



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. Tabler** visited a Peco farm at Sebastopol for pullet checks, Oct. 15; and a Koch farm near Carthage to collect water samples, Oct. 16.
- **The MSU - BankPlus Student Broiler Barn** renovation has been completed and is ready for chick placement for the Broiler Production class taught by **Dr. Farnell**.
- *Kenny Williamson* with BankPlus in Ridgeland was on campus Oct. 16 to tour the Student Broiler Barn and for a meeting on campus.
- **Dr. Tabler** visited Peco at Sebastopol to assess LED lights, with Gene Simpson from Auburn, Oct. 22-23 and to observe breeders, with Tommy Walker from Cobb, Oct. 23; and visited a broiler grower at Terry, MS, to discuss water quality, Oct. 24.
- **Drs. Wamsley** and **Zhai** participated in Multistate Project NE1042, held at the USDA facility at MSU, and gave research update presentations, Oct. 24-25.
- **Dr. Sharma** participated in HACCP training to become certified as an instructor, in Washington DC, Oct. 20-23.

*****4-H Poultry Chain Funding Thanks*****

The 2014 Poultry Chain Project at the Mississippi State Fair was a huge success. We want to express our gratitude for the generous support we received for awards and auction from the following:

Mississippi State University Extension Service

Howard Industries

Cal-Maine

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Drs. Tabler and Farnell

Gathian Wells

Anonymous

Poultry Science Club

Poultry Science Department

Dr. Beck

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:

- **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.
- 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)
- **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. Teixeira¹, **T. F. B. Oliveira**^{*1,2}, **D. E. Peebles**², A. G. Bertechini¹, ¹Universidade federal de Lavras, Brazil, ²Mississippi State University
 - # 358P The effects of different enzyme complexes on nutrient digestibility and performance in female broilers. **T. F. B. Oliveira**^{*1,2}, L. V. Teixeira¹, **D. E. Peebles**², A. G. Bertechini¹, ¹Universidade federal de Lavras, Brazil, ²Mississippi 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**^{*1}, **E. D. Peebles**¹, **X. Wang**¹, Y. Mercier², ¹Mississippi State University, ²Adisseo France
 - # 131 Effects of dietary lysine and methionine supplementation on the breast meat quality of male broilers. **W. Zhai**^{*1}, M. W. Schilling¹, **E. D. Peebles**¹, Y. Mercier², ¹Mississippi State University, ²Adisseo France
 - # 132 Cost effectiveness of supplemental dietary lysine and methionine for meat yield in male broilers. **W. Zhai**^{*1}, **E. D. Peebles**¹, Y. Mercier², ¹Mississippi State University, ²Adisseo 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**^{*1}, T. M. Barbosa², T. S. Cummings², J. Dickson², **S. K. Womack**¹, ¹Department of Poultry Science, Mississippi State University, ²Zoetis, Research Triangle Park, NC.

- # 49 Effects of commercially available antibiotic alternatives on 0- to 41-d-old male broiler chicken growth performance. **X. Wang^{*1}, K. Wamsley¹, A. Kiess¹, W. Zhai¹**, ¹Mississippi 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^{*1}, W. Zhai¹, K. Wamsley¹, ¹Mississippi State University
- # 286P Effects of the raising model on carcass traits and muscle nutrition composition in Landaise geese. **A. Liu^{*1,2}**, J. Zhang¹, J. Liu¹, W. Xi¹, X. Qiu¹, H. Ma¹, **W. Zhai²**, ¹Southwest University, Chongqing, China, ²Mississippi State University
- # 386P Evaluating the impact of dietary mannan-oligosaccharides (MOS) on broiler performance and intestinal microflora. R. A. Silva^{*1}, H. M. Yakout¹, **W. Zhai¹, M. B. Farnell¹, C. S. Sharma¹, C. D. McDaniel¹, A. S. Kiess¹**, ¹Mississippi 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^{*1}, E. D. Peebles¹, X. Wang¹**, Y. Mercier², ¹Mississippi State University, ²Adisseo France
- # 67 Feed form and liquid application method effects on feed augering segregation. **R. B. Sellers^{*1}**, J. Boney², **C. McDaniel¹**, J. S. Moritz², **K. G. S. Wamsley¹**, ¹Mississippi State University, ²West Virginia University
- # 83 Evaluating the effect of de Man, Rogosa, Sharpe medium and byproducts of *Lactobacillus acidophilus* on rooster sperm quality. **M. D. Triplett^{*1}, C. D. McDaniel¹, A. S. Kiess¹**, ¹Mississippi State University
- # 295P Use of a compressed air foam system to rapidly clean and disinfect a broiler hatchery. V. S. Godoy^{*1}, C. H. Chisholm¹, **A. S. Kiess¹, Y. Z. Farnell¹, G. T. Tabler¹, C. D. McDaniel¹, M. B. Farnell¹**, ¹Mississippi 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^{*1}, C. S. Sharma¹**, ¹Mississippi 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^{*1}, C. S. Sharma¹, ¹Mississippi State University
- # 264 Prevalence, serotypes, and antibiotic-resistant phenotypes of *Salmonella enterica* isolates in retail poultry products. **C. S. Sharma^{*1}, A. Ates¹**, ¹Mississippi 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>