

## Publications

- Arens, S.C., K.T. Sharpe, M.M. Schutz, L.C. Hardie, C.C. Dechow, and B.J. Heins. 2023a. Relationships of beta-casein genetics with production, fertility, and survival of purebred organic Holstein dairy cows. *JDS Communications* 4:458–463. doi:10.3168/jdsc.2022-0367.
- Arens, S.C., K.T. Sharpe, M.M. Schutz, and B.J. Heins. 2023b. Response to ad libitum milk allowance by crossbred dairy and dairy-beef calves in an automated feeding system. *Translational Animal Science* 7:txad063. doi:10.1093/tas/txad063.
- Hansen, A.C., R.D. Moon, M.I. Endres, G.M. Pereira, and B.J. Heins. 2023. The Defensive Behaviors and Milk Production of Pastured Dairy Cattle in Response to Stable Flies, Horn Flies, and Face Flies. *Animals* 13:3847. doi:10.3390/ani13243847.
- Hansen, A.C., R.D. Moon, M.I. Endres, and B.J. Heins. 2024. Production of Stable Flies (*Stomoxys calcitrans*) from Sawdust Compost Barns and Straw Bedding Packs, Two Alternative Cold Winter Housing Systems for Dairy Cows. *Dairy* 5:13–32. doi:10.3390/dairy5010002.
- Heins, B.J., G.M. Pereira, and K.T. Sharpe. 2023. Precision technologies to improve dairy grazing systems. *JDS Communications* 4:318–323. doi:10.3168/jdsc.2022-0308.
- Janni, K.A., C.R. Nelson, B.J. Heins, and K. Sharpe. 2023. Dairy Cow Thermal Balance Model During Heat Stress: Part 2. Model Assessment. *Journal of the ASABE* 66:461–468. doi:10.13031/ja.15191.
- Peña-Mosca, F., C. Dean, V. Machado, L. Fernandes, P. Pinedo, E. Doster, B. Heins, K. Sharpe, T. Ray, V. Feijoo, A. Antunes, C. Baumann, T. Wehri, N. Noyes, and L. Caixeta. 2023. Investigation of intramammary infections in primiparous cows during early lactation on organic dairy farms. *Journal of Dairy Science* 106:9377–9392. doi:10.3168/jds.2022-23036.
- Peña-Mosca, F., C. Dean, L. Fernandes, E. Doster, K. Sharpe, T. Ray, V. Feijoo, A. Antunes, C. Baumann, T. Wehri, B. Heins, P. Pinedo, V. Machado, N. Noyes, and L. Caixeta. 2023. Associations between early lactation intramammary infections and udder health and performance during the first 180 days in milk in first-lactation organic dairy cows. *J. Dairy Sci.* 0. doi:10.3168/jds.2023-23924.
- Sharpe, K.T., and B.J. Heins. 2023. Evaluation of a Forefront Weight Scale from an Automated Calf Milk Feeder for Holstein and Crossbred Dairy and Dairy-Beef Calves. *Animals* 13:1752. doi:10.3390/ani13111752.
- Jingyuan Zhang\*, G. Melo. Measuring farmers value for Robotic Milking systems, Organized Session, AAEA annual meeting, Washington, DC, August 2023. (Conference presentation).
- Kolif, A. E., O. A. Olafadehan, G. A. Gouda, M. Fahmy, T. A. Morsy, H. Ammar, H. A. Hamdon and M. Chahine. 2024. Turmeric rhizomes reduced in vitro methane production and improved gas production and nutrient degradability. *Animal Biotechnology*. <https://doi.org/10.1080/10495398.2024.2371519>
- Stahl, T., E. Mullin, Emily, J. Piñeiro, M. Lunak., M. Chahine, and P. Erickson. 2024. Creating models for the prediction of colostrum quantity, quality, and Immunoglobulin G yield in multiparous Jersey Cows from performance in the previous lactation and environmental changes. *Journal of Dairy Science*. Volume 107(7): 4855-4870.

Kholif, A. E., M. A. Rahman, S. A. H. Abo El-Nor, T. A. Morsy, G. A. Gouda, M. Fahmy and M. Chahine. 2024. Efficacy of Salvia Officinalis shrub as a sustainable feed additive for reducing ruminal methane production and enhancing fermentation in ruminants. *Animals* 14(11), 1648 (19 pages). <https://doi.org/10.3390/ani14111648>

Hassan, O. G. A., Hassaan, N. A., A. E. Kholif, M. Chahine and G. A. Mousa. 2024. Influence of replacing soybean meal with Nigelia sativa meal on feed intake, digestibility, growth performance, blood metabolites, and antioxidant activity of growing lambs. *Animals* 14(13): 1878 (15 pages) <https://doi.org/10.3390/ani14131878>

Smith, P. S. , R. H. Fourdraine, J. S. Clay. J. B. Glaze Jr. , J. Piaskowski, H. Kaur, and M. Chahine. 2024. The influence of service sire breed type, on the incidence of health events in fresh cows. ADSA Annual Meeting. West Palm Beach, Florida, June 16-19, 2024 (Abstract).

de Haro Marti, M. E., M. Chahine, L. Schott, and M. A. McGuire. 2024. Implementing a multicomponent extension program on a long-term multidisciplinary project developing a dairy manure bioeconomy. ADSA Annual Meeting. West Palm Beach, Florida, June 16-19, 2024 (Abstract).

Scoresby, D., M. G. Podda, D. Salis, M. Chahine, and I. Teixeira. 2024. Protein intake from corn silage and alfalfa hay and their influence on milk urea nitrogen and nitrogen excretions in dairy cows. ADSA Annual Meeting. West Palm Beach, Florida, June 16-19, 2024 (Abstract).

Singh, J., A. B Koc, M. J. Aguerre, and J. P. Chastain. 2024. Estimation of aboveground biomass of Alfalfa using field robotics. *Smart Agricultural Technology Journal* 9: 100597.

Hussein, S.M., M. J. Aguerre, T. C. Jenkins, W. Bridges, G. J. Lascano. 2024. Screening dietary fat sources and concentrations included to low and high forage diets using an in vitro gas production system. *Fermentation* 10:506.

Singh, J., A.B. Koc, M. J. Aguerre, J.P. Chastain, J.P., and S. Shaik. 2024. Estimating Bermudagrass Aboveground Biomass Using Stereovision and Vegetation Coverage. *Remote Sensing* 16: 2646.

Davis, L., E. French, M. J. Aguerre, A. B. A. Ali. 2024. The Short-Term Effects of Altering Milking Intervals on Milk Production and Behavior of Holsteins Milked in an Automated Milking System. *Dairy* 5:403-418.

Toledo, M., S. Hussein, M. Pena, M. J. Aguerre, W. Bridges, G. Lascano. 2024. Effects of caffeine when mimicking rumen fermentation and nutrient digestibility of a lactating cow using a continuous culture system. *Ruminants* 4: 406-417.

Erickson, M., T. Barros, M.J. Aguerre, J. J. Olmos Colmenero, S. Bertics, M. Wattiaux. 2024. Reducing dietary crude protein: effects on digestibility, N balance, and blood metabolites in late-lactation Holsteins. *Journal of Dairy Science* 107:4394-4408.

Davis, L., E. French, M. J. Aguerre, and A. Ali. 2023. Impact of Parity on cow stress, behavior, and production in farms with automatic milking systems. *Frontiers in Animal Science* 4:1258935.

J. A. Spencer, C. L. Daigle, and A. Hajny. 2024. Water intake increases prior to calving may be more informative for multiparous cows. American Dairy Science Association Conference, presentation.

J. A. Spencer, J. M. Piñeiro, D. Duhatschek, T. Hairgrove, C. Daigle, A. Hajny, and J. Cleere. 2024. Effects of a Maternal Bovine Appeasing Substance on Heifer Dairy Calf Stress Response to Disbudding. American Dairy Science Association Conference, presentation.

Hajny, A., J. A. Spencer, J. M. Piñeiro, D. Duhatschek, T. Hairgrove, C. Daigle, and J. Cleere. 2024. The impact of a maternal bovine appeasing substance on productivity and treatment frequency in Holstein dairy calves after caustic paste disbudding. American Dairy Science Association Conference, presentation.

Galyon, H., and G. Ferreira. 2024. Validating rumen evacuation and sampling techniques for passage rate studies. *J. Dairy Sci.* 107:269 (Suppl. 1).

Galyon, H., and G. Ferreira. 2024. The effects of triticale silage maturity and dietary forage on nutrient utilization and methane emissions. *J. Dairy Sci.* 107:256-257 (Suppl. 1).

Galyon, H., and G. Ferreira. 2024. The effect of undegradable fiber of alfalfa and grass hays on NDF passage rate and digestibility. *J. Dairy Sci.* 107:219 (Suppl. 1).

Hilfiker, D.R., R. Maguire, G. Ferreira, R.D. Stewart, and W.E. Thomason. 2024. Does fall manure injection cause differential growth and forage nutritive value in small grains? *Agronomy Journal* 116:1568–1578. <http://dx.doi.org/10.1002/agj2.21562>.

Hilfiker, D.R., R.O. Maguire, R.D. Stewart, G. Ferreira, and W.E. Thomason. 2024. Manure injection effects on soil nitrate, carbon mineralization, and POXC dynamics and spatial distribution under corn silage. *Journal of Soil and Water Conservation* 79:78-86. <https://doi.org/10.2489/jswc.2024.00004>.

Hilfiker, D.R., R.O. Maguire, W.E. Thomason, G. Ferreira, and R.D. Stewart. 2024. Impact of fall manure injection on spatial variability in soil nitrate, carbon, and small grain growth. *Agronomy Journal* 116:689-703. <https://doi.org/10.1002/agj2.21526>.

Morales, A.G., R.R. Cockrum, I.A.M.A. Teixeira, G. Ferreira, and M.D. Hanigan. 2024. Graduate Student Literature Review: System, plant, and animal factors controlling dietary pasture inclusion and its impact on ration formulation for dairy cows. *Journal of Dairy Science* 107:870-882. <https://doi.org/10.3168/jds.2023-23810>.

Malekhhahi, M., I. Flamenbaum and A. De Vries. The economic benefit of cooling cows in developed dairy sectors. Chapter X in bulletin for the International Dairy Federation.

Casarotto LT, De Vries A, Chapman JD, Ely LO, Dahl GE. Application of type I and II error analysis to support economic decision-making of using an immunomodulator feed additive. *J Dairy Sci.* 2024 Aug 16:S0022-0302(24)01066-X. doi: 10.3168/jds.2024-25105.

Hanson, A. R. Fourdraine, J. Clay, and A. De Vries. 2024. Development of a Fresh Cow Index for first-lactation cows. *J. Dairy Sci.* 107 (Suppl.1):138 (abstract 1536)

Niño de Guzmán, C., N. Bliznyuk, P. Pinedo, and A. De Vries. 2024. Comparing different machine learning methods to predict the likelihood of conception in organic dairy cows. *J. Dairy Sci.* 107 (Suppl.1):320 (abstract 2402)

Beckett LM, Malacco VMR, Gouveia KM, Mann A, Andolino CJ, Harlow K, Sunny NE, Neves RC, Burgess JR, Boerman JP, Casey TM, Donkin SS. Long chain fatty acids mediate hepatic metabolic flux in preruminating dairy calves fed flaxseed oil, high oleic soybean oil, or milk fat. *J Dairy Sci.* 2024;107(10):7932-7950

Bielamowicz LP, Celestino ML, Menta PR, Fernandes L, Ballou M, Neves RC, Machado VS. Association of bovine respiratory disease during the pre-weaning period with blood cell counts and circulating concentration of metabolites, minerals, and acute phase proteins in dairy calves transported to a calf raising facility. *Animals.* 2024; 14(13):1909.  
<https://doi.org/10.3390/ani14131909>

Casey, T. M., Gouveia, K. M., Beckett, L. M., Markworth, J. F., and Boerman, J. P. 2024. Molecular signatures of longissimus dorsi differ between dairy cattle based on prepartum muscle reserves and branched-chain volatile fatty acid supplementation. *Physiological Genomics.* Pre-proof.

Chen, S.-Y., Gloria, L. S., Pedrosa, V. B., Doucette, J., Boerman, J. P., and Brito, L. F. 2024. Unraveling the genomic background of resilience based on variability in milk yield and milk production levels in North American Holstein cattle through genome-wide association study and Mendelian randomization analyses. *J. Dairy Sci.* 107:1035-1053.

D'Amico K, Neves RC, Grantz JM, Taechachokevivat N, Ueda A, Dorr A, Hubner A. A randomized, controlled trial examining quarter-level somatic cell count and culture-based selective dry cow therapy against blanket dry cow therapy on early-lactation production outcomes. *J Dairy Sci.* 2024;107(9):7201-7210

dos Santos Neto, J. M., Worden, L. C., Boerman, J. P., Bradley, C. M., and Lock, A. L. 2024. Long-term effects of abomasal infusion of linoleic and linolenic acids on the enrichment of n-6 and n-3 fatty acids into plasma lipid fractions of lactating cows. *J. Dairy Sci.* Pre-proof.

Graham, J. R., Montes, M. E., Pedrosa, V. B., Doucette, J., Taghipoor, M., Araujo, A. C., Gloria, L. S., Boerman, J. P., and Brito, L. F. 2024. Genetic parameters for calf feeding traits derived from automated milk feeding machines and number of bovine respiratory disease treatments in North American Holstein calves. *J. Dairy Sci.* 107:2175-2193.

Gouveia, K.M., L.M. Beckett, T.M. Casey, and J.P. Boerman. 2024. Production responses of multiparous dairy cattle with differing prepartum muscle reserves and supplementation of branched-chain volatile fatty acids. *J. Dairy Sci.* doi:10.3168/jds.2024-24915.

Gouveia, K.M., L.M. Beckett, T.M. Casey, and J.P. Boerman. 2024. Production responses of multiparous dairy cattle with differing prepartum muscle reserves and supplementation of branched-chain volatile fatty acids. *J. Dairy Sci.* doi:10.3168/jds.2024-24915.

Gouveia, K.M., L.M. Beckett, M.N. Flinders, T.M. Casey, and J.P. Boerman. 2024. Prepartum skeletal muscle reserves and branched-chain volatile fatty acid supplementation have minimal effects in response to intravenous glucose tolerance tests in periparturient dairy cattle. *JDS Communications.* doi:10.3168/jdsc.2024-0603.

Grantz JM, Mukhopadhyay A, Jannasch AH, Ferreira C, Menta PR, Machado VS, Neves RC. Plasma oxylipin profile of postpartum dairy cows categorized into different systemic inflammatory grades in the first week after parturition. *JDS Communications*. 2024;5:155-160. <https://doi.org/10.3168/jdsc.2023-0410>

Hanno, S. L., Hurst, A. M., Weaver, K., Richards, A. T., Montes, M. E., and Boerman, J. P. 2024. High oleic soybean oil maintains milk fat and increases apparent total tract fat digestibility and fat deposition in lactating dairy cows. *J. Dairy Sci. Communications*. 5:287-292.

Kern, J., Jorgensen, M. W., Boerman, J. P., Erasmus, M., Johnson, J. S., and Pempek, J. A. 2024. Effect of repeated HPA axis stimulation on hair cortisol concentration, growth, and behavior in preweaned dairy cattle. *J. Animal Sci.* skae171.

Medeiros, G. C., Ferraz, J. B. S., Pedrosa, V. B., Chen, S. Y., Doucette, J. S., Boerman, J. P., and Brito, L. F. 2024. Genetic parameters for udder conformation traits derived from Cartesian coordinates generated by robotic milking systems in North American Holstein cattle. *J. Dairy Sci. Pre-proof*.

Montes, M. E., and Boerman, J. P. 2024. Graduate student literature review: social and feeding behavior of group-housed dairy calves in automated milk feeding systems. *J. Dairy Sci.* 107:4833-4843.

Neave, H.W., E.H. Jensen, A. Solarino, and M.B. Jensen. 2024. Exploring factors influencing machine milk yield of dairy cows in cow-calf contact systems: cow behavior, animal characteristics and milking management. *JDS Comm.* 5: 495 – 499.

Pacheco, H.A., R.O. Hernandez, S. Chen, H.W. Neave, J.A. Pempek, and L. Brito. Invited Review. Phenotyping strategies and genetic background of dairy cattle behavior in intensive production systems – from trait definition to genomic selection. *J. Dairy Sci.* (in press).

Pedrosa, V. B., Chen, S. Y., Gloria, L. S., Doucette, J. S., Boerman, J. P., Rosa, G. J. M., and Brito, L. F. 2024. Machine learning methods for genomic prediction of cow behavioral traits measured by automatic milking systems in North American Holstein cattle. *J. Dairy Sci.* 107:4758-4771.

Rao, P., Flinders, M. N., Buckmaster, D., Reibman, A. R., and Boerman, J. P. 2024. Real-time cattle intake monitoring using stereo vision. *Electronic Imaging*. 36:1-6.

Schwanke, A., K. Dancy, H.W. Neave, G. Penner, R. Bergeron, and T. DeVries. 2024. Impact of dairy cow personality traits and concentrate allowance on their response to training and adaptation to an automated milking system. *J. Dairy Sci.* (in press)

Taechachokevivat, N., B. Kou, T. Zhang, M.E. Montes, J.P. Boerman, J.S. Doucette, and R.C. Neves. 2024. Evaluating the performance of herd-specific Long Short-Term Memory models to identify automated health alerts associated with a ketosis diagnosis in early lactation cows. *J. Dairy Sci.* doi:10.3168/jds.2023-24513.

Welk, A., M.C. Cantor, H.W. Neave, J.H.C. Costa, J.L. Morrison, M.B. Jensen, C.B. Winder, and D.L. Renaud. Effect of administering a nonsteroidal anti-inflammatory drug at the time of a diarrhea alert on disease severity and sickness behaviors in dairy calves. *J. Dairy Sci.* (accepted)

Welk, A., H.W. Neave, and M.B. Jensen. 2024. Invited Review: The effect of weaning practices on dairy calf performance, behavior, and health—A systematic review. *J. Dairy Sci.* 107: 5237-5258.

Woodrum Setser, M., H.W. Neave, and J.H.C. Costa. 2024. Are you ready for a challenge? Personality traits influence dairy calves' responses to disease, pain and nutritional challenges. *J. Dairy Sci.* (in press)

Bajus, A., K.C. Creutzinger, M.C. Cantor, J.N. Wilms, D.E. Gomez, M.A. Steele, D.F. Kelton, and D.L. Renaud. 2024. Investigating nutritional strategies during a rest period to improve health, growth, and behavioral outcomes of transported surplus dairy calves. *Journal of Dairy Science*. doi:10.3168/jds.2023-23973.107(7): 4893-4914.

Cantor, M.C. Colostrum Supplementation beyond the first feeding after birth. 2024. Conference Proceedings: Colostrum Tri-state Dairy Conference. April 2024.  
<https://www.tristatedairy.org/articles-sorted-by-year>.

Cantor, M.C., A.A. Welk, K.C. Creutzinger, M.M. Woodrum Setser, J.H.C. Costa, and D.L. Renaud. 2024. The development and validation of a milk feeding behavior alert from automated feeder data to classify calves at risk for a diarrhea bout: A diagnostic accuracy study. *Journal of Dairy Science* 107:3140–3156. doi:10.3168/jds.2023-23635.

Mann-Guevara, D., D.L. Renaud and M.C. Cantor. 2023. Activity behaviors and relative changes in activity patterns recorded by precision technology were associated with diarrhea status in individually housed calves. *Journal of Dairy Science*. 106 (12): 9366-9376. doi: 10.3168/jds.2023-23380.

Welk, A., M.C. Cantor, H.W. Neave, J.H.C. Costa, J. Morrison, C.B. Winder, and D.L. Renaud. 2024. Effect of administering a nonsteroidal anti-inflammatory drug at the time of a diarrhea alert on disease severity and sickness behaviors in dairy calves. *J. Dairy Sci.* Accepted 7 Oct. 2024.

French, E.A., T. Cunha, and L. L. Hernandez. 2024. Growth and metabolism responses differ in male and female Holstein dairy calves born to cows fed different energy levels in late lactation to influence body condition scores at dry-off. European Conference of Precision Livestock Farming. September 9 – 12, 2024, Bologna, Italy.

Kammann, E. M., E. A. French, N. S. Jozik, W. Li, and R. S. Pralle. 2024. Effects of early lactation milking frequency in an automated milking system on cow performance. *Animals*. 14(16):2293. <https://doi.org/10.3390/ani1416229>

Rigert, S. L., P. Hartoonian, H. A. Tucker, J. A. D. R. N. Appuhamy. 2024. The effects of feeding a cinnamaldehyde and garlic oil blend with or without monensin on feed efficiency of lactating dairy cows. *J. Dairy Sci.* Vol. 107, Suppl. 1: 245

Rigert, S. L., P. Hartoonian, S. E. Omale, S. Rodriguez-Jimenez, C. M. K. Bradley, E. A. Horst, A. W. Holloway, L. H. Baumgard, J. A. D. R. N. Appuhamy. 2024. Effects of feeding a *Bacillus licheniformis* fermentation extract with or without monensin on milk production and feed efficiency of lactating dairy cows. *J. Dairy Sci.* Vol. 107, Suppl. 1: 85

Hartoonian, P., L. C. Jonas, F. M. Rahic-Seggerman, S. L. Rigert, S. Schmitz-Esser, J. A. D. R. N. Appuhamy. 2024. Comparing the rumen and feces microbiota composition of high-producing

dairy cows before and after removal of monensin from the diet. *J. Dairy Sci.* Vol. 107, Suppl. 1: 343

Hackmann TJ, Saldivia M, Wolfe L, De Groot H, Yang J, Vahmani V. Isolation of *Cutibacterium acnes* AP1, a rumen bacterium that forms t10,c12-conjugated linoleic acid. *J Dairy Sci.* In press.

Kennedy, K.M., D.A. Pintens, K.F. Kalscheur, K.J. Shinners, J.C. Friede, and M.F. Digman. 2024. Effect of feeding mechanically processed alfalfa silage on production performance of mid-lactation dairy cows. *J. Dairy Sci.* (accepted).

Camisa Nova, C.H.P., D. Jaramillo, L.O. Lima, M.S. Akins, and K.F. Kalscheur. 2024. Pasture-raising heifers reduced fat deposition compared to confinement heifers at similar bodyweights. *J. Dairy Sci.* 107 (Suppl. 1):228.

Hall, M.B., Camisa Nova, C.H.P. D. Jaramillo, and K.F. Kalscheur. 2024. Behavioral and hair cortisol responses of heifers raised in barn or on pasture. *J. Dairy Sci.* 107 (Suppl. 1):155.

Nelson, D.J., K.F. Kalscheur, E.A. French, S. Gunter, A. Salmi, S. Cunningham, E. Simpson, M. Graham, S. Hamilton, and L. Gardner. 2024. Lactation performance and enteric methane emissions of dairy cows fed *Gracilaria parvispora* macroalga. *J. Dairy Sci.* 107 (Suppl. 1):336.

Pszczolkowski, V.L., K.F. Kalscheur, H.C. Wilson, and A.J. Bowers. 2024. Nutrient utilization by lactating Holsteins and Jerseys with different forage sources. *J. Dairy Sci.* 107 (Suppl. 1):258.

Neupane, R., Aryal, A., Haeussermann, A., Hartung, E., Pinedo, P. and Paudyal, S., 2024. Evaluating machine learning algorithms to predict lameness in dairy cattle. *Plos one*, 19(7), p.e0301167.

Paudyal, S., 2024. Realizing the Potential of Eastern Uganda's Smallholder Dairy Sector through Participatory Evaluation. *Agriculture*, 14(7), pp.1-12.

Paudyal, S., Maunsell, F., Melendez, P. and Pinedo, P., 2023. Milk component ratios for monitoring of health during early lactation of Holstein cows. *Applied Animal Science*, 39(4), pp.191-201.

Paudyal, S., Piñeiro, J. and Papinchak, L., 2023. Associations of Eliminating Free-Stall Head Lock-Up during Transition Period with Milk Yield, Health, and Reproductive Performance in Multiparous Dairy Cows: A Case Report. *Diary*, 4(1), pp.215-221.

B. Shrestha\*, B. W. Jones, J. Pineiro, J. Spencer, N. C. Paul, and S. Paudyal. 2024 . Evaluating effectiveness of two non-antibiotic options for management of mastitis in organic dairy cattle. *J. Dairy Sci.* Vol. 107, Suppl. 1. Pp37.

R. Neupane\*, H. Williams, E. Read, G. Cega, C. Daigle, and S. Paudyal. 2024. Characterizing failed milking events in a robotic milking system. *J. Dairy Sci.* Vol. 107, Suppl. 1. Pp. 49.

D. Duhatschek, A. Grando Pilati, D. Druetto, S. Paudyal, T. F. Kilcer, A. Mazzolari, R. Neupane, and J. M. Piñeiro. 2024. The effect of theoretical length of cut on leachate yield when chopping

male-sterile sorghum with a self-propelled forage harvester equipped with kernel processor. J. Dairy Sci. Vol. 107, Suppl. 1 Pp 133.

S. Paudyal\*, J. M. Piñeiro, D. Duhatschek, A. Pilati, B. Shrestha, R. Neupane, and E. Kim. 2024 Evaluating the impact of sample-based pregnancy test procedures on milk production and daily cow time budgets of dairy cows. J. Dairy Sci. Vol. 107, Suppl. 1 pp. 93

Paudyal S. and Kaniyamattam K. 2024. Theory of Planned Behavior- Based Evaluation of Technology Adoption in Dairy Farms. ASAS Annual Meeting 2024 Calgary Canada.

B. Shrestha\*, R. Neupane, and S. Paudyal. 2024. Use of machine learning techniques to detect subclinical mastitis using temperature and milk variables. J. Dairy Sci. Vol. 107, Suppl. 1 PP 200.

R. Neupane\* , B. Shrestha , J. Velez , N. Rodriguez , N. Charlton , and S. Paudyal Evaluating effects of heat stress on the efficacy of robotic milking systems. J. Dairy Sci. Vol. 107, Suppl. 1 PP. 264.

M. R. A. Redoy, S. Ahmed, J. L. B. Urbina, D.H. Kleinschmit, M. Socha, P. Salunke, Uddin ME\*. 2024. Supplementation of isoacids under low or high forage diet of lactating dairy cows: Effects on production performance, digestibility, and milk fatty acid profile. Journal of Dairy Science, <https://doi.org/10.3168/jds.2024-25358> (In-press).

M. R. A. Redoy, S. Ahmed, M. M. Bulnes, D.H. Kleinschmit, Uddin ME\*. 2024. Isoacid supplementation influences feed sorting, chewing behaviors, and enteric methane emissions differentially in mid-lactation dairy cows depending on dietary forage level. Journal of Dairy Science, <https://doi.org/10.3168/jds.2024-25370> (In-press).

M.R.A. Redoy, P. Salunke and Uddin ME\*. 2024. Feed additives: A focus on reducing enteric methane emissions. International Dairy Federation (IDF) Factsheet. <https://doi.org/10.56169/YVKV8616>.

M.R.A. Redoy, and Uddin ME\*. Prediction of enteric methane in dairy cows using readily available on-farm data. Joint AAAP & AAAS Animal Production Congress-2024 held in Melbourne, Australia, 8-12 July, 2024. <https://www.aaap2024.com/papers>.

M.R.A. Redoy, S. Ahmed, D.H. Kleinschmit, Uddin ME\*. Does isoacid supplementation at varying dietary forage levels affect nutrient digestibility and milk fatty acid profile in dairy cows? American Dairy Science Association (ADSA) Meeting-2024 held in West Palm Beach, Florida, USA, 16-19 June, 2024. <https://www.adsa.org/Meetings/2024-Annual-Meeting/Abstracts>.

M. Bulnes, A. Celemin Sarmiento, M. R. A. Redoy, J. Lefler, C. Marotz, M. Embree, T. H. Swartz and Uddin ME\*. Effects of dietary rumen-derived microbial product supplementation on rumen fermentation in lactating dairy cows. American Dairy Science Association (ADSA) Meeting-2024 held at West Palm Beach, Florida, USA, 16-19 June, 2024. <https://www.adsa.org/Meetings/2024-Annual-Meeting/Abstracts>.

M. Bulnes, A. Celemin Sarmiento, J. Lefler, C. Marotz, M. Embree, Uddin ME and T. H. Swartz. Effects of dietary rumen-derived microbial product supplementation on lactation performance and enteric methane emission in lactating dairy cows. American Dairy Science Association (ADSA) Meeting-2024 held at West Palm Beach, Florida, USA, 16-19 June, 2024. <https://www.adsa.org/Meetings/2024-Annual-Meeting/Abstracts>.

Standish, R.B., A.D. Wright, N.L. Whitehouse and P.S. Erickson. 2024. Effect of nicotinic acid supplementation on digestion, metabolism, microbiome, and production in late-lactation Holstein cows. *J. Dairy Sci.* 107:7786-7797.

Almeida, K.V., E. Jordan, P.S. Erickson, A.F. Brito. 2024. Evaluating taste preference of different sources of *Ascophyllum nodosum* in dairy heifers. *JDS Comm.* 2024; 5:421–425.

Stahl, T.C., E.M. Mullin, J.M. Pineiro, M. Lunak, M. Chahine, and P.S. Erickson. 2024. Creating models for the prediction of colostrum quantity, quality, and Immunoglobulin G yield in multiparous Jersey Cows from performance in the previous lactation and environmental changes. *J. Dairy Sci.* 107:4855-4870.

Klobucher, K.N. T.C. Stahl, T. Islam, A.S. Gray, S.I. Curreri, and P.S. Erickson. 2023. Supplementing sodium butyrate to limit-fed heifers: Effects on growth, coccidiosis, urinary purine derivatives and apparent total tract nutrient digestibility. *J. Dairy Sci.* 106:6894-6902.

Erickson, P.S., T.C. Stahl, and S.C. Allen. 2024. Factors Influencing Colostrum Production in Multiparous Holstein and Jersey Cows. *Appl. Anim. Sci.*

Pipino, D., N. Lopez-Villalobos, R. Hickson, V. E. Cabrera, M. Balzarini, M. Piccardi. 2024 (accepted). Profitability of Swedish Red and White × Holstein crossbred cows compared with purebred Holstein cows. *Journal of Dairy Science* 00:00-00.

Cabrera, V. E. 2024 (accepted). Artificial Intelligence Applied to Dairy Science: Insights from the Dairy Brain Initiative. *Animal Frontiers* 00:00-00.

Freitas, E. N. A., and V. E. Cabrera. 2024 (accepted). Dairy VictoryTM: A Novel Benchmarking Platform to Empower Economic Dairy Farms Decisions. *Journal of Dairy Science Communications* 00:00-00.

da Silva, T., and V. E. Cabrera. 2024 (in press). The DairyPrint Model: A Decision-Support Model to Help Dairy Farmers and Other Stakeholders Towards Improved Sustainability. *Journal of Dairy Science* 00:00-00. <https://doi.org/10.3168/jds.2024-24946>.

Nunes, A. J., Silva, E., V. E. Cabrera, and E. Noronha. 2024. Milk weighing machine scale based on machine learning. *Smart Agricultural Technology* 07:100417. <https://doi.org/10.1016/j.atech.2024.100417>.

Rodriguez, Z., V. E. Cabrera, H. Hogeveen, and P. L. Ruegg. 2024. Economic impact of treatment of subclinical mastitis in early lactation using intramammary nisin. *Journal of Dairy Science* 107:4634-4645. <https://doi.org/10.3168/jds.2023-24311>.

Cannas, A., V. E. Cabrera, H. C. Dougherty, J. L. Ellis, A. Gallo, P. Huhtanen, I Kyriazakis, M. McPhee, K. F. Reed, N. K. Sakomura, and J. van Milgen. 2024. Editorial: The 10th international workshop on Modelling Nutrient Digestion and Utilisation in farm animals (MODNUT). *Animal* 17:101067. <https://doi.org/10.1016/j.animal.2023.101067>.

Gorr, A. Q., V. E. Cabrera, J. Meronek, and K. A. Weigel. 2023. BullVal\$: An integrated decision-support tool for predicting the net present value of a dairy bull based on genetic merit, semen production potential, and demographic factors. *Animals* 13(3): 2062. <https://doi.org/10.3390/ani13132062>.