



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 a Mar-Jac grower to assess water quality, April 23.
- **Dr. Tabler** participated in a PAACO training session with Peco Foods, Philadelphia, April 24
- **Drs. Beck, Kiess, and Tabler** met with Peco Foods personnel, Starkville, April 30, to discuss research options.
- **Dr. Tabler** visited Peco Foods at Sebastopol to conduct a pullet check, May 2.
- **Dr. Wells** participated in a State 4-H Congress Specialists meeting, May 2.
- **Drs. Beck, Tabler and Wamsley** left May 5 with 8 students (4 poultry majors – **Peyton Taylor, Danya Brown, Rodney Self, Morgan Attwood**) for Study Abroad in New Zealand; returned May 27. Highlights of the trip:
 - Meeting with PacificVet Group (immunology; avian vaccines), Christchurch
 - Whale and seal watching, Kaikoura
 - Meeting with Poultry Food Safety Team at Ministry of Primary Industries (similar to USDA/FDA), Wellington
 - Overnight and cultural events at Maori Village, Rotorua, followed by ziplining and redwood forest walks
 - Visit to Cobb GGP Farm, partially constructed, Huntly
 - Tour of Hobbiton, filming site of The Hobbit, Matamata
 - Tours of Tegel broiler farm and processing plant; and Main Feeds feed mill, in and near Auckland
 - Excursion to TiriTiri Matangi island, restored wildlife preserve, Auckland
 - Glow worm cave at Waitomo and tours of Massey University animal research facilities in Palmerston North; pizza party with Massey students and staff; hosted by Dr. Wester
 - Attendance at the XXI Massey/Poultry Industry Conference and dinner with the poultry research team hosted by Dr. Ravindran and Dr. Abdollahi
 - **Tom Tabler**, “Antibiotic-Free Poultry Production in the US”
 - **Kelley Wamsley**, “Optimum Feed Particle Size for Broilers”
 - Discussion with Manager, Headland Farm Park, Whangarei, and watched sheep shearing
 - Visit and tours of McGrath Poultry (layers) and The Chook Farm, Wangarei
 - Visit to Native Bird Recovery Center and up-close meeting with a live kiwi
 - Visit to Waitangi Treaty Grounds, Russell Island, and Pahia

Recent Publications:

- Reshma Ramachandran, Midian N. dos Santos and **Christopher D. McDaniel**, 2019. In vivo and in vitro inoculations of live viruses alter parthenogenesis in Chinese painted quail. Int. J. Poult. Sci. 18: 284-292. <https://doi.org/10.3923/ijps.2019.284.292>

Cumulative List of Scientific and Extension Publications, 2019

- **Abstracts of Presentations at the IPSF, Atlanta, February 11-12, 2019; these can be accessed at www.ippexpo.org/ispf:**
 - **Chrysta Beck***, **Christopher McDaniel**, **Kelley Wamsley**, G. Pharr, **Aaron Kiess**, “In ovo injection of probiotic bacteria and its influence on the broiler immune system during a coccidia challenge”
 - **Abdulmohsen Alqhtani***, Scott Branton, Jeff Evans, **Katie Elliott**, **David Peebles**, “The effects of in ovo administration of 6/85 Mycoplasma gallisepticum vaccine on layer chicken embryo hatchability and early post-hatch performance “
 - **Andrew Brown***, Mark Lemons, **Christopher McDaniel**, Joseph Moritz, **Kelley Wamsley**, “Determining the average particle size (APS) consumed between two broiler strains (S) receiving diets varying in feed form (FF) and feed quality (FQ) and the subsequent impact on starter performance (0-6 and 0-18 d)”
 - **Courtney Ennis***, Mark Jackson, Omar Gutierrez, Staci Cantley, **Kelley Wamsley**, “Effects of superdosing phytase and use of carbohydrase enzymes in low energy diets on 56 day male broiler performance and processing”
 - **Milan Sharma***, Carlos Domenech, **Pratima Adhikari**, “Effect of feeding pronutrient (Alquernat Nebsui L) on hen day egg production, egg quality and small intestine histomorphology of laying hens. ‘
 - **Bo Zhang***, **Wei Zhai**, “Effects of riboflavin on growth performance, processing yield, and internal organ development of Ross 708 male broilers”
 - **Saman Fatemi***, **Katie Elliot**, Abiodun Bello, Bradley Turner, Haijun Zhang, **Edgar Peebles**, “Effects of the in ovo injection of vitamin D3 and 25-hydroxyvitamin D3 on immunity and small intestine morphology in broilers fed commercial or calcium and phosphorous-restricted diets”
 - **Rosana Hirai***, Leonel Mejia, Cesar Coto, Justina Caldas, **Christopher McDaniel**, **Kelley Wamsley**, “Impact of feeding varying grower digestible lysine and energy levels to female Cobb MV × Cobb 500 broilers on 42-day growth performance and processing yield”
 - **Katie Elliott***, Scott Branton, Jeffrey Evans, **Edgar Peebles**, “Early chick immunity after in ovo vaccination of F strain Mycoplasma gallisepticum and the influence of sex on the response to the vaccination”
 - **Josie Gamble***, **Claudia Castaneda**, **Kelley Wamsley**, **Christopher McDaniel**, **Aaron Kiess**, “In ovo injected Bacillus subtilis probiotic serotypes alter broiler hatchability and intestinal microflora”
 - **Lauren Lindsey***, **Katie Elliott**, **Seyed Fatemi**, **Peter Ishola**, Patrick Gerard, **Edgar Peebles**, “Incubational and embryonic temperature relationships in Ross 708 broiler hatching eggs”
- **Claudia Castañeda**, **Christopher McDaniel**, Hossam Abdelhamed, Attila Karsi, **Aaron S. Kiess**, 2019. Evaluating bacterial colonization of a developing broiler embryo after in ovo injection with a bioluminescent bacteria. Poultry Sci. <https://doi.org/10.3382/ps/pez053>.
- Xi Wang Yuhua Z Farnell **Aaron S Kiess E David Peebles Kelley G S Wamsley Wei Zhai**, 2019. “Effects of *Bacillus subtilis* and coccidial vaccination on cecal microbial diversity and composition of *Eimeria*-challenged male broilers,”

- E.N. Ferjak, C.A. Cavinder*, **A.T. Sukumaran**, D.D. Burnett, C.O. Lemley, T.T.N. Dinh, 2019. "Fatty acid composition of mesenteric, cardiac, abdominal, intermuscular, and subcutaneous adipose tissues from horses of three body condition scores," *Livestock Science* 223:116-123.
- Xi Wang, **E. David Peebles**, **Aaron S. Kiess**, **Kelley G.S. Wamsley** and **Wei Zhai**, 2019. "Effects of coccidial vaccination and dietary antimicrobial alternatives on the growth performance, internal organ development, and intestinal morphology of Eimeria-challenged male broilers," *Poultry Sci.* 98:5:2054-2065. <https://doi.org/10.3382/ps/pey552>.
 - **NOTE: This manuscript is an Editor's Choice for the current issue of Poultry Science!**
- **Tom Tabler**, F. Dustan Clark, Jonathan Moyle, **Jessica Wells**, and Nikki Jefcoat, "Fowl cholera and infectious choryza in backyard flocks," http://extension.msstate.edu/sites/default/files/publications/publications/p3341_web.pdf
- **Tom Tabler**, Seun Durojaye, Filip To, **Katie Elliott**, Patrick Gerard, and **David Peebles**, "Relationship of Air Cell Size to Shell Temperature and Weight Loss in Broiler Hatching Eggs," <http://extension.msstate.edu/sites/default/files/publications/publications/p3352.pdf>
- **Tom Tabler**, Yi Liang, and **Jessica Wells**, "Sprinklers Offer Flock Cooling Benefits and Water Conservation Opportunities," <http://extension.msstate.edu/sites/default/files/publications/publications/p3351.pdf>
- **Tom Tabler**, "Use of thermal cameras in poultry houses," interview with Engormix, https://en.engormix.com/MA-poultry-industry/videos/use-thermal-cameras-poultry-houses-t55163.htm?utm_source=notification&utm_medium=email&utm_campaign=2-1-0