



*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!

***Faculty and Staff Travel and Activities:***

- **Dr. Beck** traveled to Auburn University to discuss farm management strategies and feed mill use, Oct. 27.
- **Drs. Tabler, Farnell and Beck**, along with **Mrs. Wells, Mrs. Christensen** and **Ms. Wooten**, participated in the Centennial Annual MSU Extension Service Conference, on campus, Oct. 28-30.
- **Dr. Tabler** visited a Koch grower in Carthage about water quality, Oct. 31.

\*\*\*\*\*ANNOUNCEMENT\*\*\*\*\*

**Because of an unusually hectic and busy semester so far, we are postponing our annual Homecoming event until later in the year. Please watch for further developments and we apologize for any inconvenience. We value all of our alums and colleagues and enjoy social events with you.**

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**Running Cumulative List of Scientific and Extension Publications, 2014**

- **Tom Tabler**, F. Dustan Clark, Jonathan R. Moyle, Yi Liang, **Jessica Wells**, and **Morgan Farnell**, “Windrow Composting Broiler Litter between Flocks,” <http://msucares.com/pubs/publications/p2818.pdf>.
- C.L. Williams, **G.T. Tabler** and S.E. Watkins, 2013. Comparison of broiler flock daily water consumption and water-to-feed ratios for flocks grown in 1991, 2000-2001, and 2010-2011. *J Appl Poultry Research*, 22:934-941. <http://dx.doi.org/10.3382/japr.2013-00767>
- Abstracts from the 2014 IPSF: <http://www.ippexpo.org/ipsf/docs/2014%20IPSF%20Abstracts.pdf>
  - M6 Detection of parthenogenesis in mated quail hens and its impact on fertilization  
**Priscila Santa Rosa\***, **Holly Parker**, **Aaron Kiess**, **Chris McDaniel**
  - M9 Physiological responses of broiler hatchlings to commercial in ovo coccidiosis vaccine administered on days 18.5 and 19.0 of incubation  
**Adebayo Sokale\***, **E. David Peebles**, **Wei Zhai**, Timothy S. Cummings, Christopher J. Williams
  - M24 Apparent ileal amino acid digestibility (AIAAD) of various animal by-product blends (ABB) in broilers aged 21 and 42 d of age  
**Cameron Cardenas\***, Elizabeth Kim, Bob Hill, **Kelley Wamsley**
  - M36 Effects of limestone particle size in pullet diets on hen performance, bone mineral density and keel bone deformities in aviaries or conventional cages  
Pamela Eusebio-Balcazar\*, **Mary Beck**, Sheila Purdum
  - M48 Antimicrobial activity of carvacrol against Salmonella on turkey breast cutlets packaged under modified atmosphere  
**Divek V. T. Nair\***, **Chander Shekhar Sharma**
  - M66 Effects of diet type and nutrient density from day 8 to 21 on bone morphology, breaking strength, and mineral density in male broilers  
**Xi Wang\***, **E. David Peebles**, Mark Bricka, **Wei Zhai**
  - T137 Effects of dietary lysine and methionine supplementation on growth performance and meat yield of male broilers  
**Wei Zhai\***, **E. David Peebles**, Wes Schilling, Yves Mercier
  - P205 Effects of the in ovo injection of 25-hydroxylcholecalciferol on the yolk characteristics of embryonated broiler hatching eggs  
**Nayara Pelici\***, **Wei Zhai**, **Sharon Womack**, **E. David Peebles**
  - P206 Effects of the in ovo injection of 25-hydroxylcholecalciferol on serum calcium and phosphorous concentrations in broiler embryos  
**Midian Nascimento\***, **Wei Zhai**, **Sharon Womack**, **E. David Peebles**
  - P211 Effects of the raising model on semen quality and fertility of male Sichuan White Geese  
**Anfang Liu\***, Mingjun Chen, Jing Zhang, Wang Xi, Jie Liu, Xia Qiu, Hongpeng Ma, Wei Zhai
  - P212 Effects of single nucleotide polymorphism of H-FABP gene on carcass traits in Sichuan White Geese  
**Anfang Liu\***, Shukai Yuan, Jing Zhang, Jie Liu, Xia Qiu, Hongpeng Ma
  - P235 The effect of varying the inclusion of two different anticoccidials into a commercial diet on D0-49 Ross 708 bird performance  
**Rosana Hirai\***, Timothy Cummings, **Kelley Wamsley**
  - P241 Dietary Alterations with Live Coccidiosis Vaccine (LCV) Response and D0-46 Ross 708 Broiler Performance  
**Robert Sellers\***, **Wei Zhai**, Carla Price, Phil Stayer, **Tom Tabler**, **Kelley Wamsley**.
- **Tom Tabler**, **Morgan Farnell**, **Jessica Wells**, **Haitham Yakout**, and Yi Liang, “Controlling Rodents on the Poultry Farm,” <http://msucares.com/pubs/publications/p2824.pdf>
- **Tom Tabler**, news release on litter sampling: <http://msucares.com/news/releases/14/nr20>.

- **Tom Tabler**, F. Dustan Clark, Jonathan R. Moyle, **Morgan Farnell**, and **Jessica Wells**, “Managing Manure from the Backyard Flock,” <http://msucares.com/pubs/infosheets/is1973.pdf>
- **H. M. Parker**, **A. S. Kiess**, **P. Santa Rosa**, and **C. D. McDaniel**, 2014. Selection for the parthenogenetic trait in Chinese Painted Quail (*Coturnix chinensis*) affects hatchability parameters. Poultry Science 93(3): 664-672 <http://dx.doi.org/10.3382/ps.2013-03527>
- **Tom Tabler**, Dustan Clark, Jonathan R. Moyle, **Jessica Wells**, and **Morgan Farnell**, “Composting Manure from Small Poultry Flocks,” <http://msucares.com/pubs/infosheets/is1975.pdf>
- **News Release - Tabler and Farnell:** <http://www.wcbi.com/wordpress/okolona-poultry-farmer-learns-from-msu>
- **Tom Tabler**, F. Dustan Clark, Jonathan R. Moyle, **Morgan Farnell**, and **Jessica Wells**, “Deep Pectoral Myopathy (Green Muscle Disease) in Broilers,” <http://msucares.com/pubs/infosheets/is1976.pdf.3>
- Liu, X., J.A. Byrd, **M. Farnell**, and C.A. Ruiz-Feria, 2014. Arginine and vitamin E improve the immune response after a Salmonella challenge in broiler chicks, Poultry Sci. 93:882-890. <http://dx.doi.org/10.3382/ps.2013-03723>.
- **Tom Tabler**, **Morgan Farnell** and **Jessica Wells**, “Poultry Water Line Sanitation,” <http://msucares.com/pubs/publications/p2839.pdf>.
- Jonathan Moyle, Jennifer Rhodes, Brigid McCrea, **Tom Tabler**, and Dustan Clark, “Rodent Control on Small Poultry Farms,” [www.poultry.msstate.edu/pdf/extension/rodents.pdf](http://www.poultry.msstate.edu/pdf/extension/rodents.pdf).
- Y. Liang, **G.T. Tabler**, T.A. Costello, I.L. Berry, S.E. Watkins, Y.V. Thaxton, 2014. Cooling broiler chickens by surface wetting: Indoor thermal environment, water usage, and bird performance. ASABE, Vol 30(2): 249-258. <http://dx.doi.org/10.13031/aea.30.10103> (for the abstract only); for a copy of the full manuscript, please contact **Dr. Tabler** ([ttabler@poultry.msstate.edu](mailto:ttabler@poultry.msstate.edu))
- **Poultry Science Abstracts 2014:** <http://m.poultryscience.org/Search.aspx> and then search by author name:
  - # 357P The effects of different enzyme complexes on nutrient digestibility, performance, and processing yield in male broilers. L. V. Teixeira<sup>1</sup>, **T. F. B. Oliveira**<sup>\*1,2</sup>, **D. E. Peebles**<sup>2</sup>, A. G. Bertechini<sup>1</sup>, <sup>1</sup>Universidade federal de Lavras, Brazil, <sup>2</sup>Mississippi State University
  - # 358P The effects of different enzyme complexes on nutrient digestibility and performance in female broilers. **T. F. B. Oliveira**<sup>\*1,2</sup>, L. V. Teixeira<sup>1</sup>, **D. E. Peebles**<sup>2</sup>, A. G. Bertechini<sup>1</sup>, <sup>1</sup>Universidade federal de Lavras, Brazil, <sup>2</sup>Mississippi State University
  - # 482P Effects of dietary lysine and methionine supplementation on serum metabolites, hormones, and their relationship with the growth performance of male broilers. **W. Zhai**<sup>\*1</sup>, **E. D. Peebles**<sup>1</sup>, **X. Wang**<sup>1</sup>, Y. Mercier<sup>2</sup>, <sup>1</sup>Mississippi State University, <sup>2</sup>Adisseo France
  - # 131 Effects of dietary lysine and methionine supplementation on the breast meat quality of male broilers. **W. Zhai**<sup>\*1</sup>, M. W. Schilling<sup>1</sup>, **E. D. Peebles**<sup>1</sup>, Y. Mercier<sup>2</sup>, <sup>1</sup>Mississippi State University, <sup>2</sup>Adisseo France
  - # 132 Cost effectiveness of supplemental dietary lysine and methionine for meat yield in male broilers. **W. Zhai**<sup>\*1</sup>, **E. D. Peebles**<sup>1</sup>, Y. Mercier<sup>2</sup>, <sup>1</sup>Mississippi State University, <sup>2</sup>Adisseo France
  - # 179 Comparative effects of in ovo versus subcutaneous vaccination and pre-placement holding time on early post-hatch broiler chick quality. **E. D. Peebles**<sup>\*1</sup>, T. M. Barbosa<sup>2</sup>, T. S. Cummings<sup>2</sup>, J. Dickson<sup>2</sup>, **S. K. Womack**<sup>1</sup>, <sup>1</sup>Department of Poultry Science, Mississippi State University, <sup>2</sup>Zoetis, Research Triangle Park, NC.

- # 49 Effects of commercially available antibiotic alternatives on 0- to 41-d-old male broiler chicken growth performance. **X. Wang<sup>\*1</sup>, K. Wamsley<sup>1</sup>, A. Kiess<sup>1</sup>, W. Zhai<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 52 Effects of various antibiotics, anticoccidials, and antibiotic alternative products on gut characteristics and performance using broilers given a 10x live coccidiosis vaccine.  
**C. Cardenas<sup>\*1</sup>, W. Zhai<sup>1</sup>, K. Wamsley<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 286P Effects of the raising model on carcass traits and muscle nutrition composition in Landaise geese. **A. Liu<sup>\*1,2</sup>**, J. Zhang<sup>1</sup>, J. Liu<sup>1</sup>, W. Xi<sup>1</sup>, X. Qiu<sup>1</sup>, H. Ma<sup>1</sup>, **W. Zhai<sup>2</sup>**, <sup>1</sup>Southwest University, Chongqing, China, <sup>2</sup>Mississippi State University
- # 386P Evaluating the impact of dietary mannan-oligosaccharides (MOS) on broiler performance and intestinal microflora. R. A. Silva<sup>\*1</sup>, H. M. Yakout<sup>1</sup>, **W. Zhai<sup>1</sup>, M. B. Farnell<sup>1</sup>, C. S. Sharma<sup>1</sup>, C. D. McDaniel<sup>1</sup>, A. S. Kiess<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 482P Effects of dietary lysine and methionine supplementation on serum metabolites, hormones, and their relationship with the growth performance of male broilers. **W. Zhai<sup>\*1</sup>, E. D. Peebles<sup>1</sup>, X. Wang<sup>1</sup>**, Y. Mercier<sup>2</sup>, <sup>1</sup>Mississippi State University, <sup>2</sup>Adisseo France
- # 67 Feed form and liquid application method effects on feed augering segregation. **R. B. Sellers<sup>\*1</sup>**, J. Boney<sup>2</sup>, **C. McDaniel<sup>1</sup>**, J. S. Moritz<sup>2</sup>, **K. G. S. Wamsley<sup>1</sup>**, <sup>1</sup>Mississippi State University, <sup>2</sup>West Virginia University
- # 83 Evaluating the effect of de Man, Rogosa, Sharpe medium and byproducts of *Lactobacillus acidophilus* on rooster sperm quality. **M. D. Triplett<sup>\*1</sup>, C. D. McDaniel<sup>1</sup>, A. S. Kiess<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 295P Use of a compressed air foam system to rapidly clean and disinfect a broiler hatchery. V. S. Godoy<sup>\*1</sup>, C. H. Chisholm<sup>1</sup>, **A. S. Kiess<sup>1</sup>, Y. Z. Farnell<sup>1</sup>, G. T. Tabler<sup>1</sup>, C. D. McDaniel<sup>1</sup>, M. B. Farnell<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 97 Evaluation of compatibility of *Salmonella* lytic bacteriophage with different antimicrobials and their combinations on reduction of *Salmonella* in vitro and on chicken breast fillets. **A. T. Sukumaran<sup>\*1</sup>, C. S. Sharma<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 99 Antimicrobial efficacy of carvacrol against *Salmonella*, *Campylobacter*, and lactic acid bacteria on turkey breast cutlets stored under modified-atmosphere packaging.  
**D. V. T. Nair<sup>\*1</sup>, C. S. Sharma<sup>1</sup>**, <sup>1</sup>Mississippi State University
- # 264 Prevalence, serotypes, and antibiotic-resistant phenotypes of *Salmonella enterica* isolates in retail poultry products. **C. S. Sharma<sup>\*1</sup>, A. Ates<sup>1</sup>**, <sup>1</sup>Mississippi State University
- **Tom Tabler**, F. Dustan Clark, Jonathan R. Moyle, **Jessica Wells, Morgan Farnell**, “Feather Pecking and Cannibalism in the Backyard Flock,” <http://msucares.com/pubs/publications/p2848.pdf>
- **Mary M. Beck**, Three agricultural research priorities to feed the planet: Critical focus areas for future agriculture research are food security, “one health,” and stewardship. <http://www.wattpoultryusa-digital.com/#&pageSet=13>.
- **Tom Tabler, Jessica Wells, and Morgan Farnell**, “Potential Contract Growers Face Important Decisions.” <http://msucares.com/pubs/publications/p2850.pdf>
- **Tom Tabler**, Jonathan Moyle, F. Dustan Clark, Yi Liang, **Jessica Wells, and Morgan Farnell**, “Protect Backyard Birds from Predators,” <http://msucares.com/pubs/publications/p2853.pdf>
- **Divek Nair**, Rama Nannapaneni, **Aaron Kiess**, Barakat Mahmoud, and **Chander Shekhar Sharma**, 2014. Antimicrobial efficacy of lauric arginate against *Campylobacter jejuni* and spoilage organisms on chicken breast fillets, *Poultry Sci* 93:10:2636-2640. Doi:10.3382/ps2014-04123
  - **This article was selected as an Editor’s Choice for October 2014.**
  - <http://ps.oxfordjournals.org/content/by/tag/choice>

- **Tom Tabler**, Yi Liang, Jonathan R. Moyle, F. Dustan Clark, **Morgan Farnell**, and **Jessica Wells**, "Managing heat and minimum ventilation systems in the broiler house," <http://msucares.com/pubs/publications/p2854.pdf>