

# Published Research Findings

Beef Safety Research  
Product Enhancement  
Research  
Nutrition Research

**RESEARCH ANNUAL REPORT  
PEER-REVIEWED BEEF SAFETY RESEARCH PUBLICATIONS**

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| Arthur, T.M., J.M. Bosilevac, D.M. Brichta-Harhay, M.N. Guerini, N. Kalchayanand, S.D. Shackelford, T.L. Wheeler, and M. Koohmaraie. 2007. Transportation and lairage environment effects on prevalence, numbers, and diversity of <i>Escherichia coli</i> O157:H7 on hides and carcasses of beef cattle at processing. <i>J. Food Prot.</i> 70:280-286.                      |
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| Arthur, T.M., D.M. Brichta-Harhay, N. Kalchayanand, M.N. Guerini, J.M. Bosilevac, T.L. Wheeler, S.D. Shackelford, and M. Koohmaraie. 2007. Prevalence and level of multi-drug resistant (MDR) <i>Salmonella</i> in calf-fed holstein steers. <i>J. Food Prot.</i> (In progress).  |
| Arthur, T.M., N. Kalchayanand, D.M. Brichta-Harhay, M.N. Guerini, J.M. Bosilevac, T.L. Wheeler, S.D. Shackelford, and M. Koohmaraie. 2007. Comparison of effects of antimicrobial interventions on multidrug-resistant <i>Salmonella</i> , non-multidrug-resistant <i>Salmonella</i> , and <i>Escherichia coli</i> O157:H7. (In progress).                                    |
| Arthur, T.M., J.M. Bosilevac, D.M. Brichta-Harhay, M.N. Guerini, N. Kalchayanand, T.L. Wheeler, S.D. Shackelford, and M. Koohmaraie. 2007. Effects of processing plant lairage on the prevalence and load of <i>E. coli</i> O157:H7 and <i>Salmonella</i> on the hides and carcasses of beef cattle. (In progress).   |
| Arthur, T.M., N. Kalchayanand, D.M. Brichta-Harhay, M.N. Guerini, J.M. Bosilevac, T.L. Wheeler, S.D. Shackelford, X. Nou, and M. Koohmaraie. 2007. Survival of <i>E. coli</i> O157:H7 and <i>Salmonella</i> on cattle hides. <i>J. Food Prot.</i> (In progress).  |
| Berardi, V., F. Cardone, A. Valanzano, M. Lu, Q.G. Liu, A. DePascalis, R. Meyer, M. Pocchiari, and P. Brown. 2005. High pressure/temperature decontamination of meat products spiked with transmissible spongiform encephalopathy agents. Prion 2005, between fundamentals and society's needs. Abstract book Abs. n <sup>o</sup> , Dusseldorf, Germany.                      |
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| <p>Cardone, F., V. Berardi, A. Valanzano, A. DePascalis, H. Abdel-Haq, R. Meyer, M. Pocchiari, and P. Brown. 2006. Application of high pressure-temperature treatments to remove TSE agents from biological products. Prion 2006, Strategies, advances and trends towards protection of society. Torino, Italy. Abstract book Abs n° Sa-02.</p>   |
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| <p>Cardone, F., P. Brown, R. Meyer, V. Berardi, A. DePascalis, S. Graziano, H. Abdel-Haq, A. Valanzano, V. Heinz, R. Buchow, A. Mathys, J. Hijelmqvist, P. Rovere, A. Kelly, M. Freeman, M. Beekes, D. Knorr, and M. Pocchiari. 2007. Development of practical conditions to remove TSE agents from biological products by ultra high pressure. <i>J. Food Sci.</i> (In preparation).</p>   |
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| <p>Cobbold, R.N., D.D. Hancock, D.H. Rice, J. Berg, R. Stilborn, C.J. Hovde, and T.E. Besser. 2007. Recto-anal junction colonization of feedlot cattle with <i>E. coli</i> O157:H7 and its association with super-shedders and excretion dynamics. <i>Appl. Environ. Microbio.</i> 73(5):1563-1568.</p>   |
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| <p>Ding, Y., and A. Mustapha. 2007. Survival of <i>Escherichia coli</i> O157:H7 and <i>Listeria monocytogenes</i> in beef following grinding and slicing. IFT Annual Meeting poster presentation. (In preparation).</p>   |
| <p>Echeverry, A., T.C. Lowrance, G.H. Loneragan, M.M. Brashears, M.S. Brown, D.J. Kunze, T.M. Platt, S.E. Ives, H.M. Scott, B. Norby. 2007. Ceftiofur crystalline free acid administration reduces susceptibility of generic <i>E. coli</i> in cattle. 94th Annual Meeting of the International Sssociation for Food Protection, Orlando, FL.</p>   |
| <p>Gasser, S., W.E. Chaney, M. Lyte, K.W. McMahon, M.M. Brashears, M. Galyean, and E. Karunasena. 2008. Consequences of stress and diet on the immune and endocrine systems of cattle and their effects on the seasonal shedding of <i>Escherichia coli</i> O157:H7 and <i>Salmonella</i> species. <i>Cell-Host and Microbe.</i> (In preparation).</p>                                      |
| <p>Gutierrez-Banuelos, H., R.C. Anderson, G.E. Carstens, L.J. Slay, N. Ramlachan, S.M. Horrocks, T.R. Callaway, T.S. Edrington, and D.J. Nisbet. 2007. Zoonotic bacterial populations, gut fermentation characteristics and methane production in feedlot steers during oral nitroethane treatment and after the feeding of an experimental chlorate product. <i>Anaerobe</i> 13:21-31.</p> |
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| <p>Koohmaraie, M., T.M. Arthur, J.M. Bosilevac, D.M. Brichta-Harhay, N. Kalchayanand, S.D. Shackelford, and T.L. Wheeler. 2007. Interventions to reduce/eliminate <i>Escherichia coli</i> O157:H7 in ground beef. <i>Meat Sci.</i> 77:90-96.</p>   |
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| <p>Kunze, D.J., G.H. Loneragan, T.M. Platt, M.F. Miller, T.E. Besser, M. Koohmaraie, T.P. Stephens, C.H. Parsons, and M.M. Brashears. <i>Salmonella enterica</i> burden in harvest-ready cattle populations of the Texas high plains. <i>Appl. Envi. Micro.</i> (Submitted).</p>   |
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| <p>Mukherjee, A., Y. Yoon, K.E. Belk, J.A. Scanga, G.C. Smith, and J.N. Sofos. 2007. Reduction of <i>Escherichia coli</i> O157:H7 by cooking beef treated with different restructuring ingredients. Animal Sciences Research Report, Department of Animal Sciences, Colorado State University. Fort Collins, CO. (Submitted).</p>  |
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| <p>Wang, L., Y. Li, and A. Mustapha. 2007. Detection of viable <i>Escherichia coli</i> O157:H7 in ground beef by ethidium monoazide-real-time PCR. J. Food Prot. (Submitted).</p>   |
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**RESEARCH ANNUAL REPORT**  
**PEER-REVIEWED PRODUCT ENHANCEMENT RESEARCH PUBLICATIONS**

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