**Publications (Journal Articles, Abstracts, Book Chapters, Extension, Outreach)**

**Cornell University**

1. Posbergh, C. J., R. J. Murphy, and M. L. Thonney. 2017. Further testing of Melatonin Receptor 1a for out-of-season reproduction in the Cornell flock and allelic frequencies compared with Romney sheep12. Journal of Animal Science 95(5):1939-1944. doi: 10.2527/jas.2016.1345

**Dale Bumper Small Farms Research Center, USDA, ARS, Booneville, AR**

1. Ngere, L., Burke, J.M., Notter, D.R., Morgan, J.L.M., 2017. Variance components for direct and maternal effects on body weights of Katahdin lambs. J. Anim. Sci. (In Press)
2. Ngere, L., Burke, J.M., Herring, A.D., Sanders, J.O., Craig, T.M., VanWyk, J., Riley, D.G., 2017. Utilization of year round data in the estimation of genetic parameters for internal parasite resistance traits in Dorper sheep. Sm. Rum. Res. 151, 5-10.
3. Notter, D.R., Burke, J.M., Miller, J.E., Morgan, J.L.M., 2017. Association between FAMACHA scores and fecal egg counts in Katahdin lambs. J. Anim. Sci. 95, 1118-1123.
4. Muir, J.P., Terrill, T.H., Mosjidis, J.A., Luginbuhl, J.-M., Miller, J.E., Burke, J.M. 2017. Season progression, ontogenesis and environment affect *Lespedeza cuneata* herbage condensed tannin, fiber and crude protein content. Crop Sci. 57, 515-524.
5. Notter, D.R., Burke, J.M., Miller, J.E., Morgan, J.L.M., 2017. Factors affecting fecal egg counts in peri-parturient Katahdin ewes and their lambs. J. Anim. Sci. 95, 103-112.
6. Crook, E.K., O’Brien, D.J., Howell, S.D., Storey, B.E., Whitley, N.C., Burke, J.M., Kaplan, R.M., 2016. Prevalence of anthelmintic resistance on sheep and goat farms in the mid-Atlantic region and comparison of *in vivo* and *in vitro* detection methods. Sm. Rumin. Res. 143, 89-96.

**University of Idaho**

1. Murdoch B, Murdoch G, Greenwood S and McKay S. Nutritional Influence on Epigenetic Marks and Effect on Livestock Production. *Frontiers in Genetics*, (2016) Oct 24;7:182.

***Presentations***

1. Liu Y, Harris R.A, Qin X, Richards S, Rodgers J, Han Y, Vee V, Wang M, Meng Q, Heaton M, Smith T, Dalrymple B, White S, Murdoch B, Kijas J, Cockett N.E, Munzy M, Gibbs R.A, and Worley K (2017) Rambouillet Sheep Genome and Genomic Resources. The Biology of Genomes. May 9-13 Cold Spring Harbor, NY.
2. Davenport K, Sawyer R, Jaeger H, Rodriguez A, Murdoch BM (2017) Understanding the Ramification of Recombination Variation in Sheep. Plant & Animal Genomes XXV Conference January 14-18, San Diego, CA.
3. Murdoch B. Ovine FAANG update. International Sheep Genome Consortium San Diego Jan 16, 2017.
4. MassaA, MouselM, MurdochB, WhiteS (2017) Genome-wide identification of active enhancers in sheep alveolar macrophages. Plant & Animal Genomes XXV Conference January 14-18, San Diego, CA.
5. Murdoch B. Wool Growers. University of Idaho Sheep Center. Sun Valley ID Nov 19, 2016.
6. Murdoch B. University of Idaho Sheep - Unit advisory board meeting. Moscow, ID Nov 4, 2016.
7. Davenport KM, Murdoch BM. Does domestication affect the evolution of meiotic recombination in males differently? BEACON Congress August 9-13th, 2016.
8. Davenport KM, Murdoch BM. The ramification of meiotic recombination differences in sheep. Awardee International Society for Animal Genetics Salt Lake City, USA July 23-27, 2016.
9. Davenport K, Murdoch B. (2016) Meiotic recombination crossing-over into livestock species. Plant & Animal Genomes XXIV Conference January 8-13, San Diego, CA.

**Louisiana State University**

***Journal articles***

1. Wright, C., Perkins, D., Dawod, A., Min, B.R., Terrill, T.H., Miller, J.E., Vines, T., 2016. The effects of phytochemical tannin containing diets on meat goat performance and drug resistant *Haemonchus contortus* control. Int J Vet Health Sci Res. 4, 104‑109
2. Burke, J.M., Miller, J.E., Terrill, T.H., Smyth, E., Acharya, M., 2016. Examination of commercially available copper oxide wire particles in combination with albendazole for control of gastrointestinal nematodes in lambs. Vet Parasitol 215, 1-4.
3. Acharya, M., Burke J.M., Coffey, K.P., Kegley, E.B., Miller, J.E., Smyth, E., Welborn, M.G., Terrill, T.H., Mosjidis, J.A., Rosenkrans, Jr, C., 2016. Changes in concentration of trace minerals in lambs fed sericea lespedeza leaf meal pellets with or without dietary sodium molybdate. J Anim Sci 94, 1592-1599.
4. Matthews, K.K., O'Brien, D.J., Whitley, N.C., Burke, J.M., Miller, J.E., Barczewski, R.A., 2016. Investigation of possible pumpkin seeds and ginger effects on gastrointestinal nematode infection indicators in meat goat kids and lambs. Small Rum Res 136, 1-6.

***Abstracts***

1. Burke, J.M., Miller, J.E., Terrill, T.H., Smyth, E., Acharya, M., 2016. Examination of commercially available copper oxide wire particles in combination with albendazole for control of gastroinestinal nematodes in lambs. Proc USDA SCC-81, 17-18.
2. Miller, J.E., Pereira, A., Young, K.R., Kelly, V.E., Burke, J.M., 2016. In vitro efficiacy of three novel compounds on development and survival of gastrointestinal nematode larvae in feces of sheep. Proc USDA SCC-81, 19-20.
3. Terrill, T.H., Whitley, N.C., Griffin, E., Kommaru, D.S., Miller, J.E., Mosjidis, J.A., Kearney, M.T., Burke, J.M., 2016. Effect of ensiling on anti-parasitic properties of sericea lespedeza. Proc USDA SCC-81, 21.
4. Min, B.R., Wilson, E.A., Solaiman, S., Miller, J., 2016. Effects of condensed tannin-rick pine bark diet on experimentally infected with Haemonchus contortus in meat goats. Proc USDA SCC-81, 22.
5. Smyth, E., Burke, J.M., Coffey, K.P., Acharya, M., Miller, J.E., 2016. Finishing light weight Katahdin lambs on pasture without or with mineral supplement. Proc USDA SCC-81, 24.

**University of Maryland**

***Extension and Outreach***

1. Schoenian, S. 2017. Current recommendations for internal parasite control in small ruminants. Mid-Atlantic Bovine Practitioners Conference. Hagerstown, MD.
2. Schoenian, S. 2017. Latest recommendations for controlling internal parasites in small ruminants. New River Valley Sheep & Goat Club. Pulaski, VA.
3. Schoenian, S. 2017. What’s New with Parasite Control. Indianhead Sheep Clinic. Rice Lake, WI.

**Michigan State University**

***Journal Articles***

1. Roberts J, May K, Veiga-Lopez A\*. 2017. Time-dependent changes in pregnancy associated glycoproteins and progesterone in commercial crossbred sheep. [Theriogenology 2017 89:271-279](http://www.theriojournal.com/article/S0093-691X(16)30528-3/abstract)

***Popular Press***

1. Ehrhardt R.A. Lessons to learn from the Australian sheep industry. 2016. Michigan Shepherd’s News
2. Ehrhardt R.A. Sheep facility innovations at the new MSU sheep teaching and research center. 2016. Michigan Shepherd’s News.
3. Ehrhardt R.A. Pasture lambing: Is it right for your operation?” 2016. Michigan Shepherd’s News
4. Ehrhardt R.A. Colostrum management is central to a successful birth program. 2016 Michigan Shepherd’s News
5. Ehrhardt R.A. “Understanding the risk factors for infection is essential in developing a sustainable parasite management plan. American Consortium for Small Ruminant Parasite Control. Timely Topics, November 2016. <https://www.wormx.info/riskfactors>
6. Ehrhardt R.A. “c” 2016. Productivity Best Practices Series. Lamb Resource Center of The American Lamb Board. http://lambresourcecenter.com/app/uploads/2016/11/ALB-Productivity-Fact-Sheet-ACCELERATED-LAMBING-CLREV-10-14-16.pdf
7. Ehrhardt, R.A. “Ewe Flock Nutrition” In Blackwell’s Five-Minute Veterinary Consult: Ruminant, Second Edition, Haskel,Tibary and Chased Editors, 2016. John Wiley and Sons, Inc. publisher.

***Presentations***

1. Ehrhardt R.A. (Presenter and author). “Contribution of forage production systems to small ruminant profitability.” Invited talk at the Small Ruminant Symposium held at the joint meeting of the American Dairy Science Association and the American Society of Animal Science. Salt Lake City Utah, 2016.
2. Ehrhardt R.A. (Presenter and author). “Understanding mammary growth and function in goats and its implications for improved management.” Michigan Dairy Goat Association Annual Symposium, 2016.
3. Ehrhardt R.A. (Presenter and author). “Parasite management for grazing goat dairies.” Michigan Dairy Goat Association Annual Symposium. 2016.
4. Ehrhardt, R.A. (Presenter and author). “Performance of prolific sheep in grazing systems: comparison of perennial pasture to an annual/short-term perennial pasture rotation.” Michigan Forage Council Forage Program 2016.
5. Ehrhardt, R.A. (Presenter and author). “Extending the grazing season” and “Animal nutrition and health considerations on pasture”. 2016. MSU Extension Grazing School.
6. Ehrhardt, R.A. (Presenter and author), A. Liam, S. Bolin and R. Mani. “Validation of a new diagnostic tool to detect and differentiate between benign and virulent strains of Dichelobacter nododus, the causative agent of foot rot in small ruminants”. 2016 MSU Small Ruminant Health Symposium.
7. Ehrhardt, R.A. (Presenter and author). “Critical control points for lamb survival.” 2016 Wisconsin Sheep and Wool Festival, Jefferson, WI.
8. Ehrhardt, R.A. (Presenter and author). “Opportunities and challenges for year-round lamb production.” 2016 Wisconsin Sheep and Wool Festival, Jefferson, WI.
9. Ehrhardt, R.A. (Presenter and author). “Use of complimentary forages to improve whole-farm forage utilization in sheep production. 2016 Wisconsin Sheep and Wool Festival, Jefferson, WI.
10. Ehrhardt, R.A. (Presenter and author). “Optimizing reproductive efficiency in sheep production with strategic nutritional management. 2016 Wisconsin Sheep and Wool Festival, Jefferson, WI.
11. Ehrhardt, R.A. (Presenter and author). “Understanding the non-traditional lamb market in the upper Midwest USA.” 2016 Wisconsin Sheep and Wool Festival, Jefferson, WI.
12. Ehrhardt, R.A. (Presenter and author). “Nutrition basics and ration formulation for sheep and goats.” 2016 MSU sheep and goats for Small Farms Program. East Lansing, MI.
13. Ehrhardt, R.A. (Presenter and author). “Case study of an accelerated production system on a 175 ewe farm in Michigan.” 2017. Premier1 Field Day Education Program, Washington, Iowa.
14. Ehrhardt, R.A. (Presenter and author). “Grazing annual crops with small ruminants.” 2017. Premier1 Field Day Education Program, Washington, Iowa.
15. Ehrhardt, R.A. (Presenter and author). “Hoof disease in sheep and goats: Understanding symptoms and developing control and eradication strategies” 2017 MSU Sheep and Goats for Small Farms Program. East Lansing, MI.
16. Ehrhardt, R.A. (Presenter and author). "Replacement ewe feeding strategies: fast, slow or in between?" 2017. Ontario Large Flock Operators Annual Educational Program. Walkerton, Ontario (presented electronically via webinar format).
17. Ehrhardt, R.A. (Presenter and author). “A practical guide for selection in commercial sheep production”. 2017. North Country Shepherds Winter Management Program, Canton, NY (presented electronically via webinar format).
18. Ehrhardt, R.A. (Presenter and author). “Sheep Farming in Australia: ideas gleaned from a 2016 summer study tour”. 2017. Michigan Shepherds Weekend Program. Lansing, MI.
19. Ehrhardt, R.A. (Presenter and author). “Understanding the non-traditional lamb market.” 2017. Michigan Shepherds Weekend Program. Lansing, MI.
20. Ehrhardt, R.A. (Presenter and author). “Sheep Production Innovations in
21. Michigan during 2016”. 2017. Michigan Shepherds Weekend Program. Lansing, MI.
22. Recktenwald, E.R. (Presentor and author). 2017. “Examining changes in breeding and marketing with a sheep production simulation model.” 2017. Michigan Shepherds Weekend Program. Lansing, MI.
23. Recktenwald, E.R. (Presentor and author). “Exploring constraints and opportunities in the non-traditional lamb market.” 2017. Michigan Shepherds Weekend Program. Lansing, MI.
24. Veiga-Lopez. A. (Presenter and author). “Metabolic Disease in the Making: a tale of sheep and women.” 2016 Midwest Chromatin and Epigenetics Meeting (MCEM), Grand Rapids, Michigan.
25. Veiga-Lopez. A. (Presenter and author). “Sheep as Models For Developmental Origins of Health and Disease (DOHaD) Studies.” “3rd Small Ruminant Health Symposium (Veterinary School, MSU), East Lansing, Michigan.
26. Lim, A., S. Bolin, R. Mani and R.A. Ehrhardt. 2016. Validation of a new diagnostic tool to detect and differentiate between benign and virulent strains of Dichelobacter nodosus, the causative agent of foot rot in sheep. Proceedings of the MSU Small Ruminant Health Symposium. East Lansing, MI.
27. Roberts J, May KJ, Veiga-Lopez A. 2016. Time-dependent changes in pregnancy-associated glycoproteins and serum progesterone in a commercial crossbred sheep during pregnancy and the postpartum period. Society for Theriogenology. Therio Conference 2016, Ashville, North Carolina.

**South Dakota State University**

***Refereed Publications (external peer reviewed)***

1. Held, J.E. 2016. Reducing Lamb Mortality. “12 Best Practices Guidelines Fact Sheets. United States Lamb Resource Center – American Sheep Industry – “Let’s Grow Committee”.

Book Chapters:

Cited Reviewer:

SID Sheep Production Handbook - Eight Edition

-Nutrition Chapter

-Lamb Quality Chapter

***Non-Refereed Publications (internal and external peer reviewed)***

* 1. Held, J.E. and A. Kolthoff. 2016. Evaluating pre-marketing management practices of finished lambs in the Upper Midwest. Proceedings of the 2016 NCERA-214 coordinating committee.
  2. Reiners, J.N. and J.E. Held. 2016. Dry matter intake, feed efficiency and lamb growth response to different particle sizes and protein sources in lamb finishing diets. Proceedings of the 2016 NCERA-214 coordinating committee.
  3. Carroll, H., J.E. Held and D. Ollila. 2016. Sheep and Pasture Resource Videos. Fact Sheet Publication iGrow.org, September 2016.
  4. Held, J.E. and L. Slack. 2017. Copper level in common feed ingredients for sheep. Fact Sheet Publication iGrow.org, February 2017
  5. Carroll, H., J.E. Held, D. Ollila and A. Kolthoff. 2016. Lambing Time Protocols.
     1. Fact Sheet Publication iGrow.org, October 2016.

***Conference Presentations- Research and Extension***

**Research Emphasis**

1. Held\*, J.E. and A. Kolthoff. 2016. Evaluating pre-marketing management practices of finished lambs in the Upper Midwest. Proceedings of the 2016 NCERA-214 coordinating committee.
2. Reiners\*, J.N. and J.E. Held. 2016. Dry matter intake, feed efficiency and lamb growth response to different particle sizes and protein sources in lamb finishing diets. Proceedings of the 2016 NCERA-214 coordinating committee.

\*Presenter

**Extension Emphasis**

1. Held, J.E. 2016. 2016 South Dakota Master Lamb Producers Awards Program Highlights. SDSGA Annual Convention September 30, 2016. Rapid City, SD
2. Held, J.E. 2016. Summary: 2016 Upper Midwest Finished Lamb Gate to Rail Program. SDSGA Annual Convention September 30, 2016. Rapid City, SD

**iGrow sheep videos (YouTube) –**

**Viewing Hits**  2015 2016 2017

Dec 2012 - Ewe Flock Management 804 1,667 3,401

Dec 2012 - Enhancing Wool Value 12 107 122

Nov 2013 - Unique Lambing Equipment **1,447\* 3,219**  **9,330\***

Nov 2013 - Pre-weaning Lamb and Ewe Management **1,205\* 2,424 5,621\***

Apr 2014 - Newborn Lambing Management 119 208 625

Total 3,587 7,625 13,718

***\*2016 Top 10 iGrow YouTube.com/SDSUiGrow***

**Texas A&M AgriLife Research**

***Journal Articles***

1. Waldron, D.F., W.J. Thompson, and R.J. Hogan. 2016. Factors affecting lamb prices in San Angelo, Texas. Sheep & Goat Res. J. 31:9-16.
2. Thompson, W.J., R.J. Hogan, and D.F. Waldron. 2016. Factors affecting meat goat prices in San Angelo, Texas. Sheep & Goat Res. J. 31:45-53.
3. Rhone, J.A., D.F. Waldron, and A.D. Herring. 2016. Performance of Boer-Spanish and Spanish does in Texas: Kid production and doe stayability. Sheep & Goat Res. J. 31:54-59.
4. Stewart, W., Whitney, T. R., E. J. Scholljegerdes, D. M. Hallford, J. W. Walker, R. P. Adams, and H. D. Naumann. 2017. Effects of feeding ground redberry juniper (*Juniperus pinchotii*) to gestating ewes on pre- and postpartum performance, serum metabolites and hormones, milk fatty acid composition and progeny preweaning performance. J. Anim. Sci. *In Press*.

***Popular Press and other Publications***

1. Waldron, D.F. 2017. Improvement of sheep through selection of performance-tested and progeny-tested breeding animals. Texas A&M AgriLife Res. San Angelo. Rep. 2017-1. (http://sanangelo.tamu.edu/performance-tests/ram-performance-test/)
2. Waldron, D.F. 2017. Sire summary of ram test performance (1995 – 2017). Texas A&M AgriLife Res. San Angelo. Rep. 2017-2. (http://sanangelo.tamu.edu/performance-tests/ram- performance-test/)
3. Whitney, T. R. 2016. Proposal for *Juniperus Ashei* and J. *Pinchotii* to be used as a commercial livestock feed ingredient. Association of American Feed Control Officials.
4. Whitney, T. R. 2016. The use of ground redberry and blueberry juniper as a ruminant livestock feed ingredient. Proposal submitted to the Office of the Texas State Chemist to get juniper approved as a commercial feed ingredient.

***Presentations***

1. Whitney, T. R., and J. P. Muir. 2016. Ground redberry juniper and urea in supplements fed to Rambouillet ewe lambs on growth, blood serum, and fecal N. Abstract and oral presentation by Whitney. Amer. Soc. Anim. Sci. Salt Lake City, UT. July 21. J. Anim. Sci. 94:E-suppl. 5:1675.
2. Ishaq, S. L., Yeoman, and T. R. Whitney. 2016. Ground redberry juniper and urea in DDGS-based supplements do not adversely affect ewe lamb rumen microbial communities. Abstract. Oral presentation by Ishaq. Amer. Soc. Anim. Sci. Salt Lake City, UT. July 21. J. Anim. Sci. 94:E-suppl. 5:1678.
3. \*Wall, K. R., C. R. Kerth, T. R. Whitney, S. B. Smith, \*J. L. Glasscock, and J. T. Sawyer. 2016. Fatty acid profile, sensory traits, and aromatic compounds of chops from lambs fed ground woody plants as roughage in feedlot finishing diets. Abstract and oral presentation by Wall. Amer. Soc. Anim. Sci. Salt Lake City, UT. July 21. J. Anim. Sci. 94:E-suppl. 5:1679.
4. \*Stewart, W. C., Whitney, T. R., E. J. Scholljegerdes, D. F. Waldron, J. W. Walker, and J. M. B. Musser. 2016. Effects of selection for high and low juniper-consuming goats on rumen fermentation characteristics. Amer. Soc. Anim. Sci. Salt Lake City, UT. July 21. J. Anim. Sci.94:E-suppl. 5:1677.
5. \*Glasscock, J. L., Whitney, T. R., and D. G. Hewitt. 2016. Use of ground juniper in a deer supplement to prevent non-target species consumption. Caesar Kleberg Wildlife Research Institute Res. Briefs. Abstract.
6. Whitney, T. R. 2016. Submitting higher-quality research publications. Southern Sect. Amer. Soc. Anim. Sci. San Antonio, TX. Feb. 9. Oral Presentation by Whitney. Invited.
7. Whitney T. R., J. T. Sawyer, and C. Hartz. 2017. Substituting ground juniper for ground alfalfa hay in steer feedlot diets: growth performance and blood serum characteristics. Proceedings paper. West. Sec. Amer. Soc. Anim. Sci. Fargo, ND. Oral Presentation by Whitney.
8. Whitney, T. R. 2017. Underutilized feed resources. TX A&M AgriLife Research and US Forest Service Conference: Strategic Supplementation Strategies to Enhance Texas Rangelands and Reduce Livestock Production Costs. Kerrville, TX. May 12. Oral Presentation by Whitney.
9. Whitney, T. R. 2017. Economic feasibility of using ground juniper in livestock diets. TX A&M AgriLife Research and US Forest Service Conference: Strategic Supplementation Strategies to Enhance Texas Rangelands and Reduce Livestock Production Costs. Kerrville, TX. May 12. Oral Presentation by Whitney.

**Utah State University**

***Journal Articles***

1. Clemensen, A.K., Provenza, F.D., Lee, S.T., Gardner, D.R., Rottinghaus, G.E., and Villalba, J.J. 2017. Do different nitrogen sources influence plant secondary metabolites in alfalfa, birdsfoot trefoil, reed canarygrass, or tall fescue? Crop Science. In press.
2. Montes-Sánchez, J.J., Van Miegroet, H., and Villalba, J.J. 2017. Effect of an energy supplement on use of medusahead by grazing ewes and their lambs. Rangeland Ecology and Management. In press.
3. Montes-Sánchez, J.J. and Villalba, J.J. 2017. Effects of early experience and alternative feeds on medusahead (Taeniatherum caput-medusae ssp. asperum) intake by sheep. Applied Animal Behaviour Science. In Press.
4. Catanese, F., Fernández, P., Villalba, J.J., and Distel, R.A. 2016. The physiological consequences of ingesting a toxic plant (Diplotaxis tenuifolia) influence subsequent foraging decisions by sheep (Ovis aries). Physiology & Behavior. 167:238-247.
5. Villalba, J.J., Spackman†, C., Goff, B., Klotz, J.L., Griggs, T., and MacAdam, J.W. 2016. Interaction between a tannin-containing legume and endophyte-infected tall fescue seed on lambs’ feeding behavior and physiology. Journal of Animal Science. 94: 845-857.
6. Catanese, F., Distel, R.A., Fernández, P., Villalba, J.J. 2016. How the foraging decisions of a small ruminant are influenced by past feeding experiences with low-quality food. Behavioural Processes. 126:12-20.
7. Egea, A.V., Allegretti, L.I., Lama, S.P., Grilli, D., Fucili, M., Guevara, J.C., Villalba, J.J. 2016. Diet mixing and condensed tannins help explain foraging preferences by Creole goats facing the physical and chemical diversity of native woody plants in the central Monte desert (Argentina). Animal Feed Science and Technology. 215:47-57.
8. Villalba, J.J., Costes-Thiré, M\*., and Ginane, C. 2016. Phytochemicals in animal health; diet selection and trade-offs between costs and benefits. Proceedings of the Nutrition Society. In Press.
9. Reeve, J.R., Hoagland, L.A., Villalba, J.J., Carr, P.M., Atucha, A., Cambardella, C., Davis, D.R., Delate, K. 2016. Organic farming, soil health and food quality: considering possible linkages. Advances in Agronomy. 137:319-367.
10. Distel, R.A., Catanese, F., and Villalba, J.J. 2016. Dietary learning in domestic ruminants. Implications for animal Production. Revista Argentina de Produccion Animal. In Press.

***Presentations***

1. Villalba, J.J. 2016. Adaptive toolbox for medusahead control: an integration of novel and traditional approaches. Utah Section of the Society for Range Management. Snow College Richfield Campus, Richfield, Utah November 3-4, 2016.
2. Villalba, J.J. 2016. Phytochemicals in animal health; diet selection and trade-offs between costs and benefits. Invited presentation at the Nutrition Society Meeting. Royal College of Physicians in Edinburgh, Scotland, UK. March 21-22, 2016.
3. Heroy, K.Y, Burritt, E.A., StClair, S., and Villalba, J.J. 2017. Nutritional state influences trembling aspen (Populus tremuloides) intake by sheep. 70th Annual Meeting of the Society for Range Management. St. George, UT. January 29-February 2, 2017.
4. Costes-Thiré, M, Villalba, J.J. and Ginane, C. 2016. Increased intake of tannin-rich sainfoin (Onobrychis viciifolia) pellets by parasitized and non-parasitized sheep after a period of conditioning. The American Dairy Science Association (ADSA), the American Society of Animal Science (ASAS), 2016 Joint Annual Meeting. Salt Lake City, Utah. July 19-23, 2016.
5. Poli, C.H.E.C., Sphor, L.A., Monteiro, A.L.G., Tontini, J.F., Bremm, C., Carvalho, P.C.F., and Villalba, J.J. 2016. Food restriction in ewes during different pregnancy periods affects milk production and lamb growth. The American Dairy Science Association (ADSA), the American Society of Animal Science (ASAS), 2016 Joint Annual Meeting. Salt Lake City, Utah. July 19-23, 2016.
6. Poli, C.H.E.C, Paulino, B.M., Moraes, A.B., Castilhos, Z.M.S., Silva, F.C.A., Fajardo, N.M., Pimentel, C.M., David, D.B., Azevedo, E.B., and Villalba, J.J. 2016. Protein supplementation and herbage allowance for pregnant ewes grazing low-quality pasture. The American Dairy Science Association (ADSA), the American Society of Animal Science (ASAS), 2016 Joint Annual Meeting. Salt Lake City, Utah. July 19-23, 2016.

***Books***

1. Animal Welfare in Extensive Systems. 2016. J.J. Villalba (Editor). 5M Publishing. Nottingham University Press. Published (August 8th, 2016).

***Book Chapters***

1. Villalba, J.J. X. Manteca. 2016. Animal Welfare in Extensive Systems. In: J.J. Villalba (ed.). 5M Publishing. Nottingham University Press. pp. 1-10.
2. Villalba, J.J. X. Manteca, P. E. Vercoe, S.K Maloney, and D. Blache. 2016. Integrating nutrition and animal welfare in extensive systems. In: C. J. C. Phillips (ed.) Nutrition and the Welfare of Farm Animals. Springer, Berlin, Heidelberg. ISBN 978-3-319-27356-3. pp. 135-163.

**Virginia State University**

***Journal Articles***

1. K.K. Matthews, D.J. O’Brien, N.C. Whitley, J.M. Burke, J.E. Miller, R.A. Barczewski. 2016. Investigation of possible pumpkin seeds and ginger effects on gastrointestinal nematode infection indicators in meat goat kids and lambs. [Small Rum Res.](http://www.sciencedirect.com/science/journal/09214488) 136; 1 – 6.
2. E.K. Crook, D.J. O’Brien, S.B. Howell, B.E. Storey, N.C. Whitley, J.M. Burke, and R.M. Kaplan. 2016. Prevalence of anthelmintic resistance on sheep and goat farms in the mid-Atlantic region and comparison of *in vivo* and *in vitro* detection methods. [Small Rum Res.](http://www.sciencedirect.com/science/journal/09214488) 143; 89–96

***Abstracts***

1. Tripp, J. J., Lee, J., Wildeus, S. Discua, A., Kafle, D. 2016. Meat quality parameters of pasture-raised lamb chops as influenced by highly digestible fiber containing agro-byproducts. Proc. Ann. Meet. Inst. Food Technologists, Abstract 082.
2. Tripp, C., Lee, J.H., Wildeus. S.., Discua, A., Kafle, D. 2016. Fatty acid composition of different fat depots from hair and wool x hair crossbred lambs supplemented with highly digestible fiber containing agro-byproducts on pasture. J. Anim. Sci Vol. 94, E-Suppl. 5, p. 826-827
3. Nartea, T. J., O’Brien, D. J., Wildeus, S. and Lee, J. 2016. Consumer ratings of meat quality attributes of pasture-raised ground lamb meat as affected by breed and supplementation. 7th National Small Farm Conference, Virginia Beach, VA.
4. O’Brien, D. J. and Wildeus, S. 2016. On-farm validation of a liquid semen vaginal artificial insemination protocol in hair sheep. 7th National Small Farm Conference, Virginia Beach, VA.
5. O’Brien, D. J. and Nartea, T. J. 2016. A Survey of Virginia Small Ruminant Production Practices. 7th National Small Farm Conference, Virginia Beach, VA.
6. Wildeus, S., Lee J. H., Nartea T. J., Teutsch C. D. (2017) Growth rate and fitness of purebred and crossbred hair sheep lambs gradually removed from soy hull supplementation before harvest. Proc. Ann. Meet. South. Sect. Am. Soc. Anim. Sci., p. 50
7. Wildeus, S., Wright, D. L., O’Brien, D. (2017) Use of liquid semen artificial insemination in Katahdin sheep in a commercial farm setting. Proc. Ann. Meet. South. Sect. Am. Soc. Anim. Sci., p. 51

**West Virginia University**

***Journal Articles***

1. Knights, M., and Singh-Knights, D. (2016). Use of Controlled Internal Drug Releasing (CIDR) Devices to Control Reproduction in Goats: A Review: Animal Science Journal. 87:1084-1089.
2. Rastle-Simpson, S.L., D’Souza, K.N.D., Singh-Knights, D., Baptiste, Q., and Knights, M. (2015). Effect of system of lamb rearing and season on early postpartum fertility of ewes and growth performance of lambs in Katahdin sheep. Journal of Animal Physiology and Animal Nutrition: Version of Record online: 23 JUL 2016, DOI: 10.1111/jpn.12551.

***Presentations***

1. Adebiyi, A.E., Redhead, A.K., Paul, C.D., Greenleaf, E.N., Singh-Knights, D. and Knights, M. (2016). Effect of nutritional supplementation and gonadotropin stimulation on fertility of early postpartum ewes. Southern Section of the ASAS San Antonio, TX, USA. February 6-9, 2016. J. Anim. Sci. 94: (sup. 1) 55-55 doi:10.2527/ssasas2015-112.
2. Baptiste, Q.S., Knights, M., Redhead, A.K. and Felton, F.E. (2016). Dimorphic chronological development of ruminant digestive system supports development of equivalent muscle fatty acid profiles in continuously suckled and weaned Katahdin lambs. Midwestern Section of ASAS and Midwest Branch ADSA, Des Moines, Iowa, USA. March 14-16, 2016. J. Anim. Sci. 94: (supp. 5) 164-164. doi:10.2527/msasas2016-349
3. Adcock, J., Baptiste, Q.S. and Knights, M. (2016). Characterization of students’ educational background and subsequent use of relevant teaching methods enhances student engagement and success in introductory animal science course. Midwestern Section of ASAS and Midwest Branch ADSA, Des Moines, Iowa, USA. March 14-16, 2016. J. Anim. Sci. 94: (supp. 5): 855-855 doi:10.2527/jam2016-1755

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