

## Attachment: W\_TEMP\_4173

### PEER-REVIEWED PUBLICATIONS

1. Abdelfattah EM, Lay Jr DC, Marchant Forde JN, Karousa MM, Schutz MM, Eicher SD. 2017. Short communication: Effect of age at group housing on behavior, cortisol, health, and leukocyte differential counts of neonatal bull dairy calves. *Journal of Dairy Science*. 101(1):596-602. <https://doi.org/10.3168/jds.2017-12632>.
2. Baier FS, Grandin T, Engle TE, Archibeque SL, Wagner JJ, Edwards-Callaway NN. 2020. Impact of liver abscess presence on stress related physiological parameters associated with well-being in feedlot cattle. *Applied Animal Science*, 36, 437-46.
3. Beard JK, Mulliniks JT, Yates DT. 2019. Function and dysfunction of fatty acid mobilization: a review. *Diabetes* 5:1-5.
4. Beede KA, Limesand SW, Petersen JL, Yates DT. 2019. Real supermodels wear wool: Summarizing the impact of the pregnant sheep as an animal model for adaptive fetal programming. *Animal Frontiers* 9:28-33.
5. Cabezon FA, Schinckel AP, Smith AJ, Marchant-Forde JN, Johnson JS, Stwalley RM. 2017. Initial evaluation of floor cooling on lactating sows under severe acute heat stress. *Prof. Anim. Sci.* 33:254-260.
6. Cabezon FA, Schinckel AP, Marchant-Forde JN, Johnson JS, Stwalley RM. 2017. Effect of floor cooling on late lactation sows under acute heat stress. *Livestock Sci.* 206: 113-120. doi. 10.1016/j.livsci.2017.10.017
7. Cadaret CN, Posont RJ, Beede KA, Riley HE, Loy JD, Yates DT. 2019. Maternofetal inflammation at mid-gestation induces intrauterine growth restriction (IUGR) and impairs indices of fetal muscle development at term in rats. *Translational Animal Science* 3:867-876.
8. Caldera E, Wagner JJ, Sellins K, Laudert SB, Spears JW, Archibeque SL, Engle TE. 2017. Effects of supplemental zinc, copper, and manganese concentration and source on performance and carcass characteristics of feedlot steers. *Prof. Anim. Sci.* 33:63-72.
9. Calvo-Lorenzo MS, Hulbert LE, Ballou MA, Fowler AL, Luo Y, Klasing KC, Mitloehner FM. 2017. Space allowance influences individually housed Holstein bull calf innate immune measures and standing behaviors after castration at 3 weeks of age. *J. Dairy Sci.* 100: 2157-2169. <http://doi.org/10.3168/jds.2016-11833>.
10. Calvo-Lorenzo MS, Hulbert LE, Fowler AL, Louie A, Gershwin LJ, Pinkerton KE, Ballou MA, Klasing KC, Mitloehner FM. 2016. Wooden hutch space allowance influences male Holstein calf health, performance, daily lying time, and respiratory immunity. *J. Dairy Sci.* 99:4678-4692 <http://dx.doi.org/10.3168/jds.2016-10888> .
11. Capik SF, White BJ, Larson RL, VanEngen N, Cernicchiaro N, Engelken TJ, Lakritz J, Ballou MA, Hulbert LE, Vann RC, Caswell JL, Jacob G, Carrol JA, Coetzee JF. 2017. Effect of oral administration of meloxicam prior to transport on inflammatory mediators and leukocyte function of cattle at feedlot arrival. *American Journal of Veterinary Research*. 78(12): 1426-1436.
12. Casagrande RR, Alexander L, Edwards-Callaway LN. 2020. Effects of gun model and number of stuns on stunning-related variables of cattle in a 1 commercial slaughter facility. *Meat Science*. 170:108231.
13. Chapel NC, Byrd CJ, Lugar DW, Morello GM, Baumgard LH, Ross JW, Safranski TJ, Lucy MC, Johnson JS. 2017. Characterizing the effects of early gestation heat stress on postnatal

- fasting heat production and circulating biomarkers associated with metabolism in growing pigs. *J. Anim. Sci.* 95:3914-3921. doi.org/10.2527/jas.2017.1730
14. Chen, J. M., C. L. Stull, D. N. Ledgerwood, and C. B. Tucker. 2017. Muddy conditions reduce hygiene and lying time in dairy cattle and increase time spent on concrete. *J. Dairy Sci.* 100:1-14. doi: 10.3168/jds.2016-11972
  15. Chen, J. M., Schütz, K. E., and C. B. Tucker. Comparison of instantaneous sampling and continuous observation of dairy cattle behavior in freestall housing. *J. Dairy Sci.* 99:8341-8346.
  16. Collier, R.J., T.R. Bilby, B.J. Renquist. 2017. Emerging Trends in Agriculture. Proc. 5th International Symposium on Dairy Cow Nutrition and Milk Quality. Ed. J. Wang, N.Sheng, S. Zhao, and A. Kurtz. Beijing, China. pg. 3-19.
  17. Davis, B. P., T. E. Engle, J. I. Ransom, and T. Grandin. 2017. Preliminary evaluation of the effectiveness of varying doses of supplemental tryptophan as a calmativ in horses. *App. Anim. Behav. Sci.* 188:34-41.
  18. Dennis, T.S., F.X. Suarez-Mena, T. M. Hill, J.D. Quigley, R.L. Schlotterbeck, R.N. Klopp, G.J. Lascono, and L.E. Hulbert. 2018. Effects of gradual and later weaning ages when feeding high milk replacer rates on growth, textured starter digestibility, and behavior in Holstein calves from 0 to 4 months of age *J. Dairy. Sci.* <https://doi.org/10.3168/jds.2018-15319>
  19. Dennis, T.S., F.X. Suarez-Mena, T.M. Hill, J.D. Quigley, R.L. Schlotterbeck, and L.E. Hulbert. 2017. Effect of milk replacer feeding amount, age at weaning, and method of reducing milk replacer to wean on digestion, performance, rumination, and activity in dairy calves to 4 months of age. *J. Dairy Sci.* 101: 268-278. [dx.doi.org/10.3168/jds.2017-13692](https://doi.org/10.3168/jds.2017-13692)
  20. Drwencke, A. M., G. Tresoldi, M. M. Stevens, V. Narayanan, A. V. Carrazco, F. M. Mitloehner, T. E. Pistochini, and C. B. Tucker. 2020. Innovative cooling strategies: Dairy cow responses and water and energy use. *J. Dairy Sci.* 103:5440-5454. 10.3168/jds.2019-17351.
  21. Edwards-Callaway, L.N. and M. S. Calvo-Lorenzo, 2020, Board Invited Review: Animal welfare in the U.S. slaughter industry- A focus on fed cattle, *Journal of Animal Science*, 98, 1-21.
  22. Edwards-Callaway, L.N., Cramer, M.C., Roman-Muniz, I.N., Stallones, L., Thompson, S., Ennis, S., Marsh, J., Simpson, H., Kim, E., Calaba, E., Pairis-Garcia, M. Preliminary exploration of swine veterinarian perspectives of on-farm euthanasia. *Animals* 2020, 10(10): 1919. <https://doi.org/10.3390/ani10101919>
  23. Eicher, S. D., M. H. Rostagno, and D. C. Lay, Jr. 2017. Feed withdrawal and transportation effects on *Salmonella enterica* levels in market-weight pigs. *J. Anim. Sci.* Doi:10.2527/jas.2017.1454
  24. Godfrey, R.W., W.D. Preston, S.R. Joseph, L. LaPlace, P.E. Hillman, K.G. Gebremedhin, C.N. Lee, and R.J. Collier. 2017. Evaluating the impact of breed, pregnancy and hair coat on body temperature and sweating rate of hair sheep ewes in the tropics. *J. Anim. Sci.* 95:2936-2942. doi:10.2527/jas2016.1125
  25. Gorczyca, M. T., H. F. M. Milan, A. S. C. Maia, K.G. Gebremedhin. 2018. Machine learning algorithms to predict internal and superficial temperatures of piglets. *Computers and Electronics in Agriculture.* 151(2018): 286-294.
  26. Greene EA, Wright AD, Knight CW, Diaz DE. 2019. Daily activity and shade use by horses in a desert environment. *Journal of Equine Veterinary Science.* 76:101-102.

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28. Hepler, C., C.E. Foy, M.R. Higgins, and B.J. Renquist. 2017. The hypophagic response to heat stress is not mediated by GPR109A or peripheral beta-OH butyrate. *Am. J. Phys. Reg. Int. and Comp. Phys.* 301:R992.
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32. Jalali, S., K. D. Lippolis, J. K. Ahola, J. J. Wagner, J. W. Spears, D. Couch, and T. E. Engle. 2020. Influence of supplemental copper, manganese, and zinc source on reproduction, mineral status, and performance in a grazing beef cow-calf herd over a 2-year period. *Appl. Anim. Sci.* 36:745-753.
33. Johnson, J.S. 2018. Heat stress: Impact on livestock well-being and productivity and mitigation strategies to alleviate the negative effects. *Anim. Prod. Sci.* 58: 1404-1413. doi. 10.1071/AN17725
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36. Johnson, J.S., M.A. Aardsma, A.W. Duttlinger, and K.R. Kpodo. Early life thermal stress: Impact on future thermotolerance, stress response, behavior, and intestinal morphology in piglets exposed to a heat stress challenge during simulated transport. *J. Anim. Sci.* 96: 1640-1653. doi: 10.1093/jas/sky107.
37. Kattesh, M. J. Lewis, C. D. Young, L. J. Siebert, B. E. Gillespie, M. E. Prado, R. A. Almeida, and S. P. Oliver. 2017. Vaccination with recombinant *Streptococcus uberis* adhesion molecule (rSUAM) alters cytokine profiles during experimental challenge. *Inter. J. Vet. & Dairy Sci.*
38. Kistner, M. J., J. J. Wagner, J. Evans, S. Chalberg, S. Jalali, K. Sellins, M. L. Kesel, T. Holt, and T.E. Engle. 2017. The effects of molybdenum water concentration on feedlot performance, tissue mineral concentrations, and carcass quality of feedlot steers. *J. Anim. Sci.* 95:2758-2766. doi.org/10.2527/jas.2016.1333
39. Kline, H.C., Z. D. Weller, T. Grandin, R. Algino, K. E. Belk, and L.N. Edwards-Callaway, 2020, Accuracy of visual evaluation of carcass bruise trim weight, *Meat and Muscle Biology*, 4, 1-6.
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41. Kpodo KR, Duttlinger AW, Maskal JM, Johnson JS. 2020. Effects of feed removal on thermoregulation and intestinal morphology in pigs recovering from acute hyperthermia. *Journal of Animal Science*. 98(2):skaa041.
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43. Lay Jr., D.C., A. Sapkota, and S.A. Enneking. 2017. Testing the feasibility of using a conveyor belt to load weanling and nursery pigs for transportation. *Transl. Anim. Sci.* 1: doi:10.2527/tas2017.0033
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53. McConn, B., A. Koskinen, D. Denbow, E. Gilbert, P. Siegel, and M. Cline. 2019. Central injection of oxytocin reduces food intake and affects hypothalamic and adipose tissue gene expression in chickens. *Domestic Animal Endocrinology*. 67:11-20.
54. McConn, B., E. Gilbert, and M. Cline 2019. Fasting and refeeding induce differential changes in hypothalamic mRNA abundance of appetite-associated factors in 7 day-old Japanese quail, *Coturnix japonica*. *Comparative Biochemistry and Physiology, Part A: Molecular and Integrative Physiology*. 227:60-7.
55. McConn, B., P. Siegel, M. Cline, and E. Gilbert. 2019. Anorexigenic effects of mesotocin in chicks are genetic background-dependent and are associated with changes in the

- paraventricular nucleus and lateral hypothalamus. *Comparative Biochemistry and Physiology, Part A: Molecular and Integrative Physiology*. 232:79-90.
56. Mijares, S., M. Davis, J. Ahola, L. Bigler, T. Engle, L. Alexander, and L.N. Edwards-Callaway, 2020, Development and validation of a mud scoring system for use in cattle at slaughter – A short communication, *Meat Science*, 172, 108354.
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90. Zhu, Y., Y. Z. Li, M. Reese, E. Buchanan, J. Tallaksen, and L. J. Johnston. 2020. Behavior and performance of suckling piglets provided three supplemental heat sources. *Animals*. 2020, 10, 1155/doi:10.3390/ani10071155.

#### **ABSTRACTS AND PRESENTATIONS**

1. Barnes TB, Beede KA, Merrick EM, Cadaret CN, Cupp AS, Yates DT. 2018. Impaired muscle stem cell function in cows with high concentrations of androstenedione in their follicular fluid. *Translational Animal Science*. 2(S1):S27-30.
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3. Bello P, Leal P, Fernández, J y A.A. Rodríguez. 2018. Efecto de la suplementación proteica sobre la ganancia en peso y parámetros fisiológicos de ovejas criollas en crecimiento expuestas a estrés por calor. Annual Meeting Puerto Rican Society of Agricultural Science, Aguadilla PR.
4. Bello P, Leal P, Fernández, J y A.A. Rodríguez. 2018. Efecto de la suplementación proteica sobre la ganancia en peso y parámetros fisiológicos de ovejas criollas en crecimiento expuestas a estrés por calor. Annual Meeting Puerto Rican Society of Agricultural Sciences, Aguadilla, PR
5. Bratton, E., Eicher, S.D., Marchant-Forde, J.N., Schutz, M.M. and Proudfoot, K. 2018. The effect of long-term exposure to concrete or rubber flooring on lying behavior in cattle. In: *Proceedings of 52nd Congress of the International Society for Applied Ethology*. . M. Cockram, ed. Wageningen Academic Press, Wageningen, The Netherlands.
6. Byrd, C.J., N.M. Chapel, D.W. Lugar, M.C. Lucy, T.J. Safranski, and J.S. Johnson. It's getting hot in here: A preliminary study to evaluate the impact of in utero heat stress on piglet behavior after weaning and transport. Regional Meeting of the International Society for Applied Ethology.
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#### **THESES/DISSERTATIONS**

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2. Benabe, E. 2018. The effect of adding three fat sources in the diets on physiological parameters, dry matter and water intake, nutrient digestibility and blood components in growing lambs. UPR. Rodriguez, advisor.
3. Bortoluzzi, E.M. 2017-2019. Applied Ethology Management Methods For Resilient Calves. Master's of Science in the department of Animal Sciences and Industry, K-State. <http://hdl.handle.net/2097/39623>
4. Chapel, Ph.D. 2018. The sound science of sows: influence of auditory environment on sow hearing, piglet communication, and sow behavior in modern swine production. Purdue University



5. Geisler, C.E. 2016. The role of ketone signaling in the hepatic response to fasting. University of Arizona (PI-Renquist) (Dissertation)
6. Guimaraes, O. 2020. MS, Trace mineral source impacts rumen trace mineral distribution and fiber digestion in steers fed a low-quality forage-based diet.
7. Hu, 2017, Ph.D. , Thermal perches as cooling devices for reducing heat stress in caged laying hens
8. Kett, 2018, Evaluation of the interaction of beta-adrenergic agonist supplementation and heat stress on growth performance and carcass composition in feeder wether lambs
9. Kismiantini, "Methods for detecting time lags in animal temperature regulation" (2017). Univ. of Nebraska, Lincoln (Dissertation).
10. Kubik, 2018, Genomic investigation of beta agonist supplementation and heat stress in livestock species
11. Lou, Maria. 2018-2020 (MS) Project title: The grimace scale as a method of acute pain assessment for neonatal livestock
12. McGill, S.E. 2019. Evaluation of Air Movement in Equestrian Facilities and on equine Athletes. MS. M. Hayes advisor. U of Kentucky, <https://orcid.org/0000-0003-1742-3512>
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14. Petrosus, E. 2016. The effects of cortisol and norepinephrine on weanling piglets and the selection of an anxiolytic probiotic. (Dissertations)
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18. The effects of molybdenum water concentration on feedlot performance, tissue mineral concentration, and carcass quality of feedlot steers. (PI-Engle) (Dissertation)
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