



# 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** collected litter samples in Magee, July 15, 16, and 17; and visited farms in Prentiss, Collins, and Mize, July 18.
- Poultry Science Association Annual Meeting, Corpus Christi, TX, July 14-18:
  - Attending/Presenting:
    - Drs. Peebles, Zhai, McDaniel, Kiess, Wamsley, Sharma, M. Farnell, Y. Farnell, Liu, Beck; Grad Students T. Oliveira, X. Wang, R. Sellers, C. Cardenas, M. Triplett, A. Sukumaran, D. Nair
  - Chairing Sessions:
    - Drs. Wamsley, Zhai, Kiess (Posters)
  - o Judging Student Presentation:
    - Drs. Y. Farnell, Peebles, Wamsley, Zhai
  - o Editorial Boards:
    - Drs. Peebles (JAPR) and Beck (PS)
  - o Foundation Board:
    - Dr. Beck
  - o Program Committee
    - Dr. M. Farnell

#### Congratulations to....

- Ben Sellers, M.S. grad student with **Dr. Wamsley**, who received a *Graduate Student Award of Excellence* for his paper, entitled, 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, Mississippi State, MS, ²West Virginia University, Morgantown, WV.
- **Tiago Oliveira,** visiting Ph.D. student from Brazil with **Dr. Peebles,** who received a *Graduate Student Award of Excellence* for his poster, entitled, The effects of different enzyme complexes on nutrient digestibility and performance in female broilers. **T. F. B. Oliveira**\*1.2, 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, Lavras, MG, Brazil, <sup>2</sup>Mississippi State University, Starkville, MS.

#### Recent Publications:

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. <a href="http://dx.doi.org/10.13031/aea.30.10103">http://dx.doi.org/10.13031/aea.30.10103</a> (for the abstract only); for a copy of the full manuscript, please contact Dr. Tabler (ttabler@poultry.msstate.edu)

• Poultry Science Abstracts 2014: <a href="http://m.poultryscience.org/Search.aspx">http://m.poultryscience.org/Search.aspx</a> 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\*1, 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\*1, L. V. Teixeira¹, D. E. Peebles², 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. Peebles¹, X. Wang¹, 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. Peebles1, Y. Mercier2, 1 Mississippi State University, 2 Adisseo France
- # 132 Cost effectiveness of supplemental dietary lysine and methionine for meat yield in male broilers. W. Zhai\*1, 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\*1, T. M. Barbosa², T. S. Cummings², J. Dickson², S. K. Womack¹, 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<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\*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, 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, 1 Mississippi State University
- # 264 Prevalence, serotypes, and antibiotic-resistant phenotypes of Salmonella enterica isolates in retail poultry products. C. S. Sharma\*1, A. Ates1, Mississippi State University

### 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
  - o 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
  - 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
- O 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: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: <a href="http://www.wcbi.com/wordpress/okolona-poultry-farmer-learns-from-msu">http://www.wcbi.com/wordpress/okolona-poultry-farmer-learns-from-msu</a>
- 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.4
- 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," <a href="http://msucares.com/pubs/publications/p2839.pdf">http://msucares.com/pubs/publications/p2839.pdf</a>.
- 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.