



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. Zhai** chaired a session entitled, "Nutrition, Metabolism and Health IV," from 1:30-5:30pm at the World's Poultry Congress in Beijing, Sept 8 and gave three invited talks in China in addition to the WPC, as follows:
 - "US modern broiler production and its implications to China broiler production development" at the China Agriculture University;
 - "US modern broiler production" at Hebei University
 - "Scientific Writing," at Hebei University, requested by the Dean of the College of Animal Science.
- **Dr. Tabler** judged the Oktibbeha County 4-H poultry show, Sept 20, and the county show at Batesville, Sept 24
- **Dr. Kiess and Mrs. Wells** hosted 56 students from Jones County Junior College for lunch and presentations about the poultry science major at MSU, Sept 21
- **Dr. Tabler** presented a talk on backyard chicken management at a county Extension meeting in Canton, Sept. 22.

Kudos to....

- **Peyton Sammons**, senior from Whiteville, TN, for the article in the SDN, Sept 14:

Student Business Profile:

Student raises chickens, revenue with poultry business

By AUSTIN MONTGOMERY
reporter@starkvilledailynews.com

Peyton Sammons grew up on a farm. The Whiteville, Tennessee, native is part of the sixth generation of his family's farm. Two years ago he started Peyton's Poultry, a chick-selling business that looks to go hand-in-hand with the urban farming boom.

Currently a senior at Mississippi State University, the poultry science major has previously worked for Tyson and other poultry companies, along with working with breeder groups. He surpassed 7,500 annual chick sales recently, and will look to expand by launching a website in November, to move away from using social media as the business's main ordering platform.

Peyton's sells chicks from day to month-old chicks, up to laying age. Chicks cost from \$2.50 to \$3.25. Sammons hopes his background and extensive poultry knowledge will separate his company from the pack.

"Coming from a commercial side of it, I've seen both sides," Sammons said. "There's a veil that needs to be uncovered for our customers and young people to experience the farming and self-sustainability movement for themselves. We're really trying to get folk to farm out as our message."

All customers can visit the farm to check out the raising conditions, he added. With the website launch, Sammons hopes to offer feeders, drinkers and various shipping options for customers. All sales spike in the spring, the most popular time for chick sales.

"It doubles and triples depending on the season,"

Sammons said. "Facebook can't keep up with everything. So that's why we need a website."

The urban farming trend has brought light farming techniques—like raising chickens—mainstream, he added.

"There are people who want to raise their own chickens or have their own eggs," Sammons said. "It touches on the farm aspect of it. It's easier than owning and maintaining a whole farm, while still giving you a feel of what farming is like."

The MSU E-Center has helped focus his business plan, Sammons said.

"The E-Center has been a great resource for me as an entrepreneur," Sammons said. "I'd been doing this on my own, but they center will hone my focus and make me a more skilled person with more skills and tips."

But the biggest asset was having a business run out of a farm 150 years old. His father helps with light maintenance when Sammons is at MSU.

"Having a farm has helped as far as getting our mission and values out from a business standpoint," Sammons said. "Not a lot of businesses are run out of a farm that's been around for 150 years. That speaks volumes. People trust us. It's helped and guiding me."

Sammons will meet with the E-Center board "in the next few weeks" about securing future funding for his business.

"We are mainstreaming, designing and building," Sammons said.



Sammons will look to launch his company's website this fall. (Submitted photo)

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,”
<http://extension.msstate.edu/sites/default/files/publications/publications/p2953.pdf>
- **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,**

MS.

<http://m.poultryscience.org/PresDetail.aspx?presID=67980&prestyle=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. Sharma**¹, ¹Mississippi State University, Starkville, MS.
<http://m.poultryscience.org/PresDetail.aspx?presID=68091&prestyle=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 Mota**¹, **Christopher McDaniel**¹, **David Peebles**¹, Alfred Blanch², Mickaël Rouault², **Kelley Wamsley**¹, **Aaron S. Kiess**¹, ¹Mississippi State University, Mississippi State, MS, ²Chr. Hansen, Hørsholm, Denmark.
<http://m.poultryscience.org/PresDetail.aspx?presID=68113&prestyle=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 Sharma**¹, ¹Mississippi State University, Mississippi State, MS.
<http://m.poultryscience.org/PresDetail.aspx?presID=68017&prestyle=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. McDaniel**¹, Joseph S. Moritz², **Kelley G. S. Wamsley**¹, ¹Department of Poultry Science, Mississippi State University, Mississippi State University, MS, ²Department of Animal and Nutritional Sciences, West Virginia University, Morgantown, WV.
<http://m.poultryscience.org/PresDetail.aspx?presID=68042&prestyle=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. Wamsley**¹, ¹Mississippi State University, Mississippi State, MS, ²Kemin Industries Inc, Des Moines, IA.
<http://m.poultryscience.org/PresDetail.aspx?presID=67921&prestyle=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. McDaniel**¹, **Aaron S. Kiess**¹, ¹Mississippi State University, Mississippi State, MS, ²Huvepharma Inc, Austin, TX.
<http://m.poultryscience.org/PresDetail.aspx?presID=68015&prestyle=abs&prevpage=Search.aspx%3fquery%3dMississippi+State+U>
- Effects of dietary supplementation of antibiotic, anticoccidial, probiotic, and zinc on meat quality of male broilers. **Xingyong Chen**^{*1,2}, **Xi Wang**¹, Kezhou Cai³, Mark W. 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.
- **Tom Tabler and Jessica Wells**, "Fan Selection for Poultry Housing,"
<http://extension.msstate.edu/sites/default/files/publications/publications/p2998.pdf>
- **Tom Tabler**, News Release, "Congressional Staffers Tour Mississippi Ag Industry,"
 By: Susan Collins-Smith, MSU Extension Service, Extension Associate II
<http://extension.msstate.edu/news/feature-story/2016/congressional-staffers-tour-mississippi-ag-industry>

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.
- Abstracts presented at the PSA Annual Meeting, New Orleans, July 10-15:
 - Direct and indirect transmissibility of attenuated and virulent *Mycoplasma 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&prestype=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&prestype=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&prestype=abs&prevpage=Search.aspx%3fquery%3dNitrogen-corrected>