

# JOHN FRANCIS PATIENCE, Ph.D., FCSAS, FASAS

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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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- 2020 (Apr to Jun) Iowa State University  
Professor and Associate Chair
- 2020 (Jan to Mar) Iowa State University  
Professor and Interim Chair
- 2019 (Nov to Dec) Iowa State University  
Professor and Associate Chair
- 2010 - 2021 Iowa State University  
Professor, Dept. of Animal Science  
*Appointment: 65% Research, 35% Extension*
- 2008 - 2010 Iowa State University  
Associate Professor, Dept. of Animal Science
- 1998 - 2008 PSC Elstow Research Farm Inc.  
President and Chief Executive Officer (Founding)
- 1991 - 2008 Prairie Swine Centre Inc.  
President and Chief Executive Officer (Founding)
- 1989 - 1991 University of Saskatchewan  
Associate Professor, Dept. of Animal & Poultry Science
- 1987 - 1989 University of Saskatchewan  
Research Scientist, Dept. of Animal & Poultry Science
- 1985 - 1987 Agriculture Canada  
Visiting Fellow, Animal Research Centre

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|-------------|---|
| 1982 - 1985 | Cornell University<br>Graduate Research Assistant                     |
| 1978 - 1982 | Federated Co-operatives Ltd.<br>Head Nutritionist, Feed Department    |
| 1975 - 1978 | Saskatchewan Department of Agriculture<br>Provincial Swine Specialist |

## **CONCURRENT APPOINTMENTS**

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|             |   |
|-------------|---|
| 2017        | Director, Intensive Graduate Course “Nutrition and Management of Swine Production Systems”<br>University of Buenos Aires, Argentina |
| 2016        | Visiting Professor, MAFIC<br>China Agricultural University, Beijing, China  |
| 2012        | Visiting Professor,<br>Section of Animal Science, Department of Agriculture, University of Sassari, Sassari, Italy                  |
| 2004 - 2014 | Adjunct Professor, Division of Nutrition and Dietetics<br>University of Saskatchewan, Saskatoon, Canada                             |
| 1987 - 2020 | Adjunct Professor, Dept. of Animal & Poultry Science<br>University of Saskatchewan, Saskatoon, Canada                               |
| 1987 - 1991 | Director, Prairie Swine Centre<br>University of Saskatchewan, Saskatoon, Canada   |

## **RESEARCH TOPICS**

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- Maximizing the effectiveness of the phytase enzyme, including optimizing super-dosing
- Maximizing the efficiency of dietary phosphorus utilization
- Impact of dietary toxins in pig health and performance: deoxynivalenol, zearalenone, fumonisin, ergot
- Animal management systems and herd health, including the financial cost of disease
- The impact of fiber on pig performance, energy and nutrient utilization and response to gastrointestinal disease
- Drivers of feed intake
- Energy metabolism: how to best supply energy to the pig and how the pig uses dietary energy for maintenance, growth and lactation
- Amino acid requirements, sources and metabolism in sows and wean-to-finish production
- Evaluation of feed additives designed to improve pig performance and health
- The use of enzymes added to the feed on growth performance and energy and nutrient utilization
- Ingredient evaluation: barley, wheat, corn, canola meal, DDGS, rye,
- Impact of dietary electrolyte balance (dEB) and dietary undetermined anion (dUA) on growth performance, response to heat stress and meat quality

- Water in swine nutrition: quality, delivery, requirements
- General management of pigs from wean to finish

## **HONORS**

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- 2019 Guest Editor, Special volume (Vol. 13; No. 12) of the journal “Animal” (Australia Pig Science Association)
- 2018 Kees de Lange Lecturer (London Swine Conference, Ontario Ministry of Agriculture, Food and Rural Affairs)
- 2019 Master of the Pork Industry (National Hog Farmer)
- 2017 Honorary Master Pork Producer (Iowa Pork Producers Association)
- 2017 1<sup>st</sup> 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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- 2019 Fellow Award (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)
- 2003 25<sup>th</sup> Anniversary Honorary Chair (Saskatchewan Pork Industry Symposium)

- 1988 Honorary Guest, Annual Family Weekend (Canadian Feed Industry Association – Saskatchewan Division)
- 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

## **PUBLICATION TOTALS**

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|   |     |
|---|-----|
| Books   | 7   |
| Book chapters                                 | 15  |
| Refereed articles                             | 157 |
| Theses/dissertations supervised/co-supervised | 28  |
| Abstracts - Refereed                          | 252 |
| Abstracts - Non-Refereed                      | 46  |
| Conference proceedings                        | 164 |
| Monographs                                    | 121 |
| Research and extension reports                | 156 |
| Factsheets                                    | 16  |
| Trade magazines/web-based articles            | 46  |
| Invited speaking engagements                  | 434 |

## **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 Organizer
- Iowa Swine Day
  - 2019 – 2021 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 - 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 - 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 - Member

## **SERVICE TO ACADEMIC JOURNALS**

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- Translational Animal Science
  - 2017 - 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
  - 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
  - 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 Science
  - Journal of Applied Research
  - Journal of Nutrition
  - Journal of Nutritional Biochemistry
  - Journal of the Science of Food and Agriculture
  - Livestock Science
  - Livestock Production Science
  - Meat Science
  - Journal of Veterinary Research
  - Swine Health and Production
  - Translational Animal Science
  - World Mariculture Journal

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

| <b>Student</b>                   | <b>Degree/<br/>Date</b> | <b>Major</b>            | <b>Role</b> | <b>Initial Placement</b>   | <b>Current Employment</b>  |
|----------------------------------|-------------------------|-------------------------|-------------|--|--|
| Ruckman, Leigh <sup>20</sup>     | M.S. Expected<br>2021   | Animal<br>Science       | Advisor     | Swine Formulation Specialist,<br>Provimi/Cargill, Brookville, OH | Swine Formulation Specialist,<br>Provimi/Cargill, Brookville, OH |
| Petry, Amy <sup>19</sup>         | Ph.D. 2020              | Animal<br>Science       | Advisor     | Assistant Professor, Texas Tech<br>University, Lubbock, TX       | Assistant Professor, Texas Tech<br>University, Lubbock, TX       |
| Acosta, Jesus <sup>18</sup>      | Ph.D. 2019              | Animal<br>Science       | Advisor     | Research Scientist, Novus<br>International, St. Louis, MO        | Research Scientist, Novus<br>International, St. Louis, MO        |
| Becker, Spenser <sup>17</sup>    | M.S. 2019               | Animal<br>Science       | Advisor     | Ph.D. student, Iowa State<br>University, Ames, IA                | Ph.D. student, Iowa State<br>University, Ames, IA                |
| Li, Qingyun <sup>16</sup>        | Ph.D. 2018              | Animal<br>Science       | Advisor     | Swine Nutritionist, Provimi,<br>Brookville, OH                   | Swine Nutritionist,<br>Provimi/Cargill, Brookville, OH           |
| Olsen, Kristin <sup>15</sup>     | M.S. 2018               | Animal<br>Science       | Advisor     | Extension Program Specialist,<br>IPIC, ISU, Ames, IA             | Swine Formulation Specialist,<br>Provimi/Cargill, Brookville, OH |
| Huntley, Nichole <sup>14</sup>   | Ph.D. 2018              | Animal<br>Science       | Advisor     | Nutritionist, Mazuri Exotic<br>Animal Nutrition, St. Louis, MO   | Nutritionist, Mazuri Exotic<br>Animal Nutrition, St. Louis, MO   |
| Cornelison, Alyssa <sup>13</sup> | M.S. 2017               | Animal<br>Science       | Advisor     | Swine Technical Sales Manager,<br>EW Nutrition, Des Moines, IA   | Research Assistant, Zinpro<br>Corp., Eden Prairie, MN            |
| Kellner, Trey <sup>12</sup>      | Ph.D. 2017              | Animal<br>Science       | Advisor     | Nutritionist, AMVC, Audubon,<br>IA                               | Nutritionist, AMVC, Audubon,<br>IA                               |
| Weiland, Sarah <sup>11</sup>     | M.S. 2017               | Animal<br>Science       | Advisor     | Nutritionist Technician,<br>Nutriquest, Mason City, IA           | Nutritionist Technician,<br>Nutriquest, Mason City, IA           |
| Holloway, Cassie <sup>10</sup>   | M.S. 2016               | Animal<br>Science       | Advisor     | Animal Health Specialist,<br>Olmix, Black River Falls, WI.       | Store Manager, The Mill of<br>Whiteford, Upper Falls, MD         |
| Acosta, Jesus <sup>9</sup>       | M.S. 2015               | Animal<br>Science       | Advisor     | Ph.D. student, Iowa State<br>University, Ames, IA                | Ph.D. student, Iowa State<br>University, Ames, IA                |
| Pilcher, Chad <sup>8</sup>       | Ph.D. 2015              | Nutritional<br>Sciences | Advisor     | Nutritionist, Provimi<br>Brookville, OH                          | Swine Nutritionist,<br>Provimi/Cargill, Brookville, OH           |



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|--------------------------------|-------------|----------------------|----------------------------|--|---|
| 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    | Nutritionist, The Hanor Company, Webster City, IA                   |
| 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/<br>Dr. Stalder | Research Mgr., Gourley Bros.                         | Research Mgr., Gourley Bros.  |
| Jones, Cassandra <sup>2</sup>  | Ph.D. 2012  | Nutritional Sciences | Advisor                    | Assistant Professor, Kansas State University         | Associate Professor, Kansas State University                        |
| Jacobs, Brandy <sup>1</sup>    | M.Sc., 2011 | Animal Science       | Co-Advisor/<br>Dr. Kerr    | Research Technician, The Maschhoffs                  | Finisher Field Supervisor, Kalmbach Feeds                           |

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.

<sup>12</sup> Impact of dietary fat composition on digestion, metabolism and deposition of fat in the growing pig.

<sup>13</sup> The impact of a naturally occurring health challenge on U.S. pork production in grow-finish pigs.

<sup>14</sup> Swine carbohydrate metabolism in relation to dietary energy partitioning.

<sup>15</sup> Investigating methods of evaluating swine feed additives: phytase and alternatives to antibiotic growth promoters

<sup>16</sup> Impact of dietary fiber and exogenous carbohydrases in weaned pigs.

<sup>17</sup> Investigation of an ETEC challenge and supplementation of direct-fed microbials in weaned pigs.

- <sup>18</sup> The role of carbohydrates when applying different nutritional interventions to pigs.
- <sup>19</sup> An investigation into the mechanism of action of xylanase in pigs fed insoluble corn-based fiber
- <sup>20</sup> 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, Spencer  | 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  |

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| 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 |

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|-------------------|------|---|
| 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/<br/>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/<br>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/<br>Dr. Beaulieu | Animal Health Program Officer, Sask. Agriculture and Food, Regina, SK  | Animal Health Program Officer, Sask. Agriculture and Food, 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, Nutrition 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**

29. Mayorga, Johana. XXXX. TBD. 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 THESIS**

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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**

---

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**

---

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**

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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: 2018-2020tant
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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- 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
  - 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

### **NUTRITION ADVISORY PANELS**

- 2019 - 2020 Research Advisory Board, TriOak Foods, Oakville, IA
- 2018 Micronutrients Swine Advisory Board, Indianapolis, IN
- 2018 – Nutrition Advisory Board, Charoen Pokphand, Beijing, China
- 2018 APC Swine Industry Advisory Board, Ankeny, IA
- 2014 - Nutrition Advisory Board, Pipestone Grow-Finish, Pipestone, MN
- 2013 - Nutrition Advisory Board, International Ingredients Corporation, St. Louis, MO
- 2012 - 2015 Elanco Animal Health, Indianapolis, IN
- 2012 Pfizer Animal Health/Zoetis, Florham Park, NJ

### **CONSULTING CLIENTS**

- 2019 - 2021 Zoetis Inc., Parsippany, NJ
- 2018 - TriOak Foods, Oakville, IA

- 2018 - 2019      Micronutrients, Indianapolis, IN
- 2017 -            Provimi NA, Cargill Premix and Nutrition, Brookville, OH
- 2017 -            CSA Animal Nutrition, Dayton, OH
- 2015 - 2016      Biofarma SA, Cordoba, Argentina
- 2014 -            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

## **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**

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### ➤ 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
- Agricoll 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**

- 2019 - TriOak Foods, Oakville, IA
- 2017 - Provimi NA, Brookville, OH
- 2017 - CSA Animal Nutrition, Dayton, OH

- 2015 - Biofarma SA, Cordoba, Argentina
- 2014 - 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

## **OTHER ACTIVITIES**

- 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

#### Published

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- . Weiland, S.A. and **J.F. Patience**. Effect of xylanase supplementation on nutrient and energy digestibility at three time periods in growing pigs fed diets based on corn or corn distillers dried grains with solubles. *Anim. Feed Sci. Tech.* (ANIFEE-D-20-00139; Submitted 2020-04-16; Returned 2020-09-09; Due 2020-11-08; R1 Resubmitted 2020-11-07; R2 Resubmitted 2020-12-02).

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#### **DISSERTATIONS/THESES SUPERVISED/CO-SUPERVISED**

28. Petry, Amy. 2020. An investigation into the mechanism of action of xylanase in pigs fed insoluble corn-based fiber. Ph.D. Dissertation, Iowa State University, Ames, IA. 236 pp.

27. Acosta, Jesus. 2019. The role of carbohydrates when applying different nutritional interventions to nursery and growing pigs. Ph.D. Dissertation, Iowa State University, Ames, IA. 185 pp.
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25. Li, Qingyun. 2018. Impact of dietary fiber and exogenous carbohydrases in weaned pigs. Ph.D. Dissertation, Iowa State University, Ames, IA. 205 pp.
24. Olsen, K.M. 2018. Investigating methods of evaluating swine feed additives: phytase and alternatives to antibiotic growth promoters. M.S. Thesis, Iowa State University, Ames, IA. 118 pp.
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#### Factsheets

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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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7. **Patience, J.F.** Not dated. Minerals for swine. Swine Facts. Saskatchewan Agriculture, Regina, SK.
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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.
6. de Lange, C.F.M. and **J.F. Patience**. 1994. Canadian research on swine feed ingredients. Pig News and Information, p. 11N-14N.
5. de Lange, C.F.M. and **J.F. Patience**. 1992. The market outlook - Canada. Pigtales International Review 1990-91. Pigtales.
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

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. 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

- . **Ames, IA.** 2021. Nutritive and non-nutritive roles of fiber in the diet. What are we missing? International Conference on Swine Nutrition. August 26.
  - . **Ames, IA.** 2021. Drinking water management in wean to finish. Iowa Swine Day, June 24. (tentative)
361. **Online.** 2021. Strategies to reduce feed cost and increase net income when feed costs are rising. Conference on the Best US Practices of Pork Production and Swine Welfare, Association of Ukrainian Pork Producers. February 24.
  360. **Online.** 2021. Keys to achieving excellence in wean-to-finish production. The Best US Practices of Pork Production and Swine Welfare Conference, Association of Ukrainian Pork Producers. February 24.
  359. **Orange City, Osceola, Waverly, Washington.** 2021. Water quality, IPPA Regional Conferences, February 15, 16, 17, 18, 1.
  358. **Online.** 2020. Managing and feeding pigs during interruptions in processing. Saskatchewan Pork Symposium. November 12.
  357. **Online.** 2020. The changing world of swine nutrition: where do DDGS fit in? Distillers Grains and Co-Product Diversification Summit, November 5.
  356. **Online.** 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.

355. **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).
354. **Barcelona, Spain.** 2019. Susceptibility of fibre to carbohydrases and impact on performance in swine. International Fibre Summit, AB Vista. November 18.
353. **Zhengzhou, China.** 2019. Feeding and management in support of reduced antibiotic use in pork production. International Trace Mineral Nutrition Symposium, Zinpro Corp. September 10.
352. **Yokohama, Japan.** 2019. Feeding and management in support of reduced antibiotic use in pork production. International Trace Mineral Nutrition Symposium, Zinpro Corp. September 6.
351. **St. Louis, MO.** 2019. Insoluble fiber effects on nutrient digestibility. Nutrition Advisory Board, International Ingredients Corporation. August 7.
350. **Clive, IA.** 2019. Research vision for the future. Animal Science Committee. National Pork Board. August 2.
349. **Benoni, South Africa.** 2019. Feeding and management for antibiotic reduced/free pork production. Ensminger Pig Symposium. May 22-23.
348. **Key West, FL.** 2019. Maximizing the return on your investment in research. Full Value Nutrition Forum, Elanco Animal Health. May 1.
347. **Winnipeg, MB.** 2019. Water in your barn: The right amount, the right quality, the right delivery. Manitoba Swine Seminar. February 7.
346. **Saskatoon, SK.** 2018. Legislation. Consumerism. Export Regulations. Complicating the life of the nutritionist. Saskatchewan Pork Industry Symposium, November 15.
345. **Saskatoon, SK.** 2018. How can I improve feed efficiency in the barn. Saskatchewan Pork Industry Symposium, November 14.
344. **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.
343. **Zhengzhou, China.** 2018. How legislation, consumer preferences and economics are changing the way we feed pigs. Leman China Conference. October 20.
342. **Zhengzhou, China.** 2018. Practical approaches to improving feed efficiency. Leman China Conference. October 19.
341. **Zhengzhou, China.** 2018. Getting feed budgets right in order to maximize net income. Leman China Conference. October 19.
340. **St. Louis, MO.** 2018. Fiber. Can we live with it? Can we live without it? International Ingredients Nutrition Advisory Board, August 7.
339. **London, ON.** 2018. Workshop: Management and feeding to maximize efficiency, carcass quality and profits (with Joel DeRouchey). London Swine Conference. Mar. 28.
338. **San Diego, CA.** 2018. Designing and evaluating studies on non-antibiotic feed additives. American Association of Swine Veterinarians Pre-Conference Symposium. March 4.
337. **St. Louis, MO.** 2017. Alternatives to antibiotics in nursery diets: Different evaluative and functional approaches. International Ingredients Nutrition Advisory Board, November 7.
336. **Omaha, NE.** 2017. New developments in applied swine nutrition and management. Standard Nutrition Services Annual Meeting. October 25.

335. **Bloomington, MN.** 2017. Fiber utilization and energy systems in grow-finish pigs. Cargill Animal Nutrition Global Pork Forum. July 13.
334. **Phoenix, AR.** 2017. Improving growth and health performance: Feed additives. Elanco Nutrition Forum. May 2.
333. **Rosario, Argentina.** 2017. Modern sow farm photographic tour. Biofarma Producer Meeting. April 20.
332. **Rosario, Argentina.** 2017. Feeding fat to grow-finish pigs: Impact on performance and carcass quality. Biofarma Producer Meeting. April 20.
331. **Rosario, Argentina.** 2017. Impact of an increases health challenge on grow-finish growth performance, carcass characteristics and financial returns. Biofarma Producer Meeting. April 20.
330. **Rosario, Argentina.** 2017. Improving feed efficiency to increase net income. Biofarma Producer Meeting. April 20.
329. **Rosario, Argentina.** 2017. Feeding the nursery pig: Principles and practices. Biofarma Producer Meeting. April 20.
328. **Shanghai, China.** 2016. New gestating sow group housing with automatic feeders. Chinese Swine Industry Symposium. October 21.
327. **Shanghai, China.** 2016. USDA swine feed efficiency project: Final report and recommendations for improvement. Chinese Swine Industry Symposium. October 20.
326. **Saskatoon, SK.** 2016. Perspectives on 30 years of the Western Nutrition Conference: Then and now. Western Nutrition Conference. September 22.
325. **Saskatoon, SK.** 2016. Feed Efficiency: A multidisciplinary approach. Western Nutrition Conference. September 21.
324. **Des Moines, IA.** 2016. The importance of fiber in swine diets. ADM/Chr. Hansen Swine Nutrition Meeting. August 25.
323. **Zhengzhou, China.** 2016. Dietary fiber in pig diets. Henan Ground Group. July 13.
322. **Zhengzhou, China.** 2016. The most effective use of dietary fat. Henan Ground Group. July 13.
321. **Beijing, China.** 2016. How diet composition and formulation impact performance. Gintex Biotechnology. July 4.
320. **Okoboji, IA.** 2016. Nutrition: Research and technologies for the future. Hubbard Feeds Swine Production Seminar. March 23.
319. **New Orleans, LA.** 2016. Feed and other factors that drive feed efficiency. American Association of Swine Veterinarians Pre-Conference Symposium. February 28.
318. **Pipestone, MN.** 2016. Review of Swine Feed Efficiency Conference: “Take Home” messages. February 11.
317. **Rosario, Argentina.** 2015. Energy utilization by the pig: What is new and what is important. Biofarma International Conference on Animal Nutrition. November 18.
316. **Rosario, Argentina.** 2015. How my feeding program impacts pig performance: Practical examples. Biofarma International Conference on Animal Nutrition. November 18.
315. **Omaha, NE.** 2015. Fiber: what it is, what it does and why nutritionists should care. International Conference on Feed Efficiency in Swine. October 21.

314. **Omaha, NE.** 2015. Overview of the AFRI Feed Efficiency project. International Conference on Feed Efficiency in Swine. October 21.
313. **Brookville, OH.** 2015. Challenges and opportunities associated with the adoption of the net energy system. Cargill/Akey Seminar. October 7.
312. **St. Paul, MN.** 2015. Dietary fat: It is much more than an energy source to the pig. Leman Conference. September 21.
311. **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.
310. **Galena, IL.** 2015. Nutrition, pig performance and net income. Dekalb Producer Meeting. June 19.
309. **Morton, MN.** 2015. Nutritional impacts on performance. VitaPlus Swine Summit. March 27.
308. **Banff, AB.** 2015. Feed management to maximize feed efficiency and net revenue. Banff Pork Seminar. January 21&22.
307. **Ames, IA.** 2014. Update on nutrition research in Applied Swine Nutrition. Webinar sponsored by Land O'Lakes/Purina. December 1.
306. **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.
305. **Shanghai, China.** 2014. Managing low birth weight piglets to reduce their impact on farm productivity and animal flow. Chinese Swine Industry Symposium. October 31.
304. **Shanghai, China.** 2014. Feed efficiency in swine: New knowledge and practical approaches. Chinese Swine Industry Symposium. October 30.
303. **Indianapolis, IN.** 2014. Multigenerational selection for feed efficiency: implications on nutrition, disease and stress susceptibility. Midwest Swine Nutrition Conference. September 4.
302. **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.
301. **Ames, IA.** 2014. Preparing for the inevitable increase in dietary fiber in American swine diets. Webinar sponsored by National Pork Board. August 5.
300. **Guelph, ON.** 2014. Practical feeding management of pigs. May 15.
299. **Charleston, SC.** 2014. Addressing innovation demands within the swine industry. Elanco Full Value Nutrition Forum. April 30.
298. **Pitlochry, Scotland.** 2014. What does the fibre fraction mean for swine? Inspire - International Non-Starch Polysaccharide Forum. April 1.
297. **Rosario, Argentina.** 2013. Nutrition tools to improve variability in swine production. GTEP Swine Production Seminar. November 1.
296. **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.
295. **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.

294. **Ames, IA.** 2013. Nutritive value of drought stressed corn. Webinar sponsored by National Pork Board. August 20.
293. **Bangkok, Thailand.** 2013. Carcass and meat quality improvement in the pig. United States Grains Council. July 1.
292. **Bangkok, Thailand.** 2013. Current industry practice for pig production based on Agristats. United States Grains Council. July 1.
291. **Bangkok, Thailand.** 2013. Nutrient requirements of the modern pig – NRC 2012. United States Grains Council. July 1.
290. **Bangkok, Thailand.** 2013. Current status of feed additive utilization. United States Grains Council. July 1.304.
289. **Bogor, Indonesia.** 2013. Carcass and meat quality improvement in the pig. United States Grains Council. July 1.
288. **Bogor, Indonesia.** 2013. Current industry practice for pig production based on Agristats. United States Grains Council. July 1.
287. **Bogor, Indonesia.** 2013. Nutrient requirements of the modern pig – NRC 2012. United States Grains Council. July 1.
286. **Bogor, Indonesia.** 2013. Current status of feed additive utilization. United States Grains Council. July 1.
285. **Ames, IA.** 2013. Nutrition research at Iowa State University. Iowa Swine Day. June 26.
284. **Ames, IA.** 2013. Effective use of low energy feedstuffs. Murphy-Brown Research Committee. June 5.
283. **London, ON.** 2013. Feeding and barn management practices that maximize feed efficiency. London Swine Conference. March 27/28.
282. **London, ON.** 2013. Precision feeding and caloric efficiency. London Swine Conference. March 27/28.
281. **Morton, MN.** 2013. Do I really want to maximize feed efficiency? VitaPlus Swine Summit. March 21.
280. **Webcast.** 2013. Update on nutrition research in Applied Swine Nutrition. Land O'Lakes. February 4.
279. **Saskatoon, SK.** 2012. Top 10 developments in swine nutrition: 1991-2012. Saskatchewan Pork Industry Symposium. November 14.
298. **Saskatoon, SK.** 2012. Keeping up with the changing world of grow-finish feeding and management. Saskatchewan Pork Industry Symposium. November 14.
277. **Xi'an, China.** 2012. A review of feeders and influence on growth and efficiency. Leman China Swine Conference. October 16.
276. **Xi'an, China.** 2012. Applying science to optimize feed efficiency. Leman China Swine Conference. October 16.
275. **Sleepy Eye, MN.** 2012. The importance of managing energy in a successful feeding program. Christensen Farms. September 26.
274. **St. Paul, MN.** 2012. Growth and development implications of marketing pigs at heavier weights. Al Leman Conference. September 17.

- 273 **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.
272. **Ankeny, IA.** 2012. Livestock feed issues: Swine. Drought, Feed and Grain Quality Workshop, Agribusiness Association of Iowa and Iowa Grain Quality Initiative. August 16.
271. **Ames, IA.** 2012. Practical and effective ways to improve feed efficiency and reduce feed cost. Iowa Swine Days – 2012. June 28.
270. **Saskatoon, SK.** 2012. Dietary energy and feed efficiency in swine. Prairie Swine Centre Webinar, June 19.
269. **Ames, IA.** 2012. Variation: To Manage or Minimize – How do we know what is the correct strategy? Land O’Lakes Seminar. June 5.
268. **Orlando, FL.** 2012. Sustainable nutrition technologies to feed more people using fewer resources. American Feed Industry Association Nutrition Symposium. March 13.
267. **Denver, CO.** 2012. Expanding our base of dietary ingredients: challenges that come with this opportunity. BIVI Swine Health Seminar. March 9.
266. **Ames, IA.** 2012. Practical approaches to improving feed efficiency. Iowa Swine Peer Group meeting. February 8.
265. **Des Moines, IA.** 2012. Hidden challenges of using alternative ingredients. Iowa Pork Congress. January 25.
264. **Pipestone, MN.** 2011. Checklist for improving feed efficiency. Pipestone Veterinary Clinic Client meeting. December 8.
263. **Pipestone, MN.** 2011. Feed, water and the environment. Pipestone Veterinary Clinic Client meeting. December 8.
262. **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.
261. **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.
260. **St. Paul, MN.** 2011. Water quality issues in pork production. AI Leman Conference. September 20.
259. **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.
258. **LeRoy, MN.** 2011. Fine tuning wean-to-finish management to improve net returns. Annual Grower Meeting, Next Generation Pork. March 24.
257. **Fairmont, MN.** 2011. Practical strategies for improving productivity in the wean-to-finish barn. Form-a-Feed Producer Meeting. March 22.
256. **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.
255. **Saskatoon, SK.** 2010. Pigs care less than we do: Selecting maximum ingredient inclusion rates. Western Nutrition Conference, Saskatoon, SK September 22.

254. **Owatonna, MN.** 2010. Introduction of the National Swine Nutrition Guide. U.S. Pork Center of Excellence. March 11.
253. **Spirit Lake, IA.** 2010. Taking advantage of feeding alternative ingredients. What are the Limits? Hubbard Feeds Swine Production Seminar. March 10.
252. **Ames, IA.** 2010. Concerns about mycotoxins in corn. Niman Ranch Producer Meeting. March 4.
251. **Balsa de Athenas, Costa Rica.** 2010. Feeding the grow-finish pig. RAPCO Swine Nutrition Course. February 19.
250. **Balsa de Athenas, Costa Rica.** 2010. Managing variability in commercial conditions. RAPCO Swine Nutrition Course. February 19.
249. **Balsa de Athenas, Costa Rica.** 2010. Water in pig nutrition. RAPCO Swine Nutrition Course. February 18.
2648. **Balsa de Athenas, Costa Rica.** 2010. Feeding the weanling pig. RAPCO Swine Nutrition Course. February 18.
247. **Balsa de Athenas, Costa Rica.** 2010. Approaches to formulating pig diets. RAPCO Swine Nutrition Course. February 17.
246. **Balsa de Athenas, Costa Rica.** 2010. Energy systems in pig nutrition. RAPCO Swine Nutrition Course. February 17.
245. **Banff, AB.** 2010. Strategies to maximize wean-to-finish net income: Focus on feed and other technical issues. January 20-21.
244. **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.
243. **Winnipeg, MB.** 2009. The economics of choosing feed ingredients. Western Nutrition Conference. September 22-24.
242. **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 Especialistas en Cerdos (AMVEC). July 22-25.
241. **Dubuque, IA.** 2009. Swine feeding and management update. Dekalb Feeds 2009 Summer Seminar. June 22.
240. **Dows, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 24.
239. **Dows, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 24.
238. **Oelwein, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 23.
237. **Oelwein, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 23.
236. **Sioux Center, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 18.
235. **Sioux Center, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 18.



234. **Carroll, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 17.
233. **Carroll, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 17.
232. **Ainsworth, IA.** 2009. Keeping control of feed costs in an uncertain market. Iowa Pork Producers Assoc. Regional Meeting. February 16.
231. **Ainsworth, IA.** 2009. Are there any lessons we can learn from the Canadian pork industry?. February 16.
230. **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.
229. **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.
228. **Ames, IA.** 2009. Swine feeding and management update. Iowa Feed and Nutrition Seminar. January 27.
227. **Rennes, France.** 2009. Electrolyte balance: concepts and applications. Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. January 15.
226. **Nashville, TN.** 2008. Addressing change in the swine feed market. National Swine Improvement Federation. December 4.
225. **Winnipeg, MB.** 2008. A discussion of net energy applications in swine nutrition. Standard Nutrition. May 21.
224. **San Diego, CA.** 2008. Managing the risk of adopting the use of novel feed ingredients. American Association of Swine Veterinarians. March 10.
223. **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.
222. **Saskatoon, SK.** 2007. Tactics and strategies for maximizing net returns from the sale of market hogs. Saskatchewan Pork Industry Symposium. November 14.
221. **Moorepark, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 24.
220. **Moorepark, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 24.
219. **Kilkenny, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 23.
218. **Kilkenny, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 23.
217. **Cavan, Ireland.** 2007. Coping with tighter global feed markets. National Pig Conference, Irish Agriculture and Food Development Authority. October 22.
216. **Cavan, Ireland.** 2007. Maximizing feed intake in growing and finishing pigs. National Pig Conference, Irish Agriculture and Food Development Authority. October 22.
215. **Humboldt, SK.** 2007. The basics of swine nutrition. Big Sky Farms Manager in Training Course. June 6.

214. **Lisbon, Portugal.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. March 2.
213. **Madrid, Spain.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. March 1.
212. **Barcelona, Spain.** 2007. Electrolyte balance, metabolism and animal productivity. 1<sup>st</sup> Solvay Technical Symposium: Optimizing Electrolyte Balance with Sodium Bicarbonate. February 28.
211. **Centralia, ON.** 2007. Paylean - A Canadian perspective. Centralia Swine Research Update. January 31.
210. **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.
209. **Saskatoon, SK.** 2006. Maximizing net income by optimizing the portion of pigs marketed within core. Saskatchewan Pork Industry Symposium. November 14.
208. **Lethbridge, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 10.
207. **Red Deer, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 9.
206. **Westlock, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 8.
205. **Grand Prairie, AB.** 2006. A producer checklist to address the current financial environment. Alberta Pork Regional Meeting. November 7.
204. **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.
203. **Raleigh, NC.** 2006. The practical management of animal variation. Carolina Swine Nutrition Conference. September 27.
202. **Lewisburg, OH.** 2006. Selected Prairie Swine Centre research. Akey/SCA Nutrition. August 10.
201. **Des Moines, IA.** 2006. Weaning age and how it influences feeding and management programs. World Pork Expo. June 9.
200. **Humboldt, SK.** 2006. The basics of swine nutrition. Big Sky Farms Manager in Training Course. May 16.
199. **Farmville, PA.** 2006. The importance of water and water intake in pig nutrition. Lucta. May 3-5.
198. **Elstow, SK.** 2006. Managing variation in the finishing barn. Big Sky Finishing Barn Managers, Meeting sponsored by Prairie Swine Centre. April 25.
197. **Ste. Eustache, MB.** 2006. Practical approaches to increasing net income. Manitoba Pork Council. March 10.
196. **Brandon, MB.** 2006. Maximizing carcass quality using nutrition. PIC Canada Ltd. March 9.
195. **Brandon, MB.** 2006. Finishing for maximum profitability. PIC Canada Ltd. March 9.
194. **Winnipeg, MB.** 2006. Maximizing carcass quality using nutrition. PIC Canada Ltd. March 8.
193. **Winnipeg, MB.** 2006. Finishing for maximum profitability. PIC Canada Ltd. March 8.
192. **Winnipeg, MB.** 2006. Variation in the finisher barn. Manitoba Swine Symposium. February 1/2.

191. **Saskatoon, SK.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. December 2.
190. **Saskatoon, SK.** 2005. Finishing for maximum profitability. PIC Canada Ltd. December 2.
189. **Swift Current, SK.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. December 1.
188. **Swift Current, SK.** 2005. Finishing for maximum profitability. PIC Canada Ltd. December 1.
187. **Lethbridge, AB.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. November 24.
186. **Lethbridge, AB.** 2005. Finishing for maximum profitability. PIC Canada Ltd. November 24.
185. **Red Deer, AB.** 2005. Maximizing carcass quality using nutrition. PIC Canada Ltd. November 23.
184. **Red Deer, AB.** 2005. Finishing for maximum profitability. PIC Canada Ltd. November 23.
183. **Saskatoon, SK.** 2005. Barn efficiency - Your role in driving costs down. Saskatchewan Pork Industry Symposium. November 8.
182. **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, Agribrands 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. Lemman Swine Conference. September 13-16.
150. **Minneapolis, MN.** 2003. Dietary approaches to altering the composition of body weight gain in growing gilts. Allen D. Lemman 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, AR.** 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. Lemman Swine Conference, University of Minnesota. September 20/23.
97. **St. Paul, MN.** 1997. Segregated early weaning: site effects. Allen D. Lemman Swine Conference, University of Minnesota, St. Paul, MN. September 20/23.
96. **Quebec City, PQ.** 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, PQ.** 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, PQ.** 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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6. **J.F. Patience.** 2020. Water: Essential nutrient often overlooked. Pig Health Today (Swineweb.com) podcast. January 27, 2021.
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. Swineit. April 16.
1. **Patience, J.F.** 2020. One of the most important decisions in swine production: dietary energy level. Swineit. April 11.

## RESEARCH GRANTS

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| <b>Total \$ Funded as P.I. at Iowa State University (2008-2020)</b>                  | <b>\$9,841,262</b>  |
| <b>Total \$ Funded as P.I., Co-P.I. or Co-I at Iowa State University (2008-2020)</b> | <b>\$17,236,550</b> |
| <b>Total Career \$ Funded as P.I. (1987-2020)</b>                                    | <b>\$28,861,893</b> |
| <b>Total Career \$ Funded as P.I., Co-P.I. or Co-I (1987-2020)</b>                   | <b>\$52,965,705</b> |
| <b>Total P.S.C.I. \$ Funded as P.I. (1987 –2008)</b>                                 | <b>\$19,020,632</b> |
| <b>Total P.S.C.I. \$ Funded as P.I. or Co-P.I (1987-2008)</b>                        | <b>\$35,729,155</b> |