

# Curriculum Vitae

## JOHN FRANCIS PATIENCE

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### EDUCATION

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- 1985 Doctor of Philosophy  
Major: Nutritional Biochemistry  
Cornell University, Ithaca, New York  
Supervisor: Dr. R.E. Austic
- 1976 Master of Science  
Major: Animal Nutrition  
University of Guelph, Guelph, Ontario  
Supervisor: Dr. L.G. Young
- 1974 Bachelor of Science (Agriculture)  
Major: Animal Science  
University of Guelph, Guelph, Ontario

### PROFESSIONAL EXPERIENCE

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- 2021 - Member (Sole)  
Oxford Nutrition Consulting LLC, Ames, IA
- 2021 - Professor Emeritus of Animal Science  
Iowa State University, Ames, IA
- 2020 (Apr to Jun) Professor and Associate Chair  
Dept of Animal Science  
Iowa State University, Ames, IA
- 2020 (Jan to Mar) Professor and Interim Chair  
Dept of Animal Science  
Iowa State University, Ames, IA
- 2019 (Nov to Dec) Professor and Associate Chair  
Dept of Animal Science  
Iowa State University, Ames, IA
- 2010 - 2021 Professor  
*Appointment: 65% Research, 35% Extension*  
Dept of Animal Science  
Iowa State University, Ames, IA

2008 - 2010 Associate Professor,  
*Appointment: 65% Research, 35% Extension*  
 Dept. of Animal Science  
 Iowa State University, Ames, IA

1998 - 2008 President and Chief Executive Officer (Founding)  
 PSC Elstow Research Farm Inc., Elstow, SK

1991 - 2008 President and Chief Executive Officer (Founding)  
 Prairie Swine Centre Inc., Saskatoon, SK

1989 - 1991 Associate Professor (without tenure, without term)  
 Dept. of Animal & Poultry Science  
 University of Saskatchewan, Saskatoon, SK

1987 - 1989 Research Scientist, Dept. of Animal & Poultry Science  
 University of Saskatchewan, Saskatoon, SK

1985 - 1987 Visiting Fellow, Animal Research Centre  
 Agriculture Canada, Ottawa, ON

1982 - 1985 Graduate Research Assistant  
 Dept. of Poultry Science  
 Cornell University, Ithaca, NY

1978 - 1982 Head Nutritionist, Feed Department  
 Federated Co-operatives Ltd., Saskatoon, SK

1975 - 1978 Provincial Swine Specialist  
 Saskatchewan Department of Agriculture, Regina, SK

1974 - 1975 Graduate Research Assistant  
 Dept. of Animal and Poultry Science  
 University of Guelph, Guelph, ON

## **CONCURRENT APPOINTMENTS**

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2017 Director, Intensive Graduate Course “Nutrition and Management of Swine Production Systems”  
 University of Buenos Aires, Argentina

2016 Visiting Professor, MAFIC  
 China Agricultural University, Beijing, China

2012 Visiting Professor,  
 Section of Animal Science, Department of Agriculture, University of Sassari, Sassari, Italy

2004 - 2014 Adjunct Professor, Division of Nutrition and Dietetics  
 University of Saskatchewan, Saskatoon, Canada

1987 - 2020 Adjunct Professor, Dept. of Animal & Poultry Science  
 University of Saskatchewan, Saskatoon, Canada

1987 - 1991 Director, Prairie Swine Centre  
 University of Saskatchewan, Saskatoon, Canada

## RESEARCH TOPICS

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- Evaluation of the energy and nutrients supplied by basal and specialty ingredients
- How to best supply energy and amino acids to the pig and how the pig uses them for maintenance, growth and lactation
- Amino acid requirements, sources and metabolism in sows and wean-to-finish production
- Digestion, fermentation, and metabolism of simple and complex carbohydrates and their impact on pig health
- Mechanism of action and most effective practical application of carbohydrases and phytases in pig diets
- Maximizing mineral utilization in pig diets
- Impact of dietary electrolyte balance (dEB) and dietary undetermined anion (dUA) on growth performance, nutrient utilization, response to heat stress and meat quality
- Drinking water for pigs: characterizing quality, optimizing delivery, and defining requirements
- Impact of dietary toxins on pig health and performance: deoxynivalenol, zearalenone, fumonisin, ergot
- Regulation, control, and management of feed intake
- Strategies to minimize the use of medically important antibiotics in pork production
- Exploiting functional properties of ingredients to enhance pig health and productivity
- Evaluation of feed additives designed to improve pig performance and health
- The financial cost of disease in wean-to-finish production
- General wean to finish management and nutrition

## HONORS

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- 2022 Guest Editor, Special section of the Journal of Animal Science (American Society of Animal Science)
- 2022 John F. Patience Endowed Professorship in Swine Nutrition (Iowa State University)
- 2019 Guest Editor, Special volume (Vol. 13; No. 12) of the journal “Animal” (Australia Pig Science Association)
- 2019 Master of the Pork Industry (National Hog Farmer)
- 2018 Kees de Lange Lecturer (London Swine Conference, Ontario Ministry of Agriculture, Food and Rural Affairs)
- 2017 Honorary Master Pork Producer (Iowa Pork Producers Association)
- 2017 Inaugural Kees de Lange Lecturer (University of Guelph)
- 2017 Honorary Member (Block and Bridle Club, Iowa State University)
- 2012 Pijoan Lecturer (Leman Conference, University of Minnesota)
- 2003 25<sup>th</sup> Anniversary Honorary Chair (Saskatchewan Pork Industry Symposium)
- 1988 Honorary Guest, Annual Family Weekend (Canadian Feed Industry Association – Saskatchewan Division)

## AWARDS

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- 2021 Gary L. Cromwell Award for Research in Minerals (American Society of Animal Science)
- 2019 Fellow Award: Research (American Society of Animal Science)

- 2018 Outstanding Achievement in Research Award (College of Agriculture and Life Sciences, Iowa State University)
- 2017 Extension Award (American Society of Animal Science)
- 2017 John B. Swisher Leadership Award (JBS United/United Animal Health)
- 2016 Award of Merit - Research (Gamma Sigma Delta, Iowa State University Chapter)
- 2015 FASS-AFIA New Frontiers in Animal Nutrition Award (Federation of Animal Science Societies/American Feed Industry Association)
- 2013 Team Award - Research (College of Agriculture & Life Science, Iowa State University)
- 2013 Team Award: Committee on Swine Nutrition (NCC042) – Research Award (North Central Regional Association of State Agricultural Experiment Station Directors)
- 2012 Animal Industry Service Award (American Society of Animal Science)
- 2011 Mission Award – Extension (Gamma Sigma Delta, Iowa State University Chapter)
- 2010 Fellow Award (Canadian Society of Animal Science)
- 2008 AFIA Award in Nonruminant Nutrition Research (American Society of Animal Science)
- 2008 Lifetime Achievement Award (Alberta Pork Congress)
- 2008 Lifetime Achievement Award (Saskatchewan Pork Development Board)
- 2005 Award for Excellence in Nutrition and Meat Sciences (Canadian Society of Animal Science)
- 2005 Alberta Pork Industry Leadership Award (Alberta Pork Congress)
- 1985 Visiting Fellowship in Canadian Government Laboratory (Natural Sciences and Engineering Research Council of Canada)
- 1985 Grant-in-Aid Research Award (Sigma Xi, The Scientific Society)
- 1984 Graduate student competition – 2<sup>nd</sup> place (Canadian Society of Animal Science)
- 1974 Provincial Fair Graduate Award (University of Guelph)

## **PROFESSIONAL DEVELOPMENT**

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- 2005 Ivey Negotiation Program  
Richard Ivey School of Business, University of Western Ontario, London, ON, May 8-12.
- 2005 Business and Social Aspects of Research  
Steck and Associates, Saskatoon, SK, March 3.
- 2001 Leading Strategically  
Banff Centre for Management, Banff, AB, November 25-30
- 1994 Effective Negotiating  
Karrass USA Ltd, Beverly Hills, CA
- 1993 Managing and Financing Independent Business  
Bank of Montreal, Saskatoon, SK
- 1987 Leader Effectiveness Training  
Effectiveness Training Institute, Saskatoon, SK, November 23-27

- 1981 Interpersonal Management Skills  
Federated Co-operatives Ltd, Saskatoon, SK
- 1980 Professional Selling Skills  
Xerox Learning Systems, Saskatoon, SK

## **ACADEMIC QUANTITATIVE INDICATORS**

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Refereed journal articles	168
Books authored/edited	4
Book chapters authored	17
Theses/dissertations supervised/co-supervised	29
Refereed abstracts	257
Non-refereed abstracts	48
Conference proceedings	166
Monographs	121
Trade magazines/web-based articles	50
Research and extension reports	159
Factsheets	17
Other	7
<b>TOTAL PUBLICATIONS</b>	<b>1,043</b>
Presentations: Named lectures	3
Presentations: Academic events	29
Presentations: Industry events	381
Presentations: Local extension events	41
Presentations: Webinars and podcasts	6
<b>TOTAL PRESENTATIONS</b>	<b>460</b>
Research funding: P.S.C.I.	\$35,729,155
Research funding: Iowa State	\$17,236,550
Research funding: P.I.	\$28,861,893
Research funding: Co-P.I. or Co-I	\$24,103,812
<b>TOTAL RESEARCH FUNDING</b>	<b>\$52,965,705</b>

## **ORGANIZATION OF SCIENTIFIC AND INDUSTRY MEETINGS**

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- International Conference on Pig Survivability
  - 2021 Member, Organizing Committee
- International Conference on Pig Nutrition
  - 2021 Chair, Organizing Committee
- Iowa Swine Day
  - 2019 Member, Organizing Committee
  - 2018 Co-Chair, Organizing Committee
  - 2013 - 2017 Chair, Organizing Committee
  - 2012 Founding Chair, Organizing Committee

- International Symposium on the Utilization and Metabolism of Fiber in Swine Diets: Implications for Feed Efficiency
  - 2017 Organizer
- International Symposium on the Utilization and Metabolism of Fat in Swine Diets: Implications for Feed Efficiency
  - 2015 Organizer
- Digestive Physiology in Pigs Symposium
  - 2015 Associate Member, Local Scientific Committee
  - 2012 Co-Chair, Organizing Committee
- International Conference on Feed Efficiency in Swine
  - 2015 Co-Chair, Organizing Committee
  - 2011 Co-Chair, Organizing Committee
- Banff Pork Seminar
  - 1998 - 2002 Member, Program Advisory Committee
- Western Nutrition Conference
  - 2007 Member, Planning Committee
  - 2004 Co-chair, Planning Committee
  - 2001 Member, Planning Committee
  - 1998 Member, Planning Committee
  - 1992 Co-chair, Planning Committee
  - 1989 Co-chair, Planning Committee
  - 1980 Founding Co-chair, Planning Committee
- Saskatchewan Pork Expo
  - 1990 Founding Member, Advisory Committee
- Saskatchewan Swine Symposium (Later Saskatchewan Pork Industry Symposium)
  - 1990 Member, Advisory Committee
  - 1977 Founding Chair, Organizing Committee
- Melfort Swine Field Day
  - 1976 Founding Chair

## **SERVICE TO SCIENTIFIC SOCIETIES**

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- American Association for the Advancement of Science
  - 2017 – 22 Member
- American Society of Animal Science
  - 2016 - 17 Member, AFIA/ASAS New Frontiers in Animal Nutrition Award Committee
  - 2012 Member, Non-ruminant Nutrition Award Committee
  - 2007 Member, Early Career Achievement Award Committee
  - 2011 Member, Extension Award Committee
  - 1978 - Member
- American Society of Animal Science - Midwest Section
  - 2013 - 14 Past-President
  - 2012 - 13 President
  - 2011 - 12 President-Elect
  - 2010 - 12 Member, Teaching Award Committee

- 2009 Chair, Non-ruminant Nutrition Program Committee, Midwest Section
- 2007 - 08 Member, Non-ruminant Nutrition Program Committee, Midwest Section
- 1978 - Member
- American Society for Nutrition
  - 1989 - 22 Member
- Canadian Society of Animal Science
  - 2003 Member, Annual Meeting Organizing Committee
  - 1994 - 95 Past-President
  - 1993 - 94 President
  - 1992 - 93 President-Elect
  - 1991 - 92 Vice-President
  - 1981 - 82 Chairman, Honours and Awards Committee
  - 1980 - 82 Director
  - 1975 - Member
- Canadian Society of Nutritional Sciences
  - 1986 - 95 Member
- Gamma Sigma Delta, The Honorary Society for Agriculture
  - 2009 - Member
- Sigma Xi, The Scientific Research Society
  - 1986 - 2023 Member
  - 2023 - Member Emeritus

## **SERVICE TO ACADEMIC JOURNALS**

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- Translational Animal Science
  - 2017 - 23 Member, Editorial Board
- Journal of Animal Science
  - 2018 - 19 Member, Editorial Board
  - 2015 - 18 Section Editor
  - 2013 - 14 Associate Editor
  - 2005 - 07 Member, Editorial Board
  - 1997 - 00 Member, Editorial Board
  - 1988 - 91 Member, Editorial Board
- Canadian Journal of Animal Science
  - 1989 - 91 Assistant Editor
- Journal of the World Mariculture Society
  - 1982 Contributing Editor
- Ad Hoc Reviewer
  - American Journal of Physiology: Gastrointestinal and Liver Physiology
  - Animal
  - Animals
  - Animal Feed Science and Technology
  - Animal Frontiers
  - Animal Nutrition

- Animal Production Science
- Anais da Academia Brasileira de Ciências
- British Journal of Nutrition
- Canadian Journal of Animal Science
- Frontiers in Nutrition
- Journal of Agriculture and Food Chemistry
- Journal of Animal Physiology and Animal Nutrition
- Journal of Animal Science
- Journal of Animal Science and Biotechnology
- Journal of Applied Animal Nutrition
- Journal of Applied Animal Science
- Journal of Applied Research
- Journal of Nutrition
- Journal of Nutritional Biochemistry
- Journal of the Science of Food and Agriculture
- Journal of Swine Health and Production
- Journal of Veterinary Research
- Livestock Science
- Livestock Production Science
- Meat Science
- Poultry Science Journal
- Translational Animal Science
- World Mariculture Journal



## **GRADUATE STUDENTS ADVISED OR CO-ADVISED (IOWA STATE UNIVERSITY)**

<b>Student</b>	<b>Degree/ Date</b>	<b>Major</b>	<b>Role</b>	<b>Initial Placement</b>	<b>Current Employment</b>
Ruckman, Leigh <sup>20</sup>	M.S. 2021	Animal Science	Advisor	Swine Formulation Specialist, Provimi/Cargill, Brookville, OH	Swine Nutrition Analyst, Provimi/Cargill, Brookville, OH
Petry, Amy <sup>19</sup>	Ph.D. 2020	Animal Science	Advisor	Assistant Professor, Texas Tech University, Lubbock, TX	Assistant Professor, University of Missouri, Columbia, MO
Acosta, Jesus <sup>18</sup>	Ph.D. 2019	Animal Science	Advisor	Research Scientist, Novus International, St. Louis, MO	Global Swine Research Manager, Novus International Inc, St. Charles, MO
Becker, Spenser <sup>17</sup>	M.S. 2019	Animal Science	Advisor	Ph.D. student, Iowa State University, Ames, IA	Swine Technical Services Manager, AB Vista, Indianola, IA
Li, Qingyun <sup>16</sup>	Ph.D. 2018	Animal Science	Advisor	Swine Nutritionist, Provimi, Brookville, OH	Swine Nutritionist, Provimi/Cargill, Brookville, OH
Olsen, Kristin <sup>15</sup>	M.S. 2018	Animal Science	Advisor	Extension Program Specialist, IPIC, ISU, Ames, IA	Swine Nutrition Associate, AMVC Nutrition, Audubon, IA
Huntley, Nichole <sup>14</sup>	Ph.D. 2018	Animal Science	Advisor	Nutritionist, Mazuri Exotic Animal Nutrition, St. Louis, MO	Senior Nutritionist, Mazuri Exotic Animal Nutrition, St. Louis, MO
Cornelison, Alyssa <sup>13</sup>	M.S. 2017	Animal Science	Advisor	Swine Technical Sales Manager, EW Nutrition, Des Moines, IA	Research Assistant, Zinpro Corp., Eden Prairie, MN
Kellner, Trey <sup>12</sup>	Ph.D. 2017	Animal Science	Advisor	Nutritionist, AMVC, Audubon, IA	Nutritionist, AMVC Nutrition, Audubon, IA
Weiland, Sarah <sup>11</sup>	M.S. 2017	Animal Science	Advisor	Nutritionist Technician, Nutriquest, Mason City, IA	Associate Senior Consultant – Swine, Elanco Animal Health, Greenfield, IN
Nilsson (Holloway), Cassie <sup>10</sup>	M.S. 2016	Animal Science	Advisor	Animal Health Specialist, Olmix, Black River Falls, WI.	General Manager, The Mill of Whiteford, Upper Falls, MD

Acosta, Jesus <sup>9</sup>	M.S. 2015	Animal Science	Advisor	Ph.D. student, Iowa State University, Ames, IA	Global Swine Research Manager, Novus International Inc, St. Charles, MO
Pilcher, Chad <sup>8</sup>	Ph.D. 2015	Nutritional Sciences	Advisor	Nutritionist, Provimi Brookville, OH	Swine Nutritionist, Provimi/Cargill, Brookville, OH
Gutierrez, Nestor <sup>7</sup>	Ph.D. 2014	Nutritional Sciences	Advisor	Research Scientist, Trouw Nutrition, The Netherlands	Global Applied Swine Nutritionist, Trouw Nutrition, The Netherlands
Newman, Monica <sup>6</sup>	M.S., 2014	Animal Science	Advisor	Ph.D. student, University of Vienna, Vienna, Austria	Unknown
Elsbernd, Amanda <sup>5</sup>	M.S., 2014	Animal Science	Advisor	Nutritionist, The Hanor Company, Webster City, IA	Senior Nutrition Analyst, Cargill, Brookville, OH
Kellner, Trey <sup>4</sup>	M.S., 2014	Animal Science	Advisor	Ph.D. student, Iowa State University, Ames, IA	Nutritionist, AMVC, Audubon, IA
Weber, Emily <sup>3</sup>	M.S., 2012	Animal Science	Co-Advisor/ Dr. Stalder	Research Mgr., Gourley Bros.	Research Manager, Gourley Bros.
Jones, Cassandra <sup>2</sup>	Ph.D. 2012	Nutritional Sciences	Advisor	Assistant Professor, Kansas State University	Professor, Kansas State University, Manhattan KS
Jacobs, Brandy <sup>1</sup>	M.Sc., 2011	Animal Science	Co-Advisor/ Dr. Kerr	Research Technician, The Maschhoffs	Livestock Support Specialist, Topigs Norsvin, Burnsville, MN

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Thesis titles:

<sup>1</sup> Validation of animal and laboratory methods in digestibility research.

<sup>2</sup> Characterizing the fallback pig

<sup>3</sup> Feeder space availability and dried distillers grains with solubles inclusion rate effects on nursery and finishing pig performance and total tract digestibility in a commercial setting.

<sup>4</sup> Impact of dietary fat intake on carcass iodine value and pork fat quality.

<sup>5</sup> Nutrient utilization, pork quality, and lysine requirement of immunological castrates.

<sup>6</sup> Defining the energy and nutrient content of corn grown in drought-stressed conditions and determining the relationship between energy content of corn and the response of growing pigs to xylanase supplementation.

<sup>7</sup> Quantification of digestive utilization of dietary fiber from corn co-products in growing pigs.

<sup>8</sup> Manipulation and regulation of growth in the growing-finishing pig.

<sup>9</sup> Evaluating the ability of the NE system to predict growth performance and energy utilization in growing pigs.

<sup>10</sup> Impact of super-dosing phytase on growth performance, energy and nutrient utilization and phytate catabolism.

<sup>11</sup> The impact of xylanase and body weight, and their interaction, on the utilization of dietary components in swine.

- 12 Impact of dietary fat composition on digestion, metabolism and deposition of fat in the growing pig.
- 13 The impact of a naturally occurring health challenge on U.S. pork production in grow-finish pigs.
- 14 Swine carbohydrate metabolism in relation to dietary energy partitioning.
- 15 Investigating methods of evaluating swine feed additives: phytase and alternatives to antibiotic growth promoters
- 16 Impact of dietary fiber and exogenous carbohydrases in weaned pigs.
- 17 Investigation of an ETEC challenge and supplementation of direct-fed microbials in weaned pigs.
- 18 The role of carbohydrates when applying different nutritional interventions to pigs.
- 19 An investigation into the mechanism of action of xylanase in pigs fed insoluble corn-based fiber
- 20 The impact of specialty protein ingredients on the growth performance and health of nursery pigs

## Patience Graduate Students' Honors and Awards

Student	Year	Honor or Award
Petry, Amy	2021	Stahly/Peo Outstanding Swine Nutrition Graduate Student Award, Midwest Section, American Society of Animal Science
Petry, Amy	2021	Young Scholar Award, Midwest Section, American Society of Animal Science
Petry, Amy	2020	Marshall, Graduate College Commencement Ceremony
Petry, Amy	2020	Rising Star in the Swine Industry, National Hog Farmer.
Petry, Amy	2020	Pinnacle Award, International Ingredients Corporation
Petry, Amy	2020	Up and Coming Leader, Pork Magazine
Petry, Amy	2020	Graduate Student Excellence Award, Dept. of Animal Science, Iowa State University
Petry, Amy	2019	Vaughn and Meg Speer Award, Dept. of Animal Science, Iowa State University
Petry, Amy	2019	Teaching Excellent Award, Graduate College, Iowa State University
Petry, Amy	2019	Graduate Award for Outstanding Teaching, Dept. of Animal Science, Iowa State University
Petry, Amy	2019	Esther and Richard Wilhelm Graduate Scholarship in Animal Science, Dept. of Animal Science, Iowa State University
Becker, Spenser	2019	William Riley Gillette Graduate Scholarship in Animal Science, Dept. of Animal Science, Iowa State University
Acosta, Jesus	2019	Pinnacle Award, International Ingredients Corporation
Li, Qingyun	2019	Young Scholar Award, Midwest Section, American Society of Animal Science
Acosta, Jesus	2019	Research Award, Graduate and Professional Student Senate, Iowa State University
Li, Qingyun	2018	3 <sup>rd</sup> place, Student Oral Presentation Competition, Digestive Physiology in Pigs Symposium, Brisbane, Australia
Becker, Spenser	2018	NutriQuest ISU Swine Nutrition Graduate Student Scholarship, Iowa Foundation for Agricultural Advancement
Becker, Spenser	2018	Pinnacle Award, International Ingredients Corporation
Huntley, Nichole	2018	DPP NA Travel Scholarship, DPP NA Board of Directors
Olsen, Kristin	2018	DPP NA Travel Scholarship, DPP NA Board of Directors
Li, Qingyun	2018	DPP 2018 Travel Scholarship, DPP 2018 Organizing Committee
Becker, Spenser	2018	Nelda Christian Graduate Fellowship, Iowa Pork Foundation
Ruckman, Leigh	2018	Graduate Scholarship, Targeting Excellence Committee
Huntley, Nichole	2018	Graduate Student Excellence Award, Dept. of Animal Science, Iowa State University
Olsen, Kristin	2018	Travel Scholarship, Association of Graduate Animal Scientists, Dept. of Animal Science, Iowa State University
Becker, Spenser	2018	Travel Scholarship, Association of Graduate Animal Scientists, Dept. of Animal Science, Iowa State University
Becker, Spenser	2018	Duane and Shirley Acker International Fellowship, Dept. of Animal Science, Iowa State University
Huntley, Nichole	2017	Research Excellence Award, Graduate College, Iowa State University
Li, Qingyun	2017	Research Excellence Award, Graduate College, Iowa State University

Olsen, Kristin	2017	Pinnacle Award, International Ingredients Corporation
Becker, Spencer	2017	NutriQuest ISU Swine Nutrition Graduate Student Scholarship, Iowa Foundation for Agricultural Advancement
Li, Qingyun	2017	Graduate Scholarship, Targeting Excellence Committee
Li, Qingyun	2017	Best Oral Presentation, Graduate and Professional Student Research Conference, Iowa State University
Li, Qingyun	2017	Thomas Sutherland Graduate Award for Excellence, Dept. of Animal Science, Iowa State University
Huntley, Nichole	2017	Print and Grace Powers Hudson Scholarship, College of Agriculture and Life Sciences, Iowa State University
Huntley, Nichole	2017	Vaughn and Meg Spear Graduate Education Award, Dept. of Animal Science, Iowa State University
Li, Qingyun	2017	Print and Grace Powers Hudson Scholarship, College of Agriculture and Life Sciences, Iowa State University
Kellner, Trey	2017	Stahly/Peo Outstanding Swine Nutrition Graduate Student Award, Midwest Section, American Society of Animal Science
Kellner, Trey	2017	Young Scholar Award, Midwest Section, American Society of Animal Science
Olsen, Kristin	2016	Pork Industry Scholarship, National Pork Board
Olsen, Kristin	2016	Graduate Scholarship, Targeting Excellence Committee
Kellner, Trey	2016	Vaughn and Meg Spear Graduate Education Award, Dept. of Animal Science, Iowa State University
Li, Qingyun	2016	Pinnacle Award, International Ingredients Corporation
Weiland, Sarah	2016	Pinnacle Award, International Ingredients Corporation
Acosta, Jesus	2016	Distillers Grains Technology Council Scholarship
Huntley, Nichole	2016	Paul and Candace Flakoll Scholarship, Iowa State University
Huntley, Nichole	2016	NutriQuest ISU Swine Nutrition Graduate Student Scholarship, Iowa Foundation for Agricultural Advancement
Huntley, Nichole	2015	Miller Fellowship, Iowa State University
Kellner, Trey	2015	Pinnacle Award, International Ingredients Corporation
Acosta, Jesus	2015	Harold and Ester G. Wileke Scholarship, Dept. of Animal Science
Gutierrez, Nestor	2015	Stahly/Peo Outstanding Swine Nutrition Graduate Student Award, Midwest Section, American Society of Animal Science
Gutierrez, Nestor	2015	Young Scholar Award, Midwest Section, American Society of Animal Science
Pilcher, Chad	2014	Young Scholar Award, Midwest Section, American Society of Animal Science
Gutierrez, Nestor	2014	Research Excellence Award, Graduate College, Iowa State University
Elsbernd, Amanda	2014	Pinnacle Award, International Ingredients Corporation
Acosta, Jesus	2014	Vaughn and Meg Spear Graduate Education Award, Dept. of Animal Science, Iowa State University
Pilcher, Chad	2013	Pinnacle Award, International Ingredients Corporation
Kellner, Trey	2013	Fellowship, Iowa Pork Producers Association
Jones, Cassandra	2012	Graduate Student Excellence Award, Dept. of Animal Science, Iowa State University
Jones, Cassandra	2012	Pinnacle Award, International Ingredients Corporation
Jones, Cassandra	2012	Agri-King Outstanding Animal Science Graduate Student Award, American Society of Animal Science
Jones, Cassandra	2012	Stahly/Peo Outstanding Swine Nutrition Graduate Student Award, Midwest Section, American Society of Animal Science

Gutierrez, Nestor	2012	Pinnacle Award, International Ingredients Corporation
Myers, Mandy	2011	Miller Fellowship, Iowa State University
Kellner, Trey	2011	Miller Fellowship, Iowa State University
Gutierrez, Nestor	2011	Vaughn and Meg Spear Graduate Education Award, Dept. of Animal Science, Iowa State University
Jones, Cassandra	2010	Esther & Richard Willham Graduate Scholarship, Dept. of Animal Science, Iowa State University
Jones, Cassandra	2010	Harold L & Esther G. Wilcke Scholarship, Dept. of Animal Science, Iowa State University
Jones, Cassandra	2009	Miller Fellowship, Iowa State University

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**Patience Staff Awards**

<b>Staff member</b>	<b>Year</b>	<b>Award</b>
Chipman, Amanda	2013	Professional and Scientific Outstanding New Professional Award, Iowa State University

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## **GRADUATE STUDENTS ADVISED OR CO-ADVISED (UNIVERSITY OF SASKATCHEWAN)**

<b>Student</b>	<b>Degree/ Date</b>	<b>Major</b>	<b>Role</b>	<b>Initial Placement</b>	<b>Current Employment</b>
Marriott, Jenny <sup>9</sup>	M.Sc. 2010	Animal Nutrition	Co-Advisor/ Dr. Beaulieu	Technician, Prairie Swine Centre, Saskatoon, SK	Technician, Western College of Veterinary Medicine, Saskatoon, SK
Tonita, Kathryn (Ross) <sup>8</sup>	M.Sc. 2009	Animal Nutrition	Co-Advisor/ Dr. Beaulieu	Animal Health Program Officer, Sask. Agriculture and Food, Regina, SK	Director, Livestock Development, Sask. Ministry of Agriculture Regina, SK
Oresanya, Temitope <sup>7</sup>	Ph.D. Fall 2005	Animal Nutrition	Advisor	Nutritionist, Cargill Nutrena Feeds, Lethbridge, AB	Nutritionist, Cargill Animal Nutrition, Lethbridge, AB
Shaw, Marnie <sup>6</sup>	M.Sc. 2002	Animal Nutrition	Advisor	Nutritionist, Landmark Feeds, Strathmore, AB	Self employed
Levesque, Crystal <sup>5</sup>	M.Sc. 2002	Animal Nutrition	Advisor	Ph.D. candidate, University of Alberta, Edmonton, AB	Associate Professor, South Dakota State University, Brookings, SD
Cooper, Dana <sup>4</sup>	M.Sc. 2000	Animal Nutrition	Advisor	Pharmaceutical Representative, Fort Dodge Animal Health, Saskatoon, SK	Unknown
Fairbairn, Shawn <sup>3</sup>	M.Sc. 1997	Animal Nutrition	Advisor	Nutritionist, New Life Feeds, Saskatoon, SK	Poultry Nutritionist, Poultry Partners, Saskatoon, SK
Umboh, Johnny <sup>2</sup>	M.Sc. 1993	Animal Nutrition	Advisor	Lecturer, Sam Ratulangi University, Manado, Indonesia	Retired
Olkowski, Andrzej <sup>1</sup>	Ph.D. 1992	Animal Nutrition	Co-Advisor	Research Associate, University of Saskatchewan, Saskatoon, SK	Scientist Emeritus, University of Saskatchewan, Saskatoon, SK

<sup>a</sup> Last known employment

### **Thesis Title**

<sup>1</sup> Nutritional toxicity of sulfur and sulfur-nutrient interactions in ruminants

<sup>2</sup> Effect of a diurnal pattern of heat stress on the physiological and nutritional status of the pig.

<sup>3</sup> Improved characterization of the energy variability and estimation of the dietary energy levels in barley fed to growing pigs

- 4 Determining the threonine requirements of the high-producing lactating sow
- 5 The effects of dietary digestible energy content and site of weaning on weanling pig performance
- 6 Effects of diet composition on water utilisation patterns in growing pigs
- 7 Energy metabolism in the weanling pig: effects of energy concentration and intake on growth, body composition and nutrient accretion in the empty body
- 8 Ractopamine hydrochloride and the environmental sustainability of pork production
- 9 The response of the growing pig to changes in energy intake achieved via changes in dietary energy concentration versus changes in feed intake.



## **GRADUATE STUDENT COMMITTEE MEMBERSHIPS**

### **Iowa State University**

31. Wileman, Caitlyn. 2025 (est). Topic: Use of exogenous enzymes to aid in digestibility, nutrient utilization, fecal microbiome, and gas emissions. Dr. Laura Greiner, Supervisor. Dept. of Animal Science. Ph.D.
30. Miller, Kayla. 2025. Topic: The impact of soybean derived trypsin inhibitor proteins and soybean hulls on nursery and grow-finish pig nutrient digestibility, growth performance, and carcass composition. Dr. Nick Gabler, Supervisor. Dept. of Animal Science. Ph.D.
29. Mayorga, Johana. 2022. Effects of heat stress on intestinal physiology and immunometabolism. Dr. Lance Baumgard, Supervisor. Dept. of Animal Science. Ph.D.
28. Jasper, Jessica. 2020. Evaluation of dietary approaches to improve growth performance of health challenged pigs. Dr. Nick Gabler, Supervisor. Dept. of Animal Science. M.S.
27. Schulte, Matt. 2018. Investigation of factors influencing the development of pork tenderness. Dr. Steven Lonergan, Supervisor. Dept. of Animal Science. M.S.
26. Schweer, Wes. 2018. Amino acid requirements of health challenged pigs. Dr. Nick Gabler, Supervisor. Dept. of Animal Science. Ph.D.
25. Hines, Elizabeth. 2018. The effects of maternal and production environment on offspring development and swine production efficiency. Dr. Jason Ross, Supervisor. Dept. of Animal Science. Ph.D.
24. Ramirez, Brett. 2017. A novel approach to measure, understand and assess the thermal environment in grow-finish swine facilities. Dr. Steve Hoff, Supervisor. Dept. of Agriculture and Bioresources Engineering. Ph.D.
23. Mayorga, Johana. 2017. Effects of chromium (Cr) and zinc (Zn) supplementation on metabolism, inflammation, and production parameters in heat-stressed and nutrient-restricted pigs. Dr. Lance Baumgard, Supervisor. Dept. of Animal Science. M.S.
22. Feng, Xi. 2016. Identification and characterization of off-odor and off-taste compounds in irradiated ready-to-eat (RTE) cooked meat products. Dr. Dong Ahn, Supervisor. Dept. of Animal Science. Ph.D.
21. Russell, Jason. 2015. Feed efficiency in beef cattle: Relationship with digestibility, antioxidant activity, oxidative stress, growth performance, and carcass characteristics. Dr. Stephanie Hansen, Supervisor. Dept. of Animal Science. Ph.D.
20. Johnson, Jay. 2014. Heat stress alters animal physiology and post-absorptive metabolism during pre- and postnatal development. Dr. Lance Baumgard, Supervisor. Dept. of Animal Science. Ph.D.
19. Harris, Amanda. 2012. Defining physiological differences between gilts divergently selected for residual feed intake. Dr. Nick Gabler, Supervisor. Dept. of Animal Science. M.S.
18. Grubbs, Kyle. 2012. Protein profile and reactive oxygen species production in mitochondria from pigs divergently selected for residual feed intake. Dr. Nick Gabler/Dr. Steven Lonergan, Co-Supervisors. Dept. of Animal Science. Ph.D.
17. Pearce, Sarah. 2011. The effects of heat stress and nutritional status on metabolism and intestinal integrity in growing pigs. Dr. Lance Baumgard, Supervisor. Dept. of Animal Science. M.S.

16. Pepple, Laura. 2011. Impacts of feeding dried distillers grains with solubles on aerial emissions when fed to swine. Dr. R. Burns, Supervisor. Dept. of Agriculture and Bioresources Engineering. M.S.

### **University of Saskatchewan**

15. Jha, Rajesh. Alternative ingredients as functional feed in pig nutrition. 2010. Dr. P. Leterme, Supervisor. Ph.D.
14. Eastwood, Laura. Flaxseed and flaxseed meal in swine nutrition. 2008. Dr. P. Leterme, Supervisor. M.Sc.
13. Nortey, Thomas. 2007. Dr. R.T. Zijlstra, Supervisor. Characterization of and improvements in the nutritional value of wheat millrun for swine. Ph.D.
12. Ewaschuk, Julia. 2004. Mechanism and treatment of acidosis in neonatal diarrhea. Dr. G. Zello and Dr. J. Naylor, Co-supervisors. Ph.D.
11. Bell, Janet. 2003. Dietary effects of net acid excretion and bone loss. Dr. S. Whiting, Supervisor. M.Sc.
10. Cooley, Leanne. 2002. Nitrogen excretion in broilers. Dr. H.L. Classen, Supervisor. M.Sc. (did not finish)
9. Christianson, Shala K. 2003. Water balance and moisture production of grower-finisher rooms in swine production using dry and wet/dry feeders. Dr. S.P. Lemay, Supervisor. M.Sc.
8. Newkirk, Rex. 2001. The effects of processing, genotype and environment on amino acid availability of canola meal. Dr. H.L. Classen, Supervisor. Ph.D.
7. Oryschak, Matthew. 2001. Dr. R.T. Zijlstra, Supervisor. M.Sc.
6. Qiao, Hong Yu. 2001. Nutritional, physiological and metabolic effects of rapeseed meal simple phenolics in broiler chickens. Dr. H.L. Classen, Supervisor. Ph.D.
5. Marciniak, Brad. 2000. The role of hog production in diversifying farm assets. Dr. R.A. Schoney, Supervisor. M.Sc.
4. Anderson, D. 1995. Dr. S. Whiting, Supervisor. M.Sc.
3. Dahl, Wendy J. 1994. The effects of dietary fibre on renal calcium metabolism Dr. A. Stephen, Supervisor. M.Sc.
2. Green, Tim J. 1993. Dr. S. Whiting, Supervisor. M.Sc.
1. Tremblay, Monique L. 1988. The effects of high sulfate water on weanling pig production, blood and gut physiology. Dr. G.I. Christison, Supervisor. M.Sc.

### **EXTERNAL EXAMINER, GRADUATE THESES**

---

6. Hojgaard, Camilla. 2020. Dr. Peter Thiel, Supervisor. Ph.D. Thesis. Aarhus University, Denmark.
5. Rikard-Bell, Charles. 2012. Dr. J. Pluske, Supervisor. Ph.D. Thesis. Murdoch University, Australia.
4. Brooke, Gabrielle. 2010. Dr. J. Pluske, Supervisor. Ph.D. Thesis. Murdoch University, Australia.
3. Durmic, Z. 2000. Dr. D.H. Hampson, Supervisor. Ph.D. Thesis. Murdoch University, Australia.

2. Zhen, Z. 2000. Dr. P.G. Paterson, Supervisor. M.Sc. Thesis. University of Saskatchewan, Saskatoon, SK.
1. Lordon, Carolyn D. 1998. Dr. G. Zello, Supervisor. M.Sc. Thesis. University of Saskatchewan, Saskatoon, SK.

## **VISITING SCHOLARS HOSTED**

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2. Yuxuan, Song: 2011-12  
Professor, Northwest A&F University, Yangling, Shaanxi, P.R. China.
1. Battacone, Gianni: 2011  
Professor, Università degli studi di Sassari, Sassari, Italy.

## **POST DOCTORAL FELLOWS SUPERVISED**

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7. Gutierrez, Nestor: 2015  
Currently: Research Scientist, Trouw Nutrition, Boxmeer, The Netherlands
6. Li, Dr. Shaoyan: 1996-97  
Currently: Nutritionist, Charoen Pokphand Indonesia, Sepanjang, Indonesia
5. Lorsch, Dr. Mark: 1995-98  
Currently: Business Development Manager, PetSure (Australia) Pty. Ltd., Sydney, Australia
4. Boles, Dr. Jane Ann: 1991-93  
Currently: Associate Professor, Montana State University, Bozeman, MT
3. Maenz, Dr. David: 1990-92  
Currently: Chief Scientific Officer, Can Pro Ingredients Ltd., Arborfield, SK
2. Ahn, Dr. Dong U.: 1988-90  
Currently: Professor, Iowa State University, Ames, IA
1. McLeese, Dr. Jennifer: 1988-90  
Currently: Senior Instructor, University of Manitoba, Winnipeg, MB

## **RESEARCH TECHNICIANS SUPERVISED**

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### **Iowa State University**

8. Matchan (Gould), Stacie: 2013 - 2020  
Current
7. Chipman, Amanda. 2009 - 2013.  
Following position: Ph.D. student, The Ohio State University, Columbus, OH

### **University of Saskatchewan**

7. Dyrland (Mann), Sidamie: 2006 - 2007  
Following position: SPI Marketing Group
6. Osmamagic, Tanya: 2005 - 2006  
Following position: Veterinary student, Western College of Vet. Medicine, Saskatoon, SK
5. Rivard, Marc: 2003-2005  
Following position: Horticulturist

4. Dukart, Danielle: 2001-2002  
Following position: Education student, Saskatoon, SK
3. Mohr, Ryan: 2003-2004  
Following position: Student, Western College of Veterinary Medicine
2. Petracek, Raelene: 1990-2008  
Following position: Research Technician, Prairie Swine Centre Inc.
1. Gillis, Doug: 1988-2008  
Following position: Research Technician, Prairie Swine Centre Inc.

## **UNDERGRADUATE STUDENTS SUPERVISED**

---

30. Marquez-Barreto, Bethmari: 2019
29. Pati, Lokesh: 2019
28. Haller, Maddlyn: 2019
27. Folkerts, Hannah: 2019
26. Okoren, Claire: 2019
25. Fetzner, Ethan: 2019
24. Hagen, Chloe: 2018
23. Speare, Bailey: 2018
22. Horras, Jessica: 2017-2018
21. Anderson, Olivia: 2016-2018
20. France, Tanya: 2016-2017
19. Greiner, Kaleb: 2015
18. Hansen, Kristin: 2015-2016
17. Koester, Lucas: 2015- 2016
16. Kaschke, Ellen: 2014-2016
15. McLaren-Almond, Christopher: 2014-2015
14. Castelli, Juana: 2014-2015
13. Perez-Barreto, Karla: 2014-2015
12. Launderville, Katelyn: 2014
11. Greiner, Amanda: 2014
10. Hammes, Amber: 2014
9. Lyons, Tana: 2013-2014
8. Pardall, Sara: 2013-2014
7. Boyle, Cassandra: 2013-2014
6. Alyssa: 2011-2012
5. Newman, Monica: 2011-2012
4. Acosta, Jesus: 2010
3. Padrell, Sara: 2007
2. Sproule, Robert: 2006
1. Ross, Kathryn: 2006

## **UNDERGRADUATE THESIS SUPERVISED**

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2. Smith, Laura F. 2003. Manipulation of diet composition to alter the pattern of nitrogen excretion on growing pigs. B.S.A. Thesis. University of Saskatchewan, Saskatoon, SK.
1. Niwa, Louise. 1998. B.S.A. Thesis. University of Saskatchewan, Saskatoon, SK.

## **SCIENCE WITH PRACTICE STUDENTS SUPERVISED**

---

4. Hagen, Chloe. 2019. Does phytase release less phosphorus than we think when pigs are fed a phosphorus-adequate diet as compared to a phosphorus-deficient diet?
3. Anderson, Olivia. 2017. Evaluating the effects of novel feed additives on growth performance and microbiota in nursery pigs.
2. Hammes, Amber. 2014. Efficiency of the  $\beta$ -mannanase enzyme in improving nutrient digestibility in nursery (25 kg) and finishing pigs (55 kg).
1. Boyle, Cassandra. 2013. Validation of a novel technique for determination of the absorption and retention of dietary P based on urinary excretion in growing pigs

## **UNDERGRADUATE STUDENTS SPECIAL PROJECTS SUPERVISED**

---

2. Hagen, Chloe. 2019. Project topic: Impact of corn quality on value, and interventions to improve value.
1. Becker, Larissa. 2018. Project topic: Effect of feeding a blend of short, medium, and long chain fatty acids and triglycerides to lactating sows on sow feed intake, and on piglet growth and survivability to weaning.

## **GEORGE WASHINGTON CARVER STUDENTS SUPERVISED**

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1. C. I. Mántaras. 2011. Effects of birth weight, post-weaning disease prevalence, and growth characteristics on fecal and carcass nutrient concentrations of pigs in a commercial setting

## **PREPARING FUTURE FACULTY - MENTOR**

---

1. Monique Paris-Garcia. 2013. Major professor Dr. A. Johnson. Current position: Associate Professor, North Carolina State University

## **TEACHING RECORD**

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### **Iowa State University**

2019	Fa	AnS 603	Nutrition seminar – Co-coordinator	11 registered students
	Fa	AnS490A	Special topics class	1 registered student
	Sp	AnS320	Animal Feeds and Feeding	2 lecture hr
2018	Fa	AnS490A	Special topics class	1 registered student
	Fa	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Sp	AnS 320	Animal Feeds and Feeding	1 lecture hr
2017	Fa	AnS 228	Laboratory Animal Science	2 lab hr
	Fa	AnS 320	Animal Feeds and Feeding	2 lecture hr

	Sp	AnS 320	Animal Feeds and Feeding	2 lecture hr
2016	Fa	AnS 320	Animal Feeds and Feeding	1 lecture hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lecture hr
2015	Fa	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Sp	AnS225	Swine production	6 lab hr
	Fa	AnS501	Introduction to animal science	0.5 lecture hr
2014	Fa	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Fa	AnS 225	Swine production	6 lab hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lecture hr
2013	Fa	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Fa	AnS 320	Animal Feeds and Feeding	2 lab hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lecture hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lab hr
	Sp		Pork Fellows	1 lecture hr
2012	Fa	AnS 320	Animal Feeds and Feeding	4 lecture hr
	Fa	AnS 320	Animal Feeds and Feeding	2 lab hr
	Sp	AnS 320	Animal Feeds and Feeding	4 lecture hr
	Sp	AnS 320	Animal Feeds and Feeding	2 lab hr
	Sp		Pork Fellows	1 lecture hr
2011	Fa	AnS 620	Energy metabolism	4 lecture hr
2010	Fa	AnS 603	Nutrition Seminar	14 seminar hr
2009	Fa	AnS 320	Swine nutrition and management	4 lecture hr
	Fa	AnS 501	Survey of animal disciplines	0.5 lecture hr
	Su	AnS 518	Digestive Physiology & metabolism of non-ruminants	4 lecture hr
	Sp	AnS 320	Swine nutrition and management	4 lecture hr

### **University of Saskatchewan**

2006-07	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	14 Lectures <sup>1</sup>
	ANSC 41	Introductory Livestock Production Science	1 Lecture
2004-05	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	12 Lectures <sup>1</sup>
	ANSC 41	Introductory Livestock Production Science	1 Lecture
2003-04	ANSC 41	Introductory Livestock Production Science	1 Lecture
2002-03	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	12 Lectures <sup>1</sup>
	ANSC 41	Introductory Livestock Production Science	1 Lecture
2001-02	ANSC 41	Introductory Livestock Production Science	1 Lecture
2000-01	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	12 Lectures <sup>1</sup>
	ANSC 41	Introductory Livestock Production Science	1 Lecture
1999-00	ANSC 11	Introductory Livestock Production Science	1 Lecture
1998-99	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	12 Lectures <sup>1</sup>
	ANSC 11	Introductory Livestock Production Science	1 Lecture

1997-98	ANSC 11	Introductory Livestock Production Science	1 Lecture
1996-97	ANSC 800	Advanced Protein and Amino Acid Nutrition – Coordinator	12 Lectures <sup>1</sup>
	ANSC 11	Introductory Livestock Production Science	1 Lecture
1995-96	ANSC 11	Introductory Livestock Production Science	1 Lecture
1991-92	ANSC 817	Advanced Mineral Nutrition – Coordinator	17 Lectures
	ANSC 898	Monogastric Nutrition	2 Lecture
1990-91	ANSC 800	Advanced Protein and Amino Acid Nutrition	2 Lectures
	ANSC 825	Nutritional Toxicology	2 Lectures
	ANSC 416	Feeds and Feeding	5 Lectures
	ANSC 431	Clinical Animal Science	3 Lectures
	ANSC 21	Animal Breeding	2 Lectures
	ANSC 11	Introductory Livestock Production Science	1 Lecture
1989-90	ANSC 11	Introductory Livestock Production Science	1 Lecture

<sup>1</sup> Course Coordinator

## **EXTERNAL REVIEWER OR REFEREE**

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### ➤ External Departmental Reviews

- 2023 Department of Animal Science, South Dakota State University

### ➤ Member of Faculty Hiring Assessment Committees

- 2020 Professor of Nutrition and Lactation Physiology, Aarhus University, Denmark

### ➤ External Ph.D. Thesis Examiner

- 2012 Murdoch University, Australia
- 2010 Murdoch University, Australia
- 2000 Murdoch University, Australia

### ➤ Referee (External) for Senior Academic and Research Appointments

- 2022 University of Melbourne: Dr. Jeremy Cottrell to Associate Professor
- 2022 University of Alberta: Dr. Ben Willing to Full Professor
- 2020 University of California – Davis: Dr. Yanhong Liu to Associate Professor
- 2019 North Carolina State University: Dr. Adam Fahrenholz to Associate Professor
- 2019 Michigan State University: Dr. Adam Moeser to Professor
- 2019 Purdue University: Dr. Kola Ajuwon to Professor
- 2018 University of Nebraska – Lincoln: Dr. Tom Burkey to Professor
- 2018 University of Minnesota: Dr. Pedro Urriola to Research Associate Professor
- 2018 Purdue University: Dr. Kola Ajuwon to Professor
- 2016 University of Hawaii – Manoa: Dr. Rajesh Jha to Associate Professor
- 2012 North Carolina State University: Dr. Chad Stahl to Professor
- 2011 North Carolina State University: Dr. Sun Woo Kim to Professor
- 2010 Kansas State University
- 2009 University of Alberta: Dr. Walter Dixon to Professor
- 2008 University of Alberta: Dr. Ruurd Zijlstra to Associate Professor
- 2007 University of Leeds
- 2007 Kansas State University: Dr. Steve Dritz to Professor
- 2001 Purdue University
- 2001 Saskatchewan Research Council
- 2000 Kansas State University

- 1996 University of British Columbia: Dr. David Fraser to NSERC Chair
  - 1992 The Ohio State University
  - 1998 University of Minnesota
  - 1989 Cornell University
- Ad Hoc Reviewer for Granting Agencies
- AFRI/NIFA/USDA (USA)
  - Canada Foundation for Innovation (Canada)
  - Canada Research Chairs Program
  - Iowa Pork Producers Association
  - Manitoba Rural Adaptation Council Inc. (Canada)
  - Mathematics of Information Technology and Complex Systems, A National Centre of Excellence (Canada)
  - Minnesota Pork Board
  - National Pork Board (USA)
  - Natural Sciences and Engineering Research Council (Canada)
  - Netherlands Organization for Scientific Research: Applied and Engineering Sciences
  - New Crop Opportunities Center, University of Kentucky (USA)
  - Swine Innovation Porc (Canada)
  - Technologiestichting STW, Utrecht (The Netherlands)
  - University of Missouri Research Foundation (USA)
- External Ph.D. project review
- 2003 Wageningen Agricultural University, The Netherlands
- Reviewer of research programs
- Brandon Research Centre, Agriculture and Agrifood Canada: 1994
  - Swine Research Program, Agriculture Canada: 1987, 2006

## **SERVICE TO IOWA AND U.S. PORK INDUSTRY**

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- Iowa Pork Producers Association
- 2017 – present Member
- NCCC-42 Swine Committee
- 2012 - 2013 Chair
  - 2011 - 2012 Vice-Chair
  - 2010 - 2011 Secretary
  - 2008 - 2014 Member
- National Pork Board
- 2011 Member, Feed Focus Group
  - 2010 Member, Nutrition X Health Focus Group
  - 2005 Member, Net Energy Working Group
- National Hog Farmer
- 2010 - 2011 Member, New Product Review Panel, World Pork Expo
- U.S. Pork Center of Excellence
- 2008 - 2010 Member, Steering Committee, National Swine Nutrition Guide



## **SERVICE TO IOWA STATE UNIVERSITY**

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### ➤ ANR Extension and Outreach

- 2016 Member, Search Committee, Extension Program/Field Specialists

## **SERVICE TO IOWA STATE UNIVERSITY: COLLEGE OF AGRICULTURE AND LIFE SCIENCES**

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### ➤ Nutritional Sciences Council

- 2008 - Member

### ➤ Feed Mill Task Force

- 2015 - 2017 Member

### ➤ Feed Mill Steering Committee

- 2017 - 2020 Member

## **SERVICE TO IOWA STATE UNIVERSITY: DEPT OF ANIMAL SCIENCE**

---

### ➤ Interim Chair

- 2020 (Jan – Mar)

### ➤ Associate Chair

- 2019 (Oct – Dec)
- 2020 (Mar - Jun)

### ➤ Faculty Mentor

- 2011 - 2018 Dr. Anna Johnson
- 2011 - 2020 Dr. Jodi Sterle
- 2012 - 2019 Dr. Stephanie Hansen
- 2009 - 2013 Dr. Mike Persia

### ➤ Faculty Search Committees

- 2020 - 2021 Chair: Search Committee for Poultry Scientist position
- 2018 Member: Search Committee for Swine Teaching and Research position filled by Dr. Laura Greiner
- 2016 Member: Search Committee for Comparative Nutritionist filled by Dr. Mariana Serao
- 2015 Chair: Search Committee for Poultry Nutritionist filled by Dr. Elizabeth Bobeck
- 2009 Member: Search Committee for Poultry Nutritionist filled by Dr. Mike Persia

### ➤ Faculty Promotion and Tenure Review Committees

- 2019 Member, PTR Committee for Dr. Stephanie Hansen to Full Professor
- 2018 Member: PTR Committee for Dr. Jason Ross to Full Professor
- 2017 Member: PTR Committee for Dr. Anna Johnson to Full Professor
- 2014 Member: PTR Committee for Dr. Stephanie Hansen to Associate Professor

### ➤ Faculty Post-tenure Review Committees

- 2017 Member: PTR Committee for Dr. Jim Reecy
- 2016 Chair: PTR Committee for Dr. Dan Loy
- 2016 Member: PTR Committee for Dr. Jack Dekkers
- 2011 Chair: PTR Committee for Dr. Peter Hoffman

- Faculty Preliminary Review Committees
  - 2019 Member, PRC for Dr. Hugo Ramirez Ramirez
  - 2015 Member, PRC for Dr. Cheryl Morris
- Faculty Affiliate and Courtesy Appointment and Review Committees
  - 2020 Chair, Affiliate Review Committee for Dr. Brian Kerr
  - 2019 Chair, Courtesy Appointment Committee for Brett Ramirez
- Other Search Committees
  - 2018 Member, Search Committee for Monogastric and Comparative Laboratory Manager, filled by Sandamali Dassanayake
  - 2014 Member, Search Committee for Swine Farms Manager, filled by Jeff Hartwig
- Graduate Education and Affairs Committee
  - 2016 - 2019 Member
- Chair's Faculty Advisory Committee
  - 2015 - 2019 Member
  - 2020-2021 Member
- Block and Bridle Club
  - 2017 Event advisor: Animal Science Banquet
  - 2016 Senior Faculty Advisor
  - 2015 Junior Faculty Advisor
- Awards and Recognition Committee
  - 2014 - 2021 Member
- Chuck Wagon/Graduate Breakfast Committee
  - 2011 - 2012 Chair
  - 2010 - 2012 Member
- Farm User Committee
  - 2010 - 2016 Member
- Seminar Committee
  - 2011 Chair
  - 2010 - 2011 Member
- Swine Nutrition Farm Users Group
  - 2009 - 2019 Chair

## **SERVICE TO UNIVERSITY OF SASKATCHEWAN**

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- Feed Technology Facility Steering Committee
  - 2004 - 2008 Member
- Office of the Vice President - Research
  - 2005 Guest, VP-R Strategic Planning Workshop
- Office of the Vice President - Academic
  - 2005 Member, Steering Committee, Faculty Complement Plan Foundational Document
- Department of Animal & Poultry Science
  - 1990 - 1992 Laboratory Committee Member:
  - 1990 - 1992 Computer Committee Member:

- Western College of Veterinary Medicine
  - 2003 Large Animal Clinical Sciences Search Sub-committee Member
  - 1990 - 1994 Admissions Committee

## **OTHER PROFESSIONAL SERVICES**

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### **DIRECTORSHIPS**

- PSC Elstow Research Farm Inc.
  - 1998 - 2008 Director
- Prairie Swine Centre Inc.
  - 1991 - 2008 Director
- Agricol Research Investments Inc.
  - 1999 - 2003 Director
- Ag-West Biotech Inc.
  - 1997 - 2001 Member: Audit Committee
  - 1996 - 2001 Director
- Farm Animal Council of Saskatchewan (FACS)
  - 2003 - 2004 Chair
  - 2001 - 2002 Vice-Chair
  - 2000 - 2004 Director
- Flax Canada 2015
  - 2006 - 2008 Director
- Pharmalytics Inc.
  - 1999 - 2006 Director
- SPI Marketing Group
  - 2006 - 2009 Member: Audit Committee
  - 2005 - 2009 Director

### **CONSULTING CLIENTS**

- 2024 - DSM Firmenich, Kaiseraugst, Switzerland
- 2022 Tonisity, Saint Joseph, MO
- 2021 - Cargill Starches, Sweeteners & Texturizers, Blair, NE
- 2017 - Provimi NA, Cargill Premix and Nutrition, Brookville, OH
- 2019 - 2021 Zoetis Inc., Parsippany, NJ
- 2018 - 2021 TriOak Foods, Oakville, IA
- 2018 - 2019 Micronutrients, Indianapolis, IN
- 2017 CSA Animal Nutrition, Dayton, OH
- 2015 - 2016 Biofarma SA, Cordoba, Argentina
- 2014 - 2022 Pipestone Grow Finish, Pipestone, MN
- 2013 Novartis Animal Health, Greensboro, NC
- 2012 - 2015 Tyson Foods, Springdale, AR
- 2012 - 2015 Swine Graphics Enterprises, Webster City, IA
- 2010 - 2013 DFS, Newell, IA
- 2010 - 2011 M2P2, Ames, IA
- 2009 Murphy-Brown LLC

## **NUTRITION ADVISORY PANELS**

- 2022 - 2022 Advisory Board, Tonistry, Saint Joseph, MO
- 2019 - 2020 Research Advisory Board, TriOak Foods, Oakville, IA
- 2013 - 2021 Nutrition Advisory Board, International Ingredients Corporation, St. Louis, MO
- 2018 - 2021 Nutrition Advisory Board, Charoen Pokphand, Beijing, China
- 2014 - Nutrition Advisory Board, Pipestone Grow-Finish, Pipestone, MN
- 2012 - 2021 Nutrition Adv. Board/Nutrition Forums, Elanco Animal Health, Indianapolis, IN
- 2012 Pfizer Animal Health/Zoetis, Florham Park, NJ
- 2018 Micronutrients Swine Advisory Board, Indianapolis, IN
- 2018 APC Swine Industry Advisory Board, Ankeny, IA

## **OTHER ACTIVITIES**

- National Research Council, National Academy of Sciences
  - 2023 – Chair, Committee on Nutrient Requirements of Swine, 12<sup>th</sup> Revised Edition
- Pork Industry (Central) Advisory Board
  - 1997 - 2003 Member
- Pork Industry Communications Strategy Task Force
  - 1999 - 2000 Member
- Sask Pork Public Policy Advisory Committee
  - 2003 - 2004 Member
- VIDO Swine Technical Group
  - 1988 - 1991 Member
  - 1980 - 1982 Member
- Co-operative Research Farms
  - 1979 - 1982 Member, Swine Planning Board
  - 1981 - 1982 Chair, Swine Nursery Planning Committee
- Agriculture Institute of Canada
  - 1991 - 1993 Member, National Council
- Alberta Agriculture Funding Consortium
  - 2005 - 2006 Member, Livestock Sciences Research Review Committee
- Banff Pork Seminar Advisory Committee
  - 1998 - 2002 Member
- Canadian Farm Animal Genetic Resources Foundation
  - 2002 - 2003 Member, Swine Sub-committee
- Canadian Feed Industry Association
  - 1980 - 1982 Chaired Industry Relations Committee
  - 1978 - 1982 Member, Nutrition Council
- Canadian Pork Council
  - 1996 - 1999 Member Task Force, Nat'l Strategy on Swine Research and Technology Transfer
- Canadian Swine Improvement Advisory Board
  - 1990 - 1991 Member, Nutrition Sub-committee
- Canola Council of Canada
  - 1980 - 1981 Member, Public Relations Committee

- Fast Pigs Genetics Advisory Panel
  - 2005 - 2007 Member
- Flax Canada 2015
  - 2004 - 2006 Member, Animal Health and Nutrition Working Group
- Natural Sciences and Engineering Research Council of Canada
  - 2002 - 2005 Member, Strategic Projects Selection Panel, Biosciences Panel B
  - 2004 - 2005 Chair, Strategic Projects Selection Panel, Biosciences Panel B

## COMMUNITY ASSOCIATIONS

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- Barrhaven United Church, Nepean, ON
  - Sunday school teacher: 1985 – 1987
- Barrhaven Volleyball Club, Nepean, ON
  - Member: 1986 – 1987
- Baseball coach/assistant coach, Saskatoon, SK
  - Mosquito boys: 1995, 1996
  - Peewee boys: 1997, 1998
  - Bantam boys: 1999, 2000
- National (Baseball) Coaching Certification Program
  - Level I: 1996
  - Level II: 1997
- Regina Natural History Society, Regina, SK
  - Member: 1977-1978
- Regina Heritage Society, Regina, SK
  - Member: 1977-1978
- Saskatoon Amateur Volleyball Association, SK
  - Participant: 1995-1998
- Saskatoon Sports Council, Saskatoon, SK
  - Director: 2006-2008
- Saskatoon Canadian Club, Saskatoon, SK
  - Member: 1981-1982
- Softball coach, St. Phillips, Saskatoon, SK
  - Squirt Boys: 1991
- Soccer coach
  - 1988
- Saskatoon Regional Science Fair
  - Judge: 2001
- VanierFest 2006
  - Volunteer

## PUBLICATIONS

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### INVITED REFEREED REVIEW ARTICLES

17. **Patience, J.F.** and A. Ramirez. 2022. Invited review: Strategic adoption of antibiotic free pork production: The essential nature of a holistic approach. *Transl. Anim. Sci.* 6:txac063. doi.org/10.1093/tas/txac063.
16. Johnson, A., C. Rademacher, J. Eggers, N. Gabler, L. Greiner, J. Kaisand, L. Karriker, S. Millman, **J. Patience**, B. Ramirez, L. Schulz, S. Webb and J. Ross. 2022. Innovative strategies for managing swine welfare during the COVID-19 pandemic in Iowa. *J. Anim. Sci.* 99: skab235.010; <https://doi.org/10.1093/jas/skab235.010>
15. Smits, C.H.M., D. Li, **J.F. Patience** and L.A. den Hartog. 2021. Animal nutrition strategies and options to reduce the use of antimicrobials in animal production. *FAO Animal Production and Health Paper No. 184*. Rome, FAO. <https://doi.org/10.4060/cb5524en>
14. Petry, A.L. and **J.F. Patience**. 2020. Xylanase supplementation in corn-based swine diets: a review with emphasis on potential mechanisms of action. *J. Anim. Sci.* 98:skaa318. doi:10.1093/jas/skaa318.
13. **Patience, J.F.** and J.R. Pluske. 2019. Evolving technological change in pork production supporting expectations of improved productivity, sustainability and flexibility. *Animal* 13:2948-2950; doi.org/10.1017/S1751731119002027.
12. Boyd, R.D., C.E. Zier-Rush, A.J. Moeser, M. Culbertson, K.R. Stewart, D.S. Rosero and **J.F. Patience**. 2019. Invited Review: Innovation through research in the North American pork industry. *Animal* 13:2951-2966; doi:10.1017/S1751731119001915.
11. Huntley, N.F. and **J.F. Patience**. 2018. Xylose: Absorption, fermentation and post-absorptive metabolism in the pig. *J. Anim. Sci. Biotech.* 9:1-9; doi:10.1186/s40104-017-0226-9.
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5. **Patience, J.F.** and G.I. Christison. 1988. Does an antibiotic in pig starter diets provide an economic benefit in a minimum disease swine herd. 1988 Annual Report, Prairie Swine Centre, Univ. of Saskatchewan, Saskatoon, SK, pp. 22-25.
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*Factsheets*

17. Romoser, M., L. Greiner and **J. Patience**. 2022. Water quality in swine barns: how do we define it? Iowa Pork Industry Center, Iowa State University, Ames. 3 pp.
16. **Patience, J.F.** and L.L. Greiner. 2020. Approaches to reducing feed intake and growth rate in market hogs during interruption of animal movement. Iowa Pork Industry Center, Iowa State University, Ames, IA. 4 pp.
15. Azarpajouh, S., J. Colpoys, J. Dekkers, N. Gabler, **J. Patience** and A. Johnson. 2016. How has selection for residual feed intake (RFI) affected the grow-finish pig's ability to cope with stress? 2016. Pork Information Gateway Factsheet.
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8. **Patience, J.F.** 1982. Feed processing techniques. Alberta Agric., Edmonton, AB.
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*Other*

7. **Patience, J.F.**, B.J. Andries and C.S. Rhodes. 1996. Transmissible gastro-enteritis (TGE): Prairie Swine Centre's Experience. Prairie Swine Centre Inc. 12 pp.
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4. **Patience, J.F.** 1992. Nursery critical in reducing poor quality impact. Pigletter. Pig World Inc., St. Paul, MN. Vol. 12. No. 10.
3. **Patience, J.F.** 1992. Water quality criteria. Pigletter. Pig World Inc., St. Paul, MN. Vol. 12. No. 8.
2. **Patience, J.F.** 1992. Common assumptions about water challenged. Pigletter. Pig World Inc., St. Paul, MN. Vol. 12. No. 7.
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## INVITED LECTURES

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### NAMED LECTURES

3. **London, ON.** 2018. Kees de Lange Memorial Lecture: Innovative approaches to diet formulation arising from legislation, regulation, market preferences and changing economics. London Swine Conference. March 27.
2. **Guelph, ON.** 2017. Inaugural Kees de Lange Memorial Lecture: The evolution of diet formulation: A look into the future. University of Guelph Swine Research Day. May 17.
1. **St. Paul, MN.** 2012. Pijoan Lecture: The metabolic basis of feed/energy efficiency in swine. Al Leman Conference. September 18.

### ACADEMIC

29. **Madison, WI.** 2023. Do you have the energy to grind feed costs and maximize income in demanding economic times? Annual Meeting, Midwest Section, American Society of Animal Science. March 14.
28. **Louisville, KY.** 2021. Challenges and opportunities facing mineral nutrition in the next decade. Annual Meeting, American Society of Animal Science. July 17. Presented remotely.
27. **Sherbrooke, QC.** 2021. Premise to promise: research and the evolution of pork production. Virtual Scientific Symposium of the Sherbrooke Research and Development Centre: Swine Research Seminar. June 10. Presented remotely.
26. **Omaha, NE.** 2020. How will our understanding of growth and development of swine advance adoption of precision livestock farming by the pork industry? Annual Meeting, Midwest Section, American Society of Animal Science. March 3.
25. **Washington, DC.** 2019. Sustainable pork production in the U.S.: Does nutrition have a role beyond economic efficiency? National Animal Nutrition Program Summit 2019. National Academy of Sciences. April 10.
24. **Baltimore, MD.** 2017. Tribute to Dr. C.F.M. Lange. ASAS Foundation Annual Meeting. July 10.
23. **Beijing, China.** 2016. Achieving success in publishing in refereed journals. MAFIC, China Agricultural University. July 7.
22. **Beijing, China.** 2016. Fiber – Challenges and opportunities in swine nutrition. MAFIC, China Agricultural University. July 5.
21. **Beijing, China.** 2016. Energy utilization by the pig. MAFIC, China Agricultural University. July 5.
20. **Ames, IA.** 2016. Wrap up of AFRI Feed Efficiency Project: Research and extension outcomes and implications. Dept. of Animal Science, Iowa State University. March 4.
19. **Lubbock, TX.** 2015. The future of the U.S. pork industry. Dept of Animal Science, Texas Tech University. November 3.
18. **Lubbock, TX.** 2015. Energy utilization in swine: Challenges of matching supply with demand. Dept. of Animal Science, Texas Tech University. November 3.
17. **Saskatoon, SK.** 2015. Dietary fibre in pig nutrition. Dept. of Animal and Poultry Science, University of Saskatchewan. February 17.
16. **Ames, IA.** 2015. Energy utilization in swine: Understanding supply and demand in a biological world. Dept. of Animal Science. Iowa State University. February 13.
15. **Ames, IA.** 2013. Changing perspectives on dietary energy in the pig. Think Tank on Agriculture. Iowa State University. January 28.

14. **Yangling, China.** 2012. Perspectives on the U.S. Pork Industry. Northwest Agriculture and Forestry University. October 15.
13. **Sassari, Italy.** 2012. Characterizing the fallback pig. University of Sassari. September 14.
12. **Sassari, Italy.** 2012. The U.S. pork industry. University of Sassari. September 14.
11. **Saskatoon, SK.** 2012. All pigs are not created equal: How fall back pigs differ nutritionally and biologically from their contemporaries. Dept. of Animal and Poultry Science, University of Saskatchewan. August 27.
10. **Des Moines, IA.** 2010. Factors to consider when using high levels of fiber in diet formulation. Midwest Section, American Society of Animal Science. March 16.
9. **Des Moines, IA.** 2009. The importance of advancing our understanding and application of energy systems. Midwest Section, American Society of Animal Science. March 18.
8. **Des Moines, IA.** 2008. Utilization of alternative feed ingredients. Midwest Section, American Society of Animal Science. March 18.
7. **Saskatoon, SK.** 2006. Biological variation in the pig. Dept. of Animal and Poultry Science, University of Saskatchewan. November 27.
6. **Vejle, Denmark.** 2006. The advantages of net energy systems for pigs. Pre-Symposium workshop on net energy systems for growing and fattening pigs, Digestive Physiology Pigs Symposium. May 24.
5. **Des Moines, IA.** 2006. The role of energy and other dietary constituents on the utilization by pigs of free and protein bound amino acids. David Baker Symposium, Annual Meeting, Midwest Section, American Society of Animal Science. March 20.
4. **Edmonton, AB.** 2004. Determining the bioavailability of micronutrients in diets for pigs and poultry. Annual Meeting, Canadian Society of Animal Science. July 23.
3. **Saskatoon, SK.** 2001. Energy nutrition of growing-finishing pigs. Have we overlooked something? Dept. of Animal and Poultry Science, University of Saskatchewan. March 12.
2. **Ste. Anne de Bellevue, QC.** 2001. Feeding the high producing sow and weanling pig. Concepts and their applications. Macdonald Symposium on Animal Production. Macdonald College of McGill University. March 8.
1. **Des Moines, IA.** 1988. The role of acid-base balance in amino acid nutrition. Annual Mtg. Midwest Section, American Society of Animal Science. March 21-23.

## INDUSTRY

385. **Stratford, ON.** 2024. The impact on productivity and financial returns of low, medium and high disease challenge measured under commercial conditions. Masterfeeds Producer Meeting. December 3.
384. **On-line.** 2024. Electrolyte balance and its effects on swine physiology – in particular on bone health. DSM-Firmenich. September 6.
383. **On-line.** 2024. Water as a nutrient and water quality. Swine Nutrition Training Program, Mexican Association of Specialists in Animal Nutrition. August 22.
382. **Banff, AB.** 2024. How we can use energy more effectively in our diets. IFF VIP Swine Technical Conference, January 8.
381. **Xi'an, China.** 2023. Maximizing or minimizing soybean meal in practical diets – what are the pros and cons. 12<sup>th</sup> Leman China Swine Conference, October 22.

380. **Xi'an, China.** 2023. What do we need to know about energy to optimize performance and maximize net income. 12<sup>th</sup> Leman China Swine Conference, October 22.
379. **Xi'an, China.** 2023. Slat level strategies to improve feed intake immediately post weaning. 12<sup>th</sup> Leman China Swine Conference, October 20.
378. **Ames, IA.** 2023. Welcome attendees. Iowa Swine Day. June 29.
377. **Delavan, WI.** 2023. Getting newly weaned pigs onto feed. Hueber/Dekalb Feeds Spring Seminar. May 24.
376. **Delavan, WI.** 2023. Why – and when - should we pay more attention to water. Hueber/Dekalb Feeds Spring Seminar. May 24.
375. **Delavan, WI.** 2023. How is diet formulation going to change in the future? Hueber/Dekalb Feeds Spring Seminar. May 24.
374. **Ridgetown, ON.** 2023. Getting newly weaned pigs onto feed. Southwest Ontario Pork Conference. February 23.
373. **Ridgetown, ON.** 2023. Drinking water for pigs: Is it part of the problem or part of the solution? Southwest Ontario Pork Conference. February 23.
372. **Rogers, AR.** 2022. Transitioning to net energy: A Swine story. Arkansas Poultry Nutrition Conference – Technical Symposium. September 13.
371. **Des Moines, IA.** 2022. Feeding the newly weaned pig: Past successes and new challenges. Zinpro Industry Meeting. June 7.
370. **On-Line.** 2022. Feed formulation in the future: What might we expect. Novus International. May 25.
369. **Saskatoon, SK.** 2022. Feed formulation in the future: quantum change or incremental steps forward. Animal Nutrition Conference of Canada, Animal Nutrition Association of Canada. May 10 to 12.
368. **On-line.** 2021. Keys to success in feeding pigs from wean to finish. Association of Ukrainian Pig Breeders. October 21.
367. **On-line.** 2021. Effective assessment of alternatives to feed antibiotics. Leman China Conference, University of Minnesota. October 20-22.
366. **On-line.** 2021. Nutritive and non-nutritive roles of fiber in the diet. Nutrition Advisory Board. Charoen Pokphand Foods (CPF). September 29.
365. **Ames, IA.** 2021. Nutritive and non-nutritive roles of fiber in the diet. Is there any good news? International Conference on Swine Nutrition. Iowa Pork Industry Center. August 11.
364. **Ackley, IA.** 2021. Future careers in agriculture. 2021 Iowa Sporting Clay Scholarship Classic, Targeting Excellence. August 10.
363. **Ames, IA.** 2021. Drinking water in wean-to-finish: Is it part of the problem or part of the solution? Iowa Swine Day, Iowa Pork Industry Center. June 24.
362. **On-line.** 2021. Strategies to reduce feed cost and increase net income when feed costs are rising. Conference on the American Way of Doing Business, Association of Ukrainian Pork Producers. February 24.
361. **On-line.** 2021. Keys to achieving excellence in wean-to-finish production. Conference on the American Way of Doing Business, Association of Ukrainian Pork Producers. February 24.

360. **Orange City, IA; Osceola, IA; Waverly, IA; Washington, IA.** 2021. Four things you should know about water – and why it matters. IPPA Regional Conferences, Iowa Pork Producers Association and Iowa Pork Industry Center. February 15, 16, 17, 18.
359. **On-line.** 2020. Managing and feeding pigs during interruptions in processing. Saskatchewan Pork Symposium. November 12.
358. **On-line.** 2020. The changing world of swine nutrition: where do DDGS fit in? Distillers Grains and Co-Product Diversification Summit. November 5.
357. **On-line.** 2020. What makes water so important for pigs and why do we so often take it for granted? Pre-Conference Workshop: Water quality and pig nutrition, health, and production. Leman Conference, University of Minnesota. September 19.
356. **Sheldon, IA.** 2020. Mycotoxins: Impact of multi-toxin contamination (DON, Zearalenone, Fumonisin) on pig performance. IPPA Regional Swine Conferences, February 17. Also presented in Audubon (February 18), Ames (February 19), Washington (February 20), Nashua (February 21).
355. **Barcelona, Spain.** 2019. Susceptibility of fibre to carbohydrases and impact on performance in swine. International Fibre Summit, AB Vista. November 18.
354. **Zhengzhou, China.** 2019. Feeding and management in support of reduced antibiotic use in pork production. International Trace Mineral Nutrition Symposium, Zinpro Corp. September 10.
353. **Yokohama, Japan.** 2019. Feeding and management in support of reduced antibiotic use in pork production. International Trace Mineral Nutrition Symposium, Zinpro Corp. September 6.
352. **St. Louis, MO.** 2019. Insoluble fiber effects on nutrient digestibility. Nutrition Advisory Board, International Ingredients Corporation. August 7.
351. **Clive, IA.** 2019. Research vision for the future. Animal Science Committee. National Pork Board. August 2.
350. **Benoni, South Africa.** 2019. Feeding and management for antibiotic reduced/free pork production. Ensminger Pig Symposium. May 22-23.
349. **Key West, FL.** 2019. Maximizing the return on your investment in research. Full Value Nutrition Forum, Elanco Animal Health. May 1.
348. **Winnipeg, MB.** 2019. Water in your barn: The right amount, the right quality, the right delivery. Manitoba Swine Seminar. February 7.
347. **Saskatoon, SK.** 2018. Legislation. Consumerism. Export Regulations. Complicating the life of the nutritionist. Saskatchewan Pork Industry Symposium, November 15.
346. **Saskatoon, SK.** 2018. How can I improve feed efficiency in the barn. Saskatchewan Pork Industry Symposium, November 14.
345. **Tampa, FL.** 2018. How economics, consumer preference and new knowledge in nutrition is changing how swine diets are formulated. Adifo Seminar: Innovations in Feed Technology. November 8.
344. **Zhengzhou, China.** 2018. How legislation, consumer preferences and economics are changing the way we feed pigs. Leman China Conference. October 20.
343. **Zhengzhou, China.** 2018. Practical approaches to improving feed efficiency. Leman China Conference. October 19.
342. **Zhengzhou, China.** 2018. Getting feed budgets right in order to maximize net income. Leman China Conference. October 19.

341. **St. Louis, MO.** 2018. Fiber. Can we live with it? Can we live without it? International Ingredients Nutrition Advisory Board, August 7.
340. **London, ON.** 2018. Workshop: Management and feeding to maximize efficiency, carcass quality and profits (with Joel DeRouchey). London Swine Conference. Mar. 28.
339. **San Diego, CA.** 2018. Designing and evaluating studies on non-antibiotic feed additives. American Association of Swine Veterinarians Pre-Conference Symposium. March 4.
338. **St. Louis, MO.** 2017. Alternatives to antibiotics in nursery diets: Different evaluative and functional approaches. International Ingredients Nutrition Advisory Board, November 7.
337. **Omaha, NE.** 2017. New developments in applied swine nutrition and management. Standard Nutrition Services Annual Meeting. October 25.
336. **Bloomington, MN.** 2017. Fiber utilization and energy systems in grow-finish pigs. Cargill Animal Nutrition Global Pork Forum. July 13.
335. **Phoenix, AR.** 2017. Improving growth and health performance: Feed additives. Elanco Nutrition Forum. May 2.
334. **Rosario, Argentina.** 2017. Modern sow farm photographic tour. Biofarma Producer Meeting. April 20.
333. **Rosario, Argentina.** 2017. Feeding fat to grow-finish pigs: Impact on performance and carcass quality. Biofarma Producer Meeting. April 20.
332. **Rosario, Argentina.** 2017. Impact of an increases health challenge on grow-finish growth performance, carcass characteristics and financial returns. Biofarma Producer Meeting. April 20.
331. **Rosario, Argentina.** 2017. Improving feed efficiency to increase net income. Biofarma Producer Meeting. April 20.
330. **Rosario, Argentina.** 2017. Feeding the nursery pig: Principles and practices. Biofarma Producer Meeting. April 20.
329. **Shanghai, China.** 2016. New gestating sow group housing with automatic feeders. Chinese Swine Industry Symposium. October 21.
328. **Shanghai, China.** 2016. USDA swine feed efficiency project: Final report and recommendations for improvement. Chinese Swine Industry Symposium. October 20.
327. **Saskatoon, SK.** 2016. Perspectives on 30 years of the Western Nutrition Conference: Then and now. Western Nutrition Conference. September 22.
326. **Saskatoon, SK.** 2016. Feed Efficiency: A multidisciplinary approach. Western Nutrition Conference. September 21.
325. **Des Moines, IA.** 2016. The importance of fiber in swine diets. ADM/Chr. Hansen Swine Nutrition Meeting. August 25.
324. **Zhengzhou, China.** 2016. Dietary fiber in pig diets. Henan Ground Group. July 13.
323. **Zhengzhou, China.** 2016. The most effective use of dietary fat. Henan Ground Group. July 13.
322. **Beijing, China.** 2016. How diet composition and formulation impact performance. Ginten Biotechnology. July 4.
321. **Okoboji, IA.** 2016. Nutrition: Research and technologies for the future. Hubbard Feeds Swine Production Seminar. March 23.



320. **New Orleans, LA.** 2016. Feed and other factors that drive feed efficiency. American Association of Swine Veterinarians Pre-Conference Symposium. February 28.
319. **Pipestone, MN.** 2016. Review of Swine Feed Efficiency Conference: “Take Home” messages. February 11.
318. **Rosario, Argentina.** 2015. Energy utilization by the pig: What is new and what is important. Biofarma International Conference on Animal Nutrition. November 18.
317. **Rosario, Argentina.** 2015. How my feeding program impacts pig performance: Practical examples. Biofarma International Conference on Animal Nutrition. November 18.
316. **Omaha, NE.** 2015. Fiber: what it is, what it does and why nutritionists should care. International Conference on Feed Efficiency in Swine. October 21.
315. **Omaha, NE.** 2015. Overview of the AFRI Feed Efficiency project. International Conference on Feed Efficiency in Swine. October 21.
314. **Brookville, OH.** 2015. Challenges and opportunities associated with the adoption of the net energy system. Cargill/Akey Seminar. October 7.
313. **St. Paul, MN.** 2015. Dietary fat: It is much more than an energy source to the pig. Leman Conference. September 21.
312. **St. Paul, MN.** 2015. Effects of reduced oil distillers dried grains with solubles and soybean oil on dietary lysine, fat and fiber digestibility in corn based diets. Leman Conference. September 21.
311. **Galena, IL.** 2015. Nutrition, pig performance and net income. Dekalb Producer Meeting. June 19.
310. **Morton, MN.** 2015. Nutritional impacts on performance. VitaPlus Swine Summit. March 27.
309. **Banff, AB.** 2015. Feed management to maximize feed efficiency and net revenue. Banff Pork Seminar. January 21&22.
308. **Ames, IA.** 2014. Update on nutrition research in Applied Swine Nutrition. Webinar sponsored by Land O’Lakes/Purina. December 1.
307. **Raleigh, NC.** 2014. Does selection for improved feed efficiency inadvertently result in pigs that are less robust and more susceptible to stress? 30<sup>th</sup> Carolina Swine Nutrition Conference. November 6.
306. **Shanghai, China.** 2014. Managing low birth weight piglets to reduce their impact on farm productivity and animal flow. Chinese Swine Industry Symposium. October 31.
305. **Shanghai, China.** 2014. Feed efficiency in swine: New knowledge and practical approaches. Chinese Swine Industry Symposium. October 30.
304. **Indianapolis, IN.** 2014. Multigenerational selection for feed efficiency: implications on nutrition, disease and stress susceptibility. Midwest Swine Nutrition Conference. September 4.
303. **St. Louis, MO.** 2014. Gene expression profiling of longissimus dorsi and adipose tissue in pigs with differing post-weaning growth rates. Nutrition Advisory Board, International Ingredient Corp. August 28.
302. **Ames, IA.** 2014. Preparing for the inevitable increase in dietary fiber in American swine diets. Webinar sponsored by National Pork Board. August 5.
301. **Guelph, ON.** 2014. Practical feeding management of pigs. May 15.
300. **Charleston, SC.** 2014. Addressing innovation demands within the swine industry. Elanco Full Value Nutrition Forum. April 30.

299. **Pitlochry, Scotland.** 2014. What does the fibre fraction mean for swine? Inspire - International Non-Starch Polysaccharide Forum. April 1.
298. **Rosario, Argentina.** 2013. Nutrition tools to improve variability in swine production. GTEP Swine Production Seminar. November 1.
297. **Rosario, Argentina.** 2013. Economic perspective of energy in the diet and feed efficiency in the grow-finish pig. Group of Technological Exchange of Swine Production (GTEP), Swine Production Seminar. October 31.
296. **Rosario, Argentina.** 2013. Effective use of energy in practical swine diets. Group of Technological Exchange of Swine Production (GTEP), Swine Production Seminar – Pre-conference Seminar. October 31.
295. **Ames, IA.** 2013. Nutritive value of drought stressed corn. Webinar sponsored by National Pork Board. August 20.
294. **Bangkok, Thailand.** 2013. Carcass and meat quality improvement in the pig. United States Grains Council. July 1.
293. **Bangkok, Thailand.** 2013. Current industry practice for pig production based on Agristats. United States Grains Council. July 1.
292. **Bangkok, Thailand.** 2013. Nutrient requirements of the modern pig – NRC 2012. United States Grains Council. July 1.
291. **Bangkok, Thailand.** 2013. Current status of feed additive utilization. United States Grains Council. July 1.304.
290. **Bogor, Indonesia.** 2013. Carcass and meat quality improvement in the pig. United States Grains Council. July 1.
289. **Bogor, Indonesia.** 2013. Current industry practice for pig production based on Agristats. United States Grains Council. July 1.
288. **Bogor, Indonesia.** 2013. Nutrient requirements of the modern pig – NRC 2012. United States Grains Council. July 1.
287. **Bogor, Indonesia.** 2013. Current status of feed additive utilization. United States Grains Council. July 1.
286. **Ames, IA.** 2013. Nutrition research at Iowa State University. Iowa Swine Day. June 26.
285. **Ames, IA.** 2013. Effective use of low energy feedstuffs. Murphy-Brown Research Committee. June 5.
284. **London, ON.** 2013. Feeding and barn management practices that maximize feed efficiency. London Swine Conference. March 27/28.
283. **London, ON.** 2013. Precision feeding and caloric efficiency. London Swine Conference. March 27/28.
282. **Morton, MN.** 2013. Do I really want to maximize feed efficiency? VitaPlus Swine Summit. March 21.
281. **Webcast.** 2013. Update on nutrition research in Applied Swine Nutrition. Land O'Lakes. February 4.
280. **Saskatoon, SK.** 2012. Top 10 developments in swine nutrition: 1991-2012. Saskatchewan Pork Industry Symposium. November 14.

279. **Saskatoon, SK.** 2012. Keeping up with the changing world of grow-finish feeding and management. Saskatchewan Pork Industry Symposium. November 14.
278. **Xi'an, China.** 2012. A review of feeders and influence on growth and efficiency. Leman China Swine Conference. October 16.
277. **Xi'an, China.** 2012. Applying science to optimize feed efficiency. Leman China Swine Conference. October 16.
276. **Sleepy Eye, MN.** 2012. The importance of managing energy in a successful feeding program. Christensen Farms. September 26.
275. **St. Paul, MN.** 2012. Growth and development implications of marketing pigs at heavier weights. Al Leman Conference. September 17.
274. **Sassari, Italy.** 2012. New challenges for swine feeding as a result of the increased competition with bioenergy industries for grain availability. University of Sassari. September 7.
273. **Ankeny, IA.** 2012. Livestock feed issues: Swine. Drought, Feed and Grain Quality Workshop, Agribusiness Association of Iowa and Iowa Grain Quality Initiative. August 16.
272. **Ames, IA.** 2012. Practical and effective ways to improve feed efficiency and reduce feed cost. Iowa Swine Days – 2012. June 28.
271. **Saskatoon, SK.** 2012. Dietary energy and feed efficiency in swine. Prairie Swine Centre Webinar, June 19.
270. **Ames, IA.** 2012. Variation: To Manage or Minimize – How do we know what is the correct strategy? Land O'Lakes Seminar. June 5.
269. **Orlando, FL.** 2012. Sustainable nutrition technologies to feed more people using fewer resources. American Feed Industry Association Nutrition Symposium. March 13.
268. **Denver, CO.** 2012. Expanding our base of dietary ingredients: challenges that come with this opportunity. BIVI Swine Health Seminar. March 9.
267. **Ames, IA.** 2012. Practical approaches to improving feed efficiency. Iowa Swine Peer Group meeting. February 8.
266. **Des Moines, IA.** 2012. Hidden challenges of using alternative ingredients. Iowa Pork Congress. January 25.
265. **Pipestone, MN.** 2011. Checklist for improving feed efficiency. Pipestone Veterinary Clinic Client meeting. December 8.
264. **Pipestone, MN.** 2011. Feed, water and the environment. Pipestone Veterinary Clinic Client meeting. December 8.
263. **Ames, IA.** 2011. Obvious - and not so obvious - challenges associated with the adoption of new ingredients in swine feeding program. 19<sup>th</sup> Annual Swine Disease Conference for Swine Practitioners. November 10.
262. **Omaha, NE.** 2011. Dietary energy concentration and feed efficiency targets: What are the questions and do we have the right answers? International Conference on Feed Efficiency in Swine. November 9.
261. **St. Paul, MN.** 2011. Water quality issues in pork production. Al Leman Conference. September 20.
260. **Des Moines, IA.** 2011. Impact of synthetic amino acids on the swine and poultry industries: nutrition and the environment. 25<sup>th</sup> Anniversary Celebration of the Opening of the Eddyville, IA Amino Acid Plant. May 17.

259. **LeRoy, MN.** 2011. Fine tuning wean-to-finish management to improve net returns. Annual Grower Meeting, Next Generation Pork. March 24.
258. **Fairmont, MN.** 2011. Practical strategies for improving productivity in the wean-to-finish barn. Form-a-Feed Producer Meeting. March 22.
257. **Phoenix, AZ.** 2011. Do I have to compromise performance when I feed alternative ingredients. Pre-Conference Nutrition Seminar. 42<sup>nd</sup> Annual Meeting, American Association of Swine Veterinarians, Phoenix, AZ. March 5.
256. **Saskatoon, SK.** 2010. Pigs care less than we do: Selecting maximum ingredient inclusion rates. Western Nutrition Conference, Saskatoon, SK September 22.
255. **Owatonna, MN.** 2010. Introduction of the National Swine Nutrition Guide. U.S. Pork Center of Excellence. March 11.
254. **Spirit Lake, IA.** 2010. Taking advantage of feeding alternative ingredients. What are the Limits? Hubbard Feeds Swine Production Seminar. March 10.
253. **Ames, IA.** 2010. Concerns about mycotoxins in corn. Niman Ranch Producer Meeting. March 4.
252. **Balsa de Athenas, Costa Rica.** 2010. Feeding the grow-finish pig. RAPCO Swine Nutrition Course. February 19.
251. **Balsa de Athenas, Costa Rica.** 2010. Managing variability in commercial conditions. RAPCO Swine Nutrition Course. February 19.
250. **Balsa de Athenas, Costa Rica.** 2010. Water in pig nutrition. RAPCO Swine Nutrition Course. February 18.
249. **Balsa de Athenas, Costa Rica.** 2010. Feeding the weanling pig. RAPCO Swine Nutrition Course. February 18.
248. **Balsa de Athenas, Costa Rica.** 2010. Approaches to formulating pig diets. RAPCO Swine Nutrition Course. February 17.
247. **Balsa de Athenas, Costa Rica.** 2010. Energy systems in pig nutrition. RAPCO Swine Nutrition Course. February 17.
246. **Banff, AB.** 2010. Strategies to maximize wean-to-finish net income: Focus on feed and other technical issues. January 20-21.
245. **Uberlandia, Brazil.** 2009. New tools to manage variability throughout the pork production system. XIV Congress of the Brazilian Pig Veterinary Society (ABRAVES). October 26-29.
244. **Winnipeg, MB.** 2009. The economics of choosing feed ingredients. Western Nutrition Conference. September 22-24.
243. **Puerto Vallarta, Mexico.** 2009. Formulating energy and digestible amino acids and the use of by-products as strategies to reduce feed costs. XLIV Annual Meeting, Asociación Mexicana de Veterinarios Especilistas en Cerdos (AMVEC). July 22-25.
242. **Dubuque, IA.** 2009. Swine feeding and management update. Dekalb Feeds 2009 Summer Seminar. June 22.
241. **Dows, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 24.
240. **Dows, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 24.

239. **Oelwein, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 23.
238. **Oelwein, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 23.
237. **Sioux Center, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 18.
236. **Sioux Center, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 18.
235. **Carroll, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 17.
234. **Carroll, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 17.
233. **Ainsworth, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 16.
232. **Ainsworth, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 16.
231. **Morton, MN.** 2009. Incorporating novel feed ingredients in swine diets: Practical applications. 4<sup>th</sup> Annual Professional Swine Seminar, Form-A-Feed, Inc., February 11.
230. **Morton, MN.** 2009. Incorporating novel feed ingredients in swine diets: Basic principles. 4<sup>th</sup> Annual Professional Swine Seminar, Form-A-Feed, Inc., February 10.
229. **Ames, IA.** 2009. Swine feeding and management update. Iowa Feed and Nutrition Seminar. January 27.
228. **Rennes, France.** 2009. Electrolyte balance: concepts and applications. Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. January 15.
227. **Nashville, TN.** 2008. Addressing change in the swine feed market. National Swine Improvement Federation. December 4.
226. **Winnipeg, MB.** 2008. A discussion of net energy applications in swine nutrition. Standard Nutrition. May 21.
225. **San Diego, CA.** 2008. Managing the risk of adopting the use of novel feed ingredients. American Association of Swine Veterinarians. March 10.
224. **Saskatoon, SK.** 2008. Bob Dylan said ‘The times they are a’changin’’: Was he really talking about the pork industry? Saskatoon Branch, Saskatchewan Institute of Agrologists. February 28.
223. **Saskatoon, SK.** 2007. Tactics and strategies for maximizing net returns from the sale of market hogs. Saskatchewan Pork Industry Symposium. November 14.
222. **Moorepark, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 24.
221. **Moorepark, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 24.
220. **Kilkenny, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 23.

219. **Kilkenny, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 23.
218. **Cavan, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 22.
217. **Cavan, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 22.
216. **Humboldt, SK.** 2007. The basics of swine nutrition. Big Sky Farms Manager in Training Course. June 6.
215. **Lisbon, Portugal.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. March 2.
214. **Madrid, Spain.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. March 1.
213. **Barcelona, Spain.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. February 28.
212. **Centralia, ON.** 2007. Paylean - A Canadian perspective. Centralia Swine Research Update. January 31.
211. **Centralia, ON.** 2007. Effects of birth weight and litter size on performance and variability in the grow out barn. Centralia Swine Research Update. January 31.
210. **Saskatoon, SK.** 2006. Maximizing net income by optimizing the portion of pigs marketed within core. Saskatchewan Pork Industry Symposium. November 14.
209. **Lethbridge, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 10.
208. **Red Deer, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 9.
207. **Westlock, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 8.
206. **Grand Prairie, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 7.
205. **Lelystad, The Netherlands.** 2006. Distillers dried grains and solubles from Bio ethanol produced from cereal grains. Conference on Energy From Bio Fuels: Implications For The Feed Industry, de Schothorst, Lelystad, The Netherlands. October 19.
204. **Raleigh, NC.** 2006. The practical management of animal variation. Carolina Swine Nutrition Conference. September 27.
203. **Lewisburg, OH.** 2006. Selected Prairie Swine Centre research. Akey/SCA Nutrition. August 10.
202. **Des Moines, IA.** 2006. Weaning age and how it influences feeding and management programs. World Pork Expo. June 9.
201. **Humboldt, SK.** 2006. The basics of swine nutrition. Big Sky Farms Manager in Training Course. May 16.
200. **Farmville, PA.** 2006. The importance of water and water intake in pig nutrition. Lucta. May 3-5.
199. **Elstow, SK.** 2006. Managing variation in the finishing barn. Big Sky Finishing Barn Managers, Meeting sponsored by Prairie Swine Centre. April 25.

198. **Ste. Eustache, MB.** 2006. Practical approaches to increasing net income. Manitoba Pork Council. March 10.
197. **Brandon, MB.** 2006. Maximizing carcass quality using nutrition. PIC Canada Ltd. March 9.
196. **Brandon, MB.** 2006. Finishing for maximum profitability. PIC Canada Ltd. March 9.
195. **Winnipeg, MB.** 2006. Maximizing carcass quality using nutrition. PIC Canada Ltd. March 8.
194. **Winnipeg, MB.** 2006. Finishing for maximum profitability. PIC Canada Ltd. March 8.
193. **Winnipeg, MB.** 2006. Variation in the finisher barn. Manitoba Swine Symposium. February 1/2.
192. **Saskatoon, SK.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. December 2.
191. **Saskatoon, SK.** 2005. Finishing for maximum profitability. PIC Canada Ltd. December 2.
190. **Swift Current, SK.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. December 1.
189. **Swift Current, SK.** 2005. Finishing for maximum profitability. PIC Canada Ltd. December 1.
188. **Lethbridge, AB.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. November 24.
187. **Lethbridge, AB.** 2005. Finishing for maximum profitability. PIC Canada Ltd. November 24.
186. **Red Deer, AB.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. November 23.
185. **Red Deer, AB.** 2005. Finishing for maximum profitability. PIC Canada Ltd. November 23.
184. **Saskatoon, SK.** 2005. Barn efficiency - Your role in driving costs down. Saskatchewan Pork Industry Symposium. November 8.
183. **Minnetonka, MN.** 2005. Enhancing net energy system predictions based on nutrient types and intakes, expected body composition and animal age. Cargill Animal Health. September 22.
182. **Minneapolis, MN.** 2005. The merits, benefits and challenges of adopting the net energy system in a North American context. Minnesota Nutrition Conference. September 21.
181. **Red Deer, AB.** 2005. The profit potential of adopting the net energy system for swine. Cargill Animal Nutrition, September 7.
180. **Nipawin, SK.** 2005. The next 10 years in pork production: Prairie Swine's contribution to future opportunities and challenges. Big Sky Farms 10<sup>th</sup> Anniversary Think Tank. June 2.
179. **Humboldt, SK.** 2005. The basics of swine nutrition. Big Sky Farms Manager in Training Course. May 24.
178. **Saskatoon, SK.** 2005. The Prairie Swine Centre ingredient research program. Department of Animal & Poultry Science, University of Saskatchewan. April 22.
177. **Philadelphia, PA.** 2005. Dietary electrolyte balance in swine nutrition. Church and Dwight Think Tank. April 19.
176. **Rosetown, SK.** 2005. Practical ways to reduce expenses and increase net income. Hutterite Brethren Meeting sponsored by Prairie Swine Centre, Sask Pork and SPI Marketing Group. April 5.
175. **Morton, MN.** 2005. Net energy: Will its use save or cost us money & phytase and soluble phosphorus excretion: Here are the facts. Vita Plus Swine Summit 2005. April 1.
174. **Morton, MN.** 2005. Variation in pork production & the dollars and cents of feed budgeting. Vita Plus Swine Summit 2005. March 31.
173. **Spiritwood, SK.** 2005. Optimizing net income and expenses. Fast Pigs. February 23.

172. **Shakespeare, ON.** 2005. Feeding for optimum carcass and pork quality. Swine Management Seminar, Agribands Purina Canada. February 16.
171. **Humboldt, SK.** 2005. Optimizing the marketing of pigs. Big Sky Farms. February 3.
170. **Swift Current, SK.** 2005. Practical ways to reduce expenses and increase net income. Hutterite Brethren Meeting sponsored by Hypor Genetics. January 25.
169. **Saskatoon, SK.** 2005. Practical ways to reduce expenses and increase net income. Hutterite Brethren Meeting sponsored by Hypor Genetics. January 24.
168. **Aberfoyle, ON.** 2004. Practical critique of net energy use in swine nutrition. Novus Customer Meeting. December 9.
167. **Airdrie, AB.** 2004. Dietary electrolyte balance in swine nutrition. Pig Nutrition Discussion Forum, Nutrition Partners. December 8.
166. **Saskatoon, SK.** 2004. Feeding for optimum carcass quality. Saskatchewan Pork Industry Symposium. November 17-18.
165. **Lethbridge, AB.** 2004. Practical ways to improve net income. Alberta Pork Regional Meeting. November 12.
164. **Red Deer, AB.** 2004. Practical ways to improve net income. Alberta Pork Regional Meeting. November 10.
163. **Westlock, AB.** 2004. Practical ways to improve net income. Alberta Pork Regional Meeting. November 9.
162. **Grand Prairie, AB.** 2004. Practical ways to improve net income. Alberta Pork Regional Meeting. November 8.
161. **Niagara-on-the-Lake, ON.** 2004. The devil is in the details: some practical approaches to improving financial performance and addressing environment and welfare issues. PIC. October 28-29.
160. **Saskatoon, SK.** 2004. Variation in swine production systems: hidden costs, hidden opportunities. Western Nutrition Conference. September 29-30.
159. **Indianapolis, IN.** 2004. Energy systems for swine: A critical review of DE, ME and NE. Midwest Swine Nutrition Conference. August 31.
158. **West Des Moines, IA.** 2004. Managing variation in the nursery and growout barn. Prince Agri-Products Feed Ingredient Conference. August 18.
157. **Regina, SK.** 2004. How Canadian farmers hit the grid. Hypor Genetic Managers' Meeting. May 26.
156. **Wainwright, AB.** 2004. Fine tuning the production system. Annual Staff Seminar, Alberta Pig Company. April 16.
155. **Red Deer, AB.** 2004. Maximizing growth rate from weaning to market. Swine Production Seminar, Alberta Feed and Consulting Ltd. March 18.
154. **Tokyo, Japan.** 2004. Field peas in swine diets. Japan Feed Pea Seminar, Pulse Canada. February 4.
153. **Banff, AB.** 2004. Variation: Costs and consequences. Banff Pork Seminar. January 20-23.
152. **Saskatoon, SK.** 2003. Maximizing growth rate from weaning to market. Saskatchewan Pork Industry Symposium. November 18-20.
151. **Minneapolis, MN.** 2003. The pig farm's economic impact on the local community. Allen D. Lemans Swine Conference. September 13-16.



150. **Minneapolis, MN.** 2003. Dietary approaches to altering the composition of body weight gain in growing gilts. Allen D. Leman Swine Conference. September 13-16.
149. **Winnipeg, MB.** 2003. Net energy and low protein diets for swine. Western Nutrition Conference. September 11-12.
148. **Phoenix, AZ.** 2003. An overview of energy systems. Annual Meeting, American Society of Animal Science. June 26.
147. **Columbia, MO.** 2003. Nutritional aspects of physiology, stress and pork quality. Post Conference Workshop "Understanding the Physiology and Quality of the Modern Pig." 56<sup>th</sup> Reciprocal Meats Conference. June 19.
146. **Lethbridge, AB.** 2003. Dealing with a depressed hog market: Feeding and management strategies. PIC Producer Meeting. May 7.
145. **Red Deer, AB.** 2003. Dealing with a depressed hog market: Feeding and management strategies. PIC Producer Meeting. May 6.
144. **Chilliwack, BC.** 2003. Managing variation in the finishing barn. Annual Meeting, B.C. Hog Marketing Commission. April 4.
143. **Chilliwack, BC.** 2003. Feeding the growing-finishing pig to maximize net income. Annual Meeting, B.C. Hog Marketing Commission. April 4.
142. **Chilliwack, BC.** 2003. Nursery management and performance. Annual Meeting, B.C. Hog Marketing Commission. April 4.
141. **Saskatoon, SK.** 2002. Grower-Finisher Management and Performance: Better Understanding the Grower-Finisher Pig. Hutterite Brethren Workshop sponsored by Feed-Rite Mills. November 27.
140. **Swift Current, SK.** 2002. Grower-Finisher Management and Performance: Better Understanding the Grower-Finisher Pig. Hutterite Brethren Workshop sponsored by Feed-Rite Mills. November 26.
139. **Santiago, Chile.** 2002. Optimizing feeding programs. Andina PIC. November 21.
138. **Saskatoon, SK.** 2002. New technologies for pork production in the 21<sup>st</sup> century. Saskatchewan Pork Industry Symposium. November 12-14.
137. **Saskatoon, SK.** 2002. Choosing the best feeding program. Saskatchewan Pork Industry Symposium. November 12-14.
136. **Red Deer, AB.** 2002. Understanding the relationship between growth rate, feed intake and feed conversion. Red Deer Swine Technology Workshop. October 29-30.
135. **Red Deer, AB.** 2002. Housing strategies for the young pig. Red Deer Swine Technology Workshop. October 29-30.
134. **Franklin, KY.** 2002. Impact of changes in daily energy intake on rate and composition of gain in pigs with the potential for rapid lean growth . Pig Improvement Company. September 27.
133. **Stratford, ON.** 2002. Global trends in pork production: What do they mean to me? Gold Event, Ontario Pork Congress. June 19.
132. **Saskatoon, SK.** 2002. Livestock research in Saskatchewan: The Prairie Swine Centre experience. Annual Meeting, Saskatchewan Institute of Agrologists. April 11-12.
131. **Saskatoon, SK.** 2002. Overview of research at the Prairie Swine Centre. Annual Banquet, W.C.V.M. Swine Club. April 4.

130. **Banff, AB.** 2002. Feeding the grow/finish pig to maximize net income. Banff Pork Seminar. January 22-25.
129. **Saskatoon, SK.** 2002. Processing ingredients and the use of feed additives. Quadra Feeding and Management Conference. January 15-16.
128. **Saskatoon, SK.** 2002. Formulating diets to optimize performance and carcass quality. Quadra Feeding and Management Conference. January 15-16.
127. **Raleigh, NC.** 2001. Addressing issues of water quality, quantity and delivery in pork production. Carolina Swine Nutrition Conference. November 14.
126. **Council Bluffs, IA.** 2001. Feeding the high producing lactating sow. Standard Nutrition Business Conference. October 24/25.
125. **Council Bluffs, IA.** 2001. Feeding the grow-finish pig: feed intake, energy, amino acids and water. Standard Nutrition Business Conference. October 24/25.
124. **Saskatoon, SK.** 2001. Energy influences on growth and carcass composition. Western Nutrition Conference. September 26-27.
123. **Nashville, TN.** 2001. Factors driving average daily gain. Workshop #12, Annual Mtg., Amer. Association Swine Practitioners. February 24-28.
122. **Beijing, China.** 2000. Feed impact on pork quality. Canadian Trade Mission to China. Canadian Intl. Grains Institute. December 4.
121. **Beijing, China.** 2000. Current advances in sow and piglet nutrition. Canadian Trade Mission to China. Canadian Intl. Grains Institute. December 4.
120. **Shanghai, China.** 2000. Feed impact on pork quality. Canadian Trade Mission to China. Canadian Intl. Grains Institute. November 29.
119. **Shanghai, China.** 2000. Current advances in sow and piglet nutrition. Canadian Trade Mission to China. Canadian Intl. Grains Institute. November 29.
118. **Guangzhou, China.** 2000. Current advances in sow and piglet nutrition. Canadian Trade Mission to China. Canadian Intl. Grains Institute. November 27.
117. **Guangzhou, China.** 2000. Feed impact on pork quality. Canadian Trade Mission to China. Canadian Intl. Grains Institute. November 27.
116. **Saskatoon, SK.** 2000. Expanding the Prairie Research Infrastructure: PSC Elstow Research Farm. Saskatchewan Swine Symposium. November 16-17.
115. **Brandon, MB.** 2000. The role of science in public debate. Citizens' Hearing on Pork Production and the Environment. Sierra Club Prairie Chapter and Westman Community Action Coalition. October 29-31.
114. **Ottawa, ON.** 2000. Nutrition and management research: Past, present and future. Evolution of Swine Research Workshop, Canada Pork Council. October 26.
113. **St. Louis, MO.** 2000. Recent research on amino acids in swine. 17<sup>th</sup> BioKyowa Amino Acids Council Meeting, BioKyowa/Nutri-Quest. October 3-4.
112. **Saskatoon, SK.** 2000. Energy titration – What is the right level? Western Canadian Association Swine Practitioners. September 29-30.
111. **Regina, SK.** 2000. Global trends in pork production. Heartland Pork Management Annual Staff Meeting. August 25.

110. **St. Vincent, AB.** 2000. Update on Prairie Swine Centre research. Regional Meetings, Alberta Pork Producers Development Corporation. March 21-22.
109. **Lethbridge, AB.** 2000. Update on Prairie Swine Centre research. Regional Meetings, Alberta Pork Producers Development Corporation. March 21-22.
108. **Saskatoon, SK.** 1999. New research initiatives: Building a base for the future. 1999 Saskatchewan Pork Industry Symposium. November 18-19.
107. **Saskatoon, SK.** 1999. Prairie Swine Centre: An update. Annual Meeting, Sask Pork. April 16.
106. **Saskatoon, SK.** 1999. Meeting the research and development needs of a rapidly changing pork industry. 1998-99 College of Agriculture Seminar Series "Economic Development through Agri-Food Innovation. University of Saskatchewan. March 19.
105. **Raleigh, NC.** 1998. Achieving greater precision in swine feeding programs: Challenges and opportunities. Carolina Swine Nutrition Conference. November 17.
104. **Bloomington, MN.** 1998. Nutritional strategies to address environmental issues related to pork production: nitrogen excretion and water conservation. Minnesota Nutrition Conference, September 23.
103. **Saskatoon, SK.** 1998. Wheat, barley, peas and canola. Western Nutrition Conference. September 16/17.
102. **Guadalajara, Mexico.** 1998. Challenges to achieving greater precision in swine feeding programs. 10<sup>th</sup> Annual Fermex Amino Acid Meeting. September 4.
101. **Saskatoon, SK.** 1998. The pork industry: Why all the interest. Rotary Club. January 26.
100. **Lloydminster, SK.** 1998. A global perspective of the pork industry. Cattlemen's Corral. January 21.
99. **Saskatoon, SK.** 1997. Addressing problems with lower than expected feed intake. Saskatchewan Pork Industry Symposium. November 13/14.
98. **St. Paul, MN.** 1997. What to do when feed intake is below target: nutritional, environmental and management strategies. Allen D. Leman Swine Conference, University of Minnesota. September 20/23.
97. **St. Paul, MN.** 1997. Segregated early weaning: site effects. Allen D. Leman Swine Conference, University of Minnesota, St. Paul, MN. September 20/23.
96. **Quebec City, QC.** 1997. Water issues in pork production: Quality, treatment, delivery and intake. American Association Swine Practitioners. March 1.
95. **Humboldt, SK.** 1997. Evaluating grain and pea quality from an animal feeding perspective. Carlton Trail Business Management Club. January 22.
94. **Charlottetown, PEI.** 1996. Swine nutrition and management to increase profits. Prince Edward Island Department of Agriculture. December 2.
93. **Calgary, AB.** 1996. Pea quality considerations for swine. Pulse Crops Research Workshop. November 28/29.
92. **Saskatoon, SK.** 1996. SEW and growout feeding programs. Western Canadian Association Swine Practitioners. October 18/19.
91. **Edmonton, AB.** 1996. Selected topics in mineral nutrition for swine. Western Nutrition Conference. September 19/20.

90. **Edmonton, AB.** 1996. Selected topics in vitamin nutrition for swine. Western Nutrition Conference. September 19/20.
89. **Stratford, ON.** 1996. Practical aspects of pork production for herdspeople: Sow productivity and piglet care. Ontario Pork Congress. June 19.
88. **Red Deer, AB.** 1996. Prairie Swine Centre's experience with T.G.E. Alberta Pork Congress. June 13.
87. **Shakespeare, ON.** 1995. Pig oriented equipment design. Swine Feeding Management Seminar, OMAFRA. December 6.
86. **Shakespeare, ON.** 1995. Measuring feed costs and then what? Swine Feeding Management Seminar, OMAFRA. December 6.
85. **Saskatoon, SK.** 1995. Mineral and vitamin supplementation in swine diets. Saskatchewan Pork Industry Symposium. November 8/9.
84. **Saskatoon, SK.** 1995. TGE: Prairie Swine Centre's experience. Pfizer Pre-Conference Symposium. Western Nutrition Conference. September 12.
83. **Red Deer, AB.** 1995. Marketing heavier hogs: Impact on the total farm production system. Proc. Alberta Pork Congress. June 13/15.
82. **Ridgetown, ON.** 1995. Industry challenges: A Vision for the future of the Canadian swine industry. 33rd Southwestern Ontario Pork Conference. February 24.
81. **Ridgetown, ON.** 1995. The role of feed intake in the nutrition of the growing-finishing pig. 33rd Southwestern Ontario Pork Conference. February 24.
80. **Ames, IA.** 1995. Designing feeding programs for growing-finishing swine: The importance of feed intake. Feed Specialties Seminar. February 23.
79. **Banff, AB.** 1995. Role of feed intake in the nutrition of the growing-finishing pig. Banff Pork Seminar. January 27/28.
78. **Minot, ND.** 1995. Swine nutrition. North Dakota Pork Producers 23rd Annual State Convention. January 18.
77. **Saskatoon, SK.** 1994. Designing feeding programs for shelter-style pig housing. Q2 Seminar. November 30.
76. **Saskatoon, SK.** 1994. Wheat, barley, peas, more than just commodities. Saskatchewan Pork Industry Symposium. November 16/17.
75. **Saskatoon, SK.** 1994. What about PST. Western Canadian Association Swine Practitioners. October 14/15.
74. **Saskatoon, SK.** 1994. Thinking small in swine nutrition. Western Canadian Association Swine Practitioners. October 14/15.
73. **Regina, SK.** 1994. Research strategies in the design of swine barns and related equipment. Forum on Innovations for Swine Housing. Canadian Society of Agricultural Engineers/Canadian Society of Animal Science. July 14.
72. **Guelph, ON.** 1994. Precision in swine diet formulation, an integrated approach. Eastern Nutrition Conference. April 19/20.
71. **Saskatoon, SK.** 1993. Practical applications of phase feeding technology. Saskatchewan Pork Industry Symposium. November 17/18.

70. **Drummondville, QC.** 1993. Integration de la nutrition et de la regie pour maximiser vos profits en engraissement. Colloque sur la Production Porcine. November 3.
69. **Kansas City, KS.** 1993. Precision in swine feeding programs, an impossible dream? North American Swine Nutrition Symposium. October 27/28.
68. **Acme, AB.** 1993. Update on research at Prairie Swine Centre Inc. National Marketing Meeting, Pig Improvement Canada. September 17.
67. **London, ON.** 1993. Integrating nutrition and management to maximize profitability. Presentations sponsored by Pfizer at seven meetings, including Ralston Purina Canada, Master Feeds, Shur-Gain Ltd., Grand Valley Fortifiers, Ontario Association of Swine Practitioners. February 18/22.
66. **Lacombe, AB.** 1993. Integrating nutrition and management to maximize profitability. Quality Feeds Customer Appreciation Seminar. February 16.
65. **Drummondville, QC.** 1992. Acid-base balance in animal nutrition. BASF Technical Symposium. September 23.
64. **Ingersoll, ON.** 1992. Acid-base balance in animal nutrition. BASF Technical Symposium. September 22.
63. **Guelph, ON.** 1992. Current applications of swine growth simulation models. Guelph Nutrition Conference.
62. **Camrose, AB.** 1991. The important first six weeks of life. National Pig Development Co. Ltd. November 28
61. **High River, AB.** 1991. The important first six weeks of life. National Pig Development Co. Ltd. November 27.
60. **Regina, SK.** 1991. Research at Prairie Swine Centre. National Pig Development Co. Ltd. November 21.
59. **Minot, ND.** 1991. How do they feed for lean in Canada. Northern Swine Symposium. October 31/November 1.
58. **Saskatoon, SK.** 1991. The Prairie Swine Centre – Past, present and future. WCVN Lecture Series, University of Saskatchewan. October 28.
57. **Coalinga, CA.** 1991. Acid-base balance in livestock nutrition: Principles and applications. American Registry of Professional Animal Scientists Continuing Education Conference. October 16.
56. **Winnipeg, MB.** 1991. Swine nutrition. Advisor Certification Program, Canadian Feed Industry Association. May 17.
55. **Lelystad, The Netherlands.** 1991. Zuur/Base Evenwicht Varkens. Research Institute for Livestock feeding and Nutrition. April 11.
54. **Saskatoon, SK.** 1991. Prairie Swine Centre grower-finisher project. Saskatchewan Pork Producers Marketing Board. April 3.
53. **Humboldt, SK.** 1991. Swine nutrition and management. Pork producer meeting. April 2.
52. **Minneapolis, MN.** 1991. Feeding the female pig, a factorial approach. Nutrition Seminar, Annual Meeting, American Association of Swine Practitioners. March 3/5.
51. **Minneapolis, MN.** 1991. Economics of lean production. Annual Meeting, American Association of Swine Practitioners. March 3/5.

50. **Saskatoon, SK.** 1991. Prairie Swine Centre Update. Livestock Update '91. University of Saskatchewan. February 18.
49. **Lacombe, AB.** 1991. Feeding the modern lean, fast-growing pig. Lacombe Hog Producer Seminar, Quality Feeds. February 13.
48. **Winnipeg, MB.** 1991. The importance of water quality in swine nutrition. Manitoba Swine Seminar. January 29/30.
47. **Winnipeg, MB.** 1991. Feeding and management strategies for the growing and finishing pig. Manitoba Swine Seminar. January 29/30.
46. **Humboldt, SK.** 1990. Water quality. Pork producer seminar. October 26
45. **Swift Current, SK.** 1990. Nutrition and feeding of pigs. October 24.
44. **St. Pauls, MN.** 1990. Water requirements of pigs, principles and applications. Minnesota Swine Conference for Veterinarians, University of Minnesota. September 16/18.
43. **St. Pauls, MN.** 1990. Assessing water quality: separating fact from myth. Minnesota Swine Conference for Veterinarians, University of Minnesota. September 16/18.
42. **Calgary, AB.** 1990. Probiotics, opportunities and applications. Western Nutrition Conference. September 13/14.
41. **Montreal, QC.** 1990. Putting research knowledge of cation-anion balance in poultry and swine nutrition into practice. Scientific Advisory Board Conference, Ralston-Purina International. July 8-13.
40. **Chilliwack, BC.** 1990. Depopulation and repopulation – The theories and practice. Pork Producers' Seminar, East Chilliwack Co-op. May 8.
39. **Lacombe, AB.** 1990. Opportunities in the feeder barn. Lacombe Hog Producer Seminar, Quality Feeds. February 13.
38. **Sutton Bonington, UK.** 1990. Water for piglets and lactating sows, quantity, quality and quandaries. 24th University of Nottingham Feed Manufac. Conference. January 3/5.
37. **Banff, AB.** 1990. Potential for the use of antibiotics and probiotics as growth promoters. Banff Pork Symposium.
36. **Saskatoon, SK.** 1989. Choosing marketing strategies to improve profits. Saskatchewan Pork Industry Symposium. November 15/16.
35. **Swift Current, SK.** 1989. Feeding of pigs. Rush Lake Veterinary Clinic. September 19.
34. **Anola, MB.** 1989. Nutritionist's perspective of high health herds. Manitoba East Hog Seminar. March 8.
33. **Anola, MB.** 1989. Feeder barn management in a dressed market. Manitoba East Hog Seminar. March 8.
32. **Saskatoon, SK.** 1989. What's new in water quality. Warman Veterinary Clinic. February 23.
31. **Banff, AB.** 1989. Lost opportunities in the feeder barn. Banff Pork Seminar. January 25/27.
30. **Sutton Bonington, UK.** 1989. The physiological basis of electrolytes in animal nutrition. 23rd University of Nottingham Feed Manufac. Conference. January 4/6.
29. **Saskatoon, SK.** 1989. Water quality - implications in pork production. Western Nutrition Conference
28. **Toronto, ON.** 1989. The role of acid-base balance in animal nutrition. Guelph Nutrition Conference.

27. **Lexington, KY.** 1989. Water quality and quantity, importance in animal and poultry production. Alltech's Fifth Annual Symposium.
26. **Regina, SK.** 1988. Sow nutrition and management. Multipliers Annual Meeting, National Pig Development. November 30.
25. **Saskatoon, SK.** 1988. New directions for the Prairie Swine Centre. Annual Meeting, Western Canadian Association of Swine Practitioners. November 17/18.
24. **Saskatoon, SK.** 1988. Value of growth promoters for growing-finishing swine. Warman Veterinary Clinic. October 30.
23. **Saskatoon, SK.** 1988. Value of a baby pig starter. Warman Veterinary Clinic. October 30.
22. **Drummondville, QC.** 1988. Influence of water quality on animal production. "Inf-Eau" Symposium, Association Quebecois Agronomes en Zootechnie. October 12.
21. **Matsqui, BC.** 1988. Sow management and nutrition. Pacific Poultry and Swine Exposition. September 20-21.
20. **Niverville, MB.** 1988. Feeder barn management. Niverville Feed and Farm Supply. April 12.
19. **Saskatoon, SK.** 1988. The Prairie Swine Centre. Swine Improvement Services Co-op. April 8.
18. **Saskatoon, SK.** 1988. Water quality. Saskatchewan Poultry Industry Conference. March 4.
17. **North Battleford, SK.** 1988. Swine management. Pork producer meeting. February 9.
16. **Saskatoon, SK.** 1988. Biotechnology - animal applications. Saskatchewan Swine Symposium.
15. **Winnipeg, MB.** 1988. Lost opportunities in the feeder barn. Manitoba Swine Seminar.
14. **Winnipeg, MB.** 1988. Growth promotion - what's in store. Manitoba Swine Seminar.
13. **Spokane, WA.** 1988. Dietary undetermined anion, acid-base balance and animal nutrition. Pacific Northwest Animal Nutrition Conference
12. **Lexington, KY** 1988. The physiological basis of electrolytes, an often-misunderstood aspect of nutrition. Alltech's Fourth Annual Symposium.
11. **Prince Alberta, SK.** 1987. Prairie Swine Centre – What's new? Saskatchewan Agriculture Northeast/northwest Regions Extension Staff meeting. December 17.
10. **Saskatoon, SK.** 1987. Cation – anion balance - swine. 36<sup>th</sup> Annual Expert Committee on Farm Animal Nutrition.
9. **Syracuse, NY.** 1985. The nature of the interactions between dietary amino acids and minerals. Cornell Nutrition Conference
8. **Syracuse, NY.** 1984. Nutritional and physiological implications of dietary electrolyte balance in swine diets. Cornell Nutrition Conference.
7. **Baltimore, MD.** 1984. Nutritional interactions of electrolytes and amino acids in poultry and swine. Maryland Nutrition Conference.
6. **Red Deer, AB.** 1981. The value of feed additives: feed industry perspective. Alberta Pork Congress.
5. **Saskatoon, SK.** 1980. Choline for poultry and swine. Western Nutrition Conference
4. **Saskatoon, SK.** 1979. Interactions of nutrition and disease. V.I.D.O. Swine Diseases Seminar.
3. **Saskatoon, SK.** 1978. Pig starter diets. Saskatchewan Swine Symposium
2. **Saskatoon, SK.** 1977. Common feed and feeding problems. Saskatchewan Swine Symposium

1. **Toronto, ON.** 1976. Utilization of wheat shorts in swine diets. Nutrition Conference Feed Man., University of Guelph-C.F.I.A.

#### **LOCAL EXTENSION PRESENTATIONS**

41. **Ames, IA.** 2018. Feeding DDGS to swine: Nutritional and practical considerations. United States Grains Council Mexican Feed Nutrition Team. August 31.
40. **Ames, IA.** 2018. Feeding DDGS to swine: Nutritional and practical considerations. United States Grains Council Southeast Asia Trade Team. May 24.
39. **Ames, IA.** 2017. Feeding DDGS to swine: Nutritional and practical considerations. 2017 Japan DDGS Promotion Team to the U.S. October 17.
82. **Ames, IA.** 2017. Can diet be used to improve gut health? What role does drinking water play? Iowa Swine Day. June 29.
37. **Ames, IA.** 2016. Optimizing the use of dietary fats: quality control, nutritional value and practical applications. Iowa Swine Day. June 30.
36. **Des Moines, IA.** 2016. Round Table discussion for swine nutritionists. Ad hoc meeting; helped develop program and chaired part of session. June 7.
35. **Pipestone, MN.** 2016. Provided overview of Applied Swine Nutrition Research and Extension Program, along with graduate students. Nutriquest.
34. **Ames, IA.** 2016. Provided overview of Applied Swine Nutrition Research and Extension Program, along with graduate students. Provimi. March 3.
33. **Ames, IA.** 2013. Effective use of low energy feedstuffs. Vietnamese Study Tour to Iowa. August 14.
32. **Ames, IA.** 2013. Effective use of low energy feedstuffs. German Study Tour of North America. June 19.
31. **Ames, IA.** 2011. Provided overview of Applied Swine Nutrition Research and Extension Program, along with graduate students. Hanor. December 1.
30. **Sioux Falls, SD.** 2011. Nutritional value of dried distillers grains with solubles. Poet. November 28.
29. **Ames, IA.** 2011. Swine research overview. Danish Pig Research Center. September 7.
28. **Ames, IA.** 2011. Research review and summary. Mobley Pork Producers Club. September 1.
27. **Elk River, MN.** 2011. Provided overview of Applied Swine Nutrition Research and Extension Program, along with graduate students. Cargill Research. August 9.
26. **Ames, IA.** 2011. Provided overview of Applied Swine Nutrition Research and Extension Program, along with graduate students. Elanco Animal Health. June 15.
25. **Des Moines, IA.** 2011. New products review panel. National Hog Farmer. June 9.
24. **Ames, IA.** 2011. What are we learning about the biology of the fallback pig? Iowa Feed and Nutrition Seminar. April 5.
23. **Ames, IA.** 2011. Strategies for using moldy corn in pig diets. Iowa Feed and Nutrition Seminar. April 5.
22. **Iowa Falls, IA.** 2011. Report results of fallback pig study, with Cassie Jones. Iowa Select Farms. April 1.
21. **Ames, IA.** 2011. Swine Specialist training session. Iowa Pork Industry Center. March 23.



20. **Des Moines, IA.** 2011. Feed cost focus group meeting. National Pork Board. March 17.
19. **Newell, IA.** 2011. Strategic nutrition planning meeting. Market 1. February 15.
18. **Sheldon, IA.** 2009. Strategies to reduce breeding herd feed costs. Swine Transition Options Seminar. Iowa State University and Iowa Pork Industry Center. August 5.
17. **Sheldon, IA.** 2009. Cost effective nutrition. Swine Transition Options Seminar. Iowa State University and Iowa Pork Industry Center. August 5.
16. **Sheldon, IA.** 2009. Strategies to reduce finishing feed costs. Swine Transition Options Seminar. Iowa State University and Iowa Pork Industry Center. August 5.
15. **Ames, IA.** 2009. Cost effective nutrition for niche herds. Iowa State University Extension Webcast meeting. February 3.
14. **Ames, IA.** 2009. Swine feeding and management update. Iowa Feed and Nutrition Seminar. January 27.
13. **Winnipeg, MB.** 2005. Net energy for swine: will its use save or cost us money? Focus on the Future Conference, Prairie Swine Centre Inc. March 8.
12. **Red Deer, AB.** 2004. Surviving the tough times. Focus on the Future Conference, Prairie Swine Centre Inc. March 30.
11. **Red Deer, AB.** 2004. Another look at the nursery: Financial considerations. Focus on the Future Conference, Prairie Swine Centre Inc. March 30.
10. **Saskatoon, SK.** 2003. Variation in the finishing barn. A checklist to improve performance. Focus on the Future Conference, Prairie Swine Centre Inc. March 25-26.
9. **Winnipeg, MB.** 2002. Nursery management and performance. Focus on the Future Conference, Prairie Swine Centre Inc. February 19-20.
8. **Red Deer, AB.** 2001. Factors driving the improvement of average daily gain. Focus on the Future Conference, Prairie Swine Centre Inc. February 20-21.
7. **Saskatoon, SK.** 2000. PSC Elstow research plan. Focus on the Future Conference, Prairie Swine Centre Inc. Saskatoon, SK. March 28-29.
6. **Saskatoon, SK.** 2000. Amino acid requirements based on protein deposition rates. Focus on the Future Conference, Prairie Swine Centre Inc. March 28-29.
5. **Saskatoon, SK.** 1997. Further studies on site-segregated early weaning. Prairie Swine Centre Inc. Satellite Conference. February 18.
4. **Saskatoon, SK.** 1996. Feed processing and delivery. Prairie Swine Centre Inc. Satellite Conference. February 13.
3. **Saskatoon, SK.** 1992. The industry is changing; so are we. Focusing on finishing, Prairie Swine Centre Inc. October 8.
2. **Saskatoon, SK.** 1989. Nutrients. More than numbers in a book. Swine Nutrition Seminar. April 4/5.
1. **Melfort, SK.** 1978. Dry sow feeding and management. Melfort Swine Field Day, Melfort, SK.

## **WEBINARS AND PODCASTS**

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37. **J.F. Patience, T.L. Mader, G. Tresoldi and J. Woods.** 2024. Heat stress. PAACO Training Podcast. Recorded June 10.

36. **J.F. Patience.** 2024. Strategies to reduce antibiotic usage in pork production. Swine It Podcast Show. Recorded May 3.
35. **J.F. Patience.** 2024. Economic impact of swine health - Part 2. The Swine Health Blackbelt. Recorded April 5.
34. **J.F. Patience.** 2024. Economic impact of swine health - Part 1. The Swine Health Blackbelt. Recorded April 5.
33. **J.F. Patience.** 2024. Host. Guest: Dr. Laura Greiner, Iowa State University, Ames, IA. Managing sow body condition. Swine It Podcast Show Canada. Recorded January 26.
32. **J.F. Patience.** 2024. Host. Guest: Dr. Laura Greiner, Iowa State University, Ames, IA. Lactation sow tips. Swine It Podcast Show Canada. Recorded January 26.
31. **J.F. Patience.** 2024. Host. Guest: Dr. Laura Greiner, Iowa State University, Ames, IA. Gilt development secrets. Swine It Podcast Show Canada. Recorded January 26.
30. **J.F. Patience.** 2024. Host. Guest: Dr. Lee-Anne Huber, University of Guelph. Swine nutrition innovations. Swine It Podcast Show Canada. Recorded January 19.
29. **J.F. Patience.** 2024. Host. Guest: Dr. Luigi Faucitano, Agriculture and Agrifood Canada, Sherbrooke, QC. Pig transport practices. Swine It Podcast Show Canada. Recorded January 5.
28. **J.F. Patience.** 2023. Host. Guest: Dr. Dan Anderson, Iowa State University, Ames, IA. Swine 26manure management. Swine It Podcast Show Canada. Recorded November 27.
26. **J.F. Patience.** 2023. Host. Guest: Dr. Dan Columbus, University of Saskatchewan, Saskatoon, SK. Functional nutrients in pigs. Swine It Podcast Show Canada. Recorded November 16.
25. **J.F. Patience.** 2023. Host. Guest: Dr. Luigi Faucitano, Agriculture and Agrifood Canada, Sherbrooke, QC. Pig transport practices. Swine It Podcast Show Canada. Recorded November 15.
24. **J.F. Patience.** 2023. Host. Guest: Dr. Berta Llorens, Laval University, Quebec, QC. Balanced diets and swine health. Swine It Podcast Show Canada. Recorded October 13.
23. **J.F. Patience.** 2023. Host. Guest: Harry Siemens. Transparent communications. Swine It Podcast Show Canada. Recorded October 2.
22. **J.F. Patience.** 2023. Host. Guest: Dr. Tyler Burnham, Nutrition Partners. Mycotoxins in swine feed. Swine It Podcast Show Canada. Recorded September 28.
21. **J.F. Patience.** 2023. Host. Guest: Cam Dahl, Manitoba Pork, Winnipeg, MB. Canadian pork in trade. Swine It Podcast Show Canada. Recorded September 26.
20. **J.F. Patience.** 2023. Host. Guest: Dr. Wayne Lees, Squeal on Pigs. Wild pig control strategies. Swine It Podcast Show Canada. Recorded September 25.
19. **J.F. Patience.** 2023. Host. Guest: Dr. Manuel Juarez, Agriculture and Agrifood Canada, Sherbrooke, QC. Pork belly quality. Swine It Podcast Show Canada. Recorded August 23.
18. **J.F. Patience.** 2023. Host. Guest: Dan Bussieres. Ceres. Swine It Podcast Show Canada. Recorded August 21.
17. **J.F. Patience.** 2023. Host. Guest: Dr. Luc Defresne. Swine Veterinary Partners. Modernizing biosecurity. Swine It Podcast Show Canada. Recorded July 18.
16. **J.F. Patience.** 2023. Host. Guest: Dr. Karine Talbot, HyLife, Steinbach, Manitoba. Biocontainment through geofencing. Swine It Podcast Show Canada. Recorded July 17.

15. **J.F. Patience.** 2023. Host. Guest: Dr. Jenelle Hamblin, Director Swine Health, Manitoba Pork. Winnipeg, MB. PED challenges and strategies. Swine It Podcast Show Canada. Recorded June 19.
14. **J.F. Patience.** 2023. Host. Guest: Dr. Ryan Tenbergen, Demeter Veterinary Service, Woodstock, ON. *Streptococcus zooepidemicus* and other emerging viruses. Swine It Podcast Show Canada. Recorded June 16.
13. **J.F. Patience.** 2023. Host. Guest: Dr. Candido Pomar, Agriculture and Agrifood Canada, Sherbrooke, QC. Tailored pig feeding. Swine It Podcast Show Canada.. Recorded May 31.
12. **J.F. Patience.** 2023. Host. Guest: Dr. Manuel Juarez, Agriculture and Agrifood Canada, Sherbrooke, QC. Assessing pork quality. Swine It Podcast Show Canada. Recorded May 31.
11. **J.F. Patience.** 2023. Host. Guest: Dr. Alison Duncan, University of Guelph. Understanding functional foods. Swine It Podcast Show Canada. Recorded May 23.
10. **J.F. Patience.** 2023. Host. Guest: Dr. Cordell Young, Lethbridge, AB. Using checklists in swine medicine. Swine It Podcast Show Canada. Recorded April 28.
9. **J.F. Patience.** 2023. Host. Guest: Dr. Aline Remus, Agriculture and Agrifood Canada, Sherbrooke, QC. Precision feeding in pigs. Swine It Podcast Show Canada. Recorded April 5.
8. **J.F. Patience.** 2023. Host. Guest: Dr. Todd Bergen-Henengouwen, Serecon. Managing a disease outbreak. Swine It Podcast Show Canada. Recorded March 1.
7. **J.F. Patience.** 2023. Host, Guest: Dr. Ellen Goddard, University of Alberta. Technology and consumer reception. Swine It Podcast Show Canada. Recorded February 28
6. **J.F. Patience.** 2021. Water: Essential nutrient often overlooked. Pig Health Today (Swineweb.com) podcast. January 27.
5. **J.F. Patience.** 2020. To the pig, water is much more than merely something to drink. Tonicity webinar series. November 13.
4. Ross, J., **J.F. Patience**, NK. Gabler and L.L. Greiner. 2020. Managing Pork Market Disruptions: Nutritional strategies to slow growth rate - Part 2. Iowa Pork Industry Center. May 28.
3. Ross, J., **J.F. Patience** and L.L. Greiner, L. 2020. Managing pork market disruptions: Nutritional strategies to slow growth rate – Part 1. Iowa Pork Industry Center. April 21.
2. **Patience, J.F.** 2020. Managing pig growth during special conditions. Swine IT Podcast Show. Recorded April 16.
1. **Patience, J.F.** 2020. One of the most important decisions in swine production: dietary energy level. Swine It Podcast Show. Recorded April 11.