

# Ann Waylan Brackenridge

## Curriculum Vitae

### PERSONAL INFORMATION

Office Address: Cargill Innovation Center  
300 West 1<sup>st</sup> Street North  
Wichita, KS 67202  
316.291.2948

Home Address: 590 NW Tawakoni Road  
Benton, KS 67017  
316.799.9188

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### EDUCATION

Ph.D.	2003	Animal Science (Animal Growth and Meat Science)	Kansas State University
M.S.	1999	Animal Science (Meat Science)	Kansas State University
B.S.	1997	Animal Science (Products)	Kansas State University

### PROFESSIONAL EXPERIENCE

#### Cargill, Inc.

**1999-2000; 2004 to present**

Cargill provides food, agriculture, financial and industrial products and services to the world. The 150,000 employees in 70 countries are committed to feeding the world in a responsible way, reducing environmental impact and improving the communities where we live and work. It is a place to thrive, as you are proud to work for a company with a strong history of ethics and a purpose of nourishing people.

#### Cargill Protein Group Research, Development, and Innovation Food Service Manager Wichita, KS

**2016 to present**

Responsible for an insight driven animal protein innovation pipeline and management of the new product portfolio to provide innovation earnings, and lead a team of food service channel scientists. Member of the food service business and protein group research, development, and innovation leadership teams.

- Activate an insight driven innovation system across the food service cooked meats and beef food service business.
- Oversee the build of a viable food service innovation pipeline aligned with the strategy and customer segmentation that will deliver defined earnings to the protein group.
- Coordinate the research, development and innovation activities for the cooked meats and beef food service businesses and manage food service customer relationships. Support marketing and sales team activities.
- Develop and implement the product portfolio review function of the sales and operations planning process by integrating all protein innovation portfolios into a measurable, profitable pipeline.
- Lead and develop a team of scientists and product developers that analyze insights and align with strategy to provide profitable growth through solutions and product innovation.

**Cargill Value Added Meats North America Quality Systems Director  
London, Ontario, Canada**

**2013-2015**

Responsible for the food safety, quality, and regulatory, research and development, and field service organizations of the McDonald's dedicated chicken and beef operations and oversaw the USDA and CFIA relationships. Member of the CVAM-Canada business and North America food safety, quality, and regulatory leadership teams.

- Oversaw the food safety, quality, and regulatory organizations and budgets of a chicken harvest and further processing operation, two beef patty facilities, and a hatchery. Accountable for animal welfare and all regulatory communication.
- Oversaw the Canada protein research and development organization.
- Developed a vision and oversaw the strategic planning process for food safety, animal welfare, and innovation for this dedicated customer business.
- Technical expert to provide vision and to developing food programs with claims, as well as the liaison for all technical communication to McDonald's.
- Architect of the Chicken Farmers of Canada third party audit program.
- Founding member of Safe Food Canada, a collaboration of CFIA, industry, and academia. This organization is working to standardize food safety competencies and to provide food safety knowledge to the Canadian food industries.

**Cargill Value Added Meats Retail Technology Director  
Wichita, KS**

**2008-2012**

Responsible for USDA regulatory and packaging and research and development activities for the entire turkey and cooked meats businesses, including the business, technology, and alignment plan and \$3 million budget. Member of Cargill Animal Protein R&D and CVAM-Retail leadership teams.

- Oversaw a team of scientists responsible for product development of cooked (beef, ham, turkey deli roasts and sliced meats, home meal replacements) and raw (whole turkeys, case ready and marinated turkey, beef, and pork) retail/food service products, research, and production process improvements.
- Managed all phases of product development and supported sales and marketing activities.
- Advised a team responsible for USDA packaging approvals, nutrition statements, and operating specifications.
- Provided intellectual asset leadership and development.
- Development and execution of raw turkey and cooked food safety strategies through research and intervention development on *Listeria monocytogenes*, *Escherichia coli* O157:H7, and *Salmonella* spp.
- Conducted turkey growth and development, production equipment/process, and food ingredient research.

**Cargill Value Added Meats Retail and Food Service Technology Director  
Wichita, KS**

**2006-2008**

Responsible to provide leadership across two businesses, form and grow research and development capabilities, and build out a team of talented scientists. Additionally, develop business and technology alignment plans for the two value-added businesses, and provide oversight of the \$3.6 million budget of the respective research and development teams and activities. Member of R&D and retail and food service business leadership teams.

- Formed a robust, high performing team of scientists that contributed significantly to the business financials.
- Oversaw the two-teams of scientists responsible for product development, research, and production process improvements across the turkey supply chain and the cooked meats businesses that serviced retail customers and food service national, regional, and distributor accounts.
- Managed all phases of product development and ensured activities were aligned to the business strategy.
- Developed the businesses intellectual asset strategy and coordinated related activities.

**Cargill Pork and Case Ready Technology Director  
Wichita, KS**

**2004-2005**

Responsible to develop the business and technology strategies to align with the business growth plans for both business units and grow the research and development capabilities. Managed ~\$2.5 million budget.

- Oversaw two research and development teams of managers and scientists.
- Directed research in areas of live animal, production processes/equipment, pork and beef quality, and swine nutrition and growth.
- Implemented process verified antibiotic free program with ag, commercial, and operation teams.
- Contributed to transforming and growing the case ready businesses in the U.S. and Canada through building clear plans, optimizing equipment in operations, and working with retail customers to meet their needs from transitioning from in-store meat cutters to pre-cut and packaged retail meat products.

**Cargill Pork Food Scientist  
Wichita, KS**

**1999-2000**

Responsible for conducting research and product development to increase efficiencies and provide profitable new products.

- Conducted live animal and carcass research to improve meat quality.
- Developed premium pork program with integrated model of genetics, feeding, process, and products that provided profit for over 12 years.
- Created specialty products for Japanese export through genetics and production processing steps. Connected the Japanese marketplace and customers to develop differentiated quality pork.
- Presented research findings, recommendations, and implemented new processes to improve pork quality.

**Kansas State University Graduate Research Assistant  
Manhattan, KS**

**1997-1999 and 2001-2003**

Doctoral Dissertation: *Effect of L-carnitine on porcine embryonic muscle growth and development.*

- Fed gestating sows L-carnitine, a vitamin-like compound that partitions fatty acids to synthesize lean and reduce adipose tissue stores, to evaluate the impact on porcine muscle growth and development. At mid-gestation, hysterectomies were completed, and samples of embryonic muscle, uterus, placenta and liver were collected. Embryonic muscle samples were used to isolate porcine myogenic cells to determine proliferation rates and to isolate total RNA at initial differentiation, as well as from the tissues to analyze the insulin-like growth factor system as an indicator of muscle growth and development.

Master's Thesis: *The effects of dietary supplementation of modified tall oil, vitamin E, chromium nicotinate, and L-carnitine on pork quality, display color stability, and bacon characteristics.*

- Barrows and gilts were fed diet supplementations of modified tall oil, vitamin E, chromium nicotinate, or L-carnitine to evaluate the impact on fresh meat quality traits and sensory attributes on cooked loin and bacon products.

Other research included:

- The impact of loin location on eating characteristics of pork *longissimus* muscle.
- Evaluate the effect of flax on the glycolytic system by measuring lipoprotein lipase activity in beef cattle muscle biopsies.
- Influence of muscle type and multiple marinade ingredients on beef tenderness.
- Utilize combined trenbolone acetate and estradiol implants in beef cattle to influence the insulin-like growth factor system to enhance efficient muscle growth.

**UNDERGRADUATE AND GRADUATE ACTIVITIES**

*Undergraduate*

- Kansas State University Meat Judging Team Assistant Coach 1997
- Kansas State University Block and Bridle Club 1993-1997
- Kansas State University Ag Ambassadors 1993-1997
- Kansas State University Meat Judging Team 1995

*Graduate*

Beef Carcass Data Collection 2001-2003

Kansas State University Animal Science Graduate Student Association 1997-1999, 2001-2002

Kansas State University Meat Judging Team Coach 1999 (spring)

Kansas State University Meat Judging Team Assistant Coach 1997

**PROFESSIONAL ORGANIZATIONS / ACTIVITIES**

American Meat Science Association, membership 1997-present

Board director 2011-2014

Advisor and board liaison with student board of directors

Award Selection – Achievement Award committee chair

Founding member of student board of directors

Intercollegiate meat judging contest official committee member

Professional member sponsor of student board of directors

Professional member sponsor/host/organizer of student leadership conference

Graduate student research competition committee member

President and board selection committee member

Abstract and student research competition committee member

Webinar advisory board committee member

Reciprocal meat conference planning committee member

Kansas State University Adjunct Graduate Faculty 2008 to present

Master student graduate committee – 2 students

Kansas State University Lifetime Foundation Member 2005 to present

Canada Agri-Subcommittee on Food Safety, Appointed Member 2013-2015

McDonald's Canada Food Improvement Team Member 2013-2015

American Society of Animal Science, membership 1996-2008, 2013 to 2015

Muscle Growth and Development Section Committee Chairman for Mid-West Section, 2008

Muscle Growth and Development Section Committee for Mid-West Section, 2005-2007

Safe Food Canada – The Learning Partnership, Founding Team Member, 2014

Board Director, 2015

Industry competency committee, 2014-2015

Meat and Poultry Research Conference Planning Committee Member 2012-2013

American Meat Institute industry representative for research proposals 2008-2011

**AWARDS AND PROFESSIONAL RECOGNITIONS**

Cargill Value Added Meats-Food Service Champion of Excellence Award 2014

Cargill Value Added Meats-Food Service Canada President's Club Award 2014

American Society of Animal Science Midwest Section Outstanding 2014

Early Career Agribusiness Award

American Meat Science Association Achievement Award 2009

Excel Corporation July 'Make a Difference Award' 2000

American Meat Science Association Graduate Student Research Poster 1999

Competition M.S. Division, 1<sup>st</sup> place

Richard Elmore Brown Outstanding College of Agriculture Graduate Student Teaching Award	1999
American Meat Science Association Outstanding Undergraduate Travel Award	1997
American Society of Animal Science Senior Award	1997
American Society of Animal Science Scholarship Award	1997
Intercollegiate Meats Judging Contest High Overall Team Coach, Houston Livestock Show	1997
Mortar Board Senior Honorary	1996-97
Kansas State Block and Bridle Outstanding Member Award	1996
American Society of Animal Science Junior Award	1996
Gamma Sigma Delta Honor Society	1996
Alpha Zeta Agricultural Honorary	1995

## PROFESSIONAL IMPROVEMENT

Reciprocal Meat Conferences  
 Regional and National American Society of Animal Science Meetings  
 Employee Safety Trainings  
 Due diligence activities for potential acquisitions  
 Sales and Operations Planning Boot Camp 2017  
*What is Premium?* Hartman Conference 2016  
 Project and Portfolio Management 2016, 2008  
 Cargill Canadian Regulatory Committee 2013-2015  
 Food Safety Management System Training 2013  
 Quality Systems Training 2011  
 Customer Solutions Training 2011  
 Muscle Biology Enabling Science Team Lead 2010-2011  
 Venezuela Talent Attraction Project 2010  
 Transitioning in Leadership Program at Cargill 2009-2010  
 Marketing Academy and Innovation System Training 2008  
 Competency, performance, personality, and leadership Talent View of Performance® Feedback 2007

## COMMUNITY INVOLVEMENT

P.E.O. philanthropic organization where women celebrate the advancement of women through scholarships, grants, and loans for women to achieve their highest aspirations. Member, treasurer three years, and recording secretary one year. 2000 to present.

Girl Scout Volunteer Troop 41477. 2016 to present.

## PRESENTATIONS

- Numerous proprietary leadership progress reports on innovation pipeline and financial performance, business and technology presentations to customers, ideations, product showings, and project reports. January 2004 to current. Presentations throughout the U.S., Canada, and England in cooperation with Cargill, Inc., Wichita, KS.
- Numerous tours and animal and meat overviews. January 2004 to current. Toured and presented to LMIC, Chinese Students, 4-H, FFA, and all-student ages. Cargill, Inc., Wichita, KS.
- Numerous proprietary technical posters. January 2004 to current. Posters describing developed proprietary technologies.
- Sales and operations planning boot camp. 2017. Teach product and portfolio review section.
- *All species are getting bigger – How do we handle and is the trend here to stay?* June 2016. Presented in reciprocation session at 69<sup>th</sup> Reciprocal Meat Conference, San Angelo, Texas.

- Food for Thought farm-to-fork beef production panel. April 2016. One of four panelists at Upson Lecture Series, Manhattan, KS.
- Beef 102. September 2015. Presented meat science principles and guided beef ranch experience and tour of beef processing facility for customer stakeholders. Guelph, Ontario, Canada.
- Beef 101. July 2015. Presented a review of cattle, beef processing, cuts, and sensory for customer stakeholders. Toronto, Ontario, Canada.
- Beef 101. November 2014. Presented a review of cattle, beef processing, cuts, and sensory for customer leadership. Guelph, Ontario, Canada.
- Numerous tours of chicken and beef processing plants. January 2013 to December 2015. Cargill Canada, LLC., London, Ontario, Canada.
- Updates to Canada Chicken Farmers of Canada and Chicken Farmers of Ontario. January 2014 to December 2015. Toronto, Ontario, Canada.
- *People or Technology*. October 2014. Debate panel member at Maple Leaf Foods 6<sup>th</sup> Annual Food Safety Symposium.
- *Managing Career and Family*. June 2014. Presented in reciprocation session at 67<sup>th</sup> Reciprocal Meat Conference, Madison, Wisconsin.
- *Food Safety Technology*. 2011. Cargill Board of Directors Update. Minneapolis, Minnesota.
- *Quality influencers of further processed meats*. June 2010. Presented in concurrent session at 63<sup>rd</sup> Reciprocal Meat Conference, Lubbock, Texas.
- *Re-inventing the deli at Sam's Club*. 2008. Cargill Board of Directors Update. Minneapolis, Minnesota.
- *Carcass microbial sampling*. October 2002. Pork 101 workshop at Kansas State University.
- IMLP Mexican Meats Short Course. June 2002. Led meat processing facilities tours at Kansas State University.
- Kansas FFA food science and technology career development event. April 2002. Developed written test and assisted with modules.
- Radio segment on food safety and extension programs for consumers and meat processors. June 2001. Interviewed at KKSU 580 AM radio.
- *Developing and implementing HACCP in meat plants workshop*. May 2001 to June 2002. Presentations at eight regional workshops.
- *Sanitation and GMP's workshop*. May 2001 to June 2002. Presentations at two regional workshops.
- *Myofibrillar protein structural changes from marination with calcium phosphate or calcium chloride and sodium pyrophosphate*. Fall 2001. Research report presented at Kansas State University Animal Science meat seminar.
- *Applications of ozone in the food industry*. Spring 2001. Presented at Kansas State University Animal Science meat seminar.
- Numerous proprietary project reports and pork quality seminars. September 1999 to December 2001. Presentations throughout the U.S. and Japan in cooperation with Excel Corporation, Wichita, KS.
- *The influence of swine diet supplementation of modified tall oil and vitamin E on pork longissimus quality characteristics and display color stability*. March 1999. Presented in graduate student competition at American Society of Animal Science Midwest Sectional Meeting in Des Moines, Iowa.
- *The effects of swine diet supplementation of modified tall oil, chromium nicotinate, and L-carnitine on pork longissimus quality characteristics and display color stability*. March 1999. Presented as poster at American Society of Animal Science Midwest Sectional Meeting in Des Moines, Iowa.
- *Influence of chop location on boneless pork loin quality*. Spring and June 1999. Presented at Kansas State University Animal Science meat seminar and Reciprocal Meat Conference Graduate M.S. Poster Competition, Stillwater, Oklahoma.
- *Utilization of the Iberian pig breed*. Fall 1998. Kansas State University Animal Science meat seminar.
- *The influence of swine diet supplementation of modified tall oil and vitamin E on pork longissimus quality characteristics and display color stability*. Fall 1998. Presented at Kansas State University Animal Science and Industry Graduate Student Competition.

- *Quality and yield grades for beef carcasses.* July 1998. Farmland Farm-to-Table Beef Conference, Kansas City, Kansas.
- *Use of video image analysis, USDA ribeye grids, and linear measurements to predict longissimus muscle area.* March 1998. Presented as poster at American Society of Animal Science Midwest Sectional Meeting in Des Moines, Iowa.
- *Measurements of pork loin eye quality.* Spring 1998. Presented at Kansas State University Animal Science meat seminar.
- *The influence of horned and dehorned cattle on carcass value.* Fall 1997. Presented as a proposal at Kansas State University Animal Science meat seminar.

## PATENTS AND PROCESSING AIDE APPLICATION

Meat substitute product. **A. W. Brackenridge**, T. R. Katen, J. L. Klemaszewski, and D. A. Moss. US Patent Application 20130236626 published September 12, 2013.

Packaging of meat products with modified atmospheres and/or enhancers. **A. W. Brackenridge**, C. Cundith, S. J. Eilert, N. Rathje, B. Wilborn, D. C. Ruzek, F. D. Dryden, and B. C. Paterson. Canada Patent Application 2569682 C published May 28, 2013.

Packaging of meat products with modified atmospheres and/or enhancers. **A. W. Brackenridge**, C. Cundith, S. J. Eilert, N. Rathje, B. Wilborn, D. C. Ruzek, F. D. Dryden, and B. C. Paterson. US Patent Application 20060073244 A1 published April 6, 2006.

Packaging of meat products with modified atmospheres and/or enhancers. **A. W. Brackenridge**, C. Cundith, F. D. Dryden, S. J. Eilert, B. C. Paterson, N. Rathje, D. C. Ruzek, and B. Wilborn. WO Patent Application 2005122774 A3 published December 7, 2006.

Canadian Food Inspection Agency processing aide application. 2004.

## PUBLICATIONS

### *Book Chapters*

**Waylan, A.T.**, and C. L. Kastner. 2004. Hot boning and chilling. In: *Encyclopedia of Meat Sciences*, W. K. Jensen, C. Devine, and M. E. Dikeman (eds.), pp. 606-614. Oxford: Elsevier.

### *Refereed Journal Articles*

Homm, J. W., **A. T. Waylan**, J. A. Unruh, and R. C. Johnson. 2006. Influence of chop location within a loin on boneless pork longissimus quality. *J. Muscle Foods* 17:221-236,

**Waylan, A.T.**, J. P. Kayser, D. P. Gnad, J. J. Higgins, J. D. Starkey, E. K. Sissom, J. C. Woodworth, and B. J. Johnson. 2005. Effects of L-carnitine on fetal growth and the IGF system in pigs. *J. Anim. Sci.* 83:1824-1831.

**Waylan, A.T.**, J. D. Dunn, B. J. Johnson, J. P. Kayser, and E. K. Sissom. 2004. Effect of flax supplementation and growth promotants on liprotein lipase and glycogenin messenger RNA concentrations in finishing cattle. *J. Anim. Sci.* 82:1868-1865.

George-Evins, C. D., J. A. Unruh, **A. T. Waylan**, and J. L. Marsden. 2004. Influence of quality classification, aging period, blade tenderization, and endpoint cooking temperature on cooking characteristics and tenderness of beef *gluteus medius* steaks. *J. Anim. Science.* 82:1863-1867.

Dunn, J. D., B. J. Johnson, J. P. Kayser, **A. T. Waylan**, E. K. Sissom, and J. S. Drouillard. 2003. Effects of flax supplementation and a combined trenbolone acetate and estradiol implant on circulating insulin-like growth factor-I and muscle insulin-like growth factor-I messenger RNA levels in beef cattle. *J. Anim. Sci.* 81:3028-3034.

Pampusch, M. S., B. J. Johnson, M. E. White, M. R. Hathaway, J. D. Dunn, **A. T. Waylan**, W. R. Dayton. 2003. Time course of changes in growth factor mRNA levels in muscle of steroid-implanted and nonimplanted steers. *J. Anim. Sci.* 81:2733-2740.

- Waylan, A. T.**, P. R. O'Quinn, R. D. Goodband, J. A. Unruh, J. L. Nelssen, J. C. Woodworth, and M. D. Tokach. 2003. Effects of dietary additions of modified tall oil, chromium nicotinate, and L-carnitine on growth performance, carcass characteristics, and bacon characteristics of growing-finishing pigs. *Can. J. Anim. Sci.* 83:459-467.
- Waylan, A.T.**, P. R. O'Quinn, J. A. Unruh, J. L. Nelssen, R. D. Goodband, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 2002. Effects of modified tall oil and vitamin E on growth performance, carcass characteristics, and meat quality of growing-finishing pigs. *J. Anim. Sci.* 80:1575-1585.

*Refereed Abstracts*

- Dunn, J. D., J. P. Kayser, **A. T. Waylan**, E. K. Sissom, J. S. Drouillard, and B. J. Johnson. 2003. Effect of flax supplementation and a combined trenbolone acetate and estradiol implant on circulating IGF-I and muscle IGF-I mRNA levels in finishing cattle. *J. Anim. Sci.* 81(Suppl. 2):20(Abstr.).
- Dunn, J. D., **A. T. Waylan**, J. P. Kayser, E. K. Sissom, and B. J. Johnson. 2003. Effect of flax supplementation and a combine trenbolone acetate and estradiol implant on muscle satellite cell activity in beef cattle. *J. Anim. Sci.* 81(Suppl. 1)/*J. Dairy Sci.* (Suppl. 1):305 (Abstr.).
- Kayser, J. P., J. D. Dunn, **A. T. Waylan**, S. S. Dritz, J. C. Nietfeld, J. E. Minton, and B. J. Johnson. 2003. Effects of acute enteric disease challenge on the insulin-like growth factor system in nursery pigs. *J. Anim. Sci.* 81(Suppl. 2):30 (Abstr.).
- Sissom, E. K., J. P. Kayser, **A. T. Waylan**, J. D. Dunn, W. M. Moseley, and B. J. Johnson. 2003. Effect of melengestrol acetate (MGA) on bovine muscle satellite cell proliferation and differentiation. *J. Anim. Sci.* 81(Suppl. 1)/*J. Dairy Sci.* (Suppl. 1):305 (Abstr.).
- Waylan, A. T.**, J. P. Kayser, J. D. Dunn, E. K. Sissom, and B. J. Johnson. 2003. Effect of flax supplementation and growth promotants on steady-state lipoprotein lipase and glycogenin mRNA concentrations in finishing cattle. *J. Anim. Sci.* 81(Suppl. 2):30 (Abstr.).
- Baumert, R. R., D. E. Burson, **A. T. Waylan**, E. A. Boyle, F. M. Aramouni, and M. M. Brashears. 2002. The effects of one-on-one HACCP assistance offered to meat and food processors in Nebraska, Kansas, South Dakota, and Missouri. *Proc. 55<sup>th</sup> Recip. Meat Conf.* 55:151.
- Unruh, J. A., P. R. O'Quinn, **A. T. Waylan**, R. D. Goodband, J. L. Nelssen, and M. E. Tokach. 2000. Use of modified tall oil and vitamin E to improve pork longissimus muscle quality. *46<sup>th</sup> Proc. Int. Congress of Meat Sci. and Technol.* 46:538-539.
- O'Quinn, P. R., **A. T. Waylan**, R. D. Goodband, J. L. Nelssen, J. A. Unruh, J. C. Woodworth, M. D. Tokach, and K. Q. Owen. 1999. Effects of modified tall oil, chromium nicotinate, and L-carnitine on growth and carcass traits of finishing pigs. *J. Anim. Sci.* 77(Suppl. 1):677 (Abstr.).
- O'Quinn, P. R., **A. T. Waylan**, J. L. Nelssen, R. D. Goodband, J. A. Unruh, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 1999. The effects of modified tall oil and vitamin E on growth performance and carcass characteristics of finishing pigs. *J. Anim. Sci.* 77(Suppl. 1):53 (Abstr.).
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 1999. The influence of swine diet supplementation of modified tall oil and vitamin E on pork longissimus quality characteristics and display color stability. *J. Anim. Sci.* 77(Suppl. 1):44 (Abstr.).
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and K. Q. Owen. 1999. The effects of swine diet supplementation of modified tall oil, chromium nicotinate, and L-carnitine on pork longissimus quality characteristics and display color stability. *J. Anim. Sci.* 77(Suppl. 1):50 (Abstr.).
- Waylan, A. T.**, J. A. Unruh, and R. C. Johnson. 1999. Influence of chop location on boneless pork loin quality. *Proc. 52<sup>nd</sup> Recip. Meat Conf.* 52:123.
- Woodworth, J. C., R. D. Goodband, J. A. Unruh, J. L. Nelssen, M. D. Tokach, **A. T. Waylan**, and P. R. O'Quinn. 1999. Interactive effects between fat source and modified tall oil on growth performance and carcass characteristics of finishing pigs. *J. Anim. Sci.* 77(Suppl. 1):118 (Abstr.).
- Unruh, J. A., **A. T. Waylan**, and R. E. Campbell. 1998. Use of video image analysis, USDA ribeye grids, and linear measurements to predict longissimus muscle area. *J. Anim. Sci.* 76(Suppl. 2):39 (Abstr.).



### *Technical Reports*

- Dunn, J. D., J. P. Kayser, **A. T. Waylan**, E. K. Sissom, J. S. Drouillard, and B. J. Johnson. 2003. Effects of flax supplementation and a Revalor-S implant on circulating insulin-like growth factor-I (IGF-I) and muscle IGF-I mRNA levels in finishing cattle. *KS Agri. Exp. Sta. Report of Prog.* 908:199-202.
- Sissom, E. K., J. P. Kayser, **A. T. Waylan**, J. D. Dunn, and B. J. Johnson. 2003. Effect of melengestrol acetate (MGA) on cultured bovine muscle satellite cell proliferation and differentiation. *KS Agri. Exp. Sta. Report of Prog.* 908:207-210.
- Boyle, E. A. E., and **A. T. Waylan**, 2002. Introduction to hazard analysis critical control point (HACCP) for meat and poultry processors. In: *Business briefing innovative food ingredients.* pp. 1-4. World Market Research Centre, London. October.
- Johnson, B. J., J. P. Kayser, J. D. Dunn, **A. T. Waylan**, S. S. Dritz, J. C. Nietfeld, and J. E. Minton. 2002. Effects of an acute enteric disease challenge on IGF-I and IGFBP-3 gene expression in porcine skeletal muscle. *KS Agri. Exp. Sta. Report of Prog.* 897:48-52.
- Lawrence, T. E., **A. T. Waylan**, and C. L. Kastner. 2002. Myofibrillar structural changes caused by marination with calcium phosphate or calcium chloride and sodium pyrophosphate. *KS Agri. Exp. Sta. Report of Prog.* 890:106-110.
- O'Quinn, P. R., **A. T. Waylan**, R. D. Goodband, J. A. Unruh, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and K. Q. Owen. 1999. Effects of modified tall oil, chromium nicotinate, and L-carnitien on growth performance and carcass characteristics of growing-finishing gilts. *KS Agri. Exp. Sta. Report of Prog.* 841:123-128.
- O'Quinn, P. R., **A. T. Waylan**, J. L. Nelssen, J. A. Unruh, R. D. Goodband, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 1999. Effects of modified tall oil and vitamin E on growth performance and carcass characteristics of growing-finishing barrows. *KS Agri. Exp. Sta. Report of Prog.* 841:129-133.
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 1999. Influence of dietary supplementation of modified tall oil and vitamin E on bacon characteristics. *KS Agri. Exp. Sta. Report of Prog.* 841:140-142.
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and S. I. Koo. 1999. Influence of dietary supplementation of modified tall oil and vitamin E on pork chop quality and display color stability, Warner-Bratzler shear, and sensory panel traits. *KS Agri. Exp. Sta. Report of Prog.* 841:134-139.
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and K. Q. Owen. 1999. Influence of dietary supplementation of modified tall oil, chromium nicotinate, and L-carnitine on bacon characteristics. *KS Agri. Exp. Sta. Report of Prog.* 841:156-158.
- Waylan, A. T.**, P. R. O'Quinn, J. A. Unruh, R. D. Goodband, J. L. Nelssen, J. C. Woodworth, M. D. Tokach, and K. Q. Owen. 1999. Influence of dietary supplementation of modified tall oil, chromium nicotinate, and L-carnitine on pork chop display color stability, Warner-Bratzler shear, and sensory panel traits. *KS Agri. Exp. Sta. Report of Prog.* 841:152-155.
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*Proprietary Industry White Papers*

- *Understanding hormone use in beef.* September 2014. White paper and presentation on the foundational science of hormone usage in beef cattle.
- *Overview of Halal.* March 2014. White paper and presentation on the Halal industry.
- *Overview of in vitro meat.* August 2011. Collaborated on a white paper on *in vitro* meat.