



Friday Notes from MSSTATE Poultry Science

Friday Notes - to keep you informed about noteworthy news from Poultry Science at Mississippi State....and let us hear from you as well!

Poultry Science Department News: Faculty, Staff, and Student Travel and Activities.

- **Dr. Tabler** gave invited talks on backyard poultry management, nutrition, housing, and predator prevention, to an Extension clientele and agent-training session, in Mendenhall, September 27.
- **Dr. Beck** gave a riding tour of the Poultry Research Farm to several administrators, including Provost Dr. Judy Bonner, Sept 28.

Condolences to...

- **Dr. Tim** and Dana **Chamblee**, on the loss of Dana's stepmother, Gwen West, September 26.

In Memorium...

- **Dr. Charles "Chicken" Thomas**, 93, died October 8, 2015, in Louisville, MS. Dr. Thomas was a beloved Genetics teacher of countless MSU agriculture, biology, and pre-med students for over 30 years, from 1956-1987, retiring as Emeritus but remaining actively engaged with the Poultry Science department for many years. We have just learned of his death and know many of you will want to know.

Kudos to...

- **Judias Neal**, Research Ag Technician at the MSU Poultry Research Farm, who is a spotlight employee in the Division of Agriculture, Forestry and Vet Medicine for September. <http://dafvm.msstate.edu/advisory/spotlight/index.html>



Research Technician

Department of Poultry Science
Starkville Campus

Years in Position: 5

Years of Service to MSU: 8

Working with people has always been

Mississippi State.

"When I get up in the morning, I'm excited about going to work," Judias said. "My supervisor and coworkers really make my job enjoyable. That's key—having a good working relationship with other employees."

As a research technician for the MSU Poultry Unit, Judias' responsibilities include overseeing three houses on the South Farm. One house is dedicated to hatching chicks and caring for them during their brooding period (the first eight to 10 weeks after hatching). Older chickens are housed in the second house, and the third house is for raising turkeys.

from the ponds on the South Farm. "I became interested in working at MSU because I heard there was good retirement, a great working environment and even better people," Judias explained. "Now, I'm able to live comfortably and work with some of the nicest people." Having students come back and express their appreciation for his work with the poultry unit is what Judias considers one of the most rewarding aspects of his job. "It's a joy to know that more young people are getting involved in poultry production," Judias said. "With controversial issues in the media like steroid usage, it's so important that we show students the truth about how we raise our chickens. Just giving them the

opportunity for hands-on learning helps with that and gets them excited to learn more. With technology and facility upgrades, I can't wait to see what the future for the state's poultry industry holds."

In 1998, Judias was called to the ministry and has been preaching at New St. Peters Baptist Church in West Point ever since. A Starkville native, Judias lives in Pheba with his wife of 20 years. He is a father of six and a grandfather of four.

"I love that my kids always come to me with problems and seek spiritual advice," Judias said. "I thank God that my family is God-fearing and prides themselves on doing the right thing."

Running Cumulative List of Scientific and Extension Publications, 2016

The following oral talks and posters were presented at the IPSF, Atlanta, GA; * indicates the presenting author and the abstracts may be found at http://www.ippexpo.org/ipsf/docs/2016SPSS_AbstractBook.pdf:

- **M65: Rosana Hirai***, Omar Gutierrez, **Kelley Wamsley, Ana Oliveira**, “Effects of varying phytase inclusion in conjunction with xylanase supplementation on 0-56 d male broiler performance.”
- **M83: Dima White***, Aaron Kiess, Tom Tabler, Chris McDaniel, Yuhua Farnell, Shailesh Gurung, Marcelo Moreira, Dan Zhao, Morgan Farnell, “Application of a commercially available cleaner and disinfectant via a compressed air foam system to decrease aerobic bacteria in pullet and layer houses.”
- **M84: Katie Collins***, Scott Branton, Jeff Evans, **E. David Peebles**, “Evaluation of the potential influence of the disinfection cycle on the efficacy of F-strain Mycoplasma gallisepticum vaccine administered by in ovo injection to layer hatching eggs.”
- **M122: Mark Lemons***, Christopher McDaniel, Joseph Moritz, **Kelley Wamsley**, “Influence of feed form (FF) and diet phase effects on 0-46 d broiler performance.”
- T146: Ivan Alvarado*, **Kelley Wamsley**, Alejandro Banda, “Evaluation of the synergistic effect of the live attenuated infectious bursal disease vaccine 89/03 and a recombinant HVT-IBD against early infectious bursal disease challenge in commercial broilers.”
- **P200: Katherine Lott***, AJ Kawaoku, Holly Parker, Chris McDaniel, “The male and female contribution to parthenogenesis-induced infertility in quail.”
- **P201: AJ Kawaoku***, Katherine Lott, Holly Parker, Chris McDaniel, “Roles of the male and female quail in egg component alterations due to the parthenogenetic trait.”
- **P202: Pedro Mota***, Melissa Triplett, David Peebles, Christopher McDaniel, Aaron Kiess, “Investigating the potential to introduce Lactobacillus acidophilus and Bacillus subtilis to the broiler embryo through commercial in ovo technology.”
- **P204: Edgar Peebles***, Floyd Wilson, Taylor Barbosa, Timothy Cummings, John Dickson, **Sharon Womack**, “Comparative effects of in ovo versus subcutaneous vaccination and pre-placement holding time on scanning electron micrograph and histomorphometric measurements of small intestinal villus length and villus/crypt ratios in broiler chickens.”
- **P210: Alisha Moore***, Chander Sharma, “Antimicrobial efficacy of acidified lactic acid, propionic acid, and lauric arginate against Salmonella in ground chicken frames.”
- **P318: Ana Beatriz Oliveira***, Wei Zhai, **Kelley Wamsley**, “Feasibility of using Elusieve processing to improve the nutritional profile of feed ingredients used in commercial poultry diet formulation.”
- **NOTE: Ana received an Honorable Mention in the Don R. Sloan Undergraduate Research Competition for this presentation and a check for \$250.**
- Jason Barrett and **George Thomas Tabler**, “Private water well placement and sizing for poultry production,”

- **Tom Tabler**, Jonathan Moyle, **Jessica Wells**, Morgan Farnell, “Composting Poultry Mortality: A Critical Daily Management Chore”
<http://extension.msstate.edu/sites/default/files/publications/publications/p2960.pdf>
The following oral talks and posters were presented at the Poultry Science Association Meeting in New Orleans; * indicates the presenting author and the abstracts may be found at
 - Effects of antibiotic alternatives and Eimeria challenge on growth and carcass yields of male broilers. **Xi Wang*¹**, **E. David Peebles¹**, **Aaron S. Kiess¹**, **Kelley G. S. Wamsley¹**, **Wei Zhai¹**, ¹*Department of Poultry Science, Mississippi State University, Mississippi State, MS.*
<http://m.poultryscience.org/PresDetail.aspx?presID=67980&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
 - Comparison of thermal resistance of rugose phenotype of Salmonella Typhimurium with normal smooth morphology at different growth phases. **Janak Dhakal*¹**, Rama Nannapaneni¹, **Chander S. Sharma¹**, ¹*Mississippi State University, Starkville, MS.*
<http://m.poultryscience.org/PresDetail.aspx?presID=68091&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
 - Injecting GalliPro Hatch into fertile broiler hatching eggs using commercial in ovo technology and its effect on hatchability and early chick mortality. **Chrysta Beck*¹**, **Pedro Mota¹**, **Christopher McDaniel¹**, **David Peebles¹**, Alfred Blanch², Mickaël Rouault², **Kelley Wamsley¹**, **Aaron S. Kiess¹**, ¹*Mississippi State University, Mississippi State, MS*, ²*Chr. Hansen, Hørsholm, Denmark.*
<http://m.poultryscience.org/PresDetail.aspx?presID=68113&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
 - Development of rugose morphotype of Salmonella Typhimurium following exposure to sub-inhibitory chlorine concentrations that exhibit chlorine resistance and strong biofilm forming ability.
Tomilola Obe*¹, Rama Nannapaneni¹, **Chander Shekhar Sharma¹**, ¹*Mississippi State University, Mississippi State, MS.*
<http://m.poultryscience.org/PresDetail.aspx?presID=68017&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
Note: Tomi received a Student Award of Excellence for this presentation!
 - Influence of feed form and diet phase on day 46 to 53 broiler performance and processing. **Mark E. Lemons*¹**, **Christopher D. McDaniel¹**, Joseph S. Moritz², **Kelley G. S. Wamsley¹**, ¹*Department of Poultry Science, Mississippi State University, Mississippi State University, MS*, ²*Department of Animal and Nutritional Sciences, West Virginia University, Morgantown, WV.*
<http://m.poultryscience.org/PresDetail.aspx?presID=68042&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
- Effects of ButiPearl supplementation on broiler performance, blood chemistry, and cecal fatty-acid analysis. **C. E. Ennis*¹**, J. DuCray², A. Cox², **K. G. S. Wamsley¹**, ¹*Mississippi State University, Mississippi State, MS*, ²*Kemin Industries Inc, Des Moines, IA.*
<http://m.poultryscience.org/PresDetail.aspx?presID=67921&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
- In vitro evaluation of four commercially available Bacillus spp. probiotic supplements and their effect on an antibiotic resistant strain of Salmonella Heidelberg.
Claudia D. Castañeda*¹, Omar Gutierrez², **Christopher D. McDaniel¹**, **Aaron S. Kiess¹**, ¹*Mississippi State University, Mississippi State, MS*, ²*Huvepharma Inc, Austin, TX.*
<http://m.poultryscience.org/PresDetail.aspx?presID=68015&prestype=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
- Effects of dietary supplementation of antibiotic, antioxidative, probiotic, and zinc on

Schilling⁴, **Wei Zhai**¹, ¹Department of Poultry Science, Mississippi State University, Mississippi State, MS, ²College of Animal Science and Technology, Anhui Agricultural University, Hefei, Anhui, China, ³School of Biotechnology and Food Engineering, Hefei University of Technology, Hefei, Anhui, China, ⁴Department of Food Science, Nutrition and Health Promotion, Mississippi State University, Mississippi State, MS.

<http://m.poultryscience.org/PresDetail.aspx?presID=67924&prestyle=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>

- **P. Santa Rosa, H.M. Parker, A.S. Kiess, C.D. McDaniel**, 2016. Parthenogenetic embryos from unfertilized Chinese Painted Quail eggs alter albumen pH, gases, and ion concentrations during incubation. *Theriogenology*, 85:2:275-281. Doi:10.1016/j.theriogenology2015.09.023. <http://www.sciencedirect.com/science/article/pii/S0093691X1500494X>
- **P. Santa Rosa, H.M. Parker, A.S. Kiess, C.D. McDaniel**, 2016. Parthenogenesis in mated Chinese Painted Quail (*Coturnix chinensis*) hens decreases sperm-egg penetration and alters albumen characteristics. *Theriogenology*. Doi:10.1016/j.theriogenology.2016.05.025. <http://www.sciencedirect.com/science/article/pii/S0093691X16302266>
- **Kelley G.S. Wamsley**, 2016. Building US & European Collaborations: Antibiotic Use for Poultry in the US. Invited presentation, Bern, Switzerland. August 2016
- **Tom Taber, C. Reagan Sadler, and Jessica Wells**, "Gangrenous Dermatitis in Broilers," <http://extension.msstate.edu/sites/default/files/publications/publications/p2990.pdf>
- **Kiess, A. S.*, J. Hirai, M. D. Triplett, H. M. Parker, and C. D. McDaniel**, 2016. Impact of Oral Lactobacillus Gavage on Rooster Seminal and Cloacal Lactobacilli Concentrations. *Poult. Sci.* 95 (8): 1934-1938.
- **Triplett M. D., H. M. Parker, C. D. McDaniel, and A. S. Kiess***. 2016. Influence of 6 different Intestinal Bacteria on Beltsville Small White Turkey Semen. *Poult. Sci.* 95 (8): 1918-1926.
- **Tom Tabler**, News Release: MSU researchers cool poultry with sprinklers
By [Ms. Bonnie A. Coblenz](#), MSU Extension Service, Senior Extension Associate
<http://extension.msstate.edu/news/feature-story/2016/msu-researchers-cool-poultry-sprinklers>
- **Tom Tabler**, Jim Watson, Brigid Elchos, and **Jessica Wells**, "Poultry Growers Should Maintain Heightened Biosecurity Practices," <http://extension.msstate.edu/sites/default/files/publications/publications/p2995.pdf>
- **Tom Tabler**, "Misconceptions, Biosecurity and Food Safety in the Poultry Industry," MSFBF's Mississippi Agricultural Tour for Congressional Staffers, Aug 30.

USDA-ARS Poultry Research Unit Publications:

- Abstracts presented at the International Poultry Scientific Forum, Atlanta GA, Jan. 25-26; http://www.ippexpo.org/ipsf/docs/2016SPSS_AbstractBook.pdf:
 - J.L. Purswell and S.L. Branton. 2016. Performance of an automated whole-house vaccination system.
 - J.E. Linhoss, J.L. Purswell, and J.D. Davis. 2016. Preferences of young chicks for varying radiant fluxes.
 - H. Olanrewaju, Influence of light sources and photoperiod on growth performance and carcass characteristics of heavy broilers at 56 days of age.

gallisepticum strains among caged layers. Jeffrey D. Evans*¹, Scott L. Branton¹, Joseph L. Purswell¹, Spencer A. Leigh¹, Stephanie D. Collier¹, ¹USDA-ARS Poultry Research Unit, Mississippi State, MS.

<http://m.poultryscience.org/PresDetail.aspx?presID=68041&prestyle=abs&prevpage=Search.aspx%3fquery%3dDirect+and+indirect+transmissibility+of>

- Assessing the efficacy of a newly developed micro-aerosol for disinfection of the avian respiratory pathogen Mycoplasma gallisepticum. Jeffrey D. Evans*¹, Joseph L. Purswell¹, Stephanie D. Collier¹, ¹USDA-ARS Poultry Research Unit, Mississippi State, MS.

<http://m.poultryscience.org/PresDetail.aspx?presID=68045&prestyle=abs&prevpage=Search.aspx%3fquery%3dAssessing+the+efficacy>

- Nitrogen-corrected apparent metabolizable energy of an exogenous carbohydrase added to diets formulated with low-fat distillers dried grains with solubles (LF-DDGS) from 0 to 28 d in broilers.

Elizabeth J. Kim*¹, Michael E. Persia², Jon Broomhead³, Xuimei Li³, Philip Lessard³, Mike Lanahan³, ¹ARS-USDA Poultry Research Unit, Mississippi State, MS, ²Virginia Tech University, Blacksburg, VA, ³Agrivida Inc, Medford, MA.

<http://m.poultryscience.org/PresDetail.aspx?presID=67781&prestyle=abs&prevpage=Search.aspx%3fquery%3dNitrogen-corrected>