



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 backyard poultry grower near Ackerman to assess management operation, May 10.
- **Dr. Tabler** presented a talk entitled, "Sprinkler System Allows Water Conservation While Maintaining Broiler Performance," at a Poultry Times webinar, "Understanding Sprinkler Technology," May 11.
- **Dr. Tabler** gave a presentation entitled, "Litter Management for Flock Health," at the MPA virtual Poultry Management School, May 12
- **Dr. Tabler** visited a Mar-Jac grower to assess management practices, May 13.
- **Dr. Wamsley**, accompanied by grad students **Maria Alvarenga** and **Andrew Brown**, visited Tucker Milling in Alabama to discuss research diets, May 12.
- **Dr. Wamsley** visited a feed mill in Walthall County to assess operations, May 13.
- **Dr. Beck** participated in the virtual board meeting of the Starkville-MSU Symphony, May 13

Welcome to...our new Research Assistant Professor!

- **Dr. Reshma Ramachandran** joined the department as Research Assistant Professor beginning on May 1! She was previously a post-doctoral associate with **Dr. Kiess**.

Recent Publications

- **Tom Tabler, Wei Zhai, Jessica Wells, and Jonathan Moon**, "Antibiotic Resistance, Alternatives, and the U.S. Poultry Industry,"
http://extension.msstate.edu/sites/default/files/publications/publications/P3605_web.pdf
- **Tom Tabler, Jonathan Moyle, Jennifer Rhodes, Shawna L. Weimer, Jessica Wells, and Jonathan Moon**, "Poultry Beginnings: Raise Your Own Backyard Chickens,"
http://extension.msstate.edu/sites/default/files/publications/publications/P3624_web.pdf

Cumulative List of Scientific and Extension Publications, 2021

- **Claudia D. Castañeda**, Dana K. Dittoe, **Kelley G.S. Wamsley**, **Christopher D. McDaniel**, Alfred Blanch, Dorth Sandvang, **Aaron S. Kiess**, “In ovo inoculation of an *Enterococcus faecium*-based product to enhance broiler hatchability, live performance, and intestinal morphology,” *Poultry Sci.*, 2020; Vol. 99:11:6163-6172. <https://doi.org/10.1016/j.psj.2020.08.002>
- Pratik Parajuli, Yang Zhao, **Tom Tabler**, “Evaluating avoidance distance and fleeing speed of broilers exposed to aerial systems,” 2020 *Int. J. Agric & Biol Eng.* Vol 13:6:34
<https://ijabe.org/index.php/ijabe/article/view/5591/pdf>
- Yi Liang and **G. Tom Tabler**, “Litter management for broiler production,” U of Arkansas Extension, <https://www.uaex.edu/publications/pdf/FSA1098.pdf>

Recent Publications and Media...**Abstracts presented at the 2021 Virtual IPSF (abstracts can be found at****https://poultryscience.org/files/galleries/2021_IPSF_Abstracts.pdf**

- **Hudson Thames**^{*GS}, **Courtney Fancher**, **Mary Gates Colvin**, **Mika McAnally**, **Emily Tucker**, **Nikhil Nuthalapati**, **Li Zhang**, **Aaron Kiess**, **Thu Dinh**, **Anuraj Sukumaran**, “Prevalence of *Salmonella*, *Campylobacter*, and spoilage bacteria on broiler meat at different stages of commercial poultry processing,”
- **Courtney Fancher**^{*GS}, **Hudson Thames**, **Mary Gates Colvin**, **Li Zhang**, **Nikhil Nuthalapati**, **Aaron Kiess**, **Anuraj Sukumaran**, “Prevalence of *Clostridium perfringens* in no antibiotics ever broiler farms in Mississippi”
- **Sabin Poudel**^{*IGS}, **Sadie White**², **Tianmin Li**¹, **Xue Zhang**², **Aaron Kiess**¹, **Li Zhang**¹. “Comparison of DNA extraction methods in poultry litter and fecal samples to identify pathogenic bacteria using real-time PCR
- **Jonathan Moon**^{*IGS}, **Jan DuBien**¹, **Reshma Ramachandran**¹, **Yi Liang**², **Tom Tabler**¹. “Effect of sprinkling on water conservation, house environment, and broiler performance
- **Ishab Poudel**^{*GS}, **Aaron Kiess**, **Mary Beck**, **Pratima Adhikari**, “The effects of monochromatic light on the growth, egg production, egg quality, behavior, and hormone concentration of Hy-Line® W-36 laying hens
- **Victoria Williams**^{*IGS}, **Kelley Wamsley**¹, **Kevin Roberson**², **Pratima Adhikari**¹. “Effects of varying protein/amino acid level of diets with or without protease on 30-50 wk layer performance and egg production parameters
- **Ayoub Mousstaaid**^{*IGS}, **William Miller**², **Katie Elliott**¹, **Saman Fatemi**¹, **Abdulmohsen Alqhtani**¹, **E. David Peebles**, “Effects of the in ovo and dietary administration of L-ascorbic acid (L-AA) on the concentrations of L-AA in the eyes and nitric oxide in the serum of Ross 708 broilers
- **Andrew Brown**^{*IGS}, **Jason Lee**², **Kelley Wamsley**, “Determining the optimal digestible isoleucine to lysine ratio in Ross x Ross 708 male broilers from 14 to 28 days of age
- **Sabin Poudel**^{*1}, **Tianmin Li**, **Mark Arick**², **Chuan Hsu**², **Aaron Kiess**¹, **Li Zhang**¹. “Comparative whole-genome analysis of *Campylobacter jejuni* strains isolated from retail Chicken in Mississippi”
- **Saman Fatemi**^{*1}, **Katie Elliott**¹, **April Levy**², **Abdulmohsen Alqhtani**¹, **Ayoub Mousstaaid**¹, **David Peebles**, “Negative impact of a disproportionately high level of dietary 25-hydroxyvitamin D3 on the performance and meat yield of Ross 708 broilers
- **Tianmin Li**^{*IGS}, **Anuraj Theradiyil Sukumaran**¹, **Wen-Hsing Cheng**², **Aaron Kiess**¹, **Li Zhang**, “Phenotypic and genotypic antimicrobial resistance characteristics of avian pathogenic *Escherichia coli* isolated from broilers
- **Reshma Ramachandran**^{*}, **Chuan-Yu Hsu**, **Anuraj Theradiyil Sukumaran**, **Li Zhang**, “Validation of probe-based multiplex real-time PCR assays for the rapid and accurate detection of avian pathogenic *Escherichia coli*
- **Nathaniel Miller**^{*1UG}, **Ayoub Mousstaaid**¹, **Barr Oakes**¹, **Sayed Fatemi**¹, **Abdulmohsen Alqhtani**¹, **Katie Elliott**¹, **William Miller**², **Patrick Gerards**³, **E. Peebles**. “The effects of supplementary in ovo and dietary vitamin C on broiler performance through 2 weeks posthatch”
- **Tom Tabler**, “Cooling Poultry Flocks During Hot Weather,”
<https://m.info.boehringer-ingenheim.ca/webApp/TheFeedMar2021#colleague-commentary>
- **Xiao Yang**, **Yang Zhao**, **Hairong Qi**, and **Tom Tabler**, “Characterizing sounds of different sources in a commercial broiler house,” *Animals* 2021,
<https://doi.org/10.3390/ani11030916>
- **Tom Tabler**, **Yi Liang**, **Jessica Wells**, and **Jonathan Moon**, “Broiler Litter Production and Nutrient Content Characteristics,”
http://extension.msstate.edu/sites/default/files/publications/publications/P3601_web.pdf

- Bonnie Coblenz, “Plan well before starting a backyard chicken flock,” Feature Story with **Tom Tabler**: <http://extension.msstate.edu/news/feature-story/2021/plan-well-starting-backyard-chicken-flock>
- **Claudia D. Castañeda, Josie N. Gamble, Kelley G.S. Wamsley, Christopher D. McDaniel** and **Aaron S. Kiess**, “In ovo administration of *Bacillus subtilis* serotypes affect hatchability, 21-day performance, and intestinal microflora,” Poultry Sci. 100:6: <https://doi.org/10.1016/j.psj.2021.101125>