



## 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. Tabler** visited Peco Foods at Philadelphia to assess light dimmer function, Aug. 1
- **Mrs. Wells** and **Mrs. Christensen** met with MDAC and MBAH personnel in Jackson to discuss a poultry show at the Dixie Nationals, Aug. 2
- **Dr. Tabler** met with BankPlus personnel in Magnolia to assess farms, Aug 3
- **Mrs. Wells, Mrs. Christensen** and **Dr. Beck** met with MBAH personnel to discuss the Dixie National poultry show, in Starkville, Aug 8
- **Dr. Tabler** traveled to Kosciusko to take thermal images at a Koch breeder farm, Aug 10
- **Dr. Tabler** traveled to Laurel to attend the Sanderson Farms summer intern presentations, Aug 11
- **Mrs. Wells** staffed the Poultry Science mobile broiler barn as part of the displays set up at the annual DAFVM summer celebration, Aug 11

#### ***Congratulations to....***

- **Dr. Tom Tabler**, 2017 recipient of the Regions Bank Superior Extension/Outreach Faculty Award, DAFVM Summer Celebration, Aug. 11

#### ***Congratulations to our August graduates:***

- **Claudia Castaneda, MS**, continuing for a PhD with **Dr. Kiess**
- **Courtney Ennis, MS**, continuing for a PhD with **Dr. Wamsley**
- **Mohit Bansal, MS (Dr. Kiess)**, continuing for a PhD at the U. of Arkansas
- **Midian Nascimento dos Santos, MS (Dr. McDaniel)**, continuing for a PhD at the U. of Guelph, Canada
- **Seun Durojaye, MS (Dr. Peebles)**, returning to work at Sanderson Farms, TX
- **Undergrads**
  - **Andrew Brown**, continuing for an MS degree with **Dr. Wamsley**
  - **Shanise Rouser**, continuing study in Wildlife, Fisheries and Aquaculture
  - **Lee Ramsey**, Beginning Trainee with Sanderson Farms

#### ***Welcome to new graduate students:***

- **Bo Zhang**, PhD with **Dr. Zhai**
- **Peter Ishola**, PhD with **Dr. Peebles**
- **Jonathan Moon**, MS with **Dr. Tabler**
- **Andrew Brown**, MS with **Dr. Wamsley**

#### ***Welcome to...***

- \* **Dr. Pratima Adhikari** (PhD 2017 UGA), assistant professor, nutrition/management

**Cumulative List of Scientific and Extension Publications, 2017**

- **Tom Tabler**, F. Dustan Clark, and **Jessica Wells**, "Choosing the right breed of backyard poultry."  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3036.pdf>

**Abstracts presented at the IPSF, Jan 30-Feb 3, 2017; complete abstracts may be found at <http://southernpoultrysciencesociety.org/pdfs/2017AbstractBook.pdf>**

- **Tomi Obe**, MS grad student with **Dr. Kiess** (originally with **Dr. Sharma**), won a **Graduate Student Award of Excellence** for her presentation at the IPSF entitled, "Homologous stress adaptation, antibiotic resistance, and biofilm formation of *Salmonella Heidelberg* on different food-contact surfaces following exposure to sub-lethal chlorine concentrations," **Tomi Obe, Rama Nannapaneni, Chander Sharma**; Jan 31.
- **Mohit Bansal**, MS grad student with **Dr. Kiess** (originally with **Dr. Sharma**), won a **Graduate Student Award of Excellence** for his presentation at the IPSF entitled, "Influence of chlorine induced sub-lethal oxidative stress on homologous stress adaptation and biofilm formation in *Listeria monocytogenes*," **Mohit Bansal, Rama Nannapaneni, Chris McDaniel, Chander Sharma**; Jan 31.
- **Midian Nascimento dos Santos**\*GS, **Reshma Ramachandran, Kelley Wamsley, Aaron Kiess, Christopher McDaniel**, "The impact of a dietary yeast fermentation product derived from *Saccharomyces cerevisiae* on semen quality and semen microbiota of aged White Leghorn roosters"; Midian is an MS grad student with **Dr. McDaniel**
- **Reshma Ramachandran**\*, **Midian Nascimento Dos Santos, Christopher McDaniel**, "Relationship between sperm-egg penetration and the duration of fertility in Chinese painted quail hens (*Coturnix chinensis*); Reshma is a PhD grad student with **Dr. McDaniel**
- **Mary Beck**\*, **G. Tabler, Kelley Wamsley, Aaron Kiess**, "MSU Poultry Science takes New Zealand!"
- **Oluwaseun Durojaye**\*, **Katie Elliot, Edgar Peebles**, "Air cell size profile and its relationship to eggshell temperature and water loss in broiler hatching eggs through day 12 of incubation"; Seun is an MS grad student with **Dr. Peebles**.
- **Dana Dittoe**\*, **Chris McDaniel, Aaron Kiess** "Effects of lactic acid bacteria and organic acids on the concentration of an antibiotic resistant strain of *Salmonella Heidelberg*, in vitro"; Dana is an MS grad student with **Dr. Kiess**
- **Claudia Castaneda**\*, **Omar Gutierrez, Christopher McDaniel, Aaron Kiess**. "In vitro evaluation of seven commercially available *Bacillus* spp based probiotic supplements and one *Saccharomyces cerevisiae* based prebiotic supplement and their effects on an antibiotic resistant strain of *Salmonella Heidelberg*"; Claudia is an MS grad student with **Dr. Kiess**
- **Kacey O'Donnell**\*, **Xi Wang, Kelley Wamsley, Aaron Kiess, E. Peebles, Wei Zhai**. "Effects of replacing antibiotics and anticoccidials with probiotics in broiler diets on growth performance"; Kacey is an MS grad student with **Dr. Zhai**
- **Chrysta Beck**\*, **Pedro Mota, Kelley Wamsley, Christopher McDaniel, Aaron Kiess** "Proving the concept that commercial in ovo delivery of a prebiotic and probiotics can positively impact broiler performance"; Chrysta is an undergrad student working with **Dr. Kiess**
- **Alfred Blanch**\*, **Line Skjoet-Rasmussen, Elke Brockmann, Jannie Schnabl, Mickael Rouault, Dorthe Sandvang, Frank Jin, Aaron Kiess**, "Confirmation of the presence of *Enterococcus faecium* M74 in the gastrointestinal tract of young chicks from eggs inoculated with *GalliPro Hatch*"
- **Oluwaseun Durojaye**\*, **Edgar Peebles** 'Relationships of eggshell thickness to

- *thermal gradients across the shell at the large and equatorial regions of embryonated broiler hatching eggs*"; Seun is an MS grad student with **Dr. Peebles**
- **Na Dong\***, **Xi Wang**, **Wei Zhai** "Effects of various levels of low-fat distiller's dried grains with solubles on intestinal developments of broilers from 28 to 54 days of age" Dr. Dong is a visiting scientist working **Dr. Zhai**
- **Edgar Peebles**, Tiago Oliveira, Antonio Bertechini, Elizabeth Kim, Opeyemi Olojede, **Sharon Womack**, Patrick Gerard, "Effects of post-hatch holding time before placement on broiler body temperature during grow-out."
- **Tom Tabler**, Jim Watson, Brigid Elchos, and **Jessica Wells**, "Backyard Biosecurity is the Best Defense Against Avian Influenza,"  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3059pdf>
- **Tom Tabler** and **Jessica Wells**, "Avian Influenza 2017: Frequently Asked Questions."  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3060.pdf>
- **Tom Tabler**, F. Dustan Clark, Jonathan Moyle, Jason R. Barrett, Yi Liang, and **Jessica Wells**, "How Total Farm Water Pressure and Volume Affect Commercial Poultry Production,"  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3058.pdf>
- **Tom Tabler** and **Jessica Wells**, "Benefits and Challenges of Reusing Broiler Litter,"  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3066.pdf>
- **Tom Tabler** contributed to MSU Feature Story on AI:  
<http://extension.msstate.edu/news/feature-story/2017/poultry-growers-urged-follow-biosecurity>
- Alfred Blanch, Herb Kling, **Aaron Kiess**, "In ovo probiotic injection linked to higher post-hatch performance," International Hatchery Practice, Vol 31, Number 3, p. 15; please contact us if you'd like a copy.
- **A. Moore**, R. Nannapaneni, **A. Kiess**, and CS Sharma, 2017. Evaluation of USDA approved antimicrobials on the reduction of Salmonella and Campylobacter in ground chicken frames and their effect on meat quality. Poultry Sci.  
<http://dx.doi.org/10.3382/ps/pew497>.
- **Tom Tabler** and **Jessica Wells**, "Economic Impact of Mississippi's Poultry Industry,"  
<http://extension.msstate.edu/sites/default/files/publications/publications/p3048.pdf>

Abstracts Presented at the PSA Annual Meeting: Congratulations to our four (4) graduate student awards of excellence for scientific merit and presentation quality, noted below (~13% of all student awards given by PSA this year!).

- **Dr. Kiess's Students:**
  - **Mohit Bansal**, "Biofilm inactivation of two morphotypes of two Salmonella enterica serovars by sodium hypochlorite on different surfaces"
  - **Claudia Castaneda**, "Evaluating bacterial colonization of a developing broiler embryo after in ovo injection with a bioluminescent bacteria"
  - **Dana Dittoe**, "Effects of ButiPEARL and Primalac used alone on in combination on 57-3 broiler intestinal morphology and immune tissue"
  - **Dana Dittoe**, "Effects of ButiPEARL and Primalac used alone or in combination on 57-d performance and processing"
- **Dr. Peebles's Student:**
  - **Saman Fatemi**, "Effects of different levels of in ovo-injected vitamin D sources on the hatchability and serum 25-hydroxycholecalciferol concentrations of Ross 708 broilers"  
§ **NOTE:** Saman received an award of excellence for this presentation!
- **Dr. Wamsley's Students:**
  - **Mark Lemons**, "Effects of crumble particle size on d10-14 Ross x Ross 708 male broiler performance"  
§ **NOTE:** Mark received an award of excellence for this presentation!
  - **Courtney Ennis**, "Determining the efficacy of two carbohydrase enzymes in commercial diets on d0-57 broiler performance"
  - **Rosana Hirai**, "Evaluating the performance of Cobb 500 x MV broilers to varying amino acid density regimens for a small bird program"
- **Dr. Zhai's Student:**
  - Kacey O'Donnell, "Effects of replacing antibiotics and anticoccidials with probiotics in broiler diets on processing yields"

§ NOTE: Kacey received an award of excellence for this presentation!

- **Dr. McDanial's Students:**
  - **Midian Nascimento dos Santos**, "Impact of in vitro inoculation and dietary supplementation with *Bacillus subtilis* on sperm quality of aged White Leghorn roosters"  
§ NOTE: Midian received an award of excellence for this presentation!
  - **Reshma Ramachandran**, "Relationships among sperm-egg penetration, fertility and egg components of Chinese painted quail hens (*Coturnix chinensis*)"

**Faculty Presentations:**

- **Dr. Zhai**, "Effects of replacing antibiotics and anticoccidials with probiotics in broiler diets on intestinal coccidial lesion development"
- **Dr. Zhang**, "Effects of in ovo administration of l-ascorbic acid on broiler hatchability"