

Mozart Alves Fonseca

Curriculum Vitae

Personal Information

Name

Mozart Alves Fonseca

Professional address

University of Nevada, Reno
Department of Agriculture, Veterinary and Rangeland Sciences
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Professional Experience

2016-current: Assistant Professor of Agriculture – Beef Cattle Production and Applied Modeling

Department of Agriculture, Veterinary & Rangeland Sciences
University of Nevada, Reno

2013-2016: Postdoctoral Research Associate

Department of Animal Science
Texas A & M University

Education

2013-2016: Postdoctoral Research Associate

Texas A & M University
Mathematical Nutrition Modeling
Mentor: Dr. Luis Orlando Tedeschi

2009 – 2013: Doctorate (US equivalency: Ph.D) in Animal Science.

Federal University of Viçosa, UFV, Viçosa, Brazil (37.5% FTE)
Texas A & M University (62.5% FTE)

Title: Evaluation and Development of Mathematical Models to Explain Beef Cattle Growth, and its Relationship with Nutritional Requirements of F1 Nellore x Angus bulls and steers.

Advisers: Dr. Sebastião de Campos Valadares Filho and Dr. Luis Orlando Tedeschi

2008 – 2009: Masters of Science in Animal Science.

Federal University of Viçosa, UFV, Viçosa, Brazil

Title: Nutritional Requirements of Lactating Nellore cows and calves, from Calving to Weaning.

Adviser: Dr. Sebastião de Campos Valadares Filho

2003 – 2008: Bachelor of Engineering in Agronomic Engineering (Similar to Honors program)

Federal University of Viçosa, UFV, Viçosa, Brazil

Adviser: Dr. Sebastião de Campos Valadares Filho

Complementary Education

2018 -2018 *Latin American Workshop: The modified SF6 technique for the determination of the methane emissions from ruminants – Facultad de Agronomía e Ingeniería Forestal, Pontificia Universidad Católica de Chile, Santiago, Chile*

2015 -2015 *Design and Analysis of Experiments using Generalized Linear Mixed Models – American Statistical Association, San Antonio, Texas*

2015 -2015 *Introduction to Animal Respirometry – Sable Systems, Las Vegas, NV*

2015 -2015 *IBM BigData Analytics Workshop – Texas A & M University*

2015 -2015 *Mixed Model Workshop – ADSA – ASAS Joint Annual Meeting, Orlando, Florida*

2015 -2015 *Academy for Future Faculty Certificate Program & CIRTLP Practitioner Fellow-Texas A & M University*

2013 - 2014 *SEM'n'R: R-Courseware, PLS path modeling, SEM and statistical-computational modeling techniques. Georgia School of R, USA.*

2012 - 2012 *John B. Armstrong Lectureship on System Thinking for Natural Resources Problems. King Ranch Institute for Ranch Management, Kingsville, Texas, USA.*

2009 - 2009 *Statistics using SAS - Federal University of Viçosa*

2009 - 2009 *Linear and Non-Linear Regression Models - Federal University of Viçosa*

2009 - 2009 *Updates in Livestock Production in Management - Federal University of Viçosa*

2008 - 2008 *International Course of Beef Cattle Production - Federal University of Viçosa*

2007 - 2007 *Irrigation Management - Federal University of Viçosa*

2007 - 2007 *Updates in Livestock Production in Management - Federal University of Viçosa*

2007 - 2007 *Financial Planning and Management of Beef Cattle Production - Federal University of Viçosa*

2006 – 2006 *Rumen Microbiology by Dr. James Russell, USDA - Federal University of Viçosa*

2005 - 2005 *Update in Management of Livestock Production - Federal University of Viçosa*

2003 - 2005 *Internship at Ruminant Nutrition Lab - Federal University of Viçosa*

2003 - 2003 Short course: Dairy Cattle Production - Federal University of Viçosa

Research skills and interests

1. Evaluation of feedstuffs for livestock specifically wet chemistry and in vitro procedures
 2. Nutritional requirements and bioenergetics of livestock
 3. Animal feeding, nutrition, production and performance
 4. Statistical and predictive modeling
 5. Impacts of methane in animal production and the environment
 6. Animal calorimetry and bioenergetics
 7. Mathematical Modeling and model evaluation of biological systems.
 8. Sustainable intensification for livestock production systems
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Academic experience

Instructor, University of Nevada, Reno (2016 -present)

Undergraduate:

- AGSC 418 – Beef Cattle Production and Management (Spring)
- AGSC 206 – Fundamentals of Animal Nutrition (Spring)
- AGSC 406 – Advanced Nutrition Management (Fall)
- VM 485 – Special Topics in Veterinary Medicine (Fall)
- AGSC 255 – Food safety and Meat Industry (Invited lecturer)

Graduate:

- NUT 600 – Beef Cattle Production and Management: Modeling growth and requirements (Spring)
- AGSC 606 – Advanced Nutrition Management (Fall)
- AGSC 718 – Quantitative Methods and Applied Biometrics (Fall)
- VM 793 – Ruminology (Fall)

Instructor, Federal University of Mato Grosso, Sinop, Brazil (Fall 2018)

- 9341031 – Fundamentals of the use of fermenters/bioreactors for *in situ* and *in vitro* assessment of rumen fermentation dynamics

Invited Lecturer, Inner Mongolia Academy of Animal Sciences and Husbandry, Hohhot, China (2014-2014)

- “Fundamentals of Mathematical Nutrition Models Applied to Dynamics of Fermentation” (graduate)

Postdoctoral Research Associate, Texas A & M University (2014 -2015)

- ANSC 604 - Ruminant Nutrition (Fall)
- ANSC 602 - Energetics of Metabolism and Growth (Spring)
- ANSC 623 – Precision Diet Formulation (Spring)

Teaching Assistant (Lecturer) at Federal University of Viçosa (2010)

ZOO 201 - Digestive Physiology (undergraduate)

Non-affiliated graduate student worker at Texas A & M University (2011-2013)

Quantitative aspects of dietary fermentation and methane mitigation strategies for ruminant animals

Graduate Research Assistant (2009 - 2013) at Federal University of Viçosa

Nutritional Requirements of Beef cattle

Graduate Research Assistant (2008 -2009) at Federal University of Viçosa

Nutritional Requirements of Beef Cattle

Undergraduate Research Assistant (2003 -2008) at Federal University of Viçosa

Nutritional Methods Applied to Ruminant Nutrition

Grants, Awards, and Honors

Awards

2020: Winner of the 2020 Regents' Rising Researcher of the Year Award – Nevada System of Higher Education University of Nevada, Reno

2019 - 2020: Institutional Nomination for 2020 Blavatnik National Awards for Young Scientists Category Life Sciences – University of Nevada, Reno

2019 - 2020: Nomination to Regents' Rising Researcher of the Year Award – Nevada System of Higher Education University of Nevada, Reno

2019 - 2020: CAPES-PrInt: Innovation and Sustainability of food systems in a global context: priorities for problem resolution. Visiting Professor Fellowship at Federal University of Bahia - Brazilian Ministry of Education, Brazil

2018: Student Mentor Award: Senior Scholar Award - University of Nevada, Reno

2012 - 2013: Grant Brazilian Federal Agency for Support and Evaluation of Graduate Education (CAPES)

2011 - 2012: Grant for International Visiting Scholar Program at Texas A & M University - Brazilian National Council for Scientific and Technological Development (CNPq), Brazilian Ministry of Science and Technology

2010: Winner of the International Livestock Congress Student Travel Bursary Program, Canadian Cattlemen's Association

2009 - 2011: Grant Brazilian National Council for Scientific and Technological Development (CNPq), Brazilian Ministry of Science and Technology

2008 - 2009: Grant Brazilian National Council for Scientific and Technological Development (CNPq), Brazilian Ministry of Science and Technology

2005 - 2008: Grant Undergraduate Scientific Initiation - Brazilian National Council for Scientific and Technological Development (CNPq), Brazilian Ministry of Science and Technology

Grants and Contract Support: Total applied US\$ 13,090,359.28, funded US\$: 7,529,374.18, UNR share:

\$4,106,922.34 , intra-mural \$ 462,289, extra-mural funding \$3,673,622.34

Submitted – awaiting for response

1. **2019:** Agronomic Management And Resource Use Efficiency For Sustainable Hemp Production. **Role: Co-PI.** FY 2019 USDA – NIFA Foundational Program FY (2019), New Investigator. Area Code Application: A1102. Amount Requested: US\$498,136.19. **Submitted**
2. **2019:** Implications of a novel food bioactive compound on health: Effects of beef-derived microRNAs on the gut cells and microbiota. **Role: Co-PI.** FY 2019 USDA – NIFA Foundational Program FY (2019), New Investigator. Area Code Application: A1343. Amount Requested: US\$500,000. **Submitted**
3. **2019:** Improving Control Of The O157:H7 And The "Big Six" STEC In Beef Through Applications Of Bacteriophages And UV Light. **Role: Co-PI.** FY 2019 USDA – NIFA Foundational Program FY (2019), New Investigator. Area Code Application: A1332. Amount Requested: US\$490,694.06. **Submitted**
4. **2019:** Plasticizers in dairy farms: effects on bovine reproduction via epigenetics. **Role: Co-PI.** FY 2019 USDA – NIFA Foundational Program FY (2019), New Investigator. Area Code Application: A1211. Amount Requested: US\$500,000. **Submitted**
5. **2019:** Nevada Beginning Farmer and Rancher Project. **Role: Co-PI.** FY 2017 USDA – NIFA FY (2019). Amount Requested: US\$ 750,040.17. **10/1/2019 to 9/30/2020 Submitted**

Currently funded

1. **2019:** MicroRNA Expression In Meats And Its Role In Modulating Human Health And Disease. **Role: Co-PI.** FY 2019-2021 USDA – Hatch FY (2019), Animal Health and Wellbeing. Amount Requested: US\$180,000. **2019-2022**
2. **2019:** Phthalates In Drinking Water Of Dairy Cattle: An Unexpected Consequence Of Agriculture Intensification. **Role: Co-PI.** FY 2019-2021 USDA – Hatch FY (2019), Animal Health and Wellbeing. Amount Requested: US\$178,300. **2019-2022**
3. **2018:** : Mixing Brewers' spent grains and on-farm resources to improve production and profitability of small and medium-sized farms . **Role: PI.** FY 2019 USDA – NIFA Foundational Program FY (2019), New Investigator. Area Code Application: A1601. Amount Requested: US\$492,296. **2019-2022**
4. **2018:** Impact of Paternal Nutrition on the Reproductive System of the Female Cattle. . FY 2019 USDA – NIFA Foundational Program. **Role: Co-PI.** FY (2019), New Investigator. Area Code Application: A1211. Amount Requested: US\$499,436. Abdicated. **Funded**
5. **2018:** : RII Track-2 FEC: Genomics Underlying Toxin Tolerance (GUTT): Identifying molecular innovations that predict phenotypes of toxin tolerance in wild vertebrate herbivore. **Role: Co-PI.** FY 2018 NSF FY (2018), Amount Requested: US\$6,000,000 – Sub award Boise State University; \$3,274,512; UNR share: \$2,078,112.16. **2019-2022**
6. **2017:** Effects Of Milk Replacer, Carbohydrate-Based, And Fat-Based Diets On Health Parameters And Growth Performance Of Calves Raised In Warm And Dry Seasons. **Role: Co-PI.** FY 2017 USDA – Hatch FY (2017), Animal Health and Wellbeing. Amount Requested: US\$75,000. **Funded 2017-2020**

Completed

1. **2019:** Systematic Literature Review on Beef and Meat Consumption on Psychological Health. **Co-PI.** FY 2019-2020 National Cattlemen's Association – FY (2019). Amount Requested: US\$28,996. **2019-2019**
2. **2018:** Nevada risk management crops and livestock targeted states. **Role: Co-PI.** FY 2019 USDA – NIFA FY (2018), Amount Requested: US\$ 239,000. **2018-2020**
3. **2017:** 2017 Nevada Crop and Livestock Insurance Project. **Role: Co-PI.** FY 2017 USDA – RMA Risk Management Agency FY (2017). Amount Requested: US\$ 243,000. **2017-2019**
4. **2017:** Water evaluation system: a novel model to mitigate livestock water usage. **Role: PI.** FY 2017 USDA – NIFA Foundational Program FY (2017), New Investigator. Area Code Application: A1231. Amount Requested: US\$ 92,782.18. **2017-2020**

Scientific Production

Peer reviewed journals: **42 + 5 under review**

1. MARTELLO, H., DE PAULA, N. F., TEOBALDO, R., MACEDO, B. G., ZERVOUDAKIS, J., **M. A. FONSECA** CABRAL, L. S., ROCHA, J. K., MUNDIN, A. E. B. K. MORAES. 2020. Interaction between tannin and urea on nitrogen utilization by beef cattle grazing during the dry season. *Livestock Science*. **Under review**
2. QUEIROZ, L.O., MOURÃO, G. , **FONSECA, M.A.**, PINTO, L.F.B., SILVA JUNIOR, J. M., SILVA, T. M., LIMA, A. G. V. O., BEZERRO, L., OLIVEIRA, R. 2019. Performance, carcass traits and meat quality of lambs fed with different roughage: concentrate ratios associated with different hay particle sizes. *Animal Feed Science and Technology*. **Under review**
3. GIOTTO, F., ROSSI, R., OSMARI, M., SILVA, F., MATOS, L., DIAZ, T., **FONSECA, M.A.**, DE MELLO, A., A. BRANCO. Replacing corn by glycerin in finishing diets containing sugar cane bagasse: Effects on nutrient digestibility, intake, and growth performance of beef cattle. *Journal of the Science of Food and Agriculture*. JSFA-19-3856. **Under review**
4. NORRIS, A.B., TEDESCHI, L. O., FOSTER, J. L., MUIR, J.P., PINCHAK, W.E., M. A. FONSECA. 2020. Influence of quebracho tannin extract fed at differing rates within a high-roughage diet on the apparent digestibility of dry matter and fiber, nitrogen balance, and fecal gas flux. *Animal Feed Science and Technology*. V: 260.114365. <https://doi.org/10.1016/j.anifeedsci.2019.114365>
5. NORRIS, A.B., CROSSLAND, W., TEDESCHI, L. O., FOSTER, J. L., MUIR, J.P., PINCHAK, W.E., M. A. FONSECA. 2020. Inclusion of Quebracho tannin extract in a high-roughage cattle diet alters digestibility, nitrogen balance, and energy partitioning. *Journal of Animal Science*. **Under review: R2 12/16/2019**
6. SALAZAR-CUYTUN, E, R.; SARMIENTO-FRANCO, L., AGUILAR-CABALLERO, J., FONSECA, M. A., L.O. TEDESCHI. 2019. Relationship between body mass index and empty body chemical components in Pelibuey ewes. *Tropical Animal Health and Production*. TROP-D-19-00837. **Under review:**
7. CAGLE, C. M., BATISTA, L. F. D., ANDERSON, R. C., **FONSECA, M. A.**, CRAVEY, M., JULIEN, C., L. O. TEDESCHI. 2019. Evaluation of different inclusion levels of dry live yeast impacts on various

rumen parameters and in situ digestibility of dry matter and neutral detergent fiber in growing and finishing beef cattle. *Journal of Animal Science* V:97(12): 4987-4998.

<https://doi.org/10.1093/jas/skz342>

8. CAGLE, C. M., **FONSECA, M. A.**, CALLAWAY, T. R., RUNYAN, C.A., L. O. TEDESCHI. 2019. Evaluation of the effects of live yeast on rumen parameters and in situ digestibilities of dry matter and neutral detergent fiber in growing beef cattle fed high-forage diet. *Applied Animal Science*. doi.org/10.15232/aas.2019-01888 **Accepted- Galley Proof**
9. TEOBALDO, R., DE PAULA, N. F., ZERVOUDAKIS, J., **FONSECA, M. A.**, CABRAL, L., MARTELLO, H. ROCHA, J., RIBEIRO, I., A. MUNDIM. 2019. The inclusion of low levels of a blend of copaiba, cashew nut shell and castor oil in the protein-energy supplement for beef cattle fed grass pasture improves rumen fermentation , nutrient intake, and fiber digestibility. *Animal Production Science*. <http://www.publish.csiro.au/AN/justaccepted/AN18725>
10. MARTELLO, H., DE PAULA, N. F., TEOBALDO, R., MACEDO, B. G., ZERVOUDAKIS, J., BRUTTI, D. D., CARVALHO, P., TEOBALDO, R. W., CABRAL, L. S., **M. A. FONSECA**. 2019. Effects of tannins and Monensin in a feedlot diet on in vitro ruminal fermentation . *Semina*. V.40, n. 6 , Supp. 2. P: 3223-3232. DOI: 10.5433/1679-0359.2019v40n6Supl2p3223. <http://www.uel.br/seer/index.php/semagrarias/article/viewFile/35180/26144>
11. MOURA, F., TRECE, A., MELO, L., MANSO, M., COSTA, T., POAULINO, M. F., RENNO, L., **FONSECA, M. A.**, DETMANN, E., GIONBELLI, M., M. DUARTE. 2019. Effects of energy-protein supplementation frequency on performance of primiparous grazing beef cows during pre and postpartum. *Asian-Australasian Journal of Animal Science*. **Under review**
12. TEDESCHI, L. O., MOLLE, G., MENENDEZ III, H. M., CANNAS, A., **M. A. FONSECA**. 2019. The Assessment of Supplementation Requirements of Grazing Ruminants using Nutrition Models. *Translational Animal Science*, Volume 3, Issue 2, March 2019, txy140. <https://doi.org/10.1093/tas/txy140>
13. BRUTTI, D.D., DE PAULA, N.F., ZERVOUDAKIS, J. T., CABRAL, L.S., **FONSECA, M. A.**, MACEDO, B. G., LIMA, L. R., T. McCALLISTER. 2019. Effects of tannins and monensin on the modulation of in vitro ruminal fermentation and ammonia production of nitrogen-fertilized and non-fertilized *Urochloa brizantha* cv. Marandu. *Grassl Sci*. 2019;00:1-8. <https://doi.org/10.1111/grs.12221>
14. CHAY-CANUL, A. J., GARCIA-HERRERA, R. A., SALAZAR-CUYTÚN, R., OJEDA-ROBERTOS, N. F., CRUZ-HERNANDEZ, A., **FONSECA, M. A.**, J. CANUL-SOLIS. 2019. Development and evaluation of equations to predict body weight of Pelibuey ewes using heart girth. *Rev. Mex. Cienc. Pec*. 2019; 10(3):767-777. <https://cienciaspecuarias.inifap.gob.mx/index.php/Pecuarias/article/view/4911>
15. BENEDETI, P. D. B; **FONSECA, M. A.** ; SHENKORU, T. ; MARCONDES, M. I.; PAULA, E. M. ; SILVA, L. G.; A. P FACIOLA. 2018. Does partial replacement of corn with glycerin in beef cattle diets affect in vitro ruminal fermentation, gas production kinetic, and enteric greenhouse gas emissions?. *PLoS One*, v. 13, p. e0199577, 2018.
16. SELIM, A. S. M., RAHMAN, M. M., JAHAN, M., HOQUE, S.A.M., RABBI, M. E, HOSSAIN, M.D., **FONSECA, M. A.**, CROSSLAND, W. L., L. O. TEDESCHI, L. O. 2017. Assessment of digestibility of probiotic treated rice straw usin in vitro gas production technique. *Indian J. Anim. Nutr*. 34 (4): 389-395. doi: 10.5958/2231-6744.2017.00062.7.
17. **FONSECA, M. A.**, TEDESCHI, L. O., VALADARES FILHO, S. C., DE PAULA, N. F., VILLADIEGO, F. A. C.,

- SILVA JUNIOR, J., ABREU, D. C., M. L. CHIZZOTTI. 2017. Assessment of body fat composition in crossbred Nellore x Angus using biometric measurements. *J. Anim. Sci.* 95 (12): 5584-5596. [doi: 10.2527/jas2017.1840](https://doi.org/10.2527/jas2017.1840).
18. TEDESCHI, L. O., ALMEIDA, A. K., ATZORI, A. S., MUIR, J. P., **FONSECA, M. A.**, A. CANNAS. 2017. A glimpse of the future in animal nutrition science.1. Past and future challenges. *Rev. Bras. Zootec.* 46 (5): 438-451.
 19. TEDESCHI, L., **FONSECA, M. A.**, MUIR, J. P., POPPI, D., CARSTENS, G. E., ANGERER, J. P., D. G. FOX. 2017. A glimpse of the future in animal nutrition science.2. Current and future solutions. *Rev. Bras. Zootec.* 46 (5): 452-469.
 20. **FONSECA, M. A.**, TEDESCHI, L. O., VALADARES FILHO, S. C., CHIZZOTTI, M. L., SATHLER, D., SILVA, L. D. 2017. Evaluation of predictive equations to assess body composition in beef cattle using live, linear and standing-rib cut measurements. *Anim. Prod. Sci.* 57 (2): 378-390.
<http://dx.doi.org/10.1071/AN15312>
 21. ABREU, D. C., HOSHIDE, A. K., MALLORY, E. B., OLIVEIRA, A. S., KERSBERGEN, R. J., LANA, R. P., GHEDINI, C. P., **FONSECA, M. A.** 2016. Economic and environmental implications of wheat crop sequences on organic dairy farms simulations. *Crop Pasture Sci.* 67:1127-1138.
 22. NAUMANN, H. D., TEDESCHI, L. O., **M. A. FONSECA** .2015. Technical Note: Predicting ruminal methane inhibition by condensed tannins using nonlinear exponential decay regression analysis. *J. Anim. Sci.* 93 (11): 5341-5345.
 23. NAUMANN, H., LAMBERT, B., ARMSTRONG, S, **FONSECA, M. A.**, TEDESCHI, L. O., MUIR, J. 2015. Effect of replacing alfalfa with paniced-tick clover or sericea lespedeza in a corn-alfalfa based dairy diet on in vitro ruminal methane production. *J. Dairy Sci.* v.98(6):3980-3987.
 24. TEDESCHI, L. O., FOX, D. G., **FONSECA, M. A.**, CAVALCANTI, L.F. 2015. Models of Protein and Amino Acid Requirements for Cattle. 2015. *Brazilian Journal of Animal Science*, 44(3): 109-132.
 25. **FONSECA, M. A.**, VALADARES FILHO, S. C., TEDESCHI, L. O., CHIZZOTTI, M. L., MACHADO, M. G., ABREU, D. C. 2015. Evaluation of predictive equations developed to assess body composition of F1 Nellore x Angus bulls and steers. *Anim. Prod. Sci.* v.55: 978-987 <http://dx.doi.org/10.1071/AN13439>.
 26. ABREU. D. C., LANA, R. P., OLIVEIRA, A. S., BARBOSA, F. A., ANDRADE, F. L., SILVA, P.T., **FONSECA, M. A.**, GHEDINI, C. P, PAULA, R. M. 2014. Performance of lactating crossbred cows on pasture supplemented with conventional urea or slow release urea. *Brazilian Arch. Vet. Med.* 6(5): 1487-1494.
 27. TEDESCHI, L. O., CAVALCANTI, L. F. L., **FONSECA, M. A.**, HERRERO, M., THORNTON, P. 2014. The evolution and evaluation of dairy cattle models for predicting milk production: An agricultural model intercomparison and improvement project (AgMIP) for livestock. *Anim. Prod. Sci.* 54 (12): 2052-2067. <http://dx.doi.org/10.1071/AN14620>.
 28. ABREU, D. C., LANA, R. P., OLIVEIRA, A. S., TEIXEIRA, R. M. A., GHEDINI, C. P., **FONSECA, M. A.**, PAULA,

- R. M. 2014. Kinetics of milk production as function of energy and protein supplementation. Agrária (Recife: Online).
29. OLIVEIRA, A. S., ABREU, D. C., **FONSECA, M. A.**, ANTONIASSI, P. 2013. Short communication: Development and evaluation of predictive models of body weight for crossbred Holstein-Zebu dairy heifers. *J. Dairy Sci.* 96(10): 6697- 6702.
 30. DE PAULA, N. F., TEDESCHI, L. O., PAULINO, M. F., FERNANDES, H. J., **FONSECA, M. A.** 2013. Predicting carcass and body fat composition using biometric measurements of grazing beef cattle. *J. Animal Sci.* 91: 3341-3351.
 31. PIMENTEL, J. J. O., LANA, R. P., OLIVEIRA, A. S., TEIXEIRA, R. M. A., ABREU, D. C., GHEDINI, C. P., , M. A. **FONSECA.** 2013. Kinetics of milk production and function of energy and protein supplementation. *Agrarian (Dourados: Online)*.6 (21): 303-311.
 32. **FONSECA, M. A.**, VALADARES FILHO, S. C., HENRIQUES, L. T. , PAULINO, P. V. R. , DETMANN, E. , FONSECA, E. A., BENEDETI, P. D. B., SILVA, L. D. 2012. Nutritional requirements of nursing Nellore calves. *Brazilian J. Animal Sci.* 41: 1212-1221.
 33. **FONSECA, M. A.**, VALADARES FILHO, S. C., HENRIQUE, L. T. , PAULINO, P. V. R. , DETMANN, E. , BENEDETI, P. D. B. , SILVA, L. D., AMARAL, P. M. 2012. Nutritional requirements of primiparous Nellore lactating cows. *Brazilian J. Animal Sci.* 41:1222-1230.
 34. HENRIQUES, L. T., VALADARES FILHO, S. C., **FONSECA, M. A.**, PAULINO, P. V. R., DETMANN, E., VALADARES, R. F. D. 2011. Evaluation of non-linear models and the relationship of voluntary intake of primiparous cows and calves with the lactation curve of Nellore cows. *Brazilian J. Animal Sci.* 40: 1287-1295.
 35. DUARTE, M. S., PAULINO, P. V. R., **FONSECA, M. A.**, DINIZ, L. L., CAVALI, J., SERAO, N. V. L., GOMIDE, L. A. M., REIS, S. F., COX, R. B. 2011. Influence of dental carcass maturity on carcass traits and meat quality of Nellore bulls. *Meat Sci.* 88: 441-446.
 36. PINA, D. S. , VALADARES FILHO, S. C., TEDESCHI, L. O. , BARBOSA, A. M. , AZEVÊDO, J.A.G. , VALADARES, R. F. D., SOUZA, N.K.P. , **FONSECA, M. A.** 2011. Inclusion levels and exposure time of cane sugar to calcium oxide on digestive parameters and performance of Nellore heifers. *Rev. Bras. Zootec.* 40: 648-656.
 37. MAGALHAES, K.A., VALADARES FILHO, S.C., DETMANN, E., DINIZ, L.L., Pina, D.S., AZEVEDO, J.A.G., ARAUJO, F.L., MARCONDES, M.I., **FONSECA, M. A.**, TEDESCHI, L.O. 2010. Evaluation of indirect methods to estimate the nutritional value of tropical feeds for ruminants. *Anim. Feed Sci. Tech.* 155: 44 - 54.
 38. MARCONDES, M. I., VALADARES FILHO, S. C., DETMANN, E., VALADARES, R.F. D., SILVA, L. F. C., **FONSECA, M. A.** 2009. Rumen degradation and intestinal digestibility of crude protein in feeds for cattle. *Rev. Bras. Zootec.* 38: 2247-2257.

39. PAULINO, P.V.R., DETMANN, E., VALADARES, R. F. D., **FONSECA, M. A.**, VALADARES FILHO, S. C., MARCONDES, M. I. 2009. Body tissue and chemical component deposition in Nellore bulls, steers and heifers. *Rev. Bras. Zootec.* 38: 2516-2524.
40. MARCONDES, M. I., VALADARES FILHO, S. C., PAULINO, P. V. R., VALADARES, R. F. D., PAULINO, M. F., NASCIMENTO, F. B., **FONSECA, M. A.** 2009. Nutrient requirements of protein, energy and macrominerals of Nellore cattle of three genders. *Rev. Bras. Zootec.* 38: 1587-1596.
41. CHIZZOTTI, M. L., VALADARES FILHO, S. C., TEDESCHI, L. O. PAULINO, P. V. R., PAULINO, M. F., VALADARES, R. F. D., AMARAL, P. M., BENEDETI, P. D. B., IKEGAMI, T. R., **FONSECA, M. A.** 2009. Net requirements of calcium, magnesium, sodium, phosphorus, and potassium for growth of Nellore × Red Angus bulls, steers, and heifers. *Livestock Sci.* 124:242-247.
42. PAULINO, P. V. R., VALADARES FILHO, S. C., DETMANN, E., VALADARES, R. F. D., **FONSECA, M. A.**, VERAS, R. M. L., OLIVEIRA, D.M. 2008. Productive performance of Nellore cattle of different gender fed diets containing two levels of concentrate allowance. *Rev. Bras. Zootec.* 37: 1079-1087.
43. CHIZZOTTI, M. L., VALADARES FILHO, S. C., VALADARES, R. F. D., CHIZZOTTI, F. H. M., MARCONDES, M. I., **FONSECA, M. A.** 2007. Intake, digestibility and nitrogen metabolism in Holstein cows with different milk production levels. *Rev. Bras. Zootec.* 36: 138-146.
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47. BARBOSA, A. M., VERAS, R. M. L., VALADARES, R. F. D., VALADARES FILHO, S. C., LEÃO, Maria Ignêz, **FONSECA, M. A.**, MONNERAT, J. P. I. S., SOUZA, M. A., OLIVEIRA, F. A. 2006. Urinary Excretion and Urea Concentration of N-urea in blood serum in Nellore. In: Proceedings of the 43rd Annual Meeting of the Brazilian Society of Animal Science, 2006, João Pessoa, PB, Brazil.
48. AZEVEDO, J. A. G., PINA, D. S., VALADARES FILHO, S. C., DETMANN, E., PEREIRA, L. G. R., **FONSECA, M. A.**, FELIPPE, V. G., DINIZ, L. L. 2006. Quality of silage Elephantgrass (*Pennisetum purpureum*) at Different Levels of Pineapple byproducts inclusion. In: 4th Northeastern Congress of Animal Production, Petrolina, PE, Brazil.
49. AZEVEDO, J. A. G., PINA, D. S., VALADARES FILHO, S. C., PEREIRA, O. G., PEREIRA, L. G. R., **FONSECA, M. A.**, FELIPPE, V. G., DINIZ, L. L., SILVA, L. F. C. 2006. Quality of silage Elephantgrass (*Pennisetum purpureum*) at Different Levels of Mango byproducts inclusion. In: 4th Northeastern Congress of Animal Production, Petrolina, PE, Brazil.
50. AZEVEDO, J. A. G., PINA, D. S., DETMANN, E., PEREIRA, L. G. R., **FONSECA, M. A.**, FELIPPE, V. G., BENEDETI, P. B., FELIPPE, A. G. 2006. Quality of silage Elephantgrass (*Pennisetum purpureum*) at Different Levels of Papaya byproducts inclusion. In: 4th Northeastern Congress of Animal Production,

Petrolina, PE, Brazil.

51. MARCONDES, M. I., VALADARES FILHO, S. C., BRITO, A. F., **FONSECA, M. A.**, PAULINO, M. F., SILVA, L. F. C., DINIZ, L. L., NASCIMENTO, F. B., FELIPPE, V. G., DETMANN, E. 2006. Uso de Diferentes Indicadores para Estimar a Produção de Matéria Seca Fecal e Avaliar Consumo Individual de Concentrado e Volumoso em Novilhas In: 43rd Annual Meeting of Animal Science Society, 2006, João Pessoa, PB, Brazil.
52. PINA, D. S., VALADARES FILHO, S. C., VALADARES, R. F. D., CAMPOS, J. M. S., LEÃO, M. I., MARCONDES, M. I., **FONSECA, M. A.**, TEIXEIRA, R. M. A., OLIVEIRA, A. S. 2005. Intake and nutrient digestibility of cows fed different protein sources. In: Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
53. PAULINO, P. V. R., VALADARES FILHO, S. C., MARCONDES, M. I., **FONSECA, M. A.**, ARAUJO, A. M., OLIVEIRA, D.M., MORAES, K. A. K., DETMANN, E., SAINZ, R. D. 2005. Performance, consumption and residual carcass characteristics of Nellore cattle of different gender. In Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
54. PAULINO, P. V. R., VALADARES FILHO, S. C., MAGALHAES, K. A., MARCONDES, M. I., **FONSECA, M. A.**, OLIVEIRA, D.M., ARAUJO, A. M., DETMANN, E., MORAES, K. A. K., LARA, W. 2005. Performance, feed efficiency and carcass traits of Nellore cattle of different gender, fed two levels of dietary concentrate. In: Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
55. PINA, D. S., VALADARES FILHO, S. C., VALADARES, R. F. D., CAMPOS, J. M. S., DETMANN, E., OLIVEIRA, A. S., TEIXEIRA, R. M. A., **FONSECA, M. A.**, MARCONDES, M. I. 2005. Estimation of microbial protein synthesis and urea concentrations in cows fed different protein sources. In: Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
56. BARBOSA, A. M., VERAS, R. M. L., VALADARES, R. F. D., VALADARES FILHO, S. C., DETMANN, E., SOUZA, M. A., MARCONDES, M. I., **FONSECA, M. A.**, MONNERAT, J. P. I. S. 2005. Daily excretions of creatinine and microbial protein production in Nellore cattle. In: Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
57. PAIXÃO, M. L., LEÃO, M. I., VALADARES FILHO, S. C., CECON, P. R., MARCONDES, M. I., MARQUES, R. T., **FONSECA, M. A.**, SOBREIRA, G. F., RIBEIRO, L. M. 2005. Urea in different diets for cattle: Daily variation in internal (ADFi) and external (Cr2O3) markers excretion. In: Proceedings of the 42nd Annual Meeting of the Brazilian Society of Animal Sciences, Goiânia, GO, Brazil.
58. CHIZZOTTI, M. L., VALADARES FILHO, S. C., VALADARES, R. F. D., CHIZZOTTI, F. H. M., MARCONDES, M. I., **FONSECA, M. A.**, PORTO, M. O., PINA, D. S., SILVA, J. M., PAIXÃO, M. L. 2004. Intake and digestibility in dairy steers of Different Body Weights. In: Proceedings of the 41st Annual Meeting of the Brazilian Society of Animal Sciences, Campo Grande, MS, Brazil.
59. VALADARES FILHO, S. C., PINA, D. S., VALADARES, R. F. D., CAMPOS, J. M. S., **FONSECA, M. A.**, MARCONDES, M. I., ARAUJO, A. M., ANDREATTA, K., CHIZZOTTI, M. L., PAIXÃO, M. L. 2004. Different Sources of Protein for Lactating Cows: Dry Matter Consumption, Production and Milk

Composition. In: Proceedings of the 41st Annual Meeting of the Brazilian Society of Animal Sciences, Campo Grande, MS, Brazil.

60. PAIXÃO, M. L., LEÃO, M. I., VALADARES FILHO, S. C., MARCONDES, M. I., MARQUES, R. T., ARAUJO, A. M., **FONSECA, M. A.**, PORTO, M.O., DUARTE, M. S. 2004. Effect of Concentrate Levels and urea in diets for Holstein steers confined. In: Proceedings of the 41st Annual Meeting of the Brazilian Society of Animal Sciences, Campo Grande, MS, Brazil.
 61. CHIZZOTTI, M. L., VALADARES FILHO, S. C., VALADARES, R. F. D., CHIZZOTTI, F. H. M., MARCONDES, M. I., **FONSECA, M. A.**, PORTO, M. O., PINA, D. S., LEAL, T. L., SILVA, J. M., ARAUJO, A. M. 2004. Creatinine Excretion in Dairy Steers and Heifers. In: Proceedings of the 41st Annual Meeting of the Brazilian Society of Animal Sciences, Campo Grande, MS, Brazil.
 62. CHIZZOTTI, M. L., VALADARES FILHO, S. C., VALADARES, R. F. D., CHIZZOTTI, F. H. M., MARCONDES, M. I., **FONSECA, M. A.**, PINA, D. S., PORTO, M. O., LEAL, T. L., SILVA, J. M., PAIXÃO, M. L., RIBEIRO, Leonardo Marques. 2014. Creatinine Excretion in Lactating Dairy Cows. In: Proceedings of the 41st Annual Meeting of the Brazilian Society of Animal Sciences, Campo Grande, MS, Brazil.
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Dissertation and thesis defense: 13

1. VAN DEN BROEK, K., **M. A. FONSECA et al. (Committee Chair)** 2020. Mixed models on animal experimentation. MSc. Thesis defense. Graduate Program in Animal and Rangeland Sciences. January, 15 2020. University of Nevada, Reno, Nevada, United States.
2. REGIS, P., **M. A. FONSECA et al.** 2019. Smart-Cities Enabled by Multi-radio Multi-channel Heterogeneous Networks. Ph.D. Dissertation defense. Computer Science and Engineering Graduate Program. July 17 2019. University of Nevada, Reno, Reno, Unites States. **Committee**
3. QUEIROZ, L. O., **M. A. FONSECA (external member)**. 2019. Roughage: Concentrate ratio and hay particle size on fishing diets for lamb production. Ph.D. Dissertation defense. Animal Science Graduate Program. April, 11 2019. Federal University of Bahia, Salvador, Brazil. **Committee**
4. MUNDIN, A. T., **M. A. FONSECA et al. (external member)**. 2019. Effects of the use of tannins on the digestibility of nutritional components of protein and roughage foods. April, 2 2019. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
5. SILVA, H. M., **M. A. FONSECA (external member)**. 2019. The NS Dairy Cattle Submodel: Protein requirements for lactation of dairy cows. MSc. Thesis defense. Animal Science Graduate Program. February, 18 2019. Federal University of Mato Grosso, Sinop, Brazil. **Committee**
6. FREIRIA, L. B., **M. A. FONSECA (external member)**. 2019. Supplementation Strategies for backgrounding of grazing bulls during the rainy-dry transition and dry seasons. Ph.D. Dissertation defense. Animal Science Graduate Program. May, 4 2019. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
7. ANJOS, D. R., **M. A. FONSECA et al. (Co-Advisor)**. 2018. Use of purified extracts of condensed

tannins from Caatinga plants on in vitro gas production. M.Sc. Thesis defense. Animal and Forage Science Graduate Program. July, 31 2018. Federal Rural University of Pernambuco, Garanhuns, Brazil. **Co-Advisor**

8. FERRO, M. M., **M. A. FONSECA et al. (external member)**. 2018. Mixed models on animal experimentation. Ph.D. Dissertation defense. Animal Science Graduate Program. May, 4 2018. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
 9. MARTELLO, H. F., **M. A. FONSECA et al. (external member)**. Inclusion of a blend of hydrolysable and condensed tannins in finishing diets for beef cattle. Animal Science Graduate Program. March, 23 2018. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
 10. TEOBALDO, R. W., **M. A. FONSECA et al. (external member)**. Essential oils and monensin for grazing beef cattle supplemented during the rainy season. Animal Science Graduate Program. February, 22 2018. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
 11. MOURA, F. H., **M. A. FONSECA et al. (external member)**. Effects of energy-protein supplementation frequency during pre and postpartum of grazing primiparous cows. M.Sc. Thesis defense. February, 21 2018. Federal University of Viçosa, Viçosa, Brazil. **Committee**
 12. PAULA, E. M., **M. A. FONSECA et al.** Effectiveness of canola meal as a source of rumen-undegraded protein for dairy cows. Ph.D. Dissertation defense. Graduate Program Animal and Rangeland Sciences. December, 4 2017. University of Nevada, Reno, Reno, Unites States. **Committee**
 13. BRUTTI, D. D., **M. A. FONSECA et al.** The use of in vitro ruminal fermentation of both N-fertilized and unfertilized Marandu grass. M.Sc. thesis defense. Animal Science Graduate Program. March, 10 2017. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
-

Qualification exams: 5

1. ANJOS, D. R., **M. A. FONSECA (external member)**. 2018. Use of purified extracts of condensed tannins from Caatinga plants on in vitro ruminal fermentation. M.Sc. Qualification exam. Animal Science Graduate Program. June, 19 2018. Federal Rural University of Pernambuco, Garanhuns, Brazil. **Committee**
2. FREIRIA, L. B., **M. A. FONSECA (external member)**. 2018. Supplementation strategies for grazing cattle. Ph.D. Qualification exam. Animal Science Graduate Program. May, 15 2018. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**
3. REGIS, P. A. , **M. A. FONSECA (member)**. 2017. Ph.D. Qualification exam: Smart-Cities Enabled by Multi-radio Multi-channel Heterogeneous Networks. Computer Science and Engineering Graduate Program. November, 22 2017. University of Nevada, Reno, Reno, Unites States. **Committee**
4. PAULA, E. M. , **M. A. FONSECA (member)**. 2017. Ph.D. Qualification exam. Graduate Program Animal and Rangeland Sciences. July, 21 2017. University of Nevada, Reno, Reno, Unites States. **Committee**
5. FERRO, M. M., **M. A. FONSECA (external member)**. 2017. How to analyze unbalanced Latin square

data. Ph.D. Qualification exam. Animal Science Graduate Program. March, 3 2017. Federal University of Mato Grosso, Cuiaba, Brazil. **Committee**

Advising at UNR: 23

1. **2020-2020:** Dr. Aaron Norris
Postdoctoral Research Associate
Department of Agriculture, Veterinary and Rangeland Sciences
Universidade Federal da Bahia, Bahia, Brazil.
2. **2019 – current:** Nathan Jero (Co-advising)
M.Sc.: Graduate Program in Animal and Rangeland Sciences, University of Nevada, Reno, United States
3. **2019-2019:** Dr. Analivia Martins Barbosa (Visiting Scholar: Sabbatical leave)
Associate Professor Ruminant Nutrition
Department of Animal Science
Universidade Federal da Bahia, Bahia, Brazil.
4. **2019-2019:** Dr. Luis Fernando Batista Pinto (Visiting Scholar: Sabbatical leave)
Associate Professor Animal Breeding and Applied Statistics
Department of Animal Science
Universidade Federal da Bahia, Bahia, Brazil.
5. **2017-2017:** Dr. Alfonso Chay-Canul (Visiting Scholar: Sabbatical leave)
Profesor-Investigador de Bovinocultura de Corte
División Académica de Ciencias Agropecuarias,
Universidad Juárez Autónoma de Tabasco.
6. **2019 – current:** Ku'uipo Iani Homaleluia Gonzales-Reyes
Undergraduate Research, University of Nevada, Reno – Honors Program
7. **2019 – 2019:** Natalie Godinez
Undergraduate Research, University of Nevada, Reno – Honors Program
8. **2019-2019:** Gabriel Moreira Miranda (Visiting Scholar: Doctoral Student)
PhD.: Animal Science, Universidade Federal de Lavras, Minas Gerais, Brazil
9. **2019 – current:** Felipe Henrique de Moura
PhD.: Graduate Program in Animal and Rangeland Sciences, University of Nevada, Reno, United States
10. **2019 – 2019:** Morgan Valcheck
Undergraduate Research, University of Nevada, Reno, United States
11. **2019 –2019:** Lucilaine Maria Veline
B. Sc.: Animal Science, Universidade Federal de Viçosa, Viçosa, Brazil
12. **2018 – 2019:** Karin Van Den Broek
M.Sc.: Graduate Program in Animal and Rangeland Sciences, University of Nevada, Reno, United States
13. **2018 – current:** Arturo Macias Franco
PhD.: Graduate Program in Animal and Rangeland Sciences, University of Nevada, Reno, United States

States

14. **2018 – 2019:** Graham Holton
Undergraduate Research, University of Nevada, Reno, United States
15. **2018 – 2019:** Serena Roloson
Undergraduate Research, University of Nevada, Reno, United States
16. **2018 – 2018:** Janelle Edwards
Undergraduate Research, University of Nevada, Reno, United States
17. **2018 – 2018:** Blake Duncan
Undergraduate Research, University of Nevada, Reno, United States
18. **2017-2017:** Dr. Alfonso Chay-Canul (Visiting Scholar: Sabbatical leave)
Profesor-Investigador de Bovinocultura de Corte
División Académica de Ciencias Agropecuarias,
Universidad Juárez Autónoma de Tabasco.
19. **2017-2018:** Lucien Bissi da Freiria (Visiting Scholar: Doctoral Student)
PhD.: Animal Science, Federal University of Mato Grosso, Brazil
20. **2017-2018:** Arturo Macias Fraco
B.Sc.: Veterinary Medicine, University of Nevada, Reno, USA
21. **2017 – 2017:** Karin Van De Broek
B. Sc.: Veterinary Science, Universidade Federal de Uberlandia, Brazil
22. **2017 –2017:** Felipe Henrique de Moura (Visiting Scholar: Master’s Student)
M. Sc.: Animal Science, Federal University of Viçosa, Viçosa, Brazil
23. **2017 –2019:** Dr. Teshome Shenkoru (Research Associate Staff)
University of Nevada, Reno

Extension and Outreach (Invited Presentations): 44

1. **FONSECA, M. A.** 2020. Hemp suitability as Livestock Feed. 2020 Nevada Farm Conference. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Falon, NV, February 21, 2020. Scheduled*
2. **FONSECA, M. A.** 2020. Livestock Feeding and Nutrition. 2020 Workshop. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Ely, NV, February 15, 2020. Scheduled*
3. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics: Potential Consequences to your Herd. 2020 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Winnemucca, NV, January 10, 2020.*
4. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elko, NV, January 9, 2020.*
5. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Ely, NV, January 8, 2020.*
6. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture,

Biotechnology and Natural Resources. *Fallon, NV, January 7, 2020.*

7. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Wellington, NV, January 7, 2020.*
8. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Sierra Valley, CA, January 6, 2020.*
9. **FONSECA, M. A.** 2020. Understanding the Effects of Cattle Nutrition on Epigenetics. 2020 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Reno, NV, January 6, 2020.*
10. **FONSECA, M. A.** 2019. Small to medium size farms and sustainable alternatives and niche markets. 2019 Nevada Farm Conference. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Reno, NV, February 16, 2019.*
11. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Winnemucca, NV, January 11, 2019.*
12. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elko, NV, January 10, 2019.*
13. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Ely, NV, January 9, 2019.*
14. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Fallon, NV, January 8, 2019.*
15. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Wellington, NV, January 8, 2019.*
16. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Sierra Valley, CA, January 7, 2019.*
17. **FONSECA, M. A.** 2019. Animal Nutrition Research Program Update - Adapting Animals to Resource Limited environments and perks of metabolic imprints: Water x Dry matter intake. 2019 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Reno, NV, January 7, 2019.*
18. **Nevada Cattlemen's Association** 2018– Research and Education Meeting. *Winnemucca, NV, November 16, 2018.*

19. **FONSECA, M. A.** 2018. Efficiency is not a deterministic concept . 11th Symposium of Beef Cattle Production – 7th International Symposium of Beef Cattle Production. *Viçosa, MG-Brazil, June 1, 2018.*
20. **FONSECA, M. A.** 2018. Mathematical Nutrition Modeling: Structured-based approach . 2018 Spring Lightening Talks. University of Nevada Reno. *Reno, NV, April 17, 2018.*
21. **FONSECA, M. A.** 2018. Nevada Beef Program. In: American Farm Bureau Federation’s 2018 Young Farmer & Rancher Leadership Conference. *Reno, NV, February 6, 2018.*
22. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Winnemucca, NV, January 12, 2018.*
23. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elko, NV, January 11, 2018.*
24. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Ely, NV, January 10, 2018.*
25. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Fallon, NV, January 9, 2018.*
26. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Wellington, NV, January 9, 2018.*
27. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Sierra Valley, CA, January 8, 2018.*
28. **FONSECA, M. A.** 2018. Have your cattle been watered enough? 2018 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elko, NV, Reno 8, 2018.*
29. **FONSECA, M. A.** 2017. Research perspectives for Animal Nutrition and Forage interface in the Western United States. NFWF Conference and Annual WERA 1014 Project Meeting. *Intensive Pasture Management for Sustainable Livestock Production in the Western US. Multistate Research Coordinating Committee and Information Exchange Group. Reno, NV. December 1st, 2017.*
30. **FONSECA, M. A.** 2017. How to optimize marbling and feed efficiency in beef cattle? Marbling and your food eating experience. American National Cattlemen Region VI Meeting. Herds & Harvest and Nevada Cattlemen. April 27, 2017.
31. **FONSECA, M. A.** 2017. Your Carcass. Nevada Junior Livestock Show Workshop. State of Nevada Department of Agriculture – Nevada Junior Livestock Show Workshop. February 25, 2017.
32. **FONSECA, M. A.** 2017. Beef UNR: Integrative framework. cattle. 2017 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Fallon, NV, January 10, 2017.*
33. **FONSECA, M. A.** 2017. Beef UNR: Integrative framework. cattle. 2017 Cattlemen’s Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural

Resources. *Wellington, NV, January 10, 2017.*

34. **FONSECA, M. A.** 2017. Beef UNR: Integrative framework. cattle. 2017 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elly, NV, January 11, 2017.*
35. **FONSECA, M. A.** 2017. Beef UNR: Integrative framework. cattle. 2017 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Elko, NV, January 12, 2017.*
36. **FONSECA, M. A.** 2017. Beef UNR: Integrative framework. cattle. 2017 Cattlemen's Update. University of Nevada Cooperative Extension & College of Agriculture, Biotechnology and Natural Resources. *Winnemucca, NV, January 13, 2017.*
37. **FONSECA, M. A.** 2016. How cattle growth can affect profitability. 2016 Annual Meeting if the Western Belted Galloway Association, October 8, 2016.
38. **FONSECA, M. A.** 2015. Advances in Beef Cattle Nutrition: Respiration chambers. Phibro Animal Health – Technical visit and Research Update on Beef Cattle Production. College Station-TX.
39. ABREU, D. C., **FONSECA, M. A.**, FERREIRA. 2014. Methods of analysis in ruminant sustainable production. In.: Lana, R. P. et al. (Editor). Fourth Brazilian Symposium of Sustainable Agriculture. 1st Ed. Viçosa – MG, Brazil.
40. **FONSECA, M. A.**, CROSSLAND, W., TEDESCHI. L. O. Methane Production from Feeding Dried Distillers Grain. Beef Cattle Short Course. 2014. College Station, TX, USA.
41. **FONSECA, M. A.** 2014. Advances in Beef Cattle Nutrition. Beef Point Producers Tour. College Station-TX.
42. ABREU, D. C., LANA, R. P., **FONSECA, M. A.**, BARBOSA, F. A., ALCANTARA, P. H. R., BARACHO, F. A. O. 2009. Strategies to achieve sustainable animal production. First Brazilian Symposium of Sustainable Agriculture.
43. **FONSECA, M. A.** Main Feedstuffs used on Animal Feed Industry. Federal University of Viçosa. 2010.
44. **FONSECA, M. A.**, ABREU, D.C. Forest-crops-livestock system to increase the income of small ranchers. Federal University of Viçosa, 2009.

Event Organization: 7

1. VALADARES FILHO, S. C., PAULINO, M. F., PAULINO, P. V. R., BARROS, L. V., BENEDETI, P. B., **FONSECA, M. A.**, et al. 8th Beef Cattle Production Symposium – 4th Beef Cattle Production International Symposium, 2012.
2. VALADARES FILHO, S. C., PAULINO, M. F., PAULINO, P. V. R., BARROS, L. V., BENEDETI, P. B., **FONSECA, M. A.**, MARCONDES, M. I., PRADOS, L. F., SILVA, A. G. 7th Beef Cattle Production Symposium – 3rd International Beef Cattle Production Symposium, 2010.
3. VALADARES FILHO, S. C., PAULINO, M. F., PAULINO, P. V. R., BARROS, L. V., BENEDETI, P. B., DINIZ, L. L., CHIZZOTTI, M. L., **FONSECA, M. A.**, FIGUEIREDO, F. C., MARCONDES, M.I. International Course of Beef Cattle Production, 2008.
4. VALADARES FILHO, S. C., PAULINO, M. F., PAULINO, P. V. R., BARROS, L. V., BENEDETI, P. B.,

- CHIZZOTTI, M. L., DINIZ, L. L., FIGUEIREDO, F. C., **FONSECA, M. A.**, MARCONDES, M. I. 6th Beef Cattle Production Symposium – 2nd International Beef Cattle Production Symposium, 2008.
5. VALADARES FILHO, S. C., PAULINO, M. F., PAULINO, P.V.R., BENEDETI, P.B., DINIZ, L.L., CHIZZOTTI, M.L., **FONSECA, M.A.**, FIGUEIREDO, F.C., MARCONDES, M.I. International Course in Beef Cattle Production, 2008.
 6. **FONSECA, M. A.** New approaches of extension in agriculture, 2007. (Symposium)
 7. VALADARES FILHO, S. C., PAULINO, M. F., BARROS, L. V., BENEDETI, P. B., CHIZZOTTI, M. L., DINIZ, L. L., FIGUEIREDO, F. C., **FONSECA, M. A.**, MAGALHAES, K. A., MARCONDES, M. I. Fifth Beef Cattle Production Symposium – 1st International Beef Cattle Production Symposium, 2006.
-

Service to the University/College/Department: 20

1. **2020:** J Dow Wetlands Assessment
2. **2019:** Main Station Field Lab Cattle Tour – Hungary Visit *Reno, NV, October 29, 2019.*
3. **2019:** Main Station Field Lab Cattle Tour – Turkmenistan Visit *Reno, NV, September 6, 2019.*
4. **2019-present:** Faculty Search Committee – Two faculty positions for Rangeland Ecology and Management
5. **2019-present:** AVRS Curriculum Committee
6. **2019-president:** Faculty search Committee - Animal Breeding
7. **2018-present:** Environmental Sciences Graduate Program - Seminar Committee
8. **2018-present:** Environmental Sciences Graduate Program - Admission and Recruitment Committee
9. **2018-present:** Veterinary and Animal Science Undergraduate Curriculum Committee
10. **2018-present:** Institutional Animal Care and Use Committee
11. **2018-2018:** Ecology of Grazinglands National Summer Course Consortium – UNR Host
12. **2018-2018:** Faculty search Committee: Lecture II Agriculture
13. **2017-2018:** Faculty search Committee: Assistant Professor in Veterinary Physiology
14. **2017-2018:** NAES Research Coordinator Committee.
15. **2017-2018:** NAES Property Committee.
16. **2017-2019:** CABNR – Fit
FONSECA, M. A. 2019. Ruminal digestive process. In: 2018 NevadaFit AVRS-CABNRFIT Bootcamp/ ABNR 109 Section 1002. Nevada Agricultural Experimental Station. August 21, 2019.
FONSECA, M. A. 2018. Ruminal digestive process. In: 2018 NevadaFit AVRS-CABNRFIT Bootcamp/ ABNR 109 Section 1002. Nevada Agricultural Experimental Station. August 22, 2018.
FONSECA, M. A. 2017. Ruminal digestive process. In: 2017 NevadaFit ANVS-CABNRFIT Bootcamp/ ABNR 109 Section 1002. Nevada Agricultural Experimental Station. August 23, 2017.
17. **2017-2017:** Advisory board TExAS Scholar Program: Teaching with Experiential learning in Animal Science

18. **2017-2017:** The Veterinary Science & Rangeland Ecology and Management Annual Senior Poster Symposium (Judging team). May 12, 2017.
19. **2016-present:** Nevada Field Day
 - FONSECA, M. A.** 2019. Nevada Field Day: The Ruminant Animal Walking Tour. Nevada Agricultural Experimental Station. October 19, 2019
 - FONSECA, M. A.** 2018. Nevada Field Day: The Ruminant Animal Walking Tour. Nevada Agricultural Experimental Station. September 8, 2018
 - FONSECA, M. A.** 2017. Nevada Field Day: The Ruminant Animal Walking Tour. Nevada Agricultural Experimental Station. September 30, 2017
 - FONSECA, M. A.** 2016. Nevada Field Day: Understanding Beef Cattle Production Modeling: Perspectives for a Research Program at UNR. Nevada Agricultural Experimental Station. September 24, 2016.
20. **2016-2018:** Nevada Bound
 - FONSECA, M. A.** 2017. Nevada Bound. Agriculture and Veterinary Science program. October 6, 2017
 - FONSECA, M. A.** 2017. Nevada Bound. Agriculture and Veterinary Science program. October 20, 2017
 - FONSECA, M. A.** 2017. Nevada Bound. Agriculture and Veterinary Science program. April 14, 2017.
 - FONSECA, M. A.** 2017. Nevada Bound. Agriculture and Veterinary Science program. March 31, 2017.
 - FONSECA, M. A.** 2016. Nevada Bound. Agriculture and Veterinary Science program. October 14, 2016.
 - FONSECA, M. A.** 2016. Nevada Bound. Agriculture and Veterinary Science program. December 2, 2016.

Professional Association

American Society of Animal Science
System Dynamics Society

Service to Profession

Peer reviewed Journals

Reviewer for PlosOne
Reviewer for Frontiers in Genetics
Reviewer for Animal
Reviewer for Journal of Animal Science
Reviewer for Journal of Animal Science
Reviewer for Journal of Agricultural Science
Reviewer for Grassland Science
Reviewer for Animal Production Science
Reviewer for Scientia Agricola
Reviewer for Brazilian J. of Animal Sci.
Reviewer for Animal Feed Science and Technology

Peer reviewed Grant Panels

2017: Ohio Agricultural Research and Development Center (OARDC). SEEDS: The OARDC Research Enhancement Competitive Grants Program. **The Ohio State University.** College of Food, Agricultural and Environmental Sciences. *Seeds Grant Competition, Early Career Investigator.*

Languages

Portuguese: Native

English: Fluent

Spanish: Advanced