- (76)2009: Forage Management Strategy to Maximize Winter Grazing. October 19.
- (77)2009: Teffgrass: A Summer Annual Grass for Hay Production. July 27.
- (78)2009: Using Poultry Litter as a Forage Fertilizer. July 14.
- (79)2009: Hay Production and Quality. June 16.
- (80)2009: Silvopasture Systems. April 21.
- (81)2009: Establishing Seeded Warm-Season Grasses. March 23.
- (82)2009: Spring Grazing and Grass Tetany. February 24.
- (83)2009: Alfalfa Production. January 26.
- (84)2009: Utilizing Annual Ryegrass for Grazing. January 19.
- (85)2008: MS Pasture and Forage Short Course. August 12.
- (86)2008: Developing a Grazing System for Sheep and Goat. August 4.
- (87)2008: Developing a Grazing System. June 23.
- (88)2008: Selecting Summer Annual Grasses. June 3.
- (89)2008: Establishing and Renovating Pastures. April 29.
- (90)2008: Strategic Springtime Forage Tips. April 1.
- (91)2008: Establishing a Forage Fertility Program. January 22.
- (92)2007: Hay Testing. November 6.
- (93)2007: Hay Storage. October 30.
- (94)2007: Planning for winter forages. September 27.
- (95)2007: Stockpiling Fescue. September 17.
- (96)2007: Goals and directions of the forage program in Mississippi. July 10.

Research Grant, Contracts, and Program Support Awarded

- (1) 2023: Lemus, R. Use of Precision AG to Determine Agronomic Parameters in Forage Systems. Corteva. PI. Amount: **\$28,000** (6/23 to 12/25).
- (2) 2023: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$4,000** (05/23 to 08/23).
- (3) 2022: Lemus, R., and B. Rushing. Mississippi USDA-NRCS Technical Service Providers Forage and Livestock Training Program (FLTP). MS USDA-NRCS. Amount: **\$74,662**. Co-PI \$42,573 (9/22 to 8/23).
- (4) 2022: Lemus, R. Evaluation of Sugarcane Aphid Resistant Warm-season Annual Grasses. Southeast Agriseeds in-kind seed donation. **Amount: \$1,500** (5/22 to 12/22)
- (5) 2022: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$4,000** (05/22 to 08/22).
- (6) 2022: Larson, R., L.J. Crutz, J.A. Bond, B. Burdine, and R. Lemus. Incorporating Cover Crops into Successful Corn Production Systems. Mississippi Corn Promotion Board. \$47,500 (3/22 to 2/23).
- (7) 2021: Lemus, R., and B. Rushing. Mississippi USDA-NRCS Technical Service Providers Forage and Livestock Training Program (FLTP). MS USDA-NRCS. Amount: **\$69,420**. Co-PI \$34,710 (9/21 to 8/22).

- (8) 2021: Lemus, R. Undergraduate Honors Research Program. College of Ag & Life Sciences. \$3,000 (8/21 to 12/21).
- (9) 2021: Lemus, R., J.D. Rivera, J.A. White, and B. Rushing. Impact of Small Grains on Early Grazing and Beef Cattle Performance in the Upper Southern USA. Southeast Agriseeds in-kind seed donation. Amount: **\$1,016** (9/21 to 5/22).
- (10)2021: Morris, M., D. Phillip, E. Bendfeldt, and **R. Lemus**. Soil for Water. SSARE. Amount: **\$1,000,000**. Co-PI: \$99,780 (4/21 to 3/24).
- (11)2021: Stone, A., **R. Lemus**, J. Maples, J. Larson, D. Peterson, and M. Mason. Profitability, Viability, and Sustainability of Pasture-Based Dairy Farms: "The Southern Dairy Sustainability Network. SSARE. Amount: **\$79,737**. Co-PI: **\$8,100** (3/21 to 3/23).
- (12)2021: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$4,000** (05/21 to 08/21).
- (13)2021: Lemus, R. Evaluation of Root Inoculants in Alfalfa Production. Advanced Biological Marketing (ABM). PI. Amount **\$5,500** (01/21 to 12/21).
- (14)2020: Lemus, R., J.D. Rivera, J.A. White, and B. Rushing. Impact of Small Grains on Early Grazing and Beef Cattle Performance in the Upper Southern USA. Southeast Agriseeds in-kind seed donation. **Amount: \$1,016** (9/20 to 5/21).
- (15)2020: **Lemus, R.**, J.B. Rushing, J.D. Rivera, J. Maples, and M. Denny. Regenerative Grazing Management Practices for Mississippi's Livestock Producers by Implementing Diverse Forage Systems. USDA-NRCS. Lead PI. Amount: **\$804,549** (9/20 to 8/23).
- (16)2020: **Lemus, R.**, J.D. Rivera, and L.A. Villalobos. Sustainable Intensification and Technology Transfer of Preserved Forage Systems to Improve Dairy Production in Central America. Lead PI. Amount: \$49,963 (9/20 to 8/22).
- (17)2020: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$3,000** (05/20 to 08/20).
- (18)2020: Lemus, R. Evaluation of Root Inoculants in Alfalfa Production. Advanced Biological Marketing (ABM). PI. Amount **\$5,500** (10/19 to 12/20).
- (19)2019: Lemus, R. Evaluating Animal Performance in Multi-Species Cover Crops in the Southern USA. Grassland Oregon. PI. Amount: **\$10,000** (10/19 to 05/20).
- (20)2019: Lemus, R. Use of Trichoderma as Bio-inoculant for Enhanced Seeding Emergence and Nutrient Uptake in Cool-season Grasses. Advanced Biological Marketing (ABM). PI. Amount **\$5,460** (10/19 to 05/20).
- (21)2019: Lemus, R., and B. Farrell. A Two-Week Uzbekistan Program– Grazing and Pasture Management. USDA Foreign Service Agency. Co-PI. Amount **\$74,416** (10/19 to 11/19).
- (22)2019: Lemus, R. Baleage and Electric Fencing Workshop. Gallagher, ICI, Stay-Tuff Fencing. PI. Amount **\$2,500** (9/19)
- (23)2019: Lemus, R. Evaluation of BRM Summer Annuals for Grazing Performance in the Southern US. Allied Seed. **\$1,147** (05/19 to 09/19).
- (24)2019: Lemus, R. Use of Trichoderma as Bio-inoculant for Enhanced Seeding Emergence and Nutrient Uptake in Warm-season Annual Grasses. ABM. **\$11,707** (05/19 to 12/19).
- (25)2019: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$2,500** (05/19 to 08/19).
- (26)2019: Rivera, J.D., and R. Lemus. Using NIR technology to improve supplement use efficiency in beef cows over winter months. National Forage Testing Association (NFTA). Co-PI. Amount: **\$24,200** (1/19 to 12/20).
- (27)2018: Lemus, R. Evaluating Animal Performance in Multi-Species Cover Crops in the Southern USA. Grassland Oregon. PI. Amount: **\$10,000** (10/18 to 05/19).
- (28)2018: Lemus, R. Use of Trichoderma as Bio-inoculant for Enhanced Seeding Emergence and Nutrient Uptake in Cool-season Grasses. Advanced Biological Marketing (ABM). PI. Amount **\$5,460** (10/18 to 05/19).
- (29)2018: Lemus, R. Evaluation of BRM Summer Annuals for Grazing Performance in the Southern US. Allied Seed. **\$1,147** (05/18 to 09/19).
- (30)2018: Lemus, R. Use of Trichoderma as Bio-inoculant for Enhanced Seeding Emergence and Nutrient Uptake in Warm-season Annual Grasses. ABM. **\$11,707** (05/18 to 12/18).
- (31)2018: Lemus, R. Summer Apprenticeship Program. MSU-ES/USDA. PI. Amount: **\$8,000** (05/18 to 08/18).

- (32)2018: Lemus, R, E. Memeli, and K. Brown. Small Ruminant Production Workshop. USDA/NRCS, Mississippi Grazing Land Coalition. PI. Amount: **\$5,800** (03/18 to 08/18).
- (33)2018: Lemus, R, E. Memeli, and K. Brown. Small Ruminant Production Workshop. USDA/NRCS, Mississippi Grazing Land Coalition. PI. Amount: **\$1,700** (03/18 to 08/18).
- (34)2018: Maples, J., **R. Lemus**, and J.B. Rushing. Risk Management Strategies for Forage Producers in the Southeast. USDA/NIFA, Southern Extension Risk Management Education Center. Amount: \$48,906. Co-PI: **\$5,654** (04/18 to 09/18).
- (35)2017: Lemus, R. Comparison of Cool-season Annual Grass Grazing Systems Interseeded with Balansa Clover. Grassland Oregon. PI. Amount: **\$6,000** (10/17 to 05/18).
- (36)2017: B. Rushing, R. Lemus and J. Maples. Impact of Poultry Litter on Yield and Quality of Alfalfa Grown in Mississippi. National Alfalfa Forage Alliance. Co-PI. Amount: **\$39,000** (9/1/17 to 9/1/20).
- (37)2017: R. Lemus, J. Sarver, J. White and J.B. Rushing. Integration of Annual Peanut (*Arachis hypogaea* L.) in Forage Systems to Improve Soil Quality and Nutrient Cycling. NRCS Grazing Land Coalition Initiative. Lead PI. Amount: **\$7,973** (5/1/17 to 12/31/17).
- (38)2017: Lemus, R., A.A. Fox, J. Whittenton, and L. Whittenton. UAS Training for Faculty in Agriculture. MSU William White Special Project. Amount: **\$1,000**.
- (39)2016: Lemus, R. Tall fescue, red clover and white clover in-kind seed donation. Barenbrug Seed: **\$840**.
- (40)2016: Lemus, R. Annual ryegrass, berseem clover and balansa clover in-kind seed donation. Grassland Oregon: **\$1,300**.
- (41)2016: Lemus, R., B. Rushing, J. Tucker and K.J. Han. Impact of Potassium Fertilization, Harvest Frequency, and Grazing Management in Alfalfa Persistent Across the Southeastern USA. USDA-NIFA. Lead PI: **\$249,313** (9/16 to 9/19).
- (42)2016: Warm-season Forage Variety Testing. Co-PI. **\$7,200** (5/16 to 12/18).
- (43)2015: Cool-season Forage Variety Testing. Co-PI. **\$49,500** (10/15 to 05/16).
- (44)2015: Dow AgroSciences. Mississippi Hay Contest Sponsorship. **\$1,000**.
- (45)2015: R. Lemus. Baleage Production and Forage Conservation Program. Single Bale Wrapper. Plant and Soil Sciences. Lead PI: **\$8,000**.
- (46)2015: R. Lemus. Forage Establishment and Soil Conservation Initiative Program. Drill Purchase. Mississippi Soil and Water Conservation Commission. Lead PI: **\$18,000**.
- (47)2015: R. Lemus and J. White. Evaluation of Cover Crop Mixtures. Pennington Seed. Co-PI: **\$1,100** (10/15 to 05/16).
- (48)2015: R. Lemus, J. White and D. Rivera. Evaluation of Annual Ryegrass/Berseem Clover Winter Grazing Potential. Grassland Oregon. Co-PI: **\$7,445** (1/11/15 to 5/31/16).
- (49)2015: Lemus, R., D. Hancock, and Y. Newman. Impact of Microbial Inoculants on the Quality and Fermentation Stability of Alfalfa Round-bale Baleage. USDA-NIFA. Lead PI: **\$213,133** (10/15 to 12/18).
- (50)2015: J. Varco and R. Lemus. Fertilizer Nitrogen Use Efficiency of Urea-Ammonium Sulfate Blends of Bermudagrass Hay Production. Yara North America, Inc. Co-PI: **\$8,800** (5/15 to 12/15)
- (51)2015: America's Alfalfa. Alfalfa Demonstration Program. **\$500.00**
- (52)2015: Huston, C., J.A. Brett, R.W. Meiring, S. Hill Ward, J. Larson, K. Graves, R. Lemus. Dairy Herd Management. USDA Foreign Agriculture Service (FAS). Co-PI: **\$89,951** (4/17/15 to 12/31/15).
- (53)2014: DuPont Chemicals. Mississippi Hay Contest Sponsorship. **\$1,000**.
- (54)2014: R. Lemus and J. White. Center for Forage Management and Environmental Stewardship. Lead PI: **\$227,606** (7/1/14 to 7/1/17).
- (55)2014: R. Lemus, J. White and D. Rivera. Evaluation of Annual Ryegrass/Berseem Clover Winter Grazing Potential. Grassland Oregon. Co-PI: **\$7,445** (1/11/14 to 5/31/15).
- (56)2014: R. Lemus and J. White. Grazing Farm Demonstration. NRCS Grazing Land Coalition Initiative. Lead PI: **\$8,800** (7/1/14 to 12/31/15).
- (57)2014: R. Lemus, J. White and D. Rivera. Long-term Rotational Grazing and Fencing Demonstration Project. True-Test Fencing. Lead PI: **\$3,536** (In kind donation, fencing materials).
- (58)2014: J. Varco and R. Lemus. Fertilizer Nitrogen Use Efficiency of Urea-Ammonium Sulfate Blends of Bermudagrass Hay Production. Yara North America, Inc. Co-PI: **\$8,800** (5/14 to 12/14)

- (59)2014: R. Lemus, D. Rivera, R. Pearson, J.A. White, and S. Cagle. Implementation of an Aggressive Managed Pasture System (AMPS) Program. Seed Grant. Mississippi State University Extension. Lead PI: **\$48,056** (1/13 to 12/14).
- (60)2014: Gypsoil. Changes on Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. PI. **\$12,410.20** (01/14 to 12/14).
- (61)2014: Cool-season Forage Variety Testing. Co-PI. **\$19,800** (10/14 to 05/15).
- (62)2013: Pearson, R. and R. Lemus. Development of Web App Tools for Forage and Pasture Management. Office of Research and Economic Development. Mississippi State University. Co-PI: **\$2,000** (11/13 to 11/14).
- (63)2013: DuPont Chemicals. Mississippi Hay Contest Sponsorship. **\$1,000**.
- (64)2013: Gordon Enterprises: Use of Biowash in Annual Ryegrass Production and Quality. PI: **\$4,974** (10/13 to 05/15).
- (65)2013: Grazing Farm Demonstration. NRCS Grazing Land Coalition Initiative. PI: **\$10,200** (9/11/13 to 12/31/18).
- (66)2013: Mississippi Forage & Grassland Annual Conference. NRCS Grazing Land Coalition Initiative. PI: **\$1,500** (11/15/13).
- (67)2013: Mississippi Fall Grazing School Series. NRCS Grazing Land Coalition Initiative. PI: **\$10,000** (9/1/13 to 12/1/13).
- (68)2013: Sustainable grassland intensification through ecosystem services and improved grazing management strategies. USAID- CGIAR Linkages with US Universities and other Partners. van der Hoek (CIAT-Nicaragua), Yoana Newman (Univ. Florida) and Rocky Lemus (Mississippi State). Co-PI: **\$75,000** (6/13 to 6/15).
- (69)2013: Mississippi Agricultural and Forestry Experiment Station. Native Grasses Variety Testing Project. Co-PI: **\$20,000** (1/13 to 12/15).
- (70)2013: DuPont: Weed Control in Bermudagrass and Effect on Biomass Production and Quality. PI. **\$4,935** (4/13 to 11/13).
- (71)2013: Agrium: Nitrogen Use Efficiency of Bermudagrass Treated with ESN Smart Nitrogen. PI: **\$4,295** (5/13 to 12/13).
- (72)2013: Warm-season Forage Variety Testing. Co-PI. **\$3,750** (5/13 to 10/13).
- (73)2013: Effect of Bio Stimulants in Forage Yield and Quality of Bermudagrass (BioSoil Enhancers, Alpha BioSystems Inc. PI. **\$2,500** (05/13 to 12/13).
- (74)2013: Gypsoil. Changes on Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. PI. **\$12,410.20** (01/13 to 12/13).
- (75)2013: Cool-season Forage Variety Testing. Co-PI. **\$37,125** (1/13 to 05/14).
- (76)2012: Mississippi Forage and Grassland Conference. **\$12,135**
- a. Southern Ag Credit: \$2,700
 - b. NRCS-Mississippi Grazing Land Coalition Initiative: \$9,435
- (77)2012: Cool-season Forage Variety Testing. Co-PI. **\$26,325** (09/12 to 05/13).
- (78)2012: Sumagrow: Evaluation of Different Dietary Supplements for Cattle Grazing Ryegrass Pastures Fertilized with Different N Sources. PI. **\$12,716.00** (11/12 to 05/14).
- (79)2012: Southwest Mississippi Grazing School: NRCS-Mississippi Grazing Land Coalition Initiative: **\$6,000**.
- (80)2012: Valent BioSciences. Effect of RyzUp Applications in Annual Ryegrass Production. PI. **\$5,000**. (12/12 to 05/13).
- (81)2012: William White Special Projects (MAFES). Development of a Student Research/Teaching Farm. Co-PI. **\$2,500** (08/12 to 08/14).
- (82)2012: Wildwood Genetics. Use of Deer Repellent on Establishment of Summer Annual Legumes. PI. **\$1,000** (05/12 to 10/12).
- (83)2012: North Mississippi Grazing School: **\$4,578**
- a. Mid-Continent Livestock Supplements: \$1,442
 - b. NRCS-Mississippi Grazing Land Coalition Initiative: \$3,136
- (84)2012: Warm-season Annuals Forage Variety Testing. Co-PI. **\$4,800** (05/12 to 10/12).
- (85)2012: Sustainable Research Center (DOE-SERC IV). Carbon Sequestration in Bioenergy Crops PI. **\$31,342** (07/12 to 12/14).
- (86)2012: Sustainable Research Center (DOE-SERC IV). Bioenergy Crops Evaluation Trials. [Lemus (PI), White (Co-PI)]. **\$40,991** (07/12 to 12/14).
- (87)2012: Effect of Bio Stimulants in Forage Yield and Quality of Bermudagrass (BioSoil Enhancers, Alpha BioSystems Inc., CXInternational, Biobased USA). PI. **\$8,688** (05/12 to 12/12).

- (88)2012: USDA-Natural Resources Conservation Service [Lemus (PI), Baldwin (Co-PI) and Pearson (Co-PI). Seed Calculator for Conservation Planning. **\$136,067** (01/12 to 11/13).
- (89)2012: DuPont Chemicals. Hay Contest Sponsorship. **\$1,000**.
- (90)2012: Gypsoil. Changes on Bermudagrass Forage Production and Soil Chemical and Physical Properties during Gypsoil Application. PI. **\$12,410.20** (01/12 to 12/12).
- (91)2011: Training for Sustainable Year-round Forage Production and Grazing/Browsing Management in the Southern Region. SARE Proposal ES11-107 (\$69,843.00). Collaborator: **\$5,000** (01/12 to 12/13).
- (92)2011: Valent BioSciences. Effect of RyzUp Applications in Annual Ryegrass Production. PI. **\$4,554** (12/11 to 05/12).
- (93)2011: Cool-season Forage Variety Testing. Co-PI. **\$42,750** (09/11 to 05/12).
- (94)2011: Warm-season Annual Grasses Variety Evaluation Program. PI. **\$1,400** (06/11 to 10/11).
- (95)2011: Seeded Bermudagrass Variety Evaluation Program. PI. **\$8,000** (06/11 to 12/13).
- (96)2011: Young Farmers and Ranchers Program. Farm Bureau. Miscellaneous Donations: **\$1,500** (12/11).
- (97)2011: Wildlife Extension Service. Inoculation Effect on Production of Summer Annual Legumes. Co-PI. **\$500** (06/11 to 09/11).
- (98)2011: Special Fertilizer Products (SPF). Fertilizer Enhancer and Yield production of Bermudagrass. PI. **\$6,600** (05/11 to 11/11).
- (99)2011: William White Special Projects (MAFES). Effects of Injection of Two Hay Treatments Methods on Performance of Lightweight Cattle. PI. **\$1,100** (11/11 to 01/13).
- (100) 2011: Sustainable Research Center (DOE-SERC III). Feedstock and Biofuel (Effect of Coating on Germination of Native Warm-season Grasses/Carbon Sequestration Budget on Herbaceous Bioenergy Crops). PI. **\$57,649** (01/11 to 04/12).
- (101) 2010: Murphy Agro. Effect of Nutrisphere and Avail Application in Annual Ryegrass N Use Efficiency. October 2010. PI. **\$4,000** (10/10 to 05/11).
- (102) 2010: Valent BioSciences. Effect of RyzUp Applications in Annual Ryegrass Production. PI. **\$4,500** (10/10 to 05/11).
- (103) 2010: International Plant Nutrition Institute. Nutrient Cycling in Bioenergy Crops. PI. **\$7,798** (05/10 to 11/10).
- (104) 2010: Mendel Biotechnology, Inc. Forage Sorghum Bioenergy Trial. PI. **\$2,250** (06/10 to 10/11).
- (105) 2009: Mosaic Fertilizer. Application of P Based Fertilizers to Annual Ryegrass. PI. **\$3,000** (10/09 to 05/10).
- (106) 2009: Specialty Fertilizer Products, LLC. Ryegrass Fertilizer Use Efficiency. PI. **\$5,000** (10/09 to 05/10).
- (107) 2009: International Plant Nutrition Institute. Nutrient Cycling in Bioenergy Crops. PI. **\$7,798** (05/09 to 10/09).
- (108) 2009: Sustainable Research Center (DOE-SERC II). Feedstocks and Biofuel (Nutrient Translocation and Fertility Recommendations in Switchgrass Production). PI. **\$72,000** (01/09 to 12/09).
- (109) 2008: Dow AgroSciences. Establishment of Switchgrass under Different Methods of Herbicide Control. PI. **\$3,000** (06/08 to 11/08).
- (110) 2007: Office of Graduate Studies and Research. Texas A&M University-Commerce. Mini-grant for Carbon sequestration and nutrient analysis in Northeast Texas soils. PI. **\$950** (01/07 to 06/07).
- (111) 2007: Office of Graduate Studies and Research. Texas A&M University-Commerce. Mini-Grant for Round-up Ready Alfalfa Inter-seeded into Bermudagrass. PI. **\$600** (10/06 to 05/07).
- (112) 2005: Faculty Development Committee. Texas A&M University-Commerce. Competitive Travel Grant. PI. **\$500** (01/05 to 12/05).
- (113) 2004: The Texas Wheat Producers Board. Evaluation of small grains and annual grasses for winter pastures and forage quality. PI. **\$5,000** (08/04 to 05/05).
- (114) 2003: Graduate Student Assembly. Virginia Tech. Graduate Travel Fund. **\$200** (09/03).
- (115) 2003: Graduate Student Assembly. Virginia Tech. Graduate Research Development Program. PI. **\$950** (01/02 to 12/02).
- (116) 2002: Graduate Student Assembly. Virginia Tech. Graduate Travel Fund. **\$200** (10/02).
- (117) 2007-11: Miscellaneous gifts (equipment, seed, herbicides, etc.): **\$57,517**.
- (118) 2011-14: Miscellaneous gifts (equipment, seed, herbicides, etc.): **\$10,858**.

Courses Taught

Mississippi State University

Undergraduate Research Scholars Program (URSP, GA 4800) (Fall 2021).

Texas A&M-Commerce, Commerce, Texas (2004 to 2007)

Introductory Plant Science (PLS115) (Fall 2004, Spring 2005 and Fall 2006).
Introductory Soil Science (PLS309) (Fall 2004, Spring 2005 and Spring 2007).
Writing for Publications (AG300) (Fall 2004, spring 2005, Fall 2006 and Spring 2007).
Soil Fertility and Plant Nutrition (PLS3320) (Spring 2005).
Forage and Pasture Crops (PLS326) (Spring 2007).
Introduction to Range Management (PLS328) (Spring 2007).
Experimental Design & Data Analysis (AG505) (Fall 2005, Fall 2006).
Experimental Design & Data Analysis Laboratory (AG506) (Fall 2006).
Experimental Design & Data Analysis (AG597) (Fall 2005).

Virginia Tech, Blacksburg, VA (2000 to 2003)

Plant Agriculture (AGT0184) (Spring 2001 and 2002) – Teaching Assistant.
Introduction to Crop and Soil Environmental Sciences Lab (CSES1054) (Spring 2001, 2002 and 2003) – Teaching Assistant.
Plant Material for Environmental Restoration (CSES/ENSC3644) (Fall 2000 and 2001) – Teaching Assistant.
Crop Evaluation (CSES2434) (Fall 2000 and 2001, Spring 2001 and 2002) – Teaching Assistant.
Forage Crop Ecology (CSES4544) (Spring 2001, 2002 and 2003) – Teaching Assistant.
Agronomic Crops (CSES2444) (Fall 2002) – Teaching Assistant.

Iowa State University, Ames, IA (1998 to 1999)

Tropical Agriculture (AG496) (Fall 1999) – Teaching Assistant.

- Lectured sustainable agriculture and cropping systems in the tropics.
- Group leader and trip coordinator to Panama for the International Agricultural Program.
- Grain and Forage Crops (AG212) (Fall 1998) – Teaching Assistant.
- Lectured on crop, weed, and pasture management.
- Laboratory set up.

Undergraduate Students Mentorship

Completed

- (1) Black Canyon. 2023. Department of Agricultural and Bioengineering. Summer Intern.
- (2) Malorie Jones. 2023. Department of Wildlife and Fisheries. Extension Apprentice Program. Summer.
- (3) Carson Dewberry. 2022. Department of Wildlife and Fisheries. Extension Apprentice Program. Summer.
- (4) Charles Dixon. 2022. Department of Biochemistry, Entomology, and Plant Pathology. Undergraduate Internship. Summer.
- (5) Brody Hamm. 2021. Department of Agricultural Communications. Undergraduate Research Scholar Program.
- (6) Colton Pope. 2021. Department of Plant and Soil Sciences. Undergraduate Summer Internship. Fall.
- (7) Nancy Hartfield. 2021. Department of Agricultural Information Systems. Extension Apprentice Program. Summer.

- (8) Tristan Peavey. 2020. Department of Animal and Dairy Sciences. Extension Apprentice Program. Summer.
- (9) Nicolas O'Neal. 2019. Department of Agricultural Economics. Undergraduate Summer Internship. Fall.
- (10) Cheyenne Simmons. 2019. Department of Agricultural Engineering. Extension Apprentice Program. Summer.
- (11) Noah Frank. 2018. Department of Animal and Dairy Sciences. Undergraduate Summer Internship. Fall.
- (12) Lizney Rudds. 2018. Department of Animal and Dairy Sciences, University of Arkansas, Pine Bluff. Extension Apprentice Program. Summer.
- (13) Corianne Schmidt. 2018. Department of Wildlife and Fisheries. Extension Apprentice Program. Summer.

Graduate Students Advised

Doctorate

Current

- (1) McIntosh, D. 2020. University of Tennessee. Development of NIR Equations for Forage Production – Committee Member.

Completed

- (1) Billman, E. 2018. [Breeding of cool-season forage grasses for abiotic and biotic stress tolerance for use in the southern United States](#) – Committee Member.
- (2) White, J.A. 2018. ["Adaptability and Management of Alfalfa Overseeded into Warm-season Perennial Grasses in Mississippi."](#) Mississippi State University – Chair.
- (3) Morrison, J.I. 2016. ["Selection and breeding to improve commercial germplasm and increase germination percentage of eastern gamagrass \[Tripsacum dactyloides \(L.\) L.\]"](#) Mississippi State University – Committee Member.
- (4) Fox, A. 2015. ["An Integrated Approach for Predicting Nitrogen Status in Early Cotton and Corn,"](#) Mississippi State University – Committee Member.
- (5) Briscoe, K. 2014. ["Evaluation of fertility practices during roadside establishment in MS to minimize nonpoint source pollutants,"](#) Mississippi State University – Committee Member.
- (6) Perera, D. 2013. ["Somactic culture and induced mutations of Giant Miscanthus,"](#) Mississippi State University – Committee Member.
- (7) Rushing, B. 2012. [Wildrye \(*Elymus spp.*\) evaluated as a potential cool-season forage.](#) Mississippi State University – Committee Member.

Master

Current

- (1) Potts, C. 2023. Comparison of Regenerative Grazing Methods on Soil Health, Nutrient Density, and Reduction in Weed Populations. Co-Chair.
- (2) Mullican, N. 2022. Incorporating Cover Crops into Successful Corn Production System in the Mid-South – Committee Member.
- (3) Picato, T. 2022. University of Costa Rica. Caracterización y evaluación de tecnologías de conservación de forrajes en la producción de ganado bovino en el trópico – Committee Member.

Completed

- (1) Peavey, M.T. 2022. Utilization of Pin-point Grazing Systems in the Southern USA – Chair. Left the program.
- (2) Montero-Navarro, N.M. 2022. Calibración del Plato Medidor en Pastos Estrella Africana, Kikuyo y Ryegrass, en Zonas de Altura Media y Alta de Costa Rica. University of Costa Rica – Committee Member.

- (3) Parker, N. 2022. [Sustainable sidedress nitrogen applications for early corn and cotton using unmanned aerial systems](#) – Committee Member.
- (4) Bass, B. 2021. [The effects of grazing cover crops on animal performance, soil characteristics, and subsequent soybean production in east-central Mississippi](#) – Committee Member.
- (5) Waddell, K. 2021. [The effects of cover crops in an integrated livestock/continuous corn cropping system in east-central Mississippi](#) – Committee Member.
- (6) Garay, E. 2020. [From Monoculture to Biculture: Cover Cropping Effects on Biomass and Nitrogen Dynamics in a Strip Tilled Corn Production System](#) – Committee Member.
- (7) Thornton, M. 2016. [“Evaluation of Wild Rye as Potential Forage in Mississippi,”](#) Mississippi State University – Committee Member.
- (8) Barksdale, N. 2016. [“Evaluation of Herbicide Efficacy and Application Timing for Miscanthus,”](#) Mississippi State University – Committee Member.
- (9) Richwine, J. 2016. [“Effects of Nitrogen Application and Harvest Interval on Yield and Quality of Three Cool-season Forage Species,”](#) Mississippi State University – Committee Member.
- (10) Zacarro, M. 2016. [“Cogongrass \[*Imperata cylindrica* \(L.\) Beauv.\] Management using chemical control and cover cropping systems,”](#) Mississippi State University – Committee Member.
- (11) Carson, J. 2015. [“Liquid Urea-ammonium Nitrate Fertilizer Placement Method and Distance from Row Effects on Corn \(*Zea mays* L.\) N Uptake and Grain Yield as Influence by Irrigation,”](#) Mississippi State University – Committee Member.
- (12) Holmberg, M.B. 2014. [“Alternative nitrogen for subsequent southern switchgrass production using cool-season legumes,”](#) Mississippi State University – Committee Member.
- (13) Smith, J. 2014. [“Impact of Native Grasses in Forage Production,”](#) Mississippi State University – Committee Member.
- (14) Chesser, G.D. 2011. [“Characterization and development of methods to measure moisture content of switchgrass in the windrow,”](#) Mississippi State University – Committee Member.
- (15) Horton, S. 2011. [“Evaluation of sweet sorghum cultivars as potential ethanol crop in Mississippi,”](#) Mississippi State University – Committee Member.
- (16) Long, W.B. 2010. [“The effect of exogenous fructose on creeping bentgrass heat tolerance,”](#) Mississippi State University – Committee Member.
- (17) Chesser, Z. 2007. [“Integrated management techniques for cogongrass control”](#) Mississippi State University – Committee Member (Chair, Minor).
- (18) Carmichael, L. 2007. [“Determining Price Incentives for Preconditioned Cattle in Northeast Texas,”](#) Texas A&M University-Commerce – Committee Member.
- (19) Chappell, J. 2007. [“Effects of Preconditioning on Stress Indicators and Animal Performance,”](#) Texas A&M University-Commerce – Committee Member.
- (20) Logan, G. 2005. [“Evaluation of Management Inputs for Corn in a Poultry Litter Based Fertility System in Northeast Texas,”](#) Texas A&M University-Commerce – Chair.
- (21) Maxwell, R. 2005. [“Evaluation and Characterization of Herbicide Resistance in Ryegrass Cultivars to Holey Herbicide,”](#) Texas A&M University-Commerce – Chair.

Presentations

International

- (1) 2023: Lemus, R. Warm-season Annual Grasses as Pinpoint Grazing Opportunities. JXXV International Grassland Congress. Thematic Session. May 16. Covington, KY. *Invited*.
- (2) 2023: Lemus, R. Detección de Celo en Cabras Lecheras. Huehuetenango, Guatemala. May 29.
- (3) 2023: Lemus, R. Uso de Ultrasonido en Cabras Lecheras. Huehuetenango, Guatemala. June 3.
- (4) 2022: Lemus, R. Forrajes para la Alimentación Caprina. Huehuetenango, Guatemala. December 6.
- (5) 2022: Lemus, R. Conceptos Básicos de Nutrición Caprina. Huehuetenango, Guatemala. December 6.

- (6) 2022: Lemus, R. Silage Production and Evaluation. Dept. of Animal Sciences, University of Costa Rica. November 14.
- (7) 2022: Lemus, R. Forrajes: Sosteniendo el Crecimiento de la Población Mundial. Dept. of Animal Sciences, University of Costa Rica. Mach 29.
- (8) 2021: Lemus, R. Producción de Pastos y Forrajes en los Sistemas de Producción Ganaderos. “VI Congreso Sistemas Integrados de Manejo, Genética, Alimentación, Salud y Administración, base para el incremento de la productividad sostenible en fincas ganaderas regenerativas”. Nicaraguan Institute of Agricultural Technology (INTA). December 1.
- (9) 2021: Lemus, R. Resilient Forage Crops of the 21st Century. Department of Animal Sciences, University of Costa Rica. Webinar. May 24.
- (10)2020: Lemus, R. Como Interpretar los Resultados de un Prueba de Suelo. Farmer to Farmer Program – Dominican Republic. USAID – Partners of the Americas Program. August 29.
- (11)2020: Lemus, R. Introduction al Analysis of Suelo. Farmer to Farmer Program – Dominican Republic. USAID – Partners of the Americas Program. August 22.
- (12)2020: Lemus, R. Preserving Forages in the Tropics. Dept. of Animal Sciences, University of Costa Rica. May 4.
- (13)2019: Lemus, R. Grazing Management Systems for in Rangelands. U.S. Department of Agriculture’s Cochran Fellowship Program - Uzbekistan. November 6.
- (14)2019: Lemus, R. Federal Incentive Programs for Farmers in the USA. U.S. Department of Agriculture’s Cochran Fellowship Program - Uzbekistan. November 5.
- (15)2019: Lemus, R. Grassland Restoration in Dry Climates. U.S. Department of Agriculture’s Cochran Fellowship Program - Uzbekistan. November 4.
- (16)2018: Lemus, R. Seleccion de Herbicidas para el Control de Malezas en Forrajes (Herbicide Selection for Weed Control in Forages). Asociacion de Ganaderos de Azuero. Los Santos, Panama. November 5.
- (17)2018: Lemus, R. Utilizacion de Semillas Bermuda y Bahia para la Production de Pasto y Heno (Utilization of Bermudagrass y Bahiagrass in Pasture and Hay Production). Asociacion de Ganaderos de Azuero. Los Santos, Panama. November 5.
- (18)2017: Lemus, R. Forage Research at Mississippi State University. Department of Animal Science. University of Costa Rica. August 24. *Invited.*
- (19)2017: Lemus, R. Implementation of Tools in the Forage Extension Program at Mississippi State University. Department of Animal Science, University of Costa Rica. August 22. *Invited.*
- (20)2017: Lemus, R. Reducing Post-harvest and Feeding Losses of Quality Hay and Silage. International Dairy New Technology Conference. July 12-15. Taian, Shandong, China. *Invited.*
 - a. Judge of the First China Silage Contest.
- (21)2015: Pakistani Dairy Herd Management Training (USDA Foreign Service Agency), August 7. *Invited.*
 - a. Overview of Forage Production in Mississippi.
 - b. Nutrient Management in Forage Systems.
 - c. Overview of Forage Research and Grazing Systems.
 - d. On-farm forage production for strategic intensive grazing management.
 - e. Implementation of a forage quality program and its impact in livestock production.
- (22)2015: Lemus, R. Impact of Forage Extension and Research Programs at Mississippi State University. Uganda Research Scientist Delegation. April 9. *Invited.*
- (23)2013: Lemus, R., and Y. Newman. Establecimiento de Pasturas. IV National Cattle Congress. Nicaraguan National Cattlemen Association. Managua, Nicaragua, July 25. *Invited.*
- (24)2013: Lemus, R., and Y. Newman. Desarrollando un Sistema de Pastoreo. USAID, Farmer to Farmer Program. Nicaragua. July 14-30.
- (25)2013: Newman, Y., and R. Lemus. La Calidad de los Forrajes. USAID, Farmer to Farmer Program. Nicaragua. July 14-30.
- (26)2012: Lemus, R., and Y. Newman. Mejoramiento de la Calidad de Suelos. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.
- (27)2012: Lemus, R., and Y. Newman. Ensilaje de Forrajes. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.
- (28)2012: Lemus, R., and Y. Newman. Nutrientes en el Suelo. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.
- (29)2012: Newman, Y., and R. Lemus. La Calidad de los Forrajes. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.

- (30)2012: Newman, Y., and R. Lemus. Establecimiento de Pasturas. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.
- (31)2012: Newman, Y., and R. Lemus. Gramineas Forrajeras Tropicales. USAID, Farmer to Farmer Program. Nicaragua. September 14-26.

National

- (1) 2024: Grazing Management of Cool-season Grasses and Late-maturing Clover. American Forage and Grassland Annual Conference. Mobile, AL. January 9. *Invited*.
- (2) 2023: From Grazing to Browsing: A Silvopasture Approach. American Dairy Goat Association Annual Convention. Tulsa, OK. October 20. *Invited*.
- (3) 2023: Forage Needs and Grazing Management for Dairy Goats. American Dairy Goat Association Annual Convention. Tulsa, OK. October 20. *Invited*.
- (4) 2023: Building Better Soils and Pastures in the South. Soil for Water Project. National Center for Applied Technology. Webinar. September 14. *Invited*.
- (5) 2023: Lemus, R. Economic Impact of Forage Quality Testing. Innovation in NIR Forage Analysis (INFA). Blue Scientific. April 28. *Invited*.
- (6) 2023: Lemus, R. Made in Shade: Explaining Silvopasture. Cattlemen College, National Cattle Convention, New Orleans, LA. January 31. *Invited*.
- (7) 2022: Lemus, R. Update of Forage Production and Emerging Issues in Mississippi. Corteva Agrisciences Pasture Summit. Destin, FL. July 18. *Invited*.
- (8) 2022: Lemus, R., and J. Sawyer. A review of forage sample grinding techniques and the downstream effect on NIR nutrient determination. Midwest AOAC and NFTA Joint Annual Meeting. Manhattan, KS. June 6-8. *Invited*.
- (9) 2022: Rivera, J.D., and R. Lemus. Using NIR technology to improve supplement use efficiency in beef cows over winter months. Midwest AOAC and NFTA Joint Annual Meeting. Manhattan, KS. June 6-8. *Invited*.
- (10)2021: Lemus, R. Proper Sample Preparation for NIR Analysis and Accuracy. National Hay Association Annual Convention. San Diego, CA. September 18. *Invited*.
- (11)2021: Lemus, R. [Warm-season Annual Grasses](#). Mountaineer Farm Talk. Podcast. June 25.
- (12)2021: Lemus, R. Alfalfa-related research, crop insurance, and sustainability issues. Update to Abbey Herfurth, Ag LA for Congressman Trent Kelly in the House Ag appropriation committee. April 26.
- (13)2021: Baxter, L., D. McIntosh, G. Bates, D. Combs, D. Hancock, **R. Lemus**, K. Taysom, D. Undersander, and R. Ward. 2021. Calculated Parameters Used. *In*: Forage Nutritive Analysis Reporting. 77th Annual American Forage and Grassland Conference. American Forage and Grassland Council. Online. January 12.
- (14)2019: Lemus, R. Proper Hay Sampling and Impact in Impact in Forage Quality. National Hay Association Annual Convention. Acme, MI. September 25-28. *Invited*.
- (15)2019: Lemus, R. Mississippi's Agriculture and Forage Systems. National Hay Association Annual Winter Meeting. Biloxi, MS. February 21-23. *Invited*.
- (16)2018: Lemus, R. and J.A. White. Impact of Microbial Inoculants on the Quality and Fermentation Stability of Alfalfa Round Bale Baleage. North American Alfalfa Improvement Conference. Logan, UT. June 4-6. *Invited*.
- (17)2018: Lemus, R., J.B. Rushing, and J.A. White. Impact of Potassium Fertilization, Harvest Frequency, and Grazing Management in Alfalfa Persistence across the Southeastern U.S. North American Alfalfa Improvement Conference. Logan, UT. June 4-6. *Invited*.
- (18)2018: Lemus, R. Hay Production in Southern USA: Challenges and Outlooks. National Hay Association. Tucson, AZ. February 23. *Invited*.
- (19)2018: Lemus, R. Forage Analysis Variability: Sampling Techniques for Producers and Researchers. NIRS Consortium Workshop: Animal Nutrition and Forage Analysis. American Forage and Grassland Annual Conference. Louisville, KY. January 16. *Invited*.
- (20)2018: Rushing, B., R. Lemus, M. Thornton, and C. Lyles. Stockpiling Perennial Warm-season Grasses. American Forage and Grassland Annual Conference. Louisville, KY. January 16. *Volunteer*.
- (21)2017: Lemus, R. and D. McIntosh. Comparison of Portable and Stationary NIRS for Forage Quality Estimates. NIRS Forage and Feed Testing Consortium Symposium. American Forage and Grassland Annual Conference. Roanoke, VA. January 21. *Invited*.

- (22)2016: Lemus, R., J.A. White and J.B. Rushing. Mississippi Forage Research Update. Dow AgroSciences Pasture Summit. Orlando, FL. October 3-5. *Invited.*
- (23)2015: Lemus, R. and J. White. Impact of Fertility on Tall Fescue Forage Types. American Forage & Grassland Annual Conference. St. Louis, MO. January 12. *Volunteered.*
- (24)2015: Lemus, R. NIRS as a Portable Tool for Understanding Forage Quality. American Forage & Grassland Annual Conference. St. Louis, MO. January 12. *Invited.*
- (25)2015: White, J. and R. Lemus. Evaluation of Annual Cool-season Grass/Legume Mixtures in Mississippi. American Forage & Grassland Annual Conference. St. Louis, MO. January 12. *Volunteered.*
- (26)2014: Lemus, R. Implementation of Portable NIR on Farm Recommendations: Advantages and Challenges? NIR Forage and Feed Testing Consortium. Knoxville, TN. February 11-13. *Invited.*
- (27)2014: White, J.A. and R. Lemus. Tetraploid and Diploid Ryegrass Performance in Mississippi. American Forage & Grassland Annual Conference. Memphis, TN. January 14. *Volunteered.*
- (28)2014: Lemus, R. and J.A White. Nutrient Use Efficiency in Forage Production Systems. American Forage & Grassland Annual Conference. Memphis, TN. January 14. *Invited.*
- (29)2013: Lemus, R. Changes in Forage Quality and Mineral Composition of Forages during Drought. ADM Alliance Nutrition, Cattle Industry Convention & NCBA Trade Show. Tampa, FL. February 6. *Invited.*
- (30)2012: Lemus, R. and J.A. White. Mississippi Forage Research Update. Dow AgroSciences Pasture Summit. Asheville, NC. October 1-3. *Invited.*

Regional

- (1) 2023: Forage Considerations for Small Ruminants. Tennessee Forage and Grassland Council Annual Meeting. Lebanon, TN. November 10. *Invited.*
- (2) 2023: Forages, Resources, and Management. USDA-NRCS and National GLC Training for AR, LA, and MS. Working Effectively with Livestock Producers (WELP), Tupelo, MS. May 8-12. *Invited.*
- (3) 2023: Grazing Cover Crops in the Southern USA. Southern Cover Crop Conference. Baton Rouge, LA. February 14. *Invited.*
- (4) 2022: **Lemus, R.** Better Forage, Better Cattle: A Regenerative Approach. Southern Highland Cattle Association. Brandon, MS. September 24.
- (5) 2022: **Lemus, R.** Implementation of an Effective and Integrated Forage Extension Program at the State and County Level. Oklahoma State University Extension (ZOOM). July 17. *Invited.*
- (6) 2022: **Lemus, R.,** and C. Teutsch. Sugarcane Aphid and Sorghum Forages Update. 75th Southern Pasture and Forage Crop Improvement Conference. Asheville, NC. July 26. *Invited.*
- (7) 2021: **Lemus, R.** Common Toxic Plants to Small Ruminants in the Southern USA. Magnolia Kiko Goat Classic Sale. Hattiesburg, MS. November 5. *Invited.*
- (8) 2021: Lemus, R. Alternative Forage Systems for the southern USA. Univ. of Tennessee County Agents Regional Tour. Starkville, MS. October 26. *Invited.*
- (9) 2021: **Lemus, R.** Grazing Management for Sheep Production. South Central Katahdin Association. Vicksburg, MS. June 5. *Invited.*
- (10)2020: **Lemus, R.,** J.B. Rushing, J.A. White, and J. Maples. Integrated Alfalfa Production Systems in Mississippi. *In: Proceedings of the American Society of Agronomy Southern Branch.* Louisville, KY. February 1-3. *Volunteered.*
- (11)2019: Lemus, R. Integrated Forage and Livestock Systems in Mississippi. Montgomery AL Cattlemen Association. Central Mississippi (Newton, Raymond, Bolton, and Canton). September 5-6. *Invited.*
- (12)2019: Lemus, R. Southern Forages and Their Role in Cover Crops Systems. Alabama/Georgia Seed Improvement Association Annual Meeting. Gulf Shores, AL. July 15. *Invited.*
- (13)2019: Lemus, R. Cultivation and Management Practices of Legumes/Grass Mixed Forage Systems. Legume Workshop. Tuskegee University, Tuskegee, AL. March 29. *Invited.*
- (14)2019: Lemus, R. Baleage Production Practices in the South. ACI Equipment. Houston, TX. March 21. *Invited.*
- (15)2018: Lemus, R. What Legumes are Right for Me and How Do They Impact Livestock Performance? Alabama Farmers Federation Commodity Organizational Meeting. Hay and Forage Division Session. Montgomery, AL. February 8. *Invited.*

- (16)2017: Lemus, R. The Case for Legumes in the Southeast. Alabama Farmers Federation Summer Conference. Birmingham, AL. August 5. *Invited.*
- (17)2017: Rivera, D., R. Lemus, and J. Maples. Forage and Nutrient Management of Grazing Beef Cattle. Deep South Stocker Backgrounder Conference. Starkville, MS. August 3-4. *Invited.*
- (18)2017: Lemus, R. Nutrient Management Guidelines for Hay Production. Alabama Farmers Federation Winter Conference. Montgomery, AL. February 9. *Invited.*
- (19)2017: Lemus, R., J.A. White, and K.K. Crouse. Response of Bahiagrass Cultivars to Nitrogen Fertilization and Cutting Frequency. Southern Branch of the American Society of Agronomy. Mobile, AL. February 5-6. *Volunteered*
- (20)2016: Lemus, R. Forage Needs and Grazing Management for Small Ruminants. Southeast Kiko Goat Association Field Day and Roundup Sale. Hattiesburg, MS. November 12. *Invited.*
- (21)2016: Lemus, R. Making Hay: Balancing Money, Time and Quality. Alabama Farmers Federation Annual Commodity Producers Conference. Mobile, AL. July 30. *Invited.*
- (22)2016: Lemus, R., J.A. White, K.K. Crouse, and M.S. Cox. Impact of Gypsum Application on Bermudagrass (*Cynodon dactylon*) Forage Production and Soil Properties. Southern Branch of the American Society of Agronomy Annual Meeting. San Antonio, TX. February 9. *Volunteered.*
- (23)2015: Lemus, R. Improving Soil Health with Rotational Grazing. Harding Co. Soil Conservation District. Savannah, TN. May 7. *Invited, Keynote Speaker.*
- (24)2015: Lemus, R and J. White. Experiences with Alfalfa in Mississippi. Alfalfa in the South Workshop. Athens, GA. March 17. *Invited.*
- (25)2014: Lemus, R. Forage Production and Utilization. Southeast Kiko Goat Association Field Day and Roundup Sale. Hattiesburg, MS. November 15. *Invited.*
- (26)2014: White, J. and R. Lemus. Forage Variety Testing. 68th Southern Pasture and Forage Crop Improvement Conference. Biloxi, MS. April 21-23. *Invited.*
- (27)2014: Lemus, R., J. White., and P. Slusher. Mississippi Agriculture. 68th Southern Pasture and Forage Crop Improvement Conference. Biloxi, MS. April 21-23. *Invited.*
- (28)2014: Lemus, R. 300 Days Grazing – IS It Possible? Harding Co. Soil Conservation District. Savannah, TN. April 17. *Invited, Keynote Speaker.*
- (29)2014: Lemus, R. Using Cover Crops in Pastures to Improve Soil Health. Harding Co. Soil Conservation District. Savannah, TN. April 17. *Invited.*
- (30)2014: Lemus, R. Basic Agronomic Principles of Forage Production I. Small Ruminant Workshop. Tuskegee University. Tuskegee, AL. March 25-26. *Invited.*
- (31)2014: Lemus, R. Physiological Principles of Forage Production. Small Ruminant Workshop. Tuskegee University. Tuskegee, AL. March 25-26. *Invited*
- (32)2014: White, J.A. and R. Lemus. The Potential of Mixed Alfalfa/Bermudagrass Systems in Mississippi. Southern Association of Agricultural Scientist. Dallas, TX. February 1-4. *Volunteered.*
- (33)2013: Lemus, R. Managing Forages, Grazing Behavior, and Other Tricks. Eastern North Carolina Cattlemen Association. Clinton, NC. December 3, 2013. *Invited.*
- (34)2013: Lemus, R. Basic Agronomic and Physiological Principles of Forage Production I. Small Ruminant Workshop. Tuskegee University. Tuskegee, AL. March 25-27. *Invited.*
- (35)2013: Lemus, R. Basic Agronomic and Physiological Principles of Forage Production II. Small Ruminant Workshop. Tuskegee University. Tuskegee, AL. March 25-27. *Invited.*
- (36)2013: Lemus, R., J. White, K. Crouse, J.I. Morrison, J.J. Varco and M. Cox. Evaluation of Fertilizer and Bio-soil enhancers in Bermudagrass Forage Production. ASA Southern Branch. Orlando, FL. February 5. *Invited.*
- (37)2012: Hay Production & Forage Quality in Perspective. ALFA Farmers 40th Annual Commodity Producers Conference. Mobile, AL. August 2-5. *Invited.*
- (38)2012: White, J.A. and R. Lemus. Overview of the Forage Variety Testing Program at Mississippi State University. SCC-33 National Variety Testing Meeting. New Orleans, LA. February 8-10. *Volunteered.*
- (39)2011: Lemus, R. Overseeding Bermudagrass for Pasture and Hay Production. Tennessee Forage and Grassland Council. Nashville, TN. November 4. *Invited.*
- (40)2011: Lemus, R. Nitrogen Use Efficiency in Annual Ryegrass Production. Southern Pasture and Forge Crop Improvement Conference. Aiken, South Carolina. May 16-18. *Volunteered.*
- (41)2009: Lemus, R. Equine Pasture Management. Cornerstone Veterinary Clinic. Walker Co. Chickamauga, GA. April 4. *Invited.*

State

- (1) 2023: Wildlife Forage and Its Management. Exploring Livestock Grazing for Coastal Habitat Conservation Webinar Series. Mississippi State University and Coastal Conservation & Restoration. December 12.
- (2) 2022: Lemus, R. Understanding Pasture Rejuvenation and Long-Term Benefits. North MS Beed Expo. Batesville, MS. November 4.
- (3) 2022: Lemus, R. Understanding Pasture Rejuvenation and Long-Term Benefits. North MS Beed Expo. Batesville, MS. November 3.
- (4) 2020: Lemus, R. Developing Efficient Grazing Systems. Webinar. August 25.
- (5) 2020: Lemus, R. and M.T. Peavy. Integrating Forage Systems to Extend the Grazing Season. Herd Health and Forage Field Day. Hinds Community College. August 4.
- (6) 2020: Lemus, R. Using Summer Annuals to Complement Summer Forage Production. Webinar. April 23.
- (7) 2020: Lemus, R. Nutrient Management Practices in Forage Production. Webinar. April 21.
- (8) 2019: Lemus, R. Forage and pasture management in cattle production. Hancock County Outdoor Recreational Business Workshop. Perkinston, MS. March 12.
- (9) 2018: Selecting Winter Forage Crops to Improve Grazing Efficiency. 3rd Biennial South Mississippi Grazing Lands Conservation Initiative Conference. Natchez, MS. October 24. *Invited.*
- (10) 2018: Lemus, R. Planning and Implementing an Effective Grazing System for Maximum Efficient. 3rd Biennial South Mississippi Grazing Lands Conservation Initiative Conference. Hattiesburg, MS. August 20. *Invited.*
- (1) 2018: Lemus, R. Late Season Transitional Grazing Management. Small Farm Outdoor Demonstration Workshop. Restoring Faith Organization. Hazlehurst, MS. August 16. *Invited.*
- (2) 2018: Lemus, R. Seed Treatments – Emerging Issues & Future Considerations. Seed Technology Short Course. Stoneville, MS. August 1. *Invited.*
- (3) 2018: Lemus, R. Integrated Grazing Management for Small Ruminants. Small Ruminant. Production Workshop. Mississippi State University. March 17. *Invited.*
- (4) 2017: Lemus, R. Diversifying Your Forage System to Extend the Grazing Season. Small Scale Beef Herd Program, Mississippi Minority Coop. Louisville, MS. April 15. *Invited.*
- (5) 2016: Lemus, R. Forages: Production, Marketing and Disease Control. Mississippi Farm Bureau Summer Commodity Meeting. Jackson, MS. July 8. *Invited.*
- (6) 2016: Lemus, R. Hay Production and Quality: Impact in Winter Feeding Programs. SunSouth Inc. Hay Clinic. Lucedale, MS. April 30. *Invited.*
- (7) 2016: Lemus, R. Implementation of Sustainable Management Practices to Improve Hay Production and Utilization. Grazing Lands Conservation Initiative Field Day. Summit, MS. April 28. *Invited.*
- (8) 2016: Lemus, R. Nutrient Management in Mississippi Forage Systems. Mississippi Farm Bureau Federation Winter Commodity Conference. Jackson, MS. January 26. *Invited.*
- (9) 2015: Lemus, R. Grazing Land Management for Goat Production. 1st Northeast Mississippi Small Ruminant Workshop. Verona, MS. November 14. *Invited*
- (10) 2015: Lemus, R. Stockpiling Warm-season Grasses to Fall Grazing. Mississippi Forage and Grassland Council Annual Conference. Newton, MS. November 6. *Invited.*
- (11) 2015: Lemus, R. Management Practices for Alfalfa Establishment and Production. Mississippi Forage and Grassland Council Annual Conference. Newton, MS. November 6. *Invited.*
- (12) 2015: Lemus, R. Forage Systems for Extending the Winter Grazing Season: North Mississippi. Cattlemen College. Prairie, MS. September 23. *Invited.*
- (13) 2015: Lemus, R. Forage Systems for Extending the Winter Grazing Season: South Mississippi. Cattlemen College. Poplarville, MS. September 24. *Invited*
- (14) 2015: Lemus, R. Forage Establishment/Pasture Renovation. 2nd Southwest Mississippi Grazing Lands Conservation Initiative Conference. Natchez, MS. September 15-16. *Invited*
- (15) 2015: Lemus, R. Forage Selection for Goats. Goat (Small Ruminant) Boot Camp. Leake & Neshoba Soil and Water Conservation Districts. Philadelphia, MS. July 18. *Invited.*
- (16) 2015: Lemus, R. The Importance of Forages in Livestock Production. Teacher Conservation and Education Workshop. Okolona, MS. June 11. *Invited.*
- (17) 2015: Lemus, R. Soil Health and Grazing Management. Mississippi GLCI Field Day. Shubuta, MS. June 2. *Invited.*

- (18)2015: Lemus, R. Advantages of Using Rotational Grazing. Mississippi Minority Farmers Alliance. Mississippi GLCI Field Day. Okolona, MS. May 22. *Invited.*
- (19)2015: Lemus, R. Forage Selection for Sheep and Goats. NRCS North MS Small Ruminant Field Day. Thaxton, MS. May 12. *Invited.*
- (20)2014: Lemus, R., J. White, and K. Crouse. Forage Production. American Society of Agronomy, Mississippi Chapter Annual Meeting. Grenada, Mississippi. November 12-13. *Invited.*
- (21)2014: White, J. and R. Lemus. Mississippi Forage Variety Testing: Performance and Adaptation. American Society of Agronomy, Mississippi Chapter Annual Meeting. Grenada, Mississippi. November 12-13. *Invited.*
- (22)2014: Lemus, R. Grazing Management of Summer Annual Grasses. Mississippi Cattlemen's College. Mississippi Cattlemen Association. West Point and Brookhaven, MS. August 27-28. *Invited.*
- (23)2013: Lemus, R. Nutrient Efficiency in Mississippi Forage Production Systems. Mississippi Chapter of the American Society of Agronomy Annual Meeting. Grenada, MS. November 13-14.
- (24)2013: Lemus, R. Fall and Grazing Management Strategies to Reduce Hay Dependence. Mississippi Dexter Breeder Association. Louisville, MS. September 14. *Invited.*
- (25)2013: Integrated Hay & Grazing Management Strategies. NRCS-GLCI Beef Field Day. Enid, MS. September 5. *Invited.*
- (26)2013: Lemus, R. Impact of Pasture-based Systems in Dairy Production. Mississippi Dairy Field Day. Verona and Tylertown, MS. June 25-26. *Invited.*
- (27)2013: Lemus, R. Multi-species Grazing Management. Small Ruminant Field Day. Pontotoc Soil & Water Conservation District & the Grazing Lands Conservation Initiative – GLCI. Thaxton, MS. May 7. *Invited.*
- (28)2012: Lemus, R. Integrated Nutrient Management in Forage Production. ASA Mississippi Chapter Annual Meeting. Grenada, MS. November 14. *Invited.*
- (29)2012: Sustainable Rangeland Management. NRCS Environton Training for Teachers. Wiggins, MS. July 28. *Invited.*
- (30)2012: Integrated Grazing System. Forage and Pasture Workshop. DeSoto Soil & Water Conservation District. Hernando, MS. July 17, 2012.
- (31)2012: Sustainable Rangeland Management. NRCS Environton Training for Teachers. Pontotoc, MS. July 12. *Invited.*
- (32)2012: Hay Production and Pasture Management for Southwest Mississippi. NRCS Annual Training. Raymond, MS. June 26. *Invited.*
- (33)2012: Planning a Grazing System. Making Tracks – MS Junior Cattlemen. Starkville, MS. June 19. *Invited.*
- (34)2012: Forages for Mississippi. Making Tracks – MS Junior Cattlemen. Starkville, MS. June 18.
- (35)2012: Forage Management and Fertilization Strategies. NRCS Annual Training. Verona, MS. June 4. *Invited.*
- (36)2012: Forage Establishment Practices. NRCS Annual Training. Hattiesburg, MS. May 16.
- (37)2012: Grazing Management. Pasture Development Class. Plant and Soil Sciences. April 3 and 5. *Invited.*
- (38)2012: Current Issues in Forage Production. NRCS Annual Training. Stoneville, MS. March 21.
- (39)2011: The Role of Fertilizer, Fertilizer Enhancers and Bio Stimulants in Forage Production. ASA Mississippi Chapter Annual Meeting. Grenada, MS. November 16. *Invited.*
- (40)2010: Understanding Hay Storage, Quality and Utilization. Grazing and Fencing Clinic. 2010 South/Southwest Mississippi Grazing Lands Conservation Initiative. USDA/NRCS. Alcorn State University. September 30 – October 1.
- (41)2010: Hay is for Horses, but Pastures Too: Keeping them Green and Productive. Equine Interest Group. Distance Learning. Starkville, MS. September 2.
- (42)2010: Grazing Management: Reduction in Energy Inputs. Panel Discussion: Are There Conflicting Roles in Green Energy from Agricultural and Natural Resource Technical Information and Service Providers? Professional Soil Classifier Association of Mississippi Annual Meeting. Crystal Springs, MS. July 15-16.
- (43)2010: Considerations towards Building a Profitable Grazing System. South Area MACD Summer Meeting. Brookhaven, MS. June 17.
- (44)2010: Forage Production in Mississippi. Improving Efficiency. Pasture Development Class (Dr. Lang). Mississippi State. February 25.

- (45)2010: Intensive Grazing: Grazing Livestock or Managing Grass? Mississippi Association of Conservation Districts, Inc. Annual Meeting. Jackson, MS. January 21.
- (46)2009: Forage Production/Emerging Issues. Legislative Visit. Prairie, MS. October 26.2009: Managing nutrients in bioenergy crops. Mississippi Crop College. Mississippi State University, Starkville, MS. February 17-19.
- (47)2009: Herbaceous crops: Management and feedstock opportunities. Plant and Soil Science Department. Mississippi State University, Starkville, MS. February 23.
- (48)2008: Nutrient Cycling on Switchgrass Grown for Biomass. Southern Plant Nutrient Management Conference. Olive Branch, MS. November 4 – 5.
- (49)2008: Opportunities in Forages and Pasture Management. Introductory Plant Science Class. April 16.
- (50)2008: Comparison of Grazing Systems and Cattle Production in South America. MSU Cattleman Club. Wise Center, Mississippi State, MS, March 18.

University/Teaching Guest Lectures

- (1) 2023: Forage Systems for Meat and Dairy Goat Production. ADS 4211 Goat and Sheep Production. Instructor: Alex Gardner. November 15 (17 students).
- (2) 2023: Forage Production Systems for Livestock. Animal Science Laboratory, ADS 1121. Six sections. Hellen Haas. Starkville, MS. November 7 & 9. (150 students).
- (3) 2023: Cool-Season Forages for Beef Cattle Production. Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. November 1 (18 students).
- (4) 2022: Dairy Goat Production and Management. Dairy Farm Management, ADS 4813. Dr. Amanda Mr. Kenneth Graves. Sturgis, MS. September 26 (17 students)
- (5) 2023: Forage Quality Analysis for Livestock. PSS 4103 Forages and Pastures Laboratory. Instructor: Dr. Joshua White. Starkville, MS. September 21 (15 students).
- (6) 2023: Cool-Season Forages for Beef Cattle Production. Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. March 29 (15 students).
- (7) 2023: Grazing management and Grazing Capacity. PSS 4103 Forages and Pastures Laboratory. Instructor: Dr. Joshua White. March 23 (15 students).
- (8) 2023: Forage Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Instructor: Alex Pittman. March 2 (25 students).
- (9) 2023: Mississippi's Agriculture. Experiential Learning: Study in the USA-Mississippi and Tennessee, SPES 3984/CRN 21947. Virginia Tech. Professor: Dr. Ozzie Abaye, Blacksburg, VA. January 24 (26 students).
- (10)2022: Cool-Season Forages for Beef Cattle Production. Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. October 26 (13 students).
- (11)2022: Agriculture and Food Systems in Latin America: Implications for Global Food Supply and Trade. Dr. Jessica Graves, AELC/GA 2103. October 18 (18 students).
- (12)2022: Forage Systems for Grazing Dairies. Dairy Farm Management, ADS 4813. Dr. Amanda Stone. October 11 (16 students).
- (13)2022: Developing Grazing Allocation Plans for Improving Grazing Efficiency. Dairy Farm Management Laboratory, ADS 4813. Dr. Amanda Stone. October 11 (16 students).
- (14)2022: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. Dr. Millie Murphree. April 12 (4 students).
- (15)2022: Cool-Season Forages for Beef Cattle Production. Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. March 23 (16 students).
- (16)2022: Cool-season Forage Grazing and Utilization. Forage and Pasture Crops, PSS 4103. Dr. Joshua White (12 students). March 10.
- (17)2021: Dairy Goat Production Practices. ADS 3312, Forage Systems for Livestock Production. Dr. Rhonda Vann. November 9 (21 students).
- (18)2021: Agricultural Education, Leadership, & Communications Internship. 3.0 Cr. Hrs. (1 student).
- (19)2021: Undergraduate Research Scholars Program (USRP). GA4800 (Sec 42, CC37438). 3.0 Cr. Hrs. (1 student).
- (20)2021: Dairy Goat Production Practices. ADS 3312, Livestock Management Practices. Dr. Rhonda Vann. October 27 (21 students).

- (21)2021: Cool-season Forage Systems for the Southern USA. PSS 4103, Forage and Pasture Crops. Dr. David Lang. October 5 (29 students).
- (22)2021: Forage Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. October 5 (15 students).
- (23)2021: Forage Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. September 27 (15 students).
- (24)2021: Dairy Goat Production Systems. Dr. Amanda Stone. September 24 (3 students).
- (25)2021: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. Dr. Carley Morrison. April 14 (4 students).
- (26)2021: Agricultural Systems in Latin America. AELC/GA 2103. Instructor: Ms. Jessica Graves. March 23 (18 students).
- (27)2021: Cool-Season Forages for Beef Cattle Production. Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. March 10 (18 students).
- (28)2021: Cool-season Forage Grazing and Utilization. Forage and Pasture Crops, PSS 4103. Dr. Joshua White (20 students). February 26.
- (29)2020: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. Dr. Carley Morrison. November 12 (3 students).
- (30)2020: Forage Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. October 26 (6 students).
- (31)2020: Cool-season Forage Systems for the Southern USA. PSS 4103, Forage and Pasture Crops. Dr. David Lang. September 22 (24 students).
- (32)2020: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. Dr. Carley Morrison. April 16 (3 students).
- (33)2020: Agricultural Systems in Latin America. AELC/GA 2103. Instructor: Ms. Jessica Graves. February 18 (15 students).
- (34)2019: Forage Selection, Establishment, and Identification. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. November 22 (18 students).
- (35)2019: Grazing Management Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. November 18 (25 students).
- (36)2019: Forages for Beef Cattle Production, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. October 23 (30 students).
- (37)2019: Forage Selection and Utilization for Southeast Cattle Systems. PSS 4103, Forage and Pasture Crops. Dr. David Lang. September 24 (47 students).
- (38)2019: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. Dr. Carley Morrison. April 18 (4 students).
- (39)2019: Cool-Season Forages for Beef Cattle Production, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. April 3 (38 students).
- (40)2019: International Train-the-Trainer (Central America). International Agricultural Education AELC 4503/6503. Professor: Dr. Marina Denny. Starkville, MS. April 1 (16 students).
- (41)2019: Agricultural Systems in Latin America. AELC/GA 2103. Instructor: Ms. Jessica Graves. February 20 (11 students).
- (42)2019: Integrated Weed Management in Pasture Systems. Weed Biology and Ecology, PSS 4633. Dr. Connor Ferguson. February 12.
- (43)2018: Cool-Season Forages for Beef Cattle Production, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. November 28.
- (44)2018: Grazing Management Systems for Small Ruminants. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. November 26.
- (45)2018: Mock Interview Evaluator. Ag Information Systems, AELC 3333 Professional Presentations. Dr. Carley Morrison. November 20.
- (46)2018: Forage Seed Production and Marketing, Seed Production, PSS 4223. Professor: Dr. Keri Jones. November 19.
- (47)2018: Mock Interview Evaluator. Ag Information Systems, AELC 3333 Professional Presentations. Dr. Carley Morrison. April 12.
- (48)2018: Forages for Beef Cattle Production, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. April 5.
- (49)2018: The Panamanian Economy and Agricultural Systems. AELC/GA 2103. Professor: Instructor: Ms. Jessica Graves. March 8.

- (50)2018: Integrated Weed Management in Pasture Systems. Weed Biology and Ecology, PSS 4633. Dr. Connor Ferguson. March 1.
- (51)2017: Mock Interview Evaluator. Ag Information Systems, AELC 3333 Professional Presentations. Dr. Carley Morrison. November 28.
- (52)2017: Forage and Grazing Systems for Goats and Sheep. ADS 4211 Goat and Sheep Production. Professor: Dr. Erdogan Memili. November 27.
- (53)2017: Importance of Legumes in Agronomic Systems, Seed Production, PSS 4223. Professor: Dr. Keri Jones. November 15.
- (54)2017: Forage Production Systems in Mississippi. Plant Science, PSS 1313. Dr. Barry Stewart. November 13.
- (55)2017: Forages for Beef Cattle Production, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. November 1.
- (56)2017: Forage Production Systems in the Southern USA. Freshman Animal Production. Department of Animal Science, University of Costa Rica. August 23.
- (57)2017: Characterization of Forage and Grassland Systems, PSS 4103, Forage and Pasture Crops. (Dr. David Lang). August 17.
- (58)2017: Integration of Forage Diversity in a Rotational Grazing System, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. March 29.
- (59)2017: Application of Precision Agriculture to Forage Production Systems. PSS 4543. Professor: Dr. TJ Bradford. March 21.
- (60)2017: Agricultural Systems in Central and Latin America. AIS 2103. Professor: Dr. Susan Seals. March 9.
- (61)2016: Importance of Legumes in Agronomic Systems, Seed Production, PSS 4223. Professor: Dr. Keri Jones. November 14.
- (62)2016: Mock Interview Evaluator. AIS 3333 Professional Presentations. November 8.
- (63)2016: Forages for Beef Cattle Production Class, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. November 2.
- (64)2016: Forages for Beef Cattle Production Class, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. April 14.
- (65)2016: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. April 14.
- (66)2016: Getting Started – How to Develop a Grazing Plan, PSS 4213. Mr. Joshua White. February 4.
- (67)2015: Mock Interview Evaluator. AIS 3333 Professional Presentations. November 5.
- (68)2015: Integrated Rotational Grazing Strategy for Year-round Grazing in Mississippi. Forage and Pasture Crops, PSS 4103 (Dr. Lang). October 21.
- (69)2015: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. April 16.
- (70)2015: Forages for Horses and Grazing Management. ADS 3221, Practices in Horse Care and Management. March 18.
- (71)2014: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. November 18.
- (72)2014: Mock Interview Evaluator. Ag Information Systems, AIS 3333 Professional Presentations. April 22.
- (73)2014: Nicaraguan Farmer to Farmer Program: Developing Forage Management Recommendations for Small Producers. Mississippi State University, International Programs. Presented to Dr. Robert B. Bertram. Director, Office of Agricultural Research and Policy Bureau for Food and Security, USAID. January 28.
- (74)2013: Forage Production Systems in Mississippi. Plant Science, PSS 1313. Dr. Barry Stewart. November 20.
- (75)2013: Forage and Pasture Crops. Developing a Comprehensive Grazing Management Program, PSS 4103 (Dr. David Lang). November 7.
- (76)2013: Mentors and Mentoring for New Faculty. CALS/CFR Mentoring Workshop. Starkville, MS. October 28.
- (77)2013: Forage & Pastures Crops Laboratory. Warm-season grasses and their potential in Mississippi Forage Systems, PSS 4103 (Dr. David Lang). August 28.
- (78)2011: The Role of Grazinglands in Food Production and Climate Mitigation. PSS Freshman Seminar (Dr. Billy Kingery). September 28.

- (79)2011: Forages for Beef Cattle Production Class, Beef Cattle Laboratory, ADS 4321. Professor: Dr. Trent Smith. Starkville, MS. April 13.
- (80)2009: Invited Speaker Turf Management Class (Dr. Gregg Munshaw). February 6.
- (81)2009: New Faculty Panel. Mississippi State University. January 20.
- (82)2008: Invited speaker to the Forage Crop Ecology. Virginia Tech. Blacksburg, VA. February 11-15.

County/Area Extension Meetings

- (1) 2023: Forage Strategies for Drought Situations. Neshoba CCA. November 16.
- (2) 2023: Establishment and Management of Cool-season Grasses under Drought Stress. Marshall CCA. October 26.
- (3) 2023: Forage Management Strategies Under MS Drought Conditions. Oktibbeha Co Soil and Water. Starkville, MS. October 15.
- (4) 2023: Managing Cool-season Grasses in Mississippi. Rankin CCA. Brandon, MS. August 10.
- (5) 2023: Managing Fertilizer and Herbicide Applications in Forage Production. Chickasaw CCA. Houston, MS. May 23.
- (6) 2023: Maximizing Your Forage Nutritive Value. Winston CCA. Louisville, MS. April
- (7) 2023: Integrated Alfalfa Production Systems in Mississippi. Perry CCA. Richton, MS. March 30.
- (8) 2023: Managing Fertilizer Efficiency and the Impact of New Products. Lowndes CCA. Columbus, MS. March 21.
- (9) 2023: Nutrient Management for Forage Crops. Lee CCA. Tupelo, MS. March 16.
- (10)2023: Managing Fertilizer Efficiency and Improving Forage Nutritive Value. Monroe CCA. Aberdeen, MS. February 28.
- (11)2022: Optimizing Establishment and Winter Grazing. Monroe CCA. Aberdeen, MS. August 29.
- (12)2022: Maximizing the Use of Cool-Season Forages. Tippah CCA. Ripley, MS. August 25.
- (13)2022: Grazing for Profit: Maximizing the Use of Your Forages. Tallahatchie CCA. Charleston, MS. August 9.
- (14)2022: Tips for Managing Seed, Fertilizer, and Herbicide when Prices are High. Clay CCA. Columbus, MS. July 14th.
- (15)2022: Forage Crop Adaptability and Production of Forage Systems in South Mississippi. White Sand Field Day. June 2.
- (16)2022: Understanding Forages for Sheep and Goat Production. Union County Ext. Small Ruminant Group. May 31.
- (17)2022: Selection of Forage Species for Sheep and Goat Production. Oktibbeha County Coop. May 7.
- (18)2022: Adaptability of Forage Species to Mississippi. Magnolia Poultry and Beef Expo. Raleigh, MS. April 14.
- (19)2022: Baleage Production Practices in the South. Wayne CCA. Waynesboro, MS. April 7.
- (20)2021: Taking Advantage of Cool-season Forage Crops. Webster CCA. Eupora, MS. November 18.
- (21)2021: Maximizing the Utilization of Cool-season Annual Forage Crops. Stone CCA. Wiggins, MS. November 4.
- (22)2021: Forage Management for Livestock Systems. Sustainability Training in Agricultural Resource Systems (STARS). Pontotoc, MS. November 4.
- (23)2021: Fertilizer Practices for Pastures. Union CCA. New Albany, MS. August 16.
- (24)2021: Fertilizing and Liming Hay Fields and Pastures. Tishomingo CCA. Iuka, MS. July 29.
- (25)2021: Improving Forage Production and Utilization During the Summer Months. Chickasaw CCA. Houston, MS. June 3.
- (26)2021: Nutrient Management in Forage Production. Lowndes CCA. Columbus, MS. March 9.
- (27)2021: Developing Efficient Forage Systems for Grazing and Hay Production. Leake CCA. Carthage, MS. January 13.
- (28)2019: Maximizing the Utilization of Annual Cool-season Forage Crops. Lauderdale CCA. Collinsville, MS. October 24.
- (29)2019: Impact of Moisture in Hay and Baleage Production. Electric Fencing and Baleage Workshop. Starkville, MS. September 11.

- (30)2019: Use of hay testing and infrared technology to reduce hay combustion and fire hazard in storage facilities. Electric Fencing and Baleage Workshop. Starkville, MS. September 11.
- (31)2018: Effects of Applying Poultry Litter for Forage/Hay Production. Perry County Poultry Producers Meeting. Runnelstown, MS. October 11.
- (32)2018: Basic Pasture Management for the Equine Owner – A Year-round Approach. Louisville, MS. July 26.
- (33)2018: Hay Judging and Forage Quality Analysis. National 4-H Livestock Skillathon Contest. Raymond, MS. July 24.
- (34)2018: Maximizing Forage for Small Ruminants. Southern Browsers Dairy Goat Association Educational Seminar. Raymond, MS. July 14.
- (35)2018: New Forage Varieties: Summer & Winter. Mississippi/Louisiana Beef and Forage Field Day. Tylertown, MS. May 19.
- (36)2018: Integration of Cool- and Warm-season Grasses for Grazing in North Mississippi. Itawamba CCA. Dorsey, MS. March 20.
- (37)2018: Managing Cool-season Forages for Fall and Winter Grazing. Tishomingo CCA. Iuka, MS. January 22.
- (38)2017: Forage Selection for Horses in Mississippi. Equine Short Course. Batesville, MS. September 25.
- (39)2017: Nutrient Management Strategies for Sustainable Forage Production. Pike CCA. Magnolia, MS. May 18.
- (40)2017: Baleage Production Practices. Smith CCA. Raleigh, MS. March 23.
- (41)2017: Forage Selection for North Mississippi. Pontotoc CCA. Pontotoc, MS. March 16
- (42)2017: Grazing Management Approach to Extending the Grazing Season. Oktibbeha CCA. Starkville, MS. February 23.
- (43)2016: Annual Ryegrass Production Strategies. Neshoba CCA. Philadelphia, MS. September 28.
- (44)2016: Impact of Pasture Diversity in Livestock Production. Lee CCA. Tupelo, MS. June 16.
- (45)2016: Forages: Pasture Management and Forage Quality for Horses. Horse Management 101 Workshop. Winona, MS. April 12.
- (46)2016: Pros and Cons of Using Poultry Litter in Forage Systems. Lafayette CCA. March 14.
- (47)2015: Management of Cool-season Grasses to Optimize Grazing. Neshoba CCA. November 5.
- (48)2015: Pasture Renovation. Adams CCA. Natchez, MS. October 15.
- (49)2015: Fall Grazing Strategies under Drought. Oktibbeha CCA. October 13.
- (50)2015: Optimizing Winter Grazing Efficiency. Lincoln CCA. Brookhaven, MS. September 17.
- (51)2015: Nutrient and Pest Management in Mississippi Hay Fields. Stone CCA. Wiggins, MS. July 30.
- (52)2015: Forage Update: Planning Ahead. Grenada CCA. Grenada, MS. July 23.
- (53)2014: Thinking Ahead for Fall and Winter Feeding. Tippah CCA. Ripley, MS. October 2.
- (54)2014: Managing Pastures and Grazing Lands. Pasture & Grazing Seminar. Flora, MS. July 17
- (55)2014: Forage Quality and Nutrition Benefits. Monroe CCA. Aberdeen, MS. March 20.
- (56)2013: Know Your Hey! Itawamba CCA. Mantachie, MS. October 10.
- (57)2013: Annual Cool-season Forage Production. Pontotoc CCA. September 24.
- (58)2013: Pasture and Hay Management. Greene CCA. June 20.
- (59)2013: Planning for Winter Grazing. Kemper CCA. June 18.
- (60)2013: Spring/Summer Pasture Adaptation and Utilization for Horses. Equine Interest Group. Distance Education. March 28.
- (61)2013: Forage Logistics. Hinds CCA. Raymond, MS. March 21.
- (62)2013: Ways to be more efficient in Forage Production. Beef Cattle Seminar Series. Oxford, MS. March 11.
- (63)2012: Prescribed Burning as a Management Tool for Pastures. Wilkinson CCA. Centreville, MS. December 3.
- (64)2012: Forage Production in Mississippi. Mississippi Forage and Grassland Conference. Raymond, MS. November 30.
- (65)2012: Preparing for Winter Grazing. Choctaw CCA. Van Vleet, MS. October 25.
- (66)2012: Integrated Weed Control and Pasture Fertilization. Perry CCA. Richton, MS. October 11.
- (67)2012: Our Forages, Our State, Our Future. Clay CCA. Phoebe, MS. July 12.
- (68)2012: Poultry Litter in Forage Production. Lafayette CCA. Oxford, MS. May 22.
- (69)2012: Integrated Forage Systems for Beef Cattle Herds. Benton CCA. Lamar, MS. May 2.

- (70)2012: Summer Forages. Marshall CCA. Holly Springs, MS. April 26.
- (71)2012: Fertilizer Enhancers and Bio Stimulant Effects in Hay Production. Beef Boot Camp. White Sands, MS. April 20.
- (72)2012: Nutrient Management in Hay Production. Beef Boot Camp. Starkville, MS. April 13.
- (73)2012: Producing Baleage to maintain forage quality. Starkville, MS. April 13.
- (74)2012: Utilization and Management of Cool-season Winter Annuals. Attala CCA. Kosciusko, MS. February 21.
- (75)2011: Stockpiling Forages and Winter Forage Production. Lafayette CCA Field Day. Oxford, MS. September 22.
- (76)2011: Extending the grazing season: benefits of rotational grazing and high stocking density. Grazing School. Brookhaven, MS. May 26.
- (77)2011: Grazing Management for Beef Cattle Production. Lee CCA. Tupelo, MS. April 21.
- (78)2011: Balancing Nutrient Use in Hay Production. Noxubee CCA. Macon, MS. April 19.
- (79)2011: Establishing and Fertilizing Forages. Grenada CCA. Grenada, MS. April 12.
- (80)2011: Hay Nutrient Management. Cattlemen Exchange Meeting, Cain Cattle Company. Pickens, MS. March 21.
- (81)2011: Fine Tuning Your Hay Production System. Beef Cattle Short Course. Holly Springs, MS. March 1.
- (82)2011: Pasture Management for Beef Cattle Herds. Winston County Self Help Cooperative. Advocating Social and Economic Change. Louisville, MS. February 26.
- (83)2010: Maximizing Hay Utilization. Interactive Video: George & Jackson CCA. December 7.
- (84)2010: Utilizing Cool-Season Grasses in Grazing Systems. Lee CCA. Tupelo, MS. September 16.
- (85)2010: Poultry Litter Utilization in Forage Production Systems. Wayne CCA. Waynesboro, MS. September 14.
- (86)2010: Preparing, Planting, and Grazing Winter Annuals. Tishomingo CCA. Iuka, MS. September 9.
- (87)2010: Stockpiling Forages. Walthall CCA. Tylertown, MS. July 22.
- (88)2010: Forage Production and Utilization. Tate CCA. Senatobia, MS. May 25.
- (89)2010: Summer Forage Production: Varieties and Weed Control. Franklin CCA. Meadville, MS. May 20.
- (90)2010: Forage Research and Variety Trial Updates. Perry CCA. Richton, MS. April 22.
- (91)2009: Hay Feeding: Reducing Losses and Increasing Efficiency. Lee CCA. Tupelo, MS. November 19.
- (92)2009: Planning a Managed Grazing System: Why and How? Greene CCA. Leakesville, MS. November 5.
- (93)2009: Winter Grazing for Beef Cattle. Simpson CCA. Mendenhall, MS. October 19.
- (94)2009: Preventing Grass Tetany. Pike CCA. McComb, MS. October 20.
- (95)2009: Pasture Planning for Winter Forages. Tippah CCA. Ripley, MS. September 24.
- (96)2009: Forage Assessment: When to Consider Pasture Renovation. Amite Co. Cattlemen Exchange. Centreville, MS. September 15.
- (97)2009: Management and Utilization of Winter Annual Forages. Madison CCA. Canton, MS. August 31.
- (98)2009: Winter Annual Forages: Planning and Utilization. Itawamba CCA. Dorsey, MS. August 13.
- (99)2009: Hay Quality and Storage. Attala CCA. Kosciusko, MS. August 6.
- (100) 2009: Fertilizer Issues and Decisions: Economic Strategies. Winona Cattlemen Exchange Group. Winona, MS. July 28.
- (101) 2009: Improvement of Pastures and Hay Production. Hancock CCA. Kiln, MS. July 9.
- (102) 2009: Making and Maintaining Good Quality Hay Pays. Noxubee CCA. Macon, MS. May 28.
- (103) 2009: Yazoo CCA. Steps to Maintaining Productivity of Perennial Warm-Season Grasses. Yazoo City, MS. May 21.
- (104) 2009: Steps to Creating and Maintaining a Profitable Pasture. Winston CCA. Louisville, MS. April 30.
- (105) 2009: Rotational Grazing Planning Guide. Marshall CCA. Holly Springs, MS. April 23.
- (106) 2009: Preparing for Spring Pasture. Webster Cattlemen's Meeting. Eupora, MS. March 19.
- (107) 2009: Selecting Quality Forage for Horses. Horse Nutrition Program. Oxford, MS. March 17.

- (108) 2009: Management of Warm-Season Perennial Grasses. Calhoun Cattlemen's Meeting. Pittsboro, MS. March 10.
- (109) 2009: Steps to Creating and Maintaining a Profitable Pasture: The Cheapest Form of Nutrition for Your Livestock. Yalobusha Cattlemen's Meeting. Coffeeville, MS. January 19.
- (110) 2008: Carbon Sequestration and Carbon Credits for Forage and Forestry Production in MS. Clay Co. Forestry Association. West Point, MS. December 18.
- (111) 2008: Potential Carbon Sequestration and Carbon Credits for MS. Clay Co. Forestry Association. West Point, MS. November 11.
- (112) 2008: Establishment and Maintenance of Cool-season Forages. Wayne Co. Waynesboro, MS. September 18.
- (113) 2008: Managing Ryegrass Production. Lafayette Co. Oxford, MS. September 11.
- (114) 2008: Ryegrass Establishment and Production Guidelines. Joint CCA (Attala, Leak, and Holmes Co.). Pikens, MS. August 14.
- (115) 2008: Management Practices for Pasture Improvement. Hancock CCA. Kiln, MS. July 10, 2008.
- (116) 2008: Adjusting Forage Species to a Rotational Grazing System. Cattleman Exchange Group. Winona, MS. June 17.
- (117) 2008: Pastures for Dairy Cattle: Challenges and Opportunities. Summer Dairy Commodity Meeting. Tylertown, MS. June 5.
- (118) 2008: Hay Production: A Balance between Yield and Quality. Noxubee CCA. May 22.
- (119) 2008: Pasture for Profit: Managing Intensive Grazing for Animal Production. Distance Ed. May 19.
- (120) 2008: Warm-season Grasses for Cattle Production in Mississippi. Yalobusha CCA. Coffeeville, MS, May 5.
- (121) 2008: Off-set of High Nitrogen Prices by Utilizing Legumes. Rankin CCA. Distance Ed. April 10.
- (122) 2008: Forage Management. Holmes CCA. Lexington, MS, April 7.
- (123) 2008: Managing Pastures for Fertilizer Efficiency. Marshall Co. Cattleman Exchange. Holly Springs, MS, March 20.
- (124) 2008: Strategic Points to Better Manage Fertilizer Inputs in Pastures. Lamar Co. Cattleman Association. Purvis, MS. February 28.
- (125) 2008: Livestock and Strategic Points to Better Manage Fertilizer Inputs. Cattleman Exchange Group. Winona, MS. February 25.
- (126) 2008: Keys to a Successful Forage Program. HEIFER Group Attala Co. Kosciusko, MS. February 22.
- (127) 2008: Preparing Your Pastures – Spring Forage Management. Lee Co. Cattleman Association. Tupelo, MS. February 21.
- (128) 2008: Managing Horses in Small Acreage. Itawamba Co. Horse Association. Fulton, MS. February 18.
- (129) 2008: High Performance Hay Production. Mississippi Cattleman Annual Convention. Jackson, MS. February 2.
- (130) 2008: Forage Management and Integrated Grazing System for Animal Performance. Itawamba Co. Cattleman's Meeting. Dorsey, MS. January 24.
- (131) 2007: Addressing beef cattle efficiency and forage management. White Sand Research Unit Field Day. White Sand, MS. November 13.
- (132) 2007: Mission and goals of the Forage Extension Program. Rankin Co. Cattleman's Meeting. Brandon, MS. November 15.
- (133) 2007: Fitting livestock to the forage supply to improve pasture management. Lafayette Co. Program. Oxford, MS. November 13.
- (134) 2007: Winter annual forages: Management and planning. Pontotoc Co. Cattlemen's Meeting. Pontotoc, MS. November 8.
- (135) 2007: Hay sampling and prevention of quality loss. Lincoln Co. Cattlemen Field Day. Brookhaven, MS. October 27.
- (136) 2007: Winter forages/Hay quality testing. Union Co. Cattleman's Meeting. New Albany, MS. October 18.
- (137) 2007: Winter forage production in Mississippi. Kemper Co. Cattleman's Meeting. DeKalb, MS. October 16.

- (138) 2007: Fall forage program, hay and feed samples, and soil sampling. Attala Co. Cattleman's Field Day. Kosciusko, MS. September 22.
- (139) 2007: Managing annual cool-season forages and stockpiled tall fescue for winter grazing. Monroe Co. Cattlemen's Meeting. Aberdeen, MS. September 17.
- (140) 2007: Managing horses on small acreage. Mississippi Master Stockman Program. MSU, Starkville, MS. September 15.
- (141) 2007: Forage identification and pasture management. Mississippi Master Stockman Program [horse and beef tracks (basic and advanced)]. MSU, Starkville, MS. September 14.
- (142) 2007: Forage species, grazing management, and stocking rates. Mississippi Master Stockman Program. MSU, Starkville, MS. September 14.
- (143) 2007: Assessing available forage and farm forage plan. Mississippi Master Stockman Program. MSU, Starkville, MS. September 14.
- (144) 2007: Winter grazing and weed control. Madison Co. Cattlemen's Meeting. Canton, MS. August 28.
- (145) 2007: Forage availability. Gulf Coast Beef Education Alliance: Beef Cattle Nutrition Short Course. Extension distance education (interactive video). Mississippi State University. July 31.
- (146) 2007: Winter forage production and cultural practices. Jasper Co. Cattle Producers Meeting. Bay Springs, MS. July 30, 2007.
- (147) 2007: Livestock and equine drought question and answer session. Extension distance education (interactive video). Mississippi State University. July 17.

County Agent Training

- (1) 2022: New Extension Agent Training. Mississippi State University. September 28.
- (2) 2022: MSU-ES and NRCS: Mississippi USDA-NRCS Technical Service Providers Forage and Livestock Training Program (FLTP) (25 credits over 8 training modules).
- (3) 2021-2022: Small Ruminant Webinar Competency In-service Training (12 Credits, 1.0 credit each).
- (4) 2020: Developing Efficient Winter Grazing Systems Webinar (1 CEU, SP20_179D-1). 1 ANR Agent participated in this intermediate training. August 25
- (5) 2020: Using Summer Annuals to Complement Summer Forage Production Webinar (1 CEU, SP20_179C-1). 5 ANR Agents participated in this intermediate training. April 23.
- (6) 2020: Nutrient Management Practices in Forage Production Webinar (1 CEU, SP20_179B-1). 3 ANR Agents participated in this intermediate training. April 21.
- (7) 2019: Electric Fencing and Baleage Workshop (4 CEU, SP20_179_A-1): 15 ANR Agents participated in this intermediate training. September 11.
- (8) 2019: Forage Systems in the Tropics (1 CEU, ANS 201): Agents were invited to participate in this seminar and write one-page summary of how the management practices presented can be implemented in Mississippi. June 3.
- (9) 2019: Southern Pasture and Forage Crop Improvement Conference (16 CEUs, ANS 202): Four agents (one from each district) were selected to participate in this meeting from May 21-23 in Roanoke, VA. The meetings consisted of poster presentation, county agent's presentations, professional presentations, and field tours related to forage and livestock production.
- (10) 2018: Advanced Forage ID In-service Training (5 CEUs): This training was provided to 42 people that included Ag Extension Agents, USDA-ARS, USD-NRCS, Soil and Water Conservation, and Forestry field Staff. After completing this training, the participant had the proficiency to identify forage species found in pasture and hay fields across the state as well as make assessment of soil and environmental conditions in which each species might have an adaptation. This comprehensive training forage identification of major forage species in three groups: grasses, legumes, and forbs. Coffeeville, MS. April 26.
- (11) 2018: Advanced Forage ID In-service Training (5 CEUs): This training was provided to 42 people that included Ag Extension Agents, USDA-ARS, USD-NRCS, Soil and Water Conservation, and Forestry field Staff. After completing this training, the participant had the proficiency to identify forage species found in pasture and hay fields across the state as well as make assessment of soil and environmental conditions in which each species might have an adaptation. This comprehensive training forage identification of major forage species in three groups: grasses, legumes, and forbs. Starkville, MS. March 17.
- (12) 2017 and 2018: Forage Webinar Competency In-service Training (15 credits, 1.0 credit each):

- a. Forage Webinar 01: Mississippi Soils: Sampling Pastures and Hay Fields (ANR157). February 17 – March 3.
 - b. Forage Webinar 02: Understanding Fertilizer Sources and Application Rates (ANR156). March 6 – March 10.
 - c. Forage Webinar 03: Forage Variety Selection and Adaptation (ANR158). March 13 – March 17.
 - d. Forage Webinar 04: Principles of Forage Establishment (ANR159). March 20 – March 24.
 - e. Forage Webinar 05: Establishment of Native Grasses (ANR160). March 27 – March 31. Delivered by Dr. Brett Rushing.
 - f. Forage Webinar 06: Legume Management in Pasture Systems (ANR161): April 3 – 7. Delivered by Dr. Brett Rushing.
 - g. Forage Webinar 07: Principles of Alfalfa Production in Mississippi (ANR162). April 10 – 14.
 - h. Forage Webinar 08: Developing a Grazing Plan I: Resources (ANR163). April 17 – 21.
 - i. Forage Webinar 09: Developing a Grazing Plan II: Forage Calendar and Stocking Rates (ANR164). April 24 – 28.
 - j. Forage Webinar 10: Grazing Management of Forage Crops (ANR165). May 1 – 5.
 - k. Forage Webinar 11: Grazing Management of Native Grasses (ANR166). May 8 -12. Delivered by Dr. Brett Rushing.
 - l. Forage Webinar 12: Hay Inventory, Production, Storage and Feeding Practices (ANR167). May 15 – 19.
 - m. Forage Webinar 13: Baleage Production (ANR168). June 5 -9.
 - n. Forage Webinar 14: Understanding Forage Quality and Nutritive Value (ANR169). June 12 – 16. Delivered by Dr. Brett Rushing.
 - o. Forage Webinar 15: Toxic Plants in Forage System (ANR170). June 19 – 23. Delivered by Dr. Brett Rushing.
- (13)2017: Sustainability and Stewardship of Grazing Systems. Sustainability Training in Agricultural Resources Systems Workshop. West Point, MS. March 23.
 - (14)2015: Rivera, J.D., and R. Lemus. Interpreting Scientific Results. In-Service Training. Mississippi State University. April 28.
 - (15)2015: Lemus, R. Southern Pasture Conference and Tour. Apalachicola, FL. March 30 – April 1.
 - (16)2014: Lemus, R. Fall Forages: Planning Ahead In-Service Training. Mississippi Association of Agricultural County Agent Annual Professional Improvement Conference. Hattiesburg, MS. August 22.
 - (17)2014: Lemus, R. Forage Physiology. Sustainable Year-Round Forage Production and Grazing in the SE In-Service Training. Tuskegee University. March 22-26.
 - (18)2014: Lemus, R. Agronomic Principles of Forage Production. Sustainable Year-Round Forage Production and Grazing in the SE In-Service Training. Tuskegee University. March 22-26.
 - (19)2014: Lemus, R., J. White, and D. Rivera. Mississippi Forage Species. Ag. & Natural Resources In-Service Training. Mississippi State University. March 18-20.
 - (20)2014: Lemus, R and D. Rivera. Pasture Management. Ag. & Natural Resources In-Service Training. Mississippi State University. March 18-20.
 - (21)2014: Lemus, R., D. Rivera, and J. White. Hay Production. Ag. & Natural Resources In-Service Training. Mississippi State University. March 18-20.
 - (22)2014: Rivera, D. and Lemus, R. Forage Sampling and Nutritive Analysis. Ag. & Natural Resources In-Service Training. Mississippi State University. March 18-20.
 - (23)2011: Forage Systems Research Update. Mississippi Association of County Agricultural Agents (MACAA) Professional Improvement Conference. Verona, MS. August 4.
 - (24)2010: Hay Calculator: Improving Utilization and Supplementation. Mississippi State. In-service Training. March 1.
 - (25)2010: Panel Discussion: Operating in Clusters: Challenges, Opportunities, and Lessons from Other States. MACAA Professional Improvement Conference. Hattiesburg, MS. August 4.
 - (26)2010: Forage Update: Variety Selection and Adaptation. In-service Training. Mississippi Association of County Agricultural Agents (MACAA). Hattiesburg, MS. August 5.
 - (27)2010: Making Weed Control Decisions in Pastures: Costs and Benefits. In-service Training. MACAA Professional Improvement Conference. Hattiesburg, MS. August 5.

- (28)2009: Fertilizer Calculator for Pastures in Mississippi. In-Service Training. Mississippi State, MS. May 20.
- (29)2009: Forage Management Tools and Applications. MACAA Professional Improvement Conference. Stoneville, MS. July 28-30.
- (30)2008: Understanding Forage Testing, Quality, and Utilization. MAFES/MSU-ES Annual Conference. Mississippi State, MS. November 6.
- (31)2008: Carbon Credits. MACCA Professional Improvement Conference. Raymond, MS. August 5.
- (32)2007: Forage plan for Mississippi. MAFES/MSU-ES Annual Conference. Mississippi State, MS. November 5.

Certified Crop Advisor Training Sessions

- (1) 2010: Poultry Litter as a Fertilizer in a Forage Production System. Certified Crop Advisor Training. University of Florida. Lake Alfred, FL. October 14.
- (2) 2010: Stockpiling Perennial Grasses. Pasture and Forage Short Course. Starkville, MS. August 25.
- (3) 2010: Hay Production and Quality. Pasture and Forage Short Course. Starkville, MS. August 24.
- (4) 2010: Forage Allocation Exercise. Pasture and Forage Short Course. Starkville, MS. August 24.
- (5) 2009: Nutrient Management for Bioenergy Crops. Mississippi Crop College. Mississippi State University. February 19.
- (6) 2008: Nutrient Cycling on Switchgrass Grown for Biomass. 2008 Southern Plant Nutrient Management Conference. Olive Branch, MS. November 4 – 5.

Field Days and Other Presentations

- (1) 2023: Principles of Artificial Insemination for Dairy Goats. 2023 Small Ruminant Breeding and Pregnancy Diagnosis Workshop. Pontotoc, MS. December 9.
- (2) 2023: Warm-season Forage Production. Monroe Co, AL Cattle Association Summer Tour. Starkville, MS. August 19.
- (3) 2023: Impact of Forage Testing in the Nutritive Value of Dairy Goats. Mid-South Dairy Goat Association Meeting. New Albany, MS. July 22.
- (4) 2023: Forage Management and Rotational Grazing. Leake/Neshoba Co Grazing Field Day. Nazary Farms. Carthage, MS. May 6.
- (5) 2023: Forage Identification for Small Ruminants. Sheep and Goat Farmer's Training. Forrest Co. Ext. Hattiesburg, MS. April 12.
- (6) 2023: Forage Identification for Small Ruminants. Sheep and Goat Farmer's Training. Tippah Co. Ext. Ripley, MS. April 5.
- (7) 2023: Cool-season Forage and Grazing Management Field Day. Starkville, MS. April 5.
- (8) 2023: Hay Production and Utilization. Coastal Plain Exp. Station Beef Field Day. Newton, MS. March 30.
- (9) 2023: Forage and Beef Field Day. Newton, MS. March 30.
- (10)2022: Integrated Grazing Management and Benefits. White Sand Field Day. Poplarville, MS. November 10.
- (11)2022: Forages for Small Ruminants. Integrated Goat Parasite Management and Reproduction Training. New Albany, MS. October 28.
- (12)2022: Forage and Grazing Utilization. Stewardship in Grazing Systems Field Day. Cedarbluff, MS. October 20.
- (13)2022: Integration of Forage Livestock Systems and Soil Health. New Beginning Farmers, Ranchers, and Veteran Program. Lexington, MS. October 13.
- (14)2022: NCAT Farmers Drill Calibration and Forage Establishment Training. Michigan City, MS. September 19.
- (15)2022: NCAT Farmers Grazing Plan Development and Implementation. Tylertown, MS. September 7.
- (16)2022: Cool-season Forage Field Day. Starkville, MS. March 4.

- (17)2021: The World Through the Lens: Different Approaches to Photography. Winston Co. 4-F Youth Program. September 13.
- (18)2021: Hay Production and nutritive value. North Mississippi Beef and Forage Field Day. Ecrum, MS. May 6.
- (19)2021: Forage Management Practices. Piney Woods School Field Day. Piney Woods, MS. March 29.
- (20)2021: How to Calibrate a No-till Drill. Piney Woods School Field Day. Piney Woods, MS. March 29.
- (21)2021: Implementation of Diploid and Tetraploid Annual Ryegrass Mixes. Beef and Forage Field Day. Coastal Plain Experiment Station. Newton, MS. March 26.
- (22)2021: Principles of Baleage Production. George County Coop Field Day. Lucedale, MS. March 2.
- (23)2020: No-till Drill Calibration. Piney Wood School. Richland, MS. November 4.
- (24)2019: Management Practices for Grass/Legume Mixed Forages. Coastal Plain Exp. Station Field Day. Newton, MS. April 4.
- (25)2019: Best Management Practices for Grazing Cover Crop Systems, Benefits and Challenges. Hinds Co. Cover Crops and Grazing Management Field Day. Barton Farms. Raymond, MS. March 19.
- (26)2019: Winter Grazing and Baleage Systems in Mississippi. National Hay Association Forage Tour. Wiggins, MS. February 21.
- (27)2018: Forage Management Systems for South Mississippi. Small Farm Outdoor Demonstration Workshop. Port Gibson, MS. October 25.
- (28)2018: Advantage of Cool-season Annual Forage Mix in Grazing Systems. Coastal Plain Exp. Station Forage Field Day. September 27.
- (29)2018: Cool-season Forage Selection for Extended Grazing. Small Farm Outdoor Demonstration Workshop. Natchez, MS. September 27.
- (30)2018: Optimizing Efficiency in Winter Forage Crops. Pike County Forage Field Day. Summit, MS. September 20.
- (31)2018: Insect Control in Warm-season Grasses. MSU Forage Field Day. Starkville, MS. July 17.
- (32)2018: Fertility for Summer Annuals. MSU Forage Field Day. Starkville, MS. July 17.
- (33)2018: Pasture Development Strategies. Scott County Limited Resources Beef Cattlemen Field Day. Forest, MS. April 7.
- (34)2018: Alfalfa Management in Mississippi. Coastal Plain Experiment Station Forage Production Field Day. Newton, MS. April 5.
- (35)2017: Sustainable Approach to Pasture Diversity and Rotational Grazing. Sustainability Training in Agricultural Resources for Livestock Producers. Pontotoc, MS. November 7.
- (36)2017: Forage ID and Hay Nutritive Value. North Mississippi Beef Expo. Batesville, MS. October 27.
- (37)2017: The Importance of Forage Management in Soil Health. NRCS Grazing Land Coalition Initiative Field Day. Lizana, MS. October 12.
- (38)2017: Forage Selection for Horses in Mississippi. Equine Short Course. Batesville, MS. September 25.
- (39)2017: Hay Management and Forage Quality. Alcorn Co. Forage Field Day. Corinth, MS. June 13.
- (40)2017: Utilization of Alfalfa/Bahiagrass Mix as Baleage. Jefferson Davis/Lawrence Co. Forage Field Day. New Hebron, MS. June 2.
- (41)2017: Alfalfa Establishment and Production in Mississippi. Jefferson Davis/Lawrence Co. Forage Field Day. New Hebron, MS. June 2.
- (42)2017: Nutrient Management and Sustainability of Grazing Systems. Hinds Co. Forage Field Day. Utica, MS. May 11.
- (43)2017: Grazing Alfalfa/grass mixed systems. Coastal Plain Experiment Station Field Day. Newton, MS. May 4.
- (44)2017: Fertility Management for a Diverse Forage System. Coastal Plain Experiment Station Field Day. Newton, MS. May 4.
- (45)2017: Adaptability and Production of Forage Systems in South Mississippi. Pearl River Co. Field Day. Poplarville, MS. April 28.
- (46)2017: Grazing Management Impact in Forage Production. Pearl River Co. Field Day. Poplarville, MS. April 28.

- (47)2017: Utilization of Summer Annuals in a Grazing System. Beef Boot Camp. Starkville, MS. April 21.
- (48)2016: Hay Quality and Storage Impact in Winter Feeding Programs. Clay Co. Forage Field Day. June 17.
- (49)2016: Rotational Grazing Influence in Year-round Grazing. Clay Co. Forage Field Day. June 17.
- (50)2016: Fertilization, Harvest, and Hay Storage Methods Impact on Forage Quality and Supplementation Systems. Alcorn Co. Forage Field Day. June 7.
- (51)2016: Changes in Alfalfa Forage Quality with Harvest Intervals. Jefferson Davis and Lawrence County Forage Field Day. New Hebron, MS. June 3.
- (52)2016: Insect and Weed Control in Alfalfa Production in Mississippi. Jefferson Davis and Lawrence County Forage Field Day. New Hebron, MS. June 3.
- (53)2016: Impact of Soil Fertility in Alfalfa Yield Potential and Persistence. Jefferson Davis and Lawrence County Forage Field Day. New Hebron, MS. June 3.
- (54)2016: Alfalfa Integrated Pest Management. Alfalfa Hay Production and Equipment Demo. Newton, MS. May 19.
- (55)2016: Fertility Practices for Alfalfa Production. Alfalfa Hay Production and Equipment Demo. Newton, MS. May 19.
- (56)2016: Forage Production Strategies. Hinds County Forage Field Day. Utica, MS. May 12.
- (57)2016: Stocking Rates and Grazing Management. Pearl River County Forage Field Day. Poplarville, MS. April 22.
- (58)2016: Forages 101. Pearl River County Forage Field Day. Poplarville, MS. April 22.
- (59)2016: Integrated grass/legume system for winter grazing. Cool-season Forage Tour. Starkville, MS. April 1.
- (60)2016: Tall Fescue Management for Spring Grazing and Fall Stockpiling. Cool-season Forage Tour. April 1.
- (61)2016: Practical Methods of Establishing Alfalfa in Bahiagrass. Cool-season Forage Tour. April 1.
- (62)2015: Hay Production Systems. Southwest MS Forage Field Day. Smithdale, MS. October 27.
- (63)2015: Forage Establishment and Pasture Renovation. Southwest MS Forage Field Day. Smithdale, MS. October 27.
- (64)2015: Stockpiling Warm-season Grasses for Late Fall Grazing. Southwest MS Forage Field Day. Smithdale, MS. October 27.
- (65)2015: Alfalfa Management. Simpson Country Forage Field Day. Mendenhall, MS. July 16.
- (66)2015: Summer Annual Forages. Simpson Country Forage Field Day. Mendenhall, MS. July 16.
- (67)2015: Hay Production and Management. Hay Production and Forage Field Day. Coastal Plain Experiment Station. Newton, MS. June 30.
- (68)2015: Nitrogen Management in Forage Systems. Warm-season Forage Tour. Starkville, MS. June 19.
- (69)2015: Grazing Strategy for Summer Annual Forage Crops. Warm-season Forage Tour. Starkville, MS. June 19.
- (70)2015: Forage Quality. Alcorn County Forage Field Day. Corinth, MS. June 16.
- (71)2015: Forage Program Update. Mississippi/Louisiana Beef & Forage Field Day. Tylertown, MS. May 16.
- (72)2015: Determining Forage Availability in a Grazing System. Beef Boot Camp. Prairie, MS. April 10.
- (73)2015: Integrating Stockpiled Forage and Annual Cool-season Grasses in a Long-term Grazing System. Cool-season Forage Tour. Starkville, MS. April 7.
- (74)2015: Impact of Nitrogen on Persistence and Forage Production of Tall Fescue Types. Cool-season Forage Tour. Starkville, MS. April 7.
- (75)2014: Winter Grazing Management Strategies. Fall Forage Field Day. Starkville, MS. December 5.
- (76)2014: Grazing Capacity of Stockpiled Tall Fescue. Fall Forage Field Day. Starkville, MS. December 5.
- (77)2014: Alfalfa Establishment. Fall Forage Field Day. Starkville, MS. December 5.
- (78)2014: The Do's and Don'ts of Hay Production. Summit, MS. July 27.
- (79)2014: Hay Management and Production. Town Creek Farms. West Point, MS. May 13.

- (80)2014: Tall Fescue Varieties and Their Importance in Extending the Grazing Season. North Mississippi Forage Field Day. Holly Springs, MS. April 25.
- (81)2014: Bermudagrass Stem Maggot: What We Know. North Mississippi Forage Field Day Holly Springs, MS. April 25.
- (82)2014: Nutrient Management and Hay Quality in Hay Production. North Mississippi Forage Field Day. Holly Springs, MS. April 25.
- (83)2014: Alfalfa Management for Mississippi. Cool-season Forage Tour. Starkville, MS. April 11.
- (84)2014: Nutrient Management for Tall Fescue Varieties. Cool-season Forage Tour. Starkville, MS. April 11.
- (85)2013: Stockpiling Cool-season Grasses. NW Mississippi Forage Field Day. Batesville, MS. November 1.
- (86)2013: Stockpiling Warm-season Grasses. SE Mississippi Forage Field Day. Petal, MS. October 25.
- (87)2013: Quality Forage and Winter Feeding. 17th Annual Field Day “Cattle and Timber: Hand in Hand.” Marshall CCA. Holly Springs, MS. September 28.
- (88)2013: Hay Production and Quality. South Mississippi Livestock & Forage Field Day. Poplarville, MS. August 9.
- (89)2013: Cool-season Forage Tour. Starkville, MS. April 30.
- (90)2013: Clover Management. Beef Boot Camp. Starkville, MS. April 12.
- (91)2012: The Value of Hay and Forage Testing. White Sand Field Day. Poplarville, MS. November 13.
- (92)2012: Forage Update. White Sand Field Day. Poplarville, MS. November 13.
- (93)2012: Integrating Annual Clovers into Pastures. Southwest Mississippi Grazing School. Meadville, MS. November 9.
- (94)2012: Stockpiling Warm-season Grasses. Southwest Mississippi Grazing School. Meadville, MS. November 9.
- (95)2012: Rotational Grazing Demonstration. North Mississippi Grazing School. Verona, MS. June 29.
- (96)2012: Weed Control in Pastures. North Mississippi Grazing School. Verona, MS. June 29.
- (97)2012: Hay Production Demonstration. North Mississippi Grazing School. Verona, MS. June 29.
- (98)2012: Soil Bio-stimulant Demonstration. North Mississippi Grazing School. Verona, MS. June 29.
- (99)2012: Sheep Field Day. Pontotoc Soil & Water Conservation District. Thaxton, MS. June 12.
- (100) 2012: Alfalfa Production System and Nutrient Management in South Mississippi. Walthall CCA Field Day. Tylertown, MS. May 19.
- (101) 2012: Successfully Establishing a Hay Field: Production and Quality. Stone CCA Field Day. Wiggins, MS. May 12.
- (102) 2012: Alfalfa Integration in the South. Cool-season Forage Tour. Starkville, MS. April 30.
- (103) 2011: How Not to Feed Hay until January. Beef Cattle Day for Small Herds. Sage Farms. Meadville, MS. September 30.
- (104) 2011: Winter Annuals Are They for Me? Beef Cattle Day for Small Herds. Sage Farms. Meadville, MS. September 30.
- (105) 2011: Forage Production Systems. Mississippi Soil and Water Conservation Commission. Starkville, MS. September 21.
- (106) 2011: Forage Quality: How much is it worth to you? Perry CCA Field Day. Richton, MS. September 15.
- (107) 2011: Warm-season Grass Forage Tour. August 13.
- (108) 2011: Understanding forages for horses. Youth Development Horse Camp. Columbus, MS. June 17.
- (109) 2011: Hay Storage. Grazing School. Brookhaven, MS. May 26.
- (110) 2011: Choosing a Nitrogen Source. Grazing School. Brookhaven, MS. May 26.
- (111) 2011: Grazing Arithmetic/Carrying Capacity. Grazing School. Brookhaven, MS. May 26.
- (112) 2011: Cool-season Forage Tour. Starkville, MS. April 7.
- (113) 2011: Smutgrass weed control. Mississippi & Louisiana Beef and Forage Field Day. Tylertown, MS. May 14.
- (114) 2011: Managing Alfalfa in Mississippi. Mississippi & Louisiana Beef and Forage Field Day. Tylertown, MS. May 14.

- (115) 2011: Planning a Fencing System. Beef Boot Camp. Poplarville, MS. April 15.
- (116) 2010: Weed Control in Bermudagrass Production. Forage Field Day. Chickasaw Co Soil and Water Conservation District. Hamilton, MS. May 25.
- (117) 2010: Smutgrass Weed Control in Pastures using a weed wiper. Forage Field Day. Walthall Co. Tylertown, MS. August 17.
- (118) 2010: Utilizing Switchgrass in a Grazing System. 2010 Native Warm-season Grass Forage Tour. USDA/NRCS. Coffeerville, MS. September 14.
- (119) 2010: Forage Test Plot Update. MAFES White Sand Beef Unit Field Day. White Sand, MS. November 9.
- (120) 2009: Forage Research Update. Oktibbeha Co. Pasture Tour. Starkville, MS. September 3.
- (121) 2009: Smutgrass Control. Wilkinson Co. Forage Field Day. Wilkinson Co. Cattlemen Exchange. Centreville, MS. September 1.
- (122) 2009: Mississippi Extension Forage Update. Deep South Stocker Conference. Hattiesburg, MS. August 20 and 21.
- (123) 2009: Management of Grazing Dairy: Challenges and Opportunities. Pear River Co. Dairy Field Day. Nacaise, MS. August 18.
- (124) 2009: Effects of Forage Management on Animal Performance. Southwest Area Beef Field Day: Herd Health Management. MG Farms, Meadville, MS. June 1.
- (125) 2009: Hay Production and Harvesting. Black Prairie Tractor Supply Hay Field Day. West Point, MS. June 12.
- (126) 2009: Hay Curing, Storage and Quality: The Foundation to Low-Cost Winter Feeding. Black Prairie Tractor Supply Hay Field Day. West Point, MS. June 13.
- (127) 2009: Forage Production and Management. Stone Co. Spring 2009 Field Day. Stone CCA. Wiggins, MS. May 18.
- (128) 2009: Hay Quality. Jones Co. Forage and Beef Cattle Field Day. Jones CCA. Ellisville, MS. May 2.
- (129) 2009: Hay Quality: Quantity vs. Quality. Pike Co. Regional Forage and Beef Field Day. Pike CCA. McComb, MS. March 28.
- (130) 2008: Developing a Grazing System. Panola Co. Field Day. Gordon's Farms. Batesville, MS, April 5.
- (131) 2008: Pasture and Forage Management for Horses. Seminar by Horseback. Jones Co. 4-H Educational Trail Ride. Spradley Farms. Soso, MS. November 15.
- (132) 2008: Stockpiling & Maximizing Forages. Oktibbeha Co. Annual Pasture Tour. Oktibbeha CCA. White's and Anthony's Farms. Starkville, MS. September 4.
- (133) 2008: Managing Forages for Horses in Mississippi (Poster). 4-H State Horse Show. Jackson, MS. July 9-13.
- (134) 2007: Pasture management for small acreage. Wayne Co. Equine Field Day. Waynesboro, MS. October 30.
- (135) 2007: Sustainability of bioenergy crops in Mississippi. Plant Species Variability Meeting. Mississippi Chapter of Soil and Water Conservation Society. USDA/NRCS Plant Material Center, Coffeerville, MS. October 11.
- (136) 2007: Impact of grazing pressure on available forage and recovery. Oktibbeha Co. Pasture Walk. William's Farm, Double Springs, MS. September 6.
- (137) 2007: The use of broiler litter for forage production. Yazoo Co. field day for row crop and livestock producers. Harris Farm, Bentonia, MS. July 17.
- (138) 2007: Soil organic carbon and nitrogen pools changes under long-term bioenergy crops. Oral presentation at the Sigma Xi Sixth Annual Student/Faculty Research Forum. Texas A&M University-Commerce, Commerce, TX. April 26.
- (139) 2007: Comparative analysis of C sequestration and residual nutrient availability among cropping systems in Northeast Texas Soils. 37th Annual meeting of the American Society of Agronomy (Texas Chapter) and Oklahoma State University. Noble Foundation, Ardmore, OK. February 26-27.
- (140) 2006: Nitrogen fertilization strategies for switchgrass when managed as an energy crop. Poster presented at the Energy Research Engagement Showcase. Virginia Tech, Blacksburg, Virginia, November 29-30, 2006.
- (141) 2005: Herbicide residuals and spray strategies for clover. Beef and Forage Field Day, Texas Cooperative Extension Service/Bowie County Extension Office/Bowie County Livestock and Forage Committee. Schmidt Ranch, Simms, TX. April 28.

- (142) 2005: Interpreting soil test results: Deciphering the Aggie way. Soil Testing Workshop, Texas A&M University-Commerce, Commerce, TX. January 21.
- (143) 2005: Estimating side-dress N rates: Plant tissue methods. Soil Testing Workshop, Texas A&M University-Commerce, Commerce, TX. January 21.
- (144) 2004: Selecting Forage Systems to Improve P cycling. DOPA Training. Sulphur Springs, TX. November 3.
- (145) 2002: Species persistence on a reclaimed mined soil treated with bio-solids. American Society of Agronomy Annual Meetings. Indianapolis, IN, November 10-14.
- (146) 2002: Estimating N dynamics under field conditions to improve switchgrass production in Virginia. Third Eastern Native Grass Symposium. Chapel Hill, NC October 1-3.
- (147) 2002: Long-term success of forage species planted for reclamation at Powell River project. Department Seminar. Crop and Soil Environmental Sciences, Virginia Tech, September 26.
- (148) 2000: Cultivar Selection and N Management to Maximize Switchgrass Production for Biofuel in Southern Iowa. Department Seminar. Crop and Soil Environmental Sciences, Virginia Tech, September 28.
- (149) 2000: Switchgrass Management for yield potential and biomass quality in the Chariton Valley, Iowa. Department Seminar, Agronomy Department, Iowa State University, April 10, 2000.
- (150) 1999: Switchgrass management for yield potential and biomass quality in the Chariton Valley, Iowa. Department Seminar, Agronomy Department, Iowa State University, November 16.
- (151) 1999: Switchgrass management for yield potential and biomass quality in the Chariton Valley, Iowa. American Society of Agronomy Annual Meetings. Salt Lake City, Utah, October 31-November 4.

Other Extension Activities/Meetings

Summary of outreach activities since 2012.

Item	2012	2013	2014	2015	2016	2017	2018	2019	2020
Indirect Contacts									
Phone	390	298	272	279	217	349	205	306	413
Email	291	159	282	271	206	301	281	362	386
Facebook*	18,000	19,872	20,106	32,027	23,160	55,595	100,703	139,044	3,826,681
Forage Website**	32,053	31,600	31,250	31,342	11,641	13,418	9,457	6,611	8,374
Hay Directory***	4,073	3,500	21,200	18,239	7,322	2,700	932	792	831
Direct Contacts									
Farm Visits	33	43	41	63	24	42	36	34	71

Item	2021	2022	2023	2024	2025	2026	2027	2028	2029
Indirect Contacts									
Phone	264	390	417						
Email	265	431	432						
Facebook*	67,907	78,760	59,568						
Forage Website**	4,332	6,278	4,804						
Hay Directory***	312	1,022	2,978						
Direct Contacts									
Farm Visits	48	67	48						

*Number of people reached each year with posting related to forage production.

** Number of visits reported to the MSU Extension Forage Website.

***Number of visits reported to the MSU Extension Hay Director