

CURRICULUM VITAE

NAME

Delmore, Robert J

ADDRESS

Animal Sciences
College of Agricultural Sciences

Wagar

PHONE

(970) 491-7093

EDUCATION

1998 Ph D, Colorado State University

1993 MS, University of Nebraska

1991 BS, California Polytechnic State University

OTHER POSITIONS

2013 - Present Professor, Colorado State University.

2008 - 2013 Professor, California Polytechnic State University.

2003 - 2008 Associate Professor, California Polytechnic State University.

2000 - 2003 Vice-President, Clougherty Packing Company.

1998 - 2000 QA Manager, Clougherty Packing Company.

PUBLISHED WORKS

Non-Refereed Journal Articles

Scott, B. R., Yang, X., Geornaras, I., Delmore, R., Woerner, D. R., Adler, J. M., Belk, K. E. (2015). Antimicrobial Efficacy of a Lactic Acid and Citric Acid Blend against Shiga Toxin-Producing *Escherichia coli*, *Salmonella*, and Nonpathogenic *Escherichia coli* Biotype I on Inoculated Prerigor Beef Carcass Surface Tissue. *Journal of food protection*, 78(12), 2136-42.

Scott, B. R., Yang, X., Geornaras, I., Delmore, R., Woerner, D. R., Reagan, J. O., Morgan, J., Belk, K. E. (2015). Antimicrobial Efficacy of a Sulfuric Acid and Sodium Sulfate Blend, Peroxyacetic Acid, and Cetylpyridinium Chloride against *Salmonella* on Inoculated Chicken Wings. *Journal of food protection*, 78(11), 1967-72.

Igo, M. W., Arnold, A. N., Miller, R. K., Gehring, K. B., Mehall, L. N., Lorenzen, C. L., Delmore, R., Woerner, D. R., Wasser, B. E., Savell, J. W. (2015). Tenderness assessments of top loin steaks from retail markets in four U.S. cities. *Journal of animal science*, 93(10), 4610-6.

Belk, K. E., Woerner, D. R., Delmore, R., Tatum, J. D., Yang, H., Sofos, J. N. (2014). The meat industry: do we think and behave globally or locally? *Meat science*, 98(3), 556-60.

- Nicholson, J. D., Nicholson, K. L., Frenzel, L. L., Maddock, R. J., Delmore, Jr, R. J., Lawrence, T. E., Henning, W. R., Pringle, T. D., Johnson, D. D., Paschal, J. C., Gill, R. J., Cleere, J. J., Carpenter, B. B., Machen, R. V., Banta, J. P., Hale, D. S., Griffin, D. B., Savell, J. W. (2013). Survey of transportation procedures, management practices, and health assessment related to quality, quantity, and value for market beef and dairy cows and bulls. *Journal of animal science*, 91(10), 5026-36.
- Guelker, M. R., Haneklaus, A. N., Brooks, J. C., Carr, C. C., Delmore, Jr, R. J., Griffin, D. B., Hale, D. S., Harris, K. B., Mafi, G. G., Johnson, D. D., Lorenzen, C. L., Maddock, R. J., Martin, J. N., Miller, R. K., Raines, C. R., VanOverbeke, D. L., Vedral, L. L., Wasser, B. E., Savell, J. W. (2013). National Beef Tenderness Survey-2010: Warner-Bratzler shear force values and sensory panel ratings for beef steaks from United States retail and food service establishments. *Journal of animal science*, 91(2), 1005-14.
- McKeith, R. O., Gray, G. D., Hale, D. S., Kerth, C. R., Griffin, D. B., Savell, J. W., Raines, C. R., Belk, K. E., Woerner, D. R., Tatum, J. D., Igo, J. L., VanOverbeke, D. L., Mafi, G. G., Lawrence, T. E., Delmore, Jr, R. J., Christensen, L. M., Shackelford, S. D., King, D. A., Wheeler, T. L., Meadows, L. R., O'Connor, M. E. (2012). National Beef Quality Audit-2011: Harvest-floor assessments of targeted characteristics that affect quality and value of cattle, carcasses, and byproducts. *Journal of animal science*, 90(13), 5135-42.
- Moore, M. C., Gray, G. D., Hale, D. S., Kerth, C. R., Griffin, D. B., Savell, J. W., Raines, C. R., Belk, K. E., Woerner, D. R., Tatum, J. D., Igo, J. L., VanOverbeke, D. L., Mafi, G. G., Lawrence, T. E., Delmore, Jr, R. J., Christensen, L. M., Shackelford, S. D., King, D. A., Wheeler, T. L., Meadows, L. R., O'Connor, M. E. (2012). National Beef Quality Audit-2011: In-plant survey of targeted carcass characteristics related to quality, quantity, value, and marketing of fed steers and heifers. *Journal of animal science*, 90(13), 5143-51.
- Gray, G. D., Moore, M. C., Hale, D. S., Kerth, C. R., Griffin, D. B., Savell, J. W., Raines, C. R., Lawrence, T. E., Belk, K. E., Woerner, D. R., Tatum, J. D., VanOverbeke, D. L., Mafi, G. G., Delmore, Jr, R. J., Shackelford, S. D., King, D. A., Wheeler, T. L., Meadows, L. R., O'Connor, M. E. (2012). National Beef Quality Audit-2011: Survey of instrument grading assessments of beef carcass characteristics. *Journal of animal science*, 90(13), 5152-8.
- Haneklaus, A. N., Hodgen, J. M., Delmore, R., Lawrence, T. E., Yates, D. A., Allen, D. M., Griffin, D. B., Savell, J. W. (2011). Effects of zilpaterol hydrochloride on retail yields of subprimals from beef and calf-fed Holstein steers. *Journal of animal science*, 89(9), 2867-77.
- Lawrence, T. E., Allen, D. M., Delmore, R., Beckett, J. L., Nichols, W. T., Streeter, M. N., Yates, D. A., Hutcheson, J. P. (2011). Technical note: feeding zilpaterol hydrochloride to calf-fed Holstein steers improves muscle conformation of top loin steaks. *Meat science*, 88(1), 209-11.
- Delmore, R., Hodgen, J. M., Johnson, B. J. (2010). Perspectives on the application of zilpaterol hydrochloride in the United States beef industry. *Journal of animal science*, 88(8), 2825-8.
- Garmyn, A. J., Shook, J. N., VanOverbeke, D. L., Beckett, J. L., Delmore, R., Yates, D. A., Allen, D. M., Hilton, G. G. (2010). The effects of zilpaterol hydrochloride on carcass cutability and tenderness of calf-fed Holstein steers. *Journal of animal science*, 88(7), 2476-85.
- Lawrence, T. E., Elam, N. A., Miller, M. F., Brooks, J. C., Hilton, G. G., VanOverbeke, D. L., McKeith, F. K., Killefer, J., Montgomery, T. H., Allen, D. M., Griffin, D. B., Delmore, R., Nichols, W. T., Streeter, M. N., Yates, D. A., Hutcheson, J. P. (2010). Predicting red meat yields in carcasses from beef-type and calf-fed Holstein steers using the United States Department of Agriculture calculated yield grade. *Journal of animal science*, 88(6), 2139-43.
- Rogers, H. R., Brooks, J. C., Hunt, M. C., Hilton, G. G., VanOverbeke, D. L., Killefer, J., Lawrence, T. E., Delmore, R., Johnson, B. J., Allen, D. M., Streeter, M. N., Nichols, W. T., Hutcheson, J. P., Yates, D. A., Martin, J. N., Miller, M. F. (2010). Effects of zilpaterol hydrochloride feeding duration on beef and calf-fed

Holstein strip loin steak color. *Journal of animal science*, 88(3), 1168-83.

- Rogers, H. R., Brooks, J. C., Hunt, M. C., Hilton, G. G., VanOverbeke, D. L., Killefer, J., Lawrence, T. E., Delmore, R., Johnson, B. J., Allen, D. M., Streeter, M. N., Nichols, W. T., Hutcheson, J. P., Yates, D. A., Martin, J., Miller, M. F. (2010). Effects of zilpaterol hydrochloride feeding duration on beef and calf-fed Holstein strip loin steak color. *Journal of animal science*, 88(3), 1168-83.
- Beckett, J. L., Delmore, R., Duff, G. C., Yates, D. A., Allen, D. M., Lawrence, T. E., Elam, N. (2009). Effects of zilpaterol hydrochloride on growth rates, feed conversion, and carcass traits in calf-fed Holstein steers. *Journal of animal science*, 87(12), 4092-100.
- Boler, D. D., Holmer, S. F., McKeith, F. K., Killefer, J., VanOverbeke, D. L., Hilton, G. G., Delmore, R., Beckett, J. L., Brooks, J. C., Miller, R. K., Griffin, D. B., Savell, J. W., Lawrence, T. E., Elam, N. A., Streeter, M. N., Nichols, W. T., Hutcheson, J. P., Yates, D. A., Allen, D. M. (2009). Effects of feeding zilpaterol hydrochloride for twenty to forty days on carcass cutability and subprimal yield of calf-fed Holstein steers. *Journal of animal science*, 87(11), 3722-9.
- Holmer, S. F., Fernández-Dueñas, D. M., Scramlin, S. M., Souza, C. M., Boler, D. D., McKeith, F. K., Killefer, J., Delmore, R., Beckett, J. L., Lawrence, T. E., VanOverbeke, D. L., Hilton, G. G., Dikeman, M. E., Brooks, J. C., Zinn, R. A., Streeter, M. N., Hutcheson, J. P., Nichols, W. T., Allen, D. M., Yates, D. A. (2009). The effect of zilpaterol hydrochloride on meat quality of calf-fed Holstein steers. *Journal of animal science*, 87(11), 3730-8.
- Mason, C. L., Nicholson, K. L., Brooks, J. C., Delmore, R., Henning, W. R., Johnson, D. D., Lorenzen, C. L., Maddock, R. J., Miller, R. K., Morgan, J. B., Wasser, B. E., Gwartney, B. L., Harris, K. B., Griffin, D. B., Hale, D. S., Savell, J. W. (2009). National Beef Market Basket Survey - 2006: External fat thickness measurements and separable component determinations for beef from US retail establishments. *Meat science*, 81(2), 335-43.
- Voges, K. L., Mason, C. L., Brooks, J. C., Delmore, R., Griffin, D. B., Hale, D. S., Henning, W. R., Johnson, D. D., Lorenzen, C. L., Maddock, R. J., Miller, R. K., Morgan, J. B., Baird, B. E., Gwartney, B. L., Savell, J. W. (2007). National beef tenderness survey - 2006: Assessment of Warner-Bratzler shear and sensory panel ratings for beef from US retail and foodservice establishments. *Meat science*, 77(3), 357-64.
- Scanga, J. A., Delmore, Jr, R. J., Ames, R. P., Belk, K. E., Tatum, J. D., Smith, G. C. (2000). Palatability of beef steaks marinated with solutions of calcium chloride, phosphate, and (or) beef-flavoring. *Meat science*, 55(4), 397-401.
- Delmore, Jr, R. J., Sofos, J. N., Schmidt, G. R., Belk, K. E., Lloyd, W. R., Smith, G. C. (2000). Interventions to reduce microbiological contamination of beef variety meats. *Journal of food protection*, 63(1), 44-50.
- Cannon, J. E., Morgan, J. B., Schmidt, G. R., Tatum, J. D., Sofos, J. N., Smith, G. C., Delmore, R., Williams, S. N. (1996). Growth and fresh meat quality characteristics of pigs supplemented with vitamin E. *Journal of animal science*, 74(1), 98-105.

Abstract

- Adams, T. S., Woerner, D. R., Legako, J. F., Engle, T. E., Tatum, J. D., Delmore, R., Belk, K. E. (2015). *Identifying the influence of cattle production history and lean muscle characteristics on specific beef flavor attributes* (vol. 112, pp. 149-150). Meat Science.
- Hoffman, T. W., Belk, K. E., Tatum, J. D., Delmore, R., Peel, R. K., Levalley, S. B., Pendell, D. L., Zerby, H. N., English, L. F., Moeller, S. J., Fluharty, F. L. (2015). *Preferences associated with American lamb quality in retail & foodservice markets* (vol. 112, pp. 138). Meat Science.

Webb, M., Woerner, D. R., Pendell, D. L., Engle, T. E., Henson, J., Zerby, H., Delmore, R., Belk, K. E., Tatum, J. D. (in press). *Identifying consumer preferences for different beef types based on flavor*. Meat Science.

White Paper

Murphy, R. L., Scott, B. R., Delmore, L., Martin, J., Woerner, D. R., Belk, K. E., Delmore, R. *Guidance for Allergen Control in Meat Establishments*. Washington, DC: North American Meat Institute.

Murphy, R. L., Scott, B. R., Delmore, L., Martin, J., Woerner, D. R., Belk, K. E., Delmore, R. (2015). *Guidance for Selecting a Commercial or Private Laboratory*. Washington, DC: North American Meat Institute.

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

December 15, 2016, "Validation of antimicrobial interventions including use of peroxyacetic acid (PAA) in a spray chill system and a head spray cabinet in a commercial beef harvest operation", Beef Industry Food Safety Council, National Cattleman's Beef Association.

December 15, 2015, "Determining process lethality of Escherichia coli O157:H7 and Salmonella spp. in heat treated, rendered oil", Beef Industry Food Safety Council, National Cattleman's Beef Association.

July 14, 2015, "Preferences and Complaints Associated With American Lamb Quality and Retail Outlets", American Lamb Board, American Lamb Board, peer-reviewed/refereed.

January 15, 2015, "Developing a methodology for the microbiological evaluation of rendered oils", Institute of Food Technologists, peer-reviewed/refereed.

January 14, 2015, "Effects of sulfuric acid sodium sulfate on natural spoilage microflora, lean discoloration and off-odors of pork boneless loins and back ribs", IFT 16, Institute of Food Technologists, peer-reviewed/refereed.

March 25, 2014, "Marketing, Carcass Quality and Tying it all Together for Successful Beef Production", CSU Beef Cow College, Department of Animal Sciences, Fort Collins, CO.

OTHER ACTIVITIES/ACCOMPLISHMENTS – PUBLICATIONS/SCHOLARLY RECORD

(April 24, 2015). Seminar, "Your Role in Development and Fundraising," University Advancement, Fort Collins, CO, United States. Approximate Number of Hours Spent Per Year: 1.5.

(February 20, 2015). Seminar, "Finding Funding for Your Research and Programs," University Advancement, Fort Collins, CO, United States. Approximate Number of Hours Spent Per Year: 1.5.

(December 4, 2014). Seminar, "Partnering for Success with Your Development Team," University Advancement, Fort Collins, CO, United States. Approximate Number of Hours Spent Per Year: 1.5.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	ANEQ799 - Dissertation	18	11
2016	Spring	ANEQ567 - HACCP Meat Safety	2	17
2016	Spring	ANEQ784 - Supervised College Teaching	18	31
2016	Spring	ANEQ699 - Thesis	18	9
2015	Fall	ANEQ460 - Meat Safety	2	30
2015	Fall	ANEQ360 - Principles of Meat Science	3	97
2015	Fall	ANEQ481A1 - Processed Meats	4	9
2015	Fall	ANEQ481A1 - Processed Meats - Lab	0	9

2015	Fall	ANEQ784 - Supervised College Teaching	18	29
2015	Spring	ANEQ567 - HACCP Meat Safety	2	18
2015	Spring	ANEQ784 - Supervised College Teaching	18	28
2015	Spring	ANEQ699 - Thesis	18	9
2014	Fall	ANEQ460 - Meat Safety	2	29
2014	Fall	ANEQ360 - Principles of Meat Science	3	92
2014	Fall	ANEQ784 - Supervised College Teaching	18	27
2014	Fall	ANEQ699 - Thesis	18	9
2014	Spring	ANEQ567 - HACCP Meat Safety	2	20
2014	Spring	ANEQ784 - Supervised College Teaching	18	23

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Fall	ANEQ286 - Livestock Practicum	3	Face to Face

Evidence of Teaching Effectiveness (Annual Input)

Examples of Course Improvements

Spring 2015, ANEQ 567–HACCP Meat Safety

This course was modified from a full semester to a 4 week course. this was done to facilitate other faculty work load. The students reported to me that they felt it was too much to have 2 four hour lecture per week. I modified the class to 8 weeks and we will offer the class with 2, 2 hour lecture in Spring 2016.

Development of New Courses

Fall 2015, ANEQ 481A1–Processed Meats

This was a new course that I developed, submitted and got approved. It has a lab component and significant hands-on activities for the students. The class culminates with the students presenting their product development projects to faculty staff and general public. This activity was well received by both students and visitors.

EXTENSION/ENGAGEMENT ACTIVITIES/ACCOMPLISHMENTS

Email

Approved Process Authority. Adult. Number of times program was made: 20. Total number of participants: 20. Percent Responsible: 100%. Full Year 2015.

Workshop

Personal HACCP Plan consultation. Adult, Fort Collins, CO. Number of times program was made: 1. Total number of participants: 30. Percent Responsible: 50%. 3rd Quarter 2015.

COMMITTEES

Graduate Committee, (October 2014 - Present).

Search Committee, Meat/Food Microbiologist, (2014 - 2015).

Search Committee, Beef Quality Assurance Coordinator, (July 1, 2015).

End of Year Celebration Committee, (March 2015 - May 1, 2015).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

American Society of Animal Science. (May 15, 2015 - Present).

North American Meat Institute. (February 2015 - Present).

American Meat Science Association. (June 1, 1992 - Present).

National Provisioner. (June 18, 2015).

National Provisioner. (May 11, 2015).

National Provisioner. (December 2, 2014).

Editorial Review Board Member, American Society of Animal Science. (January 2014 - Present).

Board of Directors, Meat Industry Hall of Fame. (January 2013 - Present).

Reviewer, Ad Hoc Reviewer, Meat Science. (January 2007 - Present).

Chairperson, North American Meat Institute, Scholarship Foundation, Washington, D.C. (August 1, 2003 - Present).

Session Chair, Range Cow Beef Symposium, Fort Collins, CO. (November 17, 2015).

Reviewer, P & T Dossier, Ohio State University, Columbus, OH. (May 2015 - August 2015).

Officer, President/Elect/Past, American Meat Science Association. (June 2012 - June 2015).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

Facilitator, North American Meat Institute, Strategic Planning, Washington, D.C. (2015).
