



*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:***

- **Mrs. Wells** presented two workshops on FFA Career Development Events with poultry to Ag teachers from around the state, Dec. 5

***Condolences to....***

- **Dr. Kiess**, on the deaths of three elderly relatives in West Virginia, November 20-22.

***Get well wishes to...***

- Dr. Tim Morgan, spouse of **Donna Morgan**, who is recuperating from major surgery, Dec. 1.

***Recent Publications***

- **Tom Tabler, Jessica Wells, Morgan Farnell, Yi Liang, Jonathan Moyle, F. Dustan Clark**, "Water Quality and Quantity Influence Flock Performance," <http://msucares.com/pubs/publications/p2869.pdf>
- Kayleigh Moyle, F. Dustan Clark, Jonathan Moyle, **Tom Tabler**, Scharidi Barber, "Coccidiosis in Chickens," Publication FSA8020, University of Arkansas Research and Extension. This article will be available shortly at [www.poultry.msstate.edu/pdf/extension/coccidiosis.pdf](http://www.poultry.msstate.edu/pdf/extension/coccidiosis.pdf).

### ***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**, F. 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>
- **Tom Tabler**, **Morgan Farnell**, and **Jessica Wells**, “Why Broiler Growers Should be Concerned about Paw Quality,” <http://msucares.com/pubs/publications/p2859.pdf>.