

Christopher J. Richards

Extension & Research Beef Cattle Nutrition Specialist

DEPARTMENT OF ANIMAL SCIENCE

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EDUCATION

University of Kentucky, Ph.D., Animal Science (Ruminant Nutrition), December 1999

University of Nebraska, M.S., Animal Science (Ruminant Nutrition), May 1996

Texas A&M University, B.S., Animal Science, December 1992

Northeastern Junior College, A.S., General Studies, May 1990

CAREER HISTORY

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|-------------------------|---|
| 2005-Present | Assistant Professor , Department of Animal Science, Oklahoma State University, Appointment 75% Extension, 25% Research |
| 2000-2005 | Assistant Professor , Department of Animal Science, The University of Tennessee; Appointment: 70% Research, 30% Teaching |
| <i>Area of Research</i> | Nutrition of growing beef cattle; high-fiber energy supplements associated with forage-based diets, and development of supplement strategies to optimize nutrient utilization and retention |
| 1996-1999 | Large Animal Lab Manager/Graduate Research Assistant , University of Kentucky |
| <i>Area of Research</i> | Influence of small intestinal protein on carbohydrate assimilation and metabolism in beef cattle. Site of carbohydrate digestion effect on glucose metabolism in steers |
| 1993-1996 | Graduate Research Assistant , University of Nebraska |
| <i>Area of Research</i> | Evaluation of grain and grain byproducts for ruminants and <i>in vitro</i> starch disappearance measures for determining viability of grain sorghum hybrids for ruminants |

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Society of Animal Scientist
- Oklahoma Cattlemen's Association
- National Cattlemen's Beef Association
- Gamma Sigma Delta

SCHOLARLY PROGRAMS

Extension

Extension programming includes stocker and feedlot cattle nutrition and management, Master Cattleman program, value-added cattle programs, National Animal Identification System, and electronic identification and remote monitoring.

Research

Use of ethanol co-products in growing and finishing beef cattle nutrition and development of management strategies and implementation of technologies to enhance the efficiency of beef cattle production systems.

Refereed Papers (recent)

1. **Richards, C.J.**, K.C. Swanson, S.J. Paton, D.L. Harmon, and G.B. Huntington. 2003. Pancreatic exocrine secretion in steers infused post-ruminally with casein and cornstarch. *J. Anim. Sci.* 81:1051-1056.
2. Fisher, A.E., W.W. Gill, C.D. Lane, Jr., D.K. Joines, J.B. Neel, and **C.J. Richards**. 2003. Two-year mineral survey reveals deficiencies and imbalances in Tennessee tall fescue. *PAS* 19:286-289.
3. Baublits, R.T., J. Brown, F.W. Pohlman, Z.B. Johnson, D.O. Onks, H.D. Loveday, R.E. Morrow, B.A. Sandelin, W.K. Coblenz, **C.J. Richards**, and R.B. Pugh. 2004. Carcass and beef color characteristics of three biological types of cattle grazing cool-season forages supplemented with soyhulls. *Meat Science* 68:297-303.
4. Schauer, C.S., D.W. Bohnert, D.C. Ganskopp, **C.J. Richards**, and S.J. Falck. 2004. Influence of protein supplementation frequency on cows consuming low-quality forage: performance, grazing behavior, and variation in supplement intake. *J. Anim. Sci.* 83:1715-1725.
5. **Richards, C.J.**, Pugh R.B., and J.C. Waller. 2006. Influence of supplementing soybean hulls to steers consuming endophyte-infected tall fescue pasture. *J. Anim. Sci.* 84:678-685.
6. Huntington, G.B., **C.J. Richards**, and D.L. Harmon. 2006. Sites, rates and limits of starch digestion and glucose metabolism in growing cattle. *J. Anim. Sci.* 84:E14-E24.
7. Baublits, R.T., A.H. Brown, Jr., F.W. Pohlman, D.C. Rule, Z.B. Johnson, D.O. Onks, C.M. Murrieta, **C.J. Richards**, H.D. Loveday, B.A. Sandelin, and R.B. Pugh. 2006. Fatty acid and sensory characteristics of beef from three biological types of cattle grazing cool-season forages supplemented with soyhulls. *Meat Sci.* 72:100-107.

8. Baublits, R.T., F.W. Pohlman, A.H. Brown, Jr., D.C. Rule, Z.B. Johnson, D.O. Onks, C.M. Murrieta, B.A. Sandelin, **C.J. Richards**, H.D. Loveday, and R.B. Pugh. 2006. Comparison of fatty acid and sensory profiles of beef from forage-fed cattle with retail United States Department of Agriculture Choice and Select beef. *J. Muscle Foods*. 17:311-329.
9. Wolfenbarger, K.G., R.L. Shehab, **C.J. Richards**, C.R. Krehbiel, D.L. Lalman, and J. Hassell. 2007. A comparison of techniques for electronic identification of cattle. In: *Proceedings of the 2007 Industrial Engineering Research Conference*. (G. Bayraksan, W. Lin, Y. Son, and R. Wysk, Eds.). 1776-1780. Nashville, TN.

Book Chapters (recent)

1. **Richards, C.J.**, and H.D. Loveday. 2004. Redefining selenium nutrition using organic selenium (Sel-Plex): defining maximal acceptable tissue residues in beef. In: *Nutritional Biotechnology in the Feed and Food Industries*. (T.P. Lyons and K.A. Jacques Eds.). Lexington, KY. 211-220.
2. **Richards, C.J.**, and R.B. Hicks. 2007. Processing of Corn and Sorghum for Feedlot Cattle. In: *Veterinary Clinics of North America Food Animal Practice: Topics in Nutritional Management of feedlot cattle*. (L.C. Hollis and K.C. Olson Eds.). 23:2:207-222. Elsevier, Philadelphia, PA.

CURRENT PROGRAM INITIATIVES

Extension

Primary extension educational efforts focus on the National Animal Identification System, electronic identification, and beef cattle value added opportunities.

Research

Current research is focusing on the cattle performance and consumer product implications of inclusion of wet distillers grains in steam flaked corn finishing diets. Additional efforts are focused on evaluation of remote rumen temperature monitoring technologies for evaluating calf health and improving the efficiency and well-being of growing cattle.