

Institute of Food and Agricultural Sciences Range Cattle Research and Education Center

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January 13, 2017

Dr. Jeff Sharp
Chair of the Search Committee
Director, School of Environmental and Natural Resources
The Ohio State University
Room 210F, Kottman Hall
2021 Coffey Rd.
Columbus, Ohio 43210

Dear Dr. Sharp,

This document comprises my application for The Ohio State University's Chair of the Department of Animal Sciences. Over the past several weeks I have given this opportunity a lot of consideration. During the process, I have sought input from several individuals for their perspective on the Department, College and University. They have each provided meaningful comments relative to their perspectives of the Animal Sciences Department and the challenges and opportunities that the new Chair may experience. Each of these discussions have increased my interest and enthusiasm toward this opportunity.

It is truly a pleasure to be considered for this position. Please let me know if there is any further information that I can provide.

Kind Regards,

John D. Arthington

Professor and Center Director

University of Florida

Institute of Food and Agricultural Sciences

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Chair of the Search Committee
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Dear Dr. Sharp and Members of the Search Committee,

Thank you for the invitation and opportunity to be considered as a candidate for The Ohio State University's Chair of the Department of Animal Sciences. I am pleased to submit my application for the position. Enclosed with this cover letter, please find, (1) statement of administrative leadership philosophy, (2) statement of philosophy and perspective related to inclusion and diversity, and (3) curriculum vitae.

Successful academic programs at the Agricultural Colleges of our Land Grant Universities have certainly evolved greatly since their inception in 1862, and the Animal Sciences Department of The Ohio State University is no exception. I feel confident that over the next couple decades we will see a minority of Animal Science Departments in the US rise to a level of national preeminence. These programs will be recognized for their ability to produce meaningful scientific discoveries, while providing outstanding student instruction and clientele engagement on state, national, and international levels. With the current momentum of faculty research expertise and a commitment to teaching and clientele engagement, I am confident that Ohio State's Department of Animal Sciences will be counted among these privileged few.

In 2005, I accepted an administrative assignment as the Director of the University of Florida's Institute of Food and Agricultural Sciences' (IFAS) Range Cattle Research and Education Center. The University of Florida – IFAS has 27 academic units (14 Departments, 12 Research and Education Centers, and 1 School) each with an administrative head (Department Chair or Center Director) reporting to the Senior Vice President. The Range Cattle Research and Education Center is one of these academic units. Our Center is comprised of 7 faculty, 19 staff, and 10 to 15 graduate students collectively leading and serving programs focused on issues impacting the productivity and environmental sustainability of grazinglands. As Director, I am responsible for the hiring, support and evaluation of faculty achievement and research and extension program development. I provide administration and fiduciary oversight of the academic resources, personnel, facilities, and livestock and land resources of our 3,000 acre facility. Additionally, I hold the rank of Professor in the Department of Animal Sciences with academic efforts focused on

the interactions between mineral nutrition, production stress, and subsequent health and productivity of cattle. To date this program has contributed over 100 manuscripts to the peer-reviewed journals serving our discipline. This has not been achieved in a vacuum, but through a collaborative process seeking to compliment the strengths of multiple research programs — both basic and applied. The diverse co-authorship of our manuscripts is evidence of our program's strong collaborative spirit.

In more recent years I find that a greater proportion of my career satisfaction is derived from my administrative support of the research and education activities within IFAS and my Center. A successful administrator must be able to achieve career satisfaction through the achievements of those that they serve in the organization. Over the past 12 years, I have gained considerable pride from the growing success of our faculty and their programs. This satisfaction, coupled with my academic and administrative experiences, make me confident that I am well-prepared to serve as the next Chair for the faculty, staff, and students of Ohio State's Department of Animal Sciences. Although multiple experiences continue to shape my leadership ability and style, I believe there are 4 specific strengths that will contribute well to this new role at Ohio State. These include, 1) multi-location faculty, programs, and resources, 2) faculty support and development, 3) financial leadership, and 4) stakeholder engagement and charitable development.

(1) Dual-Site Department (Columbus and Wooster): Throughout most of my academic career I have been involved in the development and administration of off-campus programs, therefore, the two-campus nature of the Ohio State program is not foreign to me. I understand the importance of program collaboration and the success that can be achieved by optimizing divergent strengths and resources. Some of the most successful and productive collaborations have resulted from faculty located on and off the UF campus. Additionally, I have significant experience leading faculty programs that focus on a variety of differing disciplines, not unlike the diversity represented in the Department of Animal Sciences at Ohio State. I have enjoyed the strength and success that results from a collaborative shared vision and have witnessed the dysfunction that results from divisiveness and unhealthy competition. With strong existing programs and multiple new faculty hires, the disciplinary diversity of Ohio State's Department of Animal Sciences is amazing and unique among peer departments. A unified Department, pursuing a shared vision, has never been more important.

(2) Faculty Support and Development: Although our Center's physical structure has been almost entirely reconstructed, I understand that it is the people and their programs that drive our success. Our faculty are continuously in the top 15% of all IFAS Units for their contribution to the peer-reviewed literature. This outcome reflects a continued commitment to scientific discovery, the peer-review process, and extramural funding. We embrace a shared responsibility to graduate education. From the earliest days of my appointment to Director, I have focused on expanding and strengthening our graduate student program. From what was nearly non-existent 12 years ago, today our faculty attract

the most highly qualified MS and PhD students, regularly filling our 12 person residence capacity. In addition to research and graduate programs, I have continually strived to participate in the reinvention of Cooperative Extension. Extension programs are an important part of our Center's mission. Working with our new Director of Florida Cooperative Extension, we established the first Specialized Agent position at our Center. This new model recognizes the need for advanced faculty expertise when addressing the extension education needs of today's clientele. Housed within a structure of existing research and extension faculty programs, this extension faculty member has a resident framework of collaborators to ensure the success and impact of their extension program. Annually, our extension programs are recognized for their impacts on the county agents and clientele we serve. Collectively, these faculty program successes are highlighted by successful tenure, promotion and retention outcomes.

(3) Financial Leadership: I have had the unique experience of leading an academic unit through both difficult and prosperous financial conditions. In mid-2007, the state of Florida was experiencing the full brunt of the recession. All IFAS Units were forced to reduce their reoccurring budgets. For most, including us, it meant layoffs and reduced operating budgets. Dealing with our own shortfalls, our Center continued to focus on the future with investments in critical programs and prioritization of initiatives such as new faculty hires, deferred maintenance, and the construction of new facilities. The thaw of the recession lead us into prosperous times, most notably, the Florida legislature's approval of a \$2.4 M reoccurring investment in livestock programs. This effort was supported by our College and lobbied for almost 8 years. Although many individuals participated in this team, I was the only administrator (upper administration and unit-level) that was present at both the effort's initiation and final legislative funding. This initiative provided 3 new faculty and 4 new staff positions to our Center returning us to our greatest faculty number and most expansive compliment of academic disciplines in our 75 year history.

Experience leading the financial decisions impacting departmental livestock resources is also an important requirement for Animal Science Chairs with Farm Unit responsibilities. The sale of livestock fully funds the farm operations of our Center; therefore, annual planning and coordination with ongoing faculty studies is essential. Sometimes minor decisions can have a costly or profitable outcome, particularly with shifting commodity prices. These financial conditions are unique to Animal Sciences and it is important that the Chair understands their impacts on the faculty and the programs these resources serve.

(4) Stakeholder Engagement and Charitable Development: To serve the growing programs of our faculty, our Center's physical building resources were in significant need for improvement. In 2006, we kicked off the "Campaign for Ona" with the central goal of generating charitable funding support for the construction of new facilities at our Center. Today, almost 11 years later, we have rebuilt nearly every building. Faculty now have new laboratory spaces, graduate offices and learning centers, conference rooms, and a

multipurpose education building. Charitable giving was a major contributor to these new spaces. As the focus on infrastructure is being completed, I have steered the "Campaign for Ona" toward endowments. I am confident that a common feature of successful Departments of the future will be the depth of their endowment portfolio. These gifts provide reliable annual support to faculty programs. Endowments can be tailored to address multiple needs such as funding specific research programs, graduate student fellowships, or unrestricted funds addressing current needs. To date, we have experienced multiple successes and continue to place a large emphasis on charitable giving to our growing endowment pool.

Through my research, I have become increasingly aware of the Department's strength and dedication to undergraduate teaching. Institutions recognized as pillars of scientific discovery, such as Ohio State, have the unique opportunity to offer students a scholarship-based learning environment. In essence, students choosing to attend Ohio State have the distinct advantage of learning science from faculty recognized as national and international experts in their field of study. Indeed, it is this distinction that sets Ohio State apart from other traditionally teaching institutions that may offer degrees in animal science-related disciplines. Admittedly, I have no administrative experience in the scholarship of teaching. However, I am an undergraduate and graduate product of Animal Science. I understand and appreciate the vital importance that this programmatic responsibility has on the Department and the faculty assigned to this mission. As Department Head, I will be supportive of the continued strengthening of our teaching programs. While emphasizing the importance of scholarship-based instruction and student development, I will actively seek guidance and counsel from faculty currently leading our teaching program.

Again, I appreciate the opportunity to be considered for this position. I am confident that my experience and enthusiasm will enable me to effectively serve the faculty, staff, students and clientele of this fine Department. I look forward to an opportunity to visit with you further.

Sincerely,

John Arthington

Professor and Center Director

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Administrative Leadership Philosophy

My leadership philosophy has been impacted by a variety of experiences over my 12 years of administration. I entered my administrative role at a young age, maybe too young. I have served 3 Senior Vice Presidents and 9 different Deans (Research, Teaching, and Extension). Although I have learned much from these upper-level administrators, the most impactful experiences have come from my colleagues leading other Departments and Centers. Several have become important mentors in my life. Their successes and failures have shaped my approach to leadership. I've learned that administrative decisions should be made with the best knowledge available and the best interest of the impacted person and Department. Knowing the outcome would certainly impact the decision. Therefore, an effective leader must constantly reflect on the outcome of their decisions and how they impact the people we serve and the vision we are guiding. I continually take advantage of the perfect 20/20 vision of hindsight. In my experience, faculty appreciate this reflection. They view a successful leader as someone that consistently strives to lead a shared vision, communicate expectations to achieve this vision, remove barriers, and foster Departmental support at the College, the University, and beyond. An effective leader must be unafraid to seek feedback and be flexible to adapt to changing conditions. Through this process, it is essential that administrators care about how their team will view important decisions – but it can't lead to paralysis. Studies in human nature support the obvious, effective leadership is based on honesty and trust. Although not unimportant, everything else ranks lower on the list. I consider honesty and trust to be the foundation of my leadership philosophy and continually seek to foster these characteristics among the faculty and staff I serve.

Faculty development and program evaluation is a hallmark responsibility of the Departmental Chairperson. Through my personal experiences as a faculty member, and now through my responsibilities as an administrator, I have developed a philosophy for fostering and evaluating faculty programs. This philosophy is based on a shared-commitment to scholarship, which I define as "creative intellectual thought, validated by peers and communicated broadly". Scholarship is evaluated by four key principles of achievement; 1) creative contributions to the science of our discipline, 2) commitment to scholarship-based instruction, 3) departmental (or institutional) stewardship, and 4) clientele engagement. Clearly, there are many other important facets to consider; however, these four simple principles are fundamental to all successful academic-based animal science programs. As an administrator, I continually reflect on these principles for guidance and communicate their importance to the faculty, staff, and stakeholders I serve.

Scholarship success must be aligned with the needs of our clientele. Often this is simply an issue of open and regular communication among the groups that we serve. *Our clientele must understand what we do before they can care about what we do.* The support will follow. In my current role as Center Director, I place a considerable emphasis on clientele engagement and consider this effort a key responsibility of departmental leadership. These efforts have resulted in significant support which can be measured by both financial and political outcomes. Engaging clientele by linking faculty achievements with real-life problems will continue to strengthen the recognition and emphasize the value of Ohio State's Department of Animal Sciences. As Department Head, I will continually seek opportunities to promote the impact of our research, teaching, and extension programs on the stakeholders we serve.

Inclusion and Diversity Statement

Animal Science is not different from other disciplines serving the agricultural sciences, it has historically lacked diversity and lagged behind other disciplines for efforts to embrace and improve diversity and inclusion. The reasons are rooted in the source of individuals seeking careers in Agriculture, which typically come from male-dominated, white, rural America – the source of my personal upbringing. With increasing changes in our Food System and appropriate consideration to diversity at our Colleges of Agriculture, those times are changing. When I obtained my BS degree, my Department of Animal Science had only a single female faculty member. Today, this has entirely changed. Agricultural departments across the country consistently have applicant pools with a large number of highly qualified female candidates. This change is in response to a growing number of women enrolled in PhD programs. In response to this evolution in gender representation, I have been a large proponent of considering maternity in the "time to tenure" equation. When my second daughter was born, her mother, then 35, was considered "advanced maternal age" and assigned additional health considerations. Today, many of our young assistant professors are hired after completing a post-doctoral assignment. If no consideration to maternity is given, most all of our female faculty hires are faced with balancing the arduous task of tenure with the risks of "advanced maternal age". Policy revisions that support maternity (mother and father) in the early years of employment are appropriately becoming more common across our institutions and I will seek to advance this dialogue into an accepted cultural practice at Ohio State.

Racial diversity among the faculty serving the agricultural sciences continues to be lacking in the US. Even with increased attention to search/screen committee awareness and advertising to underrepresented groups, our candidate pools lack diversity, particularly when compared to departments serving the liberal arts. Student recruitment is a major solution. Individuals often do not understand the value of a career in agricultural science unless they have been part of agriculture in their youth. An effective way to advance diversity in a College of Agriculture is to actively seek and recruit members of underrepresented groups into our undergraduate and graduate teaching programs. Advancing diversity in our Departments of tomorrow begins with advancing the diversity of our student population today. I will support an active effort to share the value and opportunity of a career serving the Food System. Effective tools will include undergraduate scholarships aimed toward underrepresented populations and recruitment of top graduate student candidates from our 1890 University partners.

Inclusivity is a major factor in the successful advancement of diversity in the agricultural sciences. Attracting and hiring diversity isn't enough. How do we create an environment of inclusiveness that seeks to recognize and foster cultural differences? To address this important question, I will foster a conversation that recognizes the roadblocks created by subconscious bias. Collectively, these efforts will illustrate the value and impact of a diverse faculty and student population within the pursuit of a shared vision. I believe a focus on inclusion will bolster moral, retention, and further recruitment of diverse applicant pools.

The Ohio State University "values diversity in people and ideas". The University is described as being, ". . . an inclusive, supportive community where you can comfortably join in or confidently stand out." As Department Chair, I will commitment myself to advance these ideals in the Department and College I serve.

Curriculum Vitae

John D. Arthington

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Education

• 1991, Purdue University, West Lafayette, IN, Animal Science, B. S.

 1993, Kansas State University, Manhattan, KS, Department of Animal Sciences, Nutrition & Physiology, M. S.

<u>Thesis Title</u>: The Role of Copper in Bovine Nutrition: Effect on Copper Containing Enzyme Levels and Immune Function

• 1995, Kansas State University, Manhattan, KS, Department of Anatomy and Physiology, Immunology, Ph.D.

<u>Dissertation Title</u>: Effects of Dietary Copper, Chromium, and Vitamin E on Measures of Stress and Immune Competence in Growing Cattle

<u>Professional Experience</u>

- Center Director and Professor, Range Cattle Research and Education Center, University of Florida, Institute of Food and Agricultural Sciences, 2005 to present;
 - ⇒ The Center Director is administratively responsible to the Senior Vice President and programmatically responsible to the three Deans (Research, Extension, and Teaching) of the Institute of Food and Agricultural Sciences. Responsibilities include the annual evaluation of faculty achievement, research and extension program development, and administration and fiduciary oversight of the academic resources, support personnel, facilities, livestock, and land resources of the Center. The Center supports on-site faculty programs with emphasis in beef and forage management, pasture weed control, wildlife conservation ecology, soil and water sciences, and economics.

- Professor (2009), Associate Professor (2003), and Assistant Professor (1998), Range Cattle Research and Education Center, University of Florida, Institute of Food and Agricultural Sciences, Ona, Florida;
 - ⇒ Faculty appointment divided among the Florida Cooperative Extension Service (50%) and the Florida Agricultural Experiment Station (50%). Research and Education programs focused on the relationships among production stress and subsequent immune competence, well-being and productivity of beef cattle. These models have specifically focused on inflammatory reactions and stress tolerances to normal cattle management practices including weaning, commingling, and transportation. To date, this program has contributed over 100 peer-reviewed manuscripts to journals serving our discipline.
- Technical Research Scientist, American Protein Corporation, Ames, IA, 1995 to 1998;
 - ⇒ Responsible for the research, development, and technical support of nutritional applications aimed at improving the health and performance of neonatal food animals using fractions derived from bovine and porcine blood and milk materials.
- Graduate Research Assistant, Department of Animal Sciences and Department of Anatomy and Physiology, Kansas State University, Manhattan, KS, 1991 to 1995;
 - ⇒ Responsible for the student oversight and conduct of research projects addressing the influence of trace mineral nutrition on performance and immune competence of cattle, and also served as the a graduate assistant to the Kansas Livestock Extension-Program Leader. Served as a teaching assistant to several undergraduate courses and lead the teaching responsibility for a 1-credit hour Poultry Science course (2 semesters).

<u>Professional and Administrative Continuing Education</u>

- Food Systems Leadership Institute (FSLI; 2011 and 2012)
 - ⇒ A program of the Association of Public and Land-Grant Universities (APLU) with support from the W. K. Kellogg Foundation, FSLI provides leadership development to upper-level leaders in higher education, government, and industry to prepare them to meet the leadership challenges and opportunities of the future.
- Recently Appointed Administrators Workshop, University of Nebraska Lincoln (2008)
 - ⇒ Designed through leadership from University of Nebraska, Purdue University, and Kansas State University, this workshop focuses on the development of leadership skills

in newly appointed-appointed, unit-level academic administrators (Department Chairs, Center Directors, etc.).

- Institute for Academic Leadership, Florida State University, Tallahassee (2006 and 2007)
 - ⇒ Established in 1978 through a Kellogg Foundation grant, "The purpose of this workshop is to support the development of the chair as an academic leader with the department and within the institution as a whole. The workshop is designed to stimulate discussion and enable interaction between chairs in the state university system."
- Lead IFAS Cohort V, University of Florida, Institute of Food and Agricultural Sciences (2007). Beginning in 2016, I serve as co-leader of Lead IFAS along with Dr. Brian Myers (Chair, Agriculture Communication and Education Department).
 - ⇒ Lead IFAS is an inter-institutional leadership program developed to culture and enhance the leadership capacity of IFAS faculty.

Leadership and Administrative Experiences as Center Director (2005 to present)

The following is a summary of selected administrative experiences. Instead of individually listing each activity, I have chosen to group these experiences into individual themes with selected examples provided. I feel that each of these theme areas have made significant contributions to my qualifications and abilities to serve as the Chair of the Department of Animal Sciences at The Ohio State University.

Faculty Recruitment, Development, and Retention

Without hesitation, the first priority of any departmental administrator should be the recruitment, development, and retention of outstanding people. Outstanding people are the driving force behind all successful institutions. I have had the privilege to participate as a member of several search and screen committees and served as Chair of three – one at the administrative level. Further, as administrative leader of my Center, I have had the experience and privilege of successfully mentoring assistant and associate professors through tenure and promotion process. In phases of faculty recruitment, I have sought to include county extension educators and clientele on every search and screen committee organized during my tenure as Director. I have successfully retained outstanding faculty during periods of economic hardship and further expanded the number of faculty at our Center through a successful legislative funding campaign.

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- Established the first Specialized Agent (100% Extension appointment) at a Department or Center (2014). Working with our Dean for Extension, this effort seeks to recognize the need for advanced extension faculty expertise when addressing the needs of today's commercial agriculture clientele.
- Search and Screen Committee for Dean and Director of Cooperative Extension,
 Research Center Director Representative, 2012
- Search and Screen Committee Chair for Assistant Director and Associate Professor,
 North Florida Research and Education Center, 2007
- Search and Screen Committee Chair for Assistant Professor and Extension Specialist, Forage Agronomy, 2005
- Search and Screen Committee Chair for Assistant Professor and Extension Specialist, Soil and Water Science, 2005
- Development Endowments and Building Improvement Campaigns

Creating and strengthening endowment support for faculty programs is essential to all successful academic institutions. I place a significant priority on this important aspect of my administrative responsibility and have experienced significant success in both the endowment pool and facilities upgrades at our Center. These outcomes have been a natural reflection of my enjoyment and success working with the clientele we serve to continue strengthening and expanding relationships among individuals impacted by our programs.

Examples – New Facilities:

- Faculty Laboratory and Shared Instrumentation Building (currently in construction): New academic building funded by matching funds between the College and the Ona White Angus Endowment of the RCREC.
- Grazinglands Education Building (2015): Fully funding through charitable giving.
- Cattlemen's Conference Room (2009): Fully funded through charitable giving.
- Graduate Student Residence (2008): Fully funded through charitable giving.

Examples – Endowments:

- Dr. Elver Hodges Forage Management Endowment (2015): supports forage management research.
- Adams Ranch Endowment (2014): Supports research and education programs aimed at addressing the problems impacting grazinglands in southern Florida.
- Westway Feeds Fellowship (2014): Supports graduate student efforts in liquid feed research.
- Florida Cattlemen's Endowment (2011): Unrestrictive endowment to support the RCREC.

- Don Plagge and Findlay Pate Beef Nutrition Research and Education Endowment (2008): supports research and education programs for beef nutrition.
- Dr. and Muncie Chapman Endowment (2007): Unrestrictive endowment to support the RCREC.

Creation Effective Multi-Disciplinary Extension Teams

Multi-disciplinary collaborations are proving to be increasingly essential to the success and impact of Extension. Nowhere in Florida is this more visible than the faculty programs of the RCREC. Five disciplinary Departments (Soil & Water Science, Agronomy, Animal Sciences, Wildlife Ecology & Conservation, and Economics) are represented on most, if not all, extension outreach programs. County extension educators routinely team-up with these faculty to deliver extension education programs. Although this network and unique commitment was established prior to my appointment as Director, I have continued to lead and foster its success.

Examples:

- Pasture Fertilization Taskforce (Chair). In 2007, I was appointed by the Dean for
 Extension to lead a taskforce to design a University recommendation for the
 application of phosphorus to Florida's pastures the largest single source of
 phosphorus application in the state. I combined scientists from three
 Departments (Soil & Water Science, Agronomy, and Animal Sciences) to
 strategically review and critically analyze the existing literature. From this effort,
 we have established new guidelines that have been adopted by the Florida
 Department of Agriculture and state producer organizations as new standards for
 adoption into Best Management Practices.
- Extension Program Leader of the USDA-NRI Cattle Stocking Rate Study (i.e. Buck Island Project). Organized an extension outreach program for county extension educators, cattle producers, and environmental groups

• Graduate Student Education

With such a large proportion of UF-IFAS faculty located off campus, issues related to graduate student education can often be difficult. As Director, I placed a significant emphasis on growing our Center's commitment to graduate student education. A graduate dormitory, constructed entirely from private funding, has now been completed. Since 2007, our Center's graduate student enrollment has increased dramatically.

Florida Extension State Major Goals

In 2003/2004, UF-IFAS reorganized our statewide extension programs into multiple "Goal" topics with each having specific "Focus" areas. Appointed by the Dean for Extension, I lead the effort to combine previous state major programs (SMPs) into a single Focus Team consisting of state and county faculty with program emphasis in livestock and/or forage. For the three years that followed, I served as chair of this committee. Today, I serve as an administrative advisor to the Associate Dean for Extension for the UF/IFAS Extension Initiative – Agriculture and Horticulture Extension Team (2013 to 2017).

<u>Professional Society Membership</u>

American Society of Animal Science American Dairy Science Association American Registry of Professional Animal Scientists National Cattlemen's Beef Association Florida Cattlemen's Association

Peer-Reviewed Publications (n = 105)

Caramalac, L.S., A. S. Netto, P.G.M.A. Martins, P. Moriel, J. Ranches, H.J. Fernandes, and J.D. Arthington. 2017. Effects of hydroxy sources of copper, zinc, and manganese on measures of supplement intake, mineral status, and pre- and post-weaning performance of beef calves. J. Anim. Sci. (In Revision; 12-2016).

Vendramini, J.M.B., J.D. Arthington, F.C. Leite de Oliveira, A.D. Aguiar, P. Moriel, J.M.D. Sanches, C.V.S. Filho, and J.K. Yarborough. 2017. Triticaleannual ryegrass mixture effects on forage characteristics and performance of early-weaned calves. Prof. Anim. Sci. (In Press).

Martins, P.G.M.A., P. Moriel, and J.D. Arthington. Effects of storage temperature and repeated freezethaw cycles on stability of bovine plasma concentrations of haptoglobin and ceruloplasmin. J. Vet. Diagn. Invest. (In Press).

Ranches, J., J.M.B. Vendramini, and J.D. Arthington. 2017. Effects of selenium biofortification of hayfields on measures of selenium status in cows and calves consuming these forages. J. Anim. Sci. (In Press).

Carroll, J.A., N.C. Burdick Sanchez, J.D. Arthington, C.D. Nelson, A.L. Benjamin, F.T. Korkmaz, D.E. Kerr, and P.A. Lancaster. 2017. In utero exposure to LPS alters the postnatal acute-phase response in beef heifers. Innate Immun. 23:97-108.

Martins, P.G.M.A., P. Moriel, J.M.B. Vendramini, and J.D. Arthington. 2016. Evaluation of 2 sugarcane molasses feeding stratagies on measures of growth and reproductive performance of replacement beef heifers. Prof. Anim. Sci. 32:302-308.

Campistol, C., H.G. Kattesh, J.C. Waller, E.L. Rawls, J.D. Arthington, J.A. Carroll, G.M. Pighetti, and A.M. Saxton. 2016. Effects of pre-weaning feed supplementation and total versus fenceline weaning on the physiology and performance of beef steers. Int. J. Livest. Prod. 7:48-54.

Aguiar, A.D., J.M.B. Vendramini, J.D. Arthington, L.E. Sollenberger, G. Caputti, J.M.D. Sanchez, O.F.R. Cunha, and W.L. da Silva. 2015. Limited creepfeeding supplementation effects on performance of

beef cows and calves grazing limpograss pastures. Livest. Sci. 180:129-133.

Davis, K.M., T. Smith, B. Bolt, S. Meadows, J.G. Powell, R.C. Vann, J.D. Arthington, N. DiLorenzo, D.L. Lalman, F.M. Rouquette, Jr., G.R. Hansen, A.J. Cooper, J.E. Cloud, M.D. Garcia, A.D. Herring, D.S. Hale, J.O. Sanders, T.B. Hairgrove, T.J. DeWitt, and D.G. Riley. 2015. Technical note: Digital quantification of eye pigmentation of cattle with white faces. J. Anim. Sci. 93:3654-3660.

Hersom, M., A. Imler, T. Thrift, J. Yelich, and J.D. Arthington. 2015. Comparison of feed additive technologies for preconditioning of weaned beef calves. J. Anim. Sci. 93:3169-3178.

Aguiar, A.D., J.M.B. Vendramini, J.D. Arthington, L.E. Sollenberger, N. DiLorenzo, and M.J. Hersom. 2015. Performance of beef cows and calves fed different sources of rumen-degradable protein while grazing stockpiled limpograss pastures. J. Anim. Sci. 93:1923-1932.

Mercadante, V.R.G., K.M. Waters, G.H.L. Marquezini, D.D. Henry, F.M. Ciriaco, J.D. Arthington, N. DiLorenzo, and G.C. Lamb. 2015. Effects of antiphospholipase A2 antibody supplementation on dry matter intake, feed efficiency, acute phase response, and blood differentials of steers fed forage- and grain-based diets. J. Anim. Sci. 93:776-785.

Mercadante, V.R.G., K.M. Waters, G.H.L. Marquezini, D.D. Henry, F.M. Ciriaco, J.D. Arthington, N. DiLorenzo, and G.C. Lamb. 2015. Inclusion of antiphospholipase A2 antibody to backgrounding diets on performance, feed efficiency, in vitro fermentation, and the acute phase response of growing beef calves. J. Anim. Sci. 93:414-424.

Aguiar, A.D., J.M.B. Vendramini, J.D. Arthington, L.E. Sollenberger, J.M.D. Sanchez, W.L. da Silva, A.L.S. Valente, and P. Salvo. 2014. Stocking rate effects on herbage responses and performance of beef heifers grazing Jiggs bermudagrass and receiving concentrate supplementation. Crop Sci. 54:2872-2879.

Moriel, P., S.E. Johnson, J.M.B. Vendramini, M.A. McCann, D.E. Gerrard, V.R.G. Mercadante, M.J. Hersom, and J.D. Arthington. 2014. Effects of calf age and subsequent management system on growth performance and carcass characteristics of beef steers. J. Anim. Sci. 92:3598-3609.

Moriel, P., S.E. Johnson, J.M.B. Vendramini, V.R.G. Mercadante, M.J. Hersom, and J.D. Arthington. 2014. Effects of calf age and subsequent management system on growth and reproductive performance of beef heifers. J. Anim. Sci. 92:3096-3107.

Arthington, J.D., P. Moriel, P.G. M. A. Martins, G. C. Lamb, and L. J. Havenga. 2014. Effects of trace mineral injections on measures of performance and trace mineral status of pre- and post-weaned beef calves. J. Anim. Sci. 92:2630-2640.

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