

Curriculum Vita

PAUL J. KONONOFF

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EDUCATION

The Pennsylvania State University
Ph.D. in Dairy and Animal Science 2002
Dissertation Title: "The Effect of Forage Particle Size on Cows in Early Lactation"

University of Saskatchewan
M.Sc. in Animal and Poultry Science 1998
Dissertation Title: "Nature of Effective Fiber in Dairy Rations"

University of Saskatchewan
B.S.A. 1995
Major: Animal Science
Thesis Title: "Review and Use of the Cornell Net Carbohydrate and Protein System"

EMPLOYMENT

University of Nebraska-Lincoln, Department of Animal Science
Lincoln, NE
Associate Professor, Dairy Nutrition 2010 – Present
68% Research, 30% Extension, 2% Service

University of Nebraska-Lincoln, Department of Animal Science
Lincoln, NE
Assistant Professor, Dairy Nutrition 2005 – 2010
68% Research, 30% Extension, 2% Service

University of New Hampshire/Ruminant Feed Analysis Consortium
Durham, NH
Projector Director/Researcher 2004 – 2005

Renaissance Nutrition, Inc.
Roaring Spring, PA
Ruminant Nutritionist 2002 - 2004

PROFESSIONAL ACTIVITIES

Member of the Western Dairy Management Conference Planning Committee (2016-present)
Member of the ADSA/ASAS Ruminant Nutrition Program Committee (2005, 2006)
Member of the Alltech Inc., Graduate Student Publication Award Committee (2005, 2006)
Chair of the Alltech Graduate Student Publication Award Committee (2007)

Midwest Branch Officer, ADSA Director (2009-2011)
 Chair of the AFIA Award Committee (2013, 2014)
 Journal of Dairy Science, Journal Management Committee (2009-2014)
 Section Editor, Nutrition Feeding Calves, Journal of Dairy Science (2014-present)
 Section Editor, Ruminant Nutrition, Canadian Journal of Animal Science (2014-present)

AWARDS

Junior Faculty Excellence in Research ARD Award	2008
Big 12 Faculty Fellowship	2006
American Dairy Science Association, Graduate Student Paper Publication Award	2004
BASF-Akey Graduate Nutrition Scholarship Award	2000
Agway Grant in Aid	1999
Almquest Graduate Research Grant	1999
Hugh Nicholson Ruminant Nutrition Scholarship	1998
Hugh Nicholson Ruminant Nutrition Scholarship	1997

MEMBERSHIPS AND AFFILIATIONS

- Faculty Member, Graduate School, University of Nebraska-Lincoln, Lincoln, NE
- Adjunct Faculty Member, Graduate School, Texas A&M University, College Station, TX
- American Dairy Science Association
- Cornhusker Schutzhund Club
- American Society of Animal Science (Past)
- Canadian Society of Animal Science

CERTIFICATIONS

- FARM Certified Evaluator and Trainer, National Dairy Farm Program: Farmers Assuring Responsible Management, National Milk Producers Federation, Training completed, June 6, 2013.
- Certified Schutzhund Trail Helper. LV/DVG America. Certification completed November 22, 2013.

NATIONAL AND REGIONAL COMMITTEE OR BOARD MEMBERSHIP

- NRC Nutrient Requirements of Dairy Cattle Committee (8th Revised Edition)
- DAIReXNET Subject Area Member: Nutrition of Milking and Dry Cows
- NC2042: Management Systems to Improve the Economic and Environmental Sustainability of Dairy Enterprises (Rev. NC-1119 and 1042)
- Nebraska State Dairy Association (NSDA), Ex Officio
- Dairy Council of Nebraska (Midwest Dairy), Ex Officio

UNIVERSITY OF NEBRASKA-LINCOLN COMMITTEES

- Department of Animal Science Graduate Committee
- Department of Animal Science Internal Advisory Committee.
- Senior Advisor, Block and Bridle.
- Freshman Advisor, Block and Bridle.

- Institutional Animal Care and Use Committee.
- Member of the ARDC Advisory Council (2006-present).
- University of Nebraska-Lincoln Interdepartmental Nutritional Program (2005 – present).
- Faculty Advisor for the Animal Science Graduate Student Association (2005 – 2007).

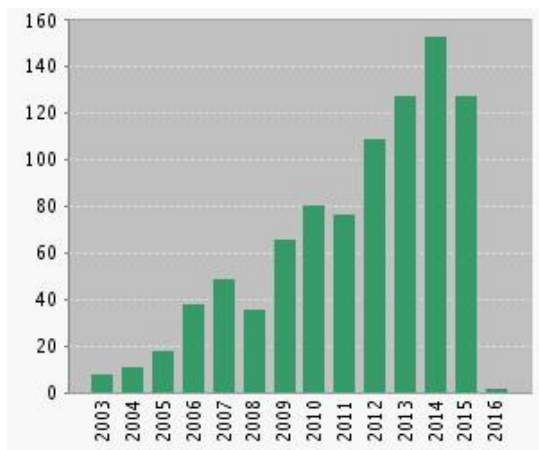
REVIEW PANEL PARTICIPATION (participation year not included for confidentiality)

- UNL Layman Award
- Department of Energy's (DOE) Office of the Biomass Program (OBP)
- Alberta Livestock and Meat Agency (ALMA)
- Agriculture and Food Council of Alberta (AFC)
- Dairy Farmers of Canada

SUMMARY OF PEER REVIEWED PUBLICATIONS

As of January 8, 2016 Scopus (Elsevier, Amsterdam, Netherlands) reports that 43 of my publications have been cited a total of 868 times by 601 documents. Working with 76 different co-authors and my *h*-index is 14 and 15 according to Scopus (Elsevier, Amsterdam, Netherlands) and Web of Science (Thompson Reuters, New York, NY) respectively.

Figure 1. Citations of publications since 2003 (Web of Science, Thompson Reuters, New York, NY, USA) as accessed January 8, 2016.



PEER REVIEWED PUBLICATIONS

1. Ramirez Ramirez , H.A., K. J. Harvatine , and **P.J. Kononoff**. 2015. Short communication: Forage particle size and fat intake affect rumen passage, the fatty acid profile of milk and also milk fat production in dairy cows consuming dried distillers grains with J. Dairy Sci. 99: 392-398.
2. Watson, A.K., J. C. MacDonald, G. E. Erickson, **P. J. Kononoff** and T. J. Klopfenstein. 2015. FORAGES AND PASTURES SYMPOSIUM: Optimizing the use of fibrous residues in beef and dairy diets. 93: 2616 – 2625.

3. Ramirez Ramirez , H.A., E. Castillo Lopez, N.D. Aluthge, C. Anderson, S.C. Fernando, K.J. Harvatine, and **P.J. Kononoff**. 2016. Reduced fat dried distillers grains with solubles reduces the risk for milk fat depression and supports milk production and ruminal fermentation in dairy cows. *J. Dairy Sci. In Press*.
4. Foth, A.J., R. Brown-Brandl, K.J. Hanford, P.S. Miller, G. Garcia Gomez, P.J. Kononoff. 2015. Energy content of reduced-fat dried distillers grains and solubles for lactating dairy cows. *J. Dairy Sci.* 98: 7142 - 7152.
5. Ramirez Ramirez , H.A., E. Castillo Lopez, K. J. Harvatine , and **P.J. Kononoff**. 2015. Fat and starch as risk factors for milk fat depression in dairy diets containing corn dried distillers grains with solubles. *J. Dairy Sci.* 98: 1903-1914.
6. Paz, H.A., and **P.J. Kononoff**. 2014. Lactation responses and amino acid utilization of dairy cows fed low-fat distillers dried grains with solubles with or without rumen-protected lysine supplementation. *J. Dairy Sci.* 97: 6519–6530.
7. **Kononoff, P.J.**, P. J. Defoor, M. J. Engler, R. S. Swingle, S. T. James, H. M. Deobald, J. L. Deobald, G.N. Woronuk, and F. L. S. Marquess. 2015. Employment of a leptin SNP and use of β -adrenergic agonists in sorting criteria for feeding and management of finishing steers. *Can. J. Anim. Sci.* 95: 455 - 463.
8. Paz, H.A., T. J. Klopfenstein, E. Castillo-Lopez, and **P. J. Kononoff**. 2014. Ruminal degradation and intestinal digestibility of protein and amino acids in high-protein feedstuffs commonly used in dairy diets *J. Dairy Sci.* 97: 6485–6498.
9. Castillo-Lopez, E, K.J. Clark, H.A. Paz, H.A. Ramirez Ramirez, T.H. Klusmeyer, G.F. Hartnell, and **P. J. Kononoff**. 2014. Performance in dairy cattle fed silage and grain produced from second-generation insect-protected (B.t.) corn (MON 89034), parental line or reference corn. *J. Dairy Sci.* 97: 3832 – 3837.
10. **Kononoff, P.J.**, P.J. Defoor, M. Engler, S. Swingle, S.T. James, and F.L.S. Marquess. 2014. Impact of a leptin SNP and ractopamine hydrochloride (RH) on growth and carcass characteristics in finishing J. *Anim. Sci.* 92: 2702-2707.
11. Castillo-Lopez, E., T. J. Klopfenstein, C. L. Anderson, N. D. Aluthge, S. C. Fernando, T. Jenkins, and **P. J. Kononoff**. 2014. Effect of feeding dried distillers grains with solubles on rumen biohydrogenation, intestinal fatty acid profile and gut microbial diversity evaluated through DNA pyro-sequencing. *J. Anim. Sci.* 92: 733-743.
12. Castillo-Lopez, E., T. J. Klopfenstein, S. C. Fernando, and **P. J. Kononoff**. 2014. The effect of dried distillers grains with solubles when replacing corn or soybean meal on rumen microbial growth in vitro as measured using real-time PCR. *Can. J. Anim. Sci.* 94: 349-356.

13. Paz, H. A. and **P. J. Kononoff**. 2014. Technical Note: Effect of feeding free lysine or rumen-protected lysine on duodenal flows of essential amino acids in ruminants. *Prof. Anim. Sci.* 30:266-269.
14. Paz, H.A., M. J. de Veth, R. Ordway, and **P. J. Kononoff**. 2013. Evaluation of rumen protected lysine supplementation to lactating dairy cows consuming increasing amounts of distillers dried grains with solubles. *J. Dairy Sci.* 96: 7210-7222.
- 10 Castillo-Lopez, E., T. J. Klopfenstein, S. C. Fernando, and **P. J. Kononoff**. 2014. Ration formulations containing reduced fat DDGS and their impact on lactation performance, rumen fermentation and intestinal flow of microbial nitrogen in Holstein. *J. Dairy. Sci.* 97: 1578-1593.
- 11 Paz, H.A., E. Castillo-Lopez, H. A. Ramirez Ramirez, D.A. Christensen, T.J. Klopfenstein, and **P.J. Kononoff**. 2013. Invited Review: Ethanol coproducts for dairy cows: there goes our starch... now what? *Can. J. Anim. Sci.* 93: 407-425.
- 12 Tedeschi, L.O., D. Fox, and **P.J. Kononoff**. 2013. A dynamic model to predict fat and protein fluxes associated with body reserve changes in cattle *J. Dairy Sci.* 96: 2448-2463.
- 13 **Kononoff, P.J.**, P.J. Defoor, M. Engler, S. Swingle, S.T. James, H.M. Deobald, J. Deobald, and F.L.S. Marquess. 2013. Impact of a leptin SNP and zilpaterol hydrochloride on growth and carcass characteristics in finishing steers. *J. Anim. Sci.* 91: 5011-5017.
- 14 Woronuk, G.N., F. L. Marquess, S. T. James, J. Palmer, T. Berryere, H. Deobald, S. Howie, and **P. J. Kononoff**. 2012. Association of leptin genotypes with beef cattle characteristics. *Anim. Genetics.* 43: 608-610.
- 15 Castillo-Lopez, E., T. J. Klopfenstein, S. C. Fernando, and **P. J. Kononoff**. 2012. In vivo determination of undegradable protein of dried distillers grains with solubles (DDGS) and evaluation of duodenal microbial crude protein (MCP) flow. *J. Anim. Sci.* 91: 924-934.
- 16 Ramirez-Ramirez, H.A., K. Nestor, L.O. Tedeschi, T.R. Callaway, S.E. Dowd, S.C. Fernando, and **P.J. Kononoff**. 2012. The effect of brown midrib corn silage and dried distillers grains and solubles on milk production nitrogen utilization, and microbial community structure in dairy cows. *Can. J. of Anim. Sci.* 92: 365-380.
- 17 Ramirez–Ramirez, H.A., A.R. Geis, C.S. Heine, K.J. Machacek, A. M. Gehman, and **P. J. Kononoff**. 2011. Study of storage conditions of wet corn distillers grains with solubles when stored with other feeds and understanding effects on performance of lactating dairy cows. *Can. J. Anim. Sci.* 91: 331-339.
- 18 Crossland, W.L., L. O. Tedeschi, T. R. Callaway, **P. J. Kononoff**, and K. Karges. 2012. Developing an in vitro method for determining feed soluble protein degradation rate by mixed ruminal microorganisms. *Ag. Food & Anal. Bact.* 2: 246-252.
- 19 Buckner, C.D., M.F. Wilken, J.R. Benton. S.J. Vaness, V.R. Bremer, T.J. Klopfenstein, **P.J. Kononoff**, and G.E. Erickson. 2011. Nutrient variability for distillers grains plus solubles and dry matter determination of ethanol byproducts. *Prof.* 27: 57-64.

- 20 Callaway, T.R., S. E. Dowd, T. S. Edrington, R. C. Anderson, N. Krueger, N. Bauer, **P. J. Kononoff**, and D. J. Nisbet. 2010. Evaluation of the bacterial diversity in the rumen and feces of cattle fed diets containing levels of dried distiller's grains plus solubles using bacterial tag-encoded FLX amplicon pyrosequencing (bTEFAP). *J. Anim. Sci.* 87: 419-437.
- 21 Castillo-Lopez, E., **P. J. Kononoff**, and J. L. Miner. 2010. Detection of yeast cells in omasal digesta of dairy cows consuming dried distillers grains and soluble. *J. Dairy Sci.* 93: 5926-5929.
- 22 Gehman, A.M. and **P.J. Kononoff**. 2010. Utilization of N in cows consuming wet distillers grains with solubles in alfalfa and corn silage based dairy rations. *J. Dairy Sci.* 93: 3166-3175.
- 23 Williams, W., L.O. Tedeschi, T. Callaway, and **P.J. Kononoff**. 2010. Evaluation of in vitro gas production pattern and bacteria population of corn milling (co)products using 16S rDNA bacterial tag-encoded FLX amplicon pyrosequencing. *J. Dairy Sci.* 93: 4735-4743.
- 24 Gehman, A.M. and **P.J. Kononoff**. 2010. Nitrogen utilization, nutrient digestibility, and excretion of purine derivatives in dairy cattle consuming rations containing corn milling co-products. *J. Dairy Sci.* 93: 3166-3175.
- 25 Machacek, K.J. and **P.J. Kononoff**. 2009. The effect of acid detergent insoluble nitrogen on nitrogen digestibility in lactating dairy cows. *Prof. Anim. Sci.* 25: 701-708.
- 26 Kelzer, J.M., **P. J. Kononoff**, L. O. Tedeschi, K. Karges, and M. L. Gibson. 2010. Evaluation of protein fractionation and ruminal and intestinal digestibility of corn milling co-products. *J. Dairy Sci.* 93: 2803-3553.
- 27 Hubbard, K.J., **P.J. Kononoff**, A. M. Gehman, J. M. Kelzer, K. Karges, and M. L. Gibson. 2009. The effect of feeding high protein dried distillers grains on milk production. *J. Dairy Sci.* 92: 2911-2914.
- 28 Kelzer, J.M., **P.J. Kononoff**, A.M. Gehman, K. Karges, and M.L. Gibson. 2009. Effects of feeding three types of corn milling co-products on ruminal fermentation and digestibility in lactating Holstein dairy cattle. *J. Dairy Sci.* 92: 5120-5132.
- 29 Tedeschi, L.O., **P.J. Kononoff**, K. Karges, and M.L. Gibson. 2009. Effects of chemical composition variation on the dynamics of ruminal fermentation and biological value of corn milling (co) products. *J. Dairy Sci.* 92: 401-413.
- 30 Janicek, B.N., **P.J. Kononoff**, A.M. Gehman, and P.H. Doane. 2008. The effect of feeding dried distillers grains plus solubles on milk production and excretion of urinary purine derivatives. *J. Dairy Sci.* 91: 3544-3553.
- 31 Tedeschi, L.O., W. Chalupa, E. Janczewski, D. G. Fox, C. Sniffen, R. Munson, **P. J. Kononoff**, and R. Boston. 2008. Evaluation and application of the CPM Dairy Nutrition Model. *J. of Agric. Sci.* 146: 171-182.
- 32 Gehman, A, **P.J. Kononoff**, and B. Janicek. 2008. Evaluation of N utilization and effects of monensin on dairy cows fed brown midrib corn silage. *J. Dairy Sci.* 91: 288-300.

- 33 Ferguson, S.E., R.S. Ordway, N.L. Whitehouse, **P.J. Kononoff**, and C.G. Schwab. 2007. Urea supplementation increased ruminal fermentation in lactating dairy cows fed a corn silage based diet deficient in rumen-degradable feed protein (RDP). *J. Dairy Sci.* 90: 5619-5633.
- 34 Janicek, B.N., **P.J. Kononoff**, A.M. Gehman, K. Karges, and M.L. Gibson. 2007. Short Communication: Effect of increasing levels of corn bran on milk yield and composition. *J. Dairy Sci.* 90: 4313-4316.
- 35 **Kononoff, P.J.**, S. K. Ivan, and T.J Klopfenstein. 2007. Estimation of the proportion of feed protein digested in the small intestine of cattle consuming wet corn gluten feed. *J. Dairy Sci.* 90: 2377-2385.
- 36 **Kononoff, P.J.**, S. Ivan, W. Matzke, R.J. Grant, R. Stock, and T.J Klopfenstein. 2006. Milk production of dairy cows fed a wet corn gluten feed during the dry period and lactation. *J. Dairy Sci.* 89:2608-2617.
- 37 **Kononoff, P.J.** and K. Hanford. 2006. Estimating statistical power of mixed models used in dairy nutrition experiments. *J. Dairy Sci.* 89: 3968-3971.
- 38 **Kononoff, P.J.**, H.M Deobald, E.L. Stewart, A.D. Laycock, and F.L.S. Marquess. 2005. The effect of a leptin single nucleotide polymorphism on quality grade, yield grade and carcass weight of beef cattle. *J. Anim. Sci.* 83: 927-932.
- 39 **Kononoff, P.J.**, A.J. Heinrichs, and M.T. Gabler. 2004. The effect of forage amount and protein source on structural growth in prepubertal heifers. *Prof. Anim. Sci.* 22:84-88.
- 40 **Kononoff, P.J.**, H.A. Lehman, and A.J. Heinrichs. 2003. The effect of corn silage particle size on eating behavior and rumination in lactating dairy cattle. *J. Dairy Sci.* 86:3343-3353.
- 41 **Kononoff, P.J.** and A.J. Heinrichs. 2003. The effect of decreasing corn silage particle size and the inclusion of cottonseed hulls on effective fiber values and ruminal fermentation. *J. Dairy Sci.* 86: 2438 - 2451.
- 42 **Kononoff, P.J.**, A.J. Heinrichs, and D. A Buckmaster. 2003. Modification of the Penn State forage and TMR separator and the effects of moisture content on its measurements. *J. Dairy Sci.* 86: 1858 - 1863.
- 43 **Kononoff, P.J.** and A.J. Heinrichs. 2003 The effect of decreasing alfalfa haylage particle size on dairy cows in early lactation. *J. Dairy Sci.* 86: 1445 – 1457.
- 44 **Kononoff, P.J.**, H.A. Lehman, and A.J. Heinrichs. 2002. A comparison of methods used to measure eating and ruminating activity in cattle. *J. Dairy Sci.* 85: 1801 – 1803.
- 45 **Kononoff, P.J.**, A. F. Mustafa, D. A. Christensen, and J. J. McKinnon. 2000. Effects of barley silage particle length and effective fiber on yield and composition of milk from dairy cows. *Can. J. Anim. Sci.* 80:749-752.

BOOK CHAPTERS

1. Hall, M.B. and **P.J. Kononoff**. 2011. Feed concentrates: Co-product feeds. In: Fuquay JW, Fox PF and McSweeney PLH (eds.) *Encyclopedia of Dairy Sciences, Second Edition*, vol. 2, pp. 342-348. San Diego: Academic Press.

MEETING ABSTRACTS

1. Saathoff, K.G., C. J. R. Jenkins, S. C. Fernando, D. Hostetler, and P. J. Kononoff. 2015. Methane production in dairy cows consuming corn milling co-products. *J. Dairy Sci.* 98 Suppl 2: 131.
2. Judy, J. V., C. J. R. Jenkins, S. C. Fernando, and P. J. Kononoff. 2015. Evaluation of two techniques used to dislodge bacteria from particles contained in rumen digesta. *J. Dairy Sci.* 98 Suppl 2: 143.
3. Gomez, G.G., A. Foth, and P.J. Kononoff. 2015. Phosphorous excretion and digestibility in Jersey and Holstein consuming corn milling co-products. *J. Dairy Sci.* 98 Suppl 2: 149.
4. Jenkins, C.J.R., S. C. Fernando, C. L. Anderson, N. D. Aluthge, E. Castillo-Lopez, H. A. Tucker, G. I. Zanton, D. Hostetler, and P. J. Kononoff. 2015. Flow of microbial crude protein out of the rumen when dairy cattle are supplemented with 2-hydroxy-4-methylthio-butanoic acid (HMTBa). *J. Dairy Sci.* 98 Suppl 2: 472.
5. Jenkins, C.J.R., S. C. Fernando, C. L. Anderson, N. D. Aluthge, E. Castillo-Lopez, H. A. Tucker, G. I. Zanton, D. Hostetler, and P. J. Kononoff. 2015. Differences in microbial community structure associated with metabolizable protein and 2-hydroxy-4-methylthio-butanoic acid (HMTBa) supplementation when using in vitro and in vivo methods. *J. Dairy Sci.* 98 Suppl 2: 472.
6. Paz Manzano, H.A., S. C. Fernando, P. J. Kononoff. 2015. Estimation of rumen-undegradable protein across high-protein feedstuffs using in situ and in vitro procedures. *J. Anim. Sci.* 93 Suppl 2: 100.
7. Pesta, A.C., M. L. Jolly, P. J. Kononoff, S. C. Fernando, G. E. Erickson. 2015. Methane production and diet digestibility by growing cattle fed high- or low-quality forage. *J. Anim. Sci.* 93 Suppl 2: 96.
8. Paz Manzano, H.A., E. Castillo-Lopez, T. J. Klopfenstein, and **P. J. Kononoff**. 2014. Ruminal degradation and intestinal digestibility of crude protein and amino acids and correction for microbial contamination in rumen-undegradable protein. *J. Dairy Sci.* 97 Suppl 1: 753.
9. Paz Manzano, H.A., T. J. Klopfenstein, and **P. J. Kononoff**. 2014. Rumen-undegradable protein of blood meal, canola meal, low-fat distillers dried grains with solubles, soybean meal, and expellers soybean meal determined using in situ and in vitro ammonia release procedures. *J. Dairy Sci.* 97 Suppl 1: 762.
10. Ramirez Ramirez, H.A., and **P.J. Kononoff**. 2014. Effects of forage particle size and corn oil supplementation related to milk fat depression in dairy cows consuming reduce fat dried distillers with solubles. *J. Dairy Sci.* 97 Suppl 1: 778-779.
11. Foth, A., G. Garcia Gomez, T. Brown-Brandl, H.C. Freetly, and **P.J. Kononoff**. 2014. Energy content of reduced-fat distillers grains for lactating dairy cows. *J. Dairy Sci.* 97: Suppl 1: 171.

12. Garcia Gomez, G., A. Foth, **P.J. Kononoff**, T. Brown-Brandl, and H.C. Freetly. 2014. Comparison of efficiency of energy use in Holstein and Jersey dairy cows offered diets containing reduced fat distillers grains (RFDDGS). *J. Dairy Sci.* 97: Suppl 1: 825.
13. MacDonald, J.C., G.E. Erickson, **P.J. Kononoff**, and T.J. Klopfenstein. 2014. Optimizing the use of fibrous residues in beef and dairy diets. *J. Dairy Sci.* 97: Suppl 1: 156.
14. Ramirez Ramirez, H.A., C.J. R. Jenkins, S.C. Fernando, C.L. Anderson, N.D. Aluthge, and **P.J. Kononoff**. 2014. Ruminal bacterial community structure of dairy cows fed conventional and reduced-fat dried distillers with solubles. *J. Dairy Sci.* 97: Suppl 1:916.
15. **Kononoff, P.J.** 2014. Measuring forage quality of corn silage and understanding the impacts on rumen fermentation in lactating dairy cattle. *J. Dairy Sci.* 97: Suppl 1:22
16. Foth, A.J., T. Brown-Brandl, H. C. Freetly, M. D. Hayes, and **P.J. Kononoff**. 2013. Validation and recovery rates of an indirect calorimetry headbox system used to measure heat production of cattle. *J. Dairy Sci.* 96 E-Suppl 1: 261.
17. Jenkins,C.J.R., E. Castillo-Lopez, S. C. Fernando, and **P. J. Kononoff**. 2013. Estimation of bacterial protein in rumen digesta using DNA markers. *J. Dairy Sci.* 96 E-Suppl 1: 260-261.
18. Ramirez Ramirez, H. A. and **P. J. Kononoff**. 2013. Ruminal fermentation profile of cows fed diets containing dried distillers grains with solubles associated with risk factors for milk fat depression. *J. Dairy Sci.* 96 E-Suppl 1: 265
19. Ramirez Ramirez, H. A, K. Karges, and **P.J. Kononoff**. 2013. Ruminal fermentation by dairy cows fed low-fat dried distillers grains with solubles in combination with rumen-inert fat. *J. Dairy Sci.* 96 E-Suppl. 1: 128
20. **Kononoff, P. J.**, K. F. Kalscheur, H. A. Ramirez and S. D. Ranathunga. 2013. Applied principles of feeding fat to lactating dairy cows, with emphasis on byproducts as the primary source. *J. Dairy Sci.* 96 E-Suppl. 1: 37
21. Castillo-Lopez, E., K. M. Algya, T. J. Klopfenstein, D. Hostetler, K. Karges, S. C. Fernando, and **P. J. Kononoff**. 2013. Effect of feeding reduced-fat dried distillers grains with solubles on lactation performance of Holstein cows. *J. Dairy Sci.* Vol. 96, E-Suppl. 1.
22. Castillo-Lopez, E., T.J. Klopfenstein, **P.J. Kononoff** . 2013. Effect of reduced-fat dried distillers grains with solubles on rumen fermentation, intestinal flow of microbial nitrogen and nutrient digestibility in Holstein cows. *Can. J. Anim. Sci.* 94: 214.

23. Castillo-Lopez, E., T. J. Klopfenstein, S. C. Fernando, and **P. J. Kononoff**. 2013. (Invited ADSA Young Dairy Scholar) Methods to study the contribution of rumen microorganisms to metabolizable protein. *J. Dairy Sci.* Vol. 96, Suppl. 1.
24. Paz, H. A. and **P. J. Kononoff**. 2013. An evaluation of amino acid utilization in lactating dairy cows consuming DDGS and different levels of fat. *J. Dairy. Sci.* 96 (E-Suppl. 1): 246-247.
25. Paz, H.A. and **P.J. Kononoff**. 2012. Ethanol co-products for dairy cows: there goes our starch... now what? *J. Dairy Sci.* 96: 405.
26. Paz, H.A., M. de Veth, R. Ordway, and **P.J. Kononoff**. 2012. Evaluation of rumen protected lysine supplementation to lactating dairy cows consuming increasing amounts of dried distillers grains plus solubles. *J. Dairy. Sci.* 95. (E-Suppl. 2).
27. Ramirez Ramirez, H. A, K. Karges, **P.J. Kononoff**. 2012. Productive response of lactating cows fed low-fat dried distillers grains with solubles in combination with rumen-inert fat. *J. Dairy Sci.* 95 E-Suppl. 2: 604.
28. Ramirez Ramirez, H. A. and **P. J. Kononoff**. 2012. Identification of risk factors that cause milk fat depression of cows consuming dried distillers grains plus solubles. *J. Dairy Sci.* 95 E-Suppl. 1. 94
29. Castillo-Lopez, E., T. J. Klopfenstein, and **P. J. Kononoff**. 2012. In vivo determination of undegradable intake protein of dried distillers grains with solubles and comparing DAPA and DNA as bacterial markers. *J. Dairy Sci.* 90, Suppl. 2. 593.
30. Castillo-Lopez, E., T. J. Klopfenstein, and **P.J. Kononoff**. 2012. Effect of dried distillers grains with solubles on duodenal microbial crude protein flow in steers as determined with DNA microbial markers. *J. Dairy Sci.* Vol. 95, Suppl. 2. 598.
31. Castillo-Lopez, E. and **P. J. Kononoff**. 2011. The effect of DDGS when replacing corn or soybean meal on rumen microbial growth *in vitro* as measured using real-time PCR. 2011. *J. Dairy Sci.* (Suppl 1): 137.
32. Paz, H.A., E. Castillo-Lopez, K. Clark, T.H. Klusmeyer, G. F. Hartnell, and **P. J. Kononoff**. 2011. Comparison of dairy cattle performance in Nebraska when fed silage and grain produced from second-generation insect protected (B.t.) corn (MON 89034), parental line, or reference corn grown during 2009. *J. Dairy Sci.* (Suppl 1): 377.
33. Ramirez Ramirez, H.A., L. O. Tedeschi, T. R. Callaway, S. E. Dowd, K. Nestor, and **P. J. Kononoff**. 2011. Effect of feeding brown midrib corn silage and dried distillers grains with solubles on bacterial diversity in rumen fluid of dairy cows using bacterial tag-encoded FLX amplicon pyrosequencing. *J. Dairy Sci.* (Suppl 1): 381.

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INVITED LECTURES AND PAPERS

1. **Kononoff, P.J.** and H,A, Ramirez-Ramirez. 2015. Corn-Ethanol: one process but many products.... do cows care. Standard Nutrition Technical Meeting, Omaha, NE. October 21, 2015.
2. **Kononoff, P.J.** and M.J. de Veth. 2015. Amino acids and dairy rations What is there to know about sources and costs. Standard Nutrition Technical Meeting, Omaha, NE. October 21, 2015.
3. **Kononoff, P.J.** and M.J. de Veth. 2015. Amino acids and dairy rations What is there to know about sources and costs. Proceedings of the 76th Annual Minnesota Nutrition Conference. September 16 and 17th . Prior Lake, MN. Pages 124 – 128.
4. **Kononoff, P.J.** and J.V. Judy. 2015. Making ration decisions with low inventories of silage. 2015. Pages 69 – 73. Proceedings of the California Animal Nutrition Conference. May 6, 7 Fresno, CA.

5. **Kononoff, P.J.**, and H. Paz. 2014. Variation in Lysine Supply ... when does it happen and when does it matter? Pages 39 – 42 of the Proceedings of The Pennsylvania State University's Department of Dairy and Animal Science Annual Feed Industries Seminar. Grantville, PA., November 12, 13, 2014.
6. **Kononoff, P.J.** and H,A, Ramirez-Ramirez. 2014. Corn-Ethanol: one process but many products.... do cows care? Pages 123 – 130. Proceedings of The Tri-State Dairy Nutrition Conference. Fort Wayne, IN.
7. **Kononoff, P.J.** 2012. Dairy Nutrition. RAPCO Dairy Course. Costa Rica Technical University-ECAG Campus Alajuela, Costa Rica. September 9-12, 2012.
8. **Kononoff, P.J.** 2012. Overcoming nutritional challenges in dairy cattle by feeding reduced fat distillers grains. Distillers Grains Technology Council Annual Meeting. May 16, 2012. St. Louis. MO.
9. **Kononoff, P.J.** and H. Paz. 2011. Practical nutrition: amino acid supply in diets containing corn silage and byproducts. Pages 15-18. Proceedings of 2011 The Pennsylvania State University's Department of Dairy and Animal Science annual feed industries seminar. Grantville, PA.
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11. Ramirez-Ramirez, H.A. and **P.J. Kononoff**. 2011. Byproduct feeds and milk fat depression. Pages 75-79. Proceedings of 2011 The Pennsylvania State University's Department of Dairy and Animal Science annual feed industries seminar. Grantville, PA.
12. **Kononoff, P.J.** 2010. Nutritional science and practical challenges of feeding DDGS. Pages 85-91. Proceedings of 2010 The Pennsylvania State University's Department of Dairy and Animal Science annual feed industries seminar. Grantville, PA.
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14. **Kononoff, P.J.** 2010. Feeding dried corn distillers grains plus solubles to dairy cattle. U.S. Grains Councils Saudi Arabian Feed Delegation Team. Lincoln, NE. August 4, 2010.
15. **Kononoff, P.J.** 2008. Feeding dried corn distillers grains plus solubles to dairy cattle. U.S. Grains Councils Mexican Feed Delegation Team. Lincoln, NE. October 22, 2008.
16. **Kononoff, P.J.** 2008. Feeding corn milling co-products to dairy cattle. LALA-Nuplen Technical Meeting. Torreon, Mexico. June 27, 2008.
17. **Kononoff, P.J.** and K.J. Machacek. 2008. Corn silage considerations when feeding corn milling co-products Proceedings of the 4-State Dairy Nutrition Conference. Pages 9- 14, Dubuque, Iowa.
18. **Kononoff, P.J.** 2008. Understanding TMR particle size and the effects on the lactating dairy cow. Proceedings of 4-State Dairy Nutrition Conference. Pages 39 – 42. Dubuque, Iowa.

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27. **Kononoff, P.J.** and D.A. Christensen. 2007. Feeding dried distillers grains to dairy cattle. Pages 197-206 in the Proceedings of Western Nutrition Conference, Saskatoon, SK, Canada.
28. **Kononoff, P.J.** 2007. Corn Ethanol and the U.S. Dairy Industry. Elanco Sponsored Producer meeting. Buenos Aries, Argentina.
29. **Kononoff, P.J.** and J. Linn. 2007. Impact of 2006 corn silage on milk production. Pages 19-25 in the Proceedings of the I-29 Annual Dairy Nutrition Conference. Watertown, SD and Sheldon, IA.
30. **Kononoff, P.J.** 2006. Balance before you blink: Balancing dairy diets with wet corn gluten feed. Husker Nutrition Conference. Lincoln, NE.
31. **Kononoff, P.J.** 2006. Corn ethanol production and the dairy industry. September 11, 2006. Faculty of Nutrition Texas A&M University. College, Station, TX.
32. **Kononoff, P.J.** and G.E Erickson. 2006. Feeding corn milling co-products to dairy and beef cattle. Pages 155-163. Proceedings of the Southwest Nutrition Conference. Tempe, AZ.

33. **Kononoff, P.J.** 2006. Impacts of forage choices on milk production. I-29 Ma315nd. Pages 5-10. Sioux Falls, SD.
34. **Kononoff, P.J.** 2005. Effective fiber estimates and ration balancing for dairy cattle. Pages 277 – 284. Proceedings of the Minnesota Nutrition Conference, St. Paul, MN.
35. **Kononoff, P.J.** and A.J. Heinrichs. 2005. Managing Corn Silage Particle Size. Mid-South Nutrition Conference. Timonium, Maryland.
36. **Kononoff, P.J.** 2004. Forage and TMR particle size, factors affecting feeding behavior and rumen fermentation. Pages 167 – 178. Proceedings of The Cornell Nutrition Conference. Syracuse, NY.
37. Marquess, F.L. and **P.J. Kononoff.** 2004. The use and value of a leptin SNP on feedlot management. Merial Workshop: Leptin and its Association with Production and Quality in Cattle. Canadian Society of Animal Science Annual Meeting. Edmonton, AB.
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NEBGUIDES AND EXTENSION PUBLICATIONS

1. Regassa, T., R. Koelsch, and **P.J. Kononoff.** 2008. Impact of Feeding Distillers Grains on Nutrient Management Planning on Dairy Farms. University of Nebraska-Lincoln Extension RP193.

2. Rasby, R. and **P.J. Kononoff**. 2008. NebGuide: Understanding and Using a Feed Analysis Report. G1892. *Revised*.
3. **Kononoff, P.J.** and R.J. Grant. 2008 NebGuide. Water Quality and Requirements for Dairy Cattle. G93-1138-A. *Revised*.
4. **Kononoff, P.J.** 2008. Understanding the Lactation Curve and Balancing Dairy Rations for High Producing Dairy Cattle.
5. Keown, J.F., **P.J. Kononoff**, and D.A. Smith. 2007. Dairy Cow Health and Metabolic Disease Relative to Nutritional Factors. G1743. *Revised*.
6. Keown, J.F., and **P.J. Kononoff**. 2006. NebGuide. Dairy 10-Point Quality Control Program — Mastitis Treatment Records. G1666. *Revised*.
7. Keown, J.F. and **P.J. Kononoff**. 2006. Nebguide. How to Set Goals for your Breeding Program. G755. *Revised*.
8. Keown, J.F. and **P.J. Kononoff**. 2007. Nebguide. Estrus (Heat) Detection Guidelines. G952. *Revised*.
9. Anderson, B., R. Rasby, and **P.J. Kononoff**. 2007. NebGuide. Testing livestock feeds for beef cattle, dairy cattle, sheep, and horses. G89-915-A. *Revised*.
10. Rasby, R. and **P.J. Kononoff**. 2007. NebGuide: Nitrates in Livestock Feeding. G74-170-A. *Revised*.
11. **Kononoff, P.J.**, R.J. Grant, and J.F. Keown. 2006. NebGuide: Nutritional Management of the High-Producing Dairy Cow in the 21st Century. G1629. *Revised*.
12. **Kononoff, P.J.** and J. F. Keown. 2006. NebGuide: Managing Dairy Cattle for Cow Comfort and Maximum Intake. G95-1256-A. *Revised*.
13. Grant, R.J. and **P.J. Kononoff**. 2006. NebGuide: Feeding to Maximize Milk Protein and Fat Yields. G98-1358-A. *Revised*.
14. **Kononoff, P.J.**, R.J. Grant, and J.F. Keown. 2006. NebGuide: Supplemental Fat For High-Producing Dairy Cows, G1581. *Revised*.
15. **Kononoff, P.J.** 2006. NebGuide: Does Feeding Distillers Grains to Dairy Cows Affect Milk Components? G1679.
16. Keown, J.F. and **P.J. Kononoff**. 2006. NebGuide. How to Estimate a Dairy Herd's Reproductive Losses. G86-822A. *Revised*.
17. Keown, J.F. and **P.J. Kononoff**. 2006. NebGuide: Producing Milk With a Low Bacteria Count. G678. *Revised*.
18. Anderson, B., T. Mader, and **P.J. Kononoff**. 2006. NebGuide. Sampling Feeds for Analysis. G77-331-A. *Revised*.
19. Keown, J.F. and **P.J. Kononoff**. 2006. NebGuide. How to Estimate a Dairy Herd's Reproductive Losses. G86-822A. *Revised*.

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21. Drudik, D. J.F. Keown, and **P.J. Kononoff**. 2006. NebGuide: Milk Urea Nitrogen Testing. G1661. *Revised*.
22. **Kononoff, P.J.** 2005. NebGuide: Understanding Effective Fiber in Rations for Dairy Cattle, G1587.
23. **Kononoff, P.J.** and B. Janicek. 2005. Understanding Milling Feed Byproducts For Dairy Cattle. G1586.
24. Keown, J.F., **P.J. Kononoff**, and R.J. Grant. 2005. NebGuide. How to Reduce Heat Stress in Dairy Cattle. G1582. *Revised*.

STATE (NEBRASKA) EXTENSION PRESENTATIONS

1. **Kononoff, P.J.** 2009. Distillers grains use in dairy cattle operations and effect on production and milk characteristics. Presentation given at the 2009 Ethanol Co-Product Storage and Utilization in Beef Systems Conference. A Northeast Region SARE program.
2. **Kononoff, P.J.** 2009. Silage Fermentation and Quality. Presentation given at the 2009 Nebraska State Dairymen's Association, Columbus, NE, March 15, 2009.
3. **Kononoff, P.J.** 2007. Feeding Dairy Cattle Corn Milling Co-Products. Presentation given at the 2007 Nebraska State Dairymen's Association, Mead, NE., March 15, 2007.
4. **Kononoff, P.J.** 2006. Balance Before You Blink: Balancing Dairy Diets Containing Wet Corn Gluten Feed. Husker Nutrition Conference, Lincoln, NE. October 20, 2006.
5. **Kononoff, P.J.** 2005. Evaluating Growth from Weaning to calving. Nebraska State Dairymen's Association. Mead NE, March 15, 2005.
6. **Kononoff, P.J.** 2005. Forage and TMR Particle Size in Dairy Rations. Nebraska National Dairy Heard Improvement Association producer meeting. Beatrice, NE. February 22, 2005. National Dairy Heard Improvement Association.
7. **Kononoff, P.J.** 2005. Understanding Particle Size in Dairy Rations. Producer meeting. January 25, 2005. Kansas.

EXTENSION AND TRADE PRESENTATIONS/PUBLICATIONS

1. **Kononoff, P.J.** 2015. Balance around drought-stressed corn silage. Hoards Dairyman. Page 767. December, 2015.
2. **Kononoff, P.J.** 2015 Track amino acids to improve milk protein production. Hoards Dairyman. Page 129. February, 2015.
3. **Kononoff, P.J.** 2014. Distillers bring protein and energy to the table. Hoards Dairyman. Page 582. September, 2014.
4. Ramirez Ramirez, H.A. and **P.J. Kononoff**. 2013. Reduced fat DDGS may dampen milk fat risk. Hoards Dairyman. Page 31, January, 2013.

5. Ramirez Ramirez, H.A. and **P.J. Kononoff**. 2013. Monitor the nutrient variation of your distillers. Page 59, January, 2013.
6. Keown, J.F. and **P.J. Kononoff**. 2007. How to set goals for your breeding program. Progressive Dairyman, Vol. 21, No. 9.
7. **Kononoff, P.J.** and M.A.G. Von Keyserlingk. 2008. Nutrition consultant should create a plan. Feedstuffs Part 1. Vol. 80, No. 19, Pages 18, 19.
8. **Kononoff, P.J.** and M.A.G. Von Keyserlingk. 2008. Nutrition consultant should create a plan. Feedstuffs Part 2. Vol. 80, No. 23, Pages 20, 21.
9. **Kononoff, P.J.** and M.A.G. Von Keyserlingk. 2008. Nutrition consultant should create a plan. Feedstuffs Part 3. Vol. 80, No. 27, Pages 16, 17.
10. **Kononoff, P.J.** 2008. Feeding fiber and non-fiber carbohydrates to lactating dairy cows. Pages 61-64 in the Proceedings of 3rd Annual Dairy Conference, Brookings, SD, Sheldon IA, and Pipestone, MN.
11. **Kononoff, P.J.**, A. M. Gehman, and K.J. Machacek. 2008. Feeding distillers grains plus solubles to lactating dairy cattle. Nebraska Corn Board. Occasional Publication.
12. **Kononoff, P.J.** 2007. Do distillers grains depress milk fat? Page 494. Hoard's Dairyman. July 2007.
13. **Kononoff, P.J.** and A.J. Heinrichs. 2006. Forage and TMR particle size, effects on rumen fermentation in dairy cows. Dairy Fact Sheet for National Feed Management Project.
14. **Kononoff, P.J.** and B. Janicek. 2005. Feeding distillers grains to dairy cattle. Nebraska Corn Board. Occasional Publication.
15. **Kononoff, P.J.** and B. Janicek. 2005. Ten things a dairy manager should know about corn milling by-products for dairy cattle. Hoard's Dairyman. Pages 676-677. October 10, 2005.
16. **Kononoff, P. J.** and A. J. Heinrichs. 2004. TMR fiber: Long enough to work without sorting. Hoard's Dairyman. 149:640
17. Heinrichs, A.J. and **P.J. Kononoff**. 2003. Proper nutrition includes paying attention to particle size. Farmshine. Page 17. October 24.
18. **Kononoff P.J.** and R.T. Bass. 2003. Lameness and laminitis: It's more than just nutrition. The Virginia Dairyman. Pages 17, 21. January 1.
19. **Kononoff P.J.** and A.J. Heinrichs. 2002. Particle Separator add-on improves analysis. Hoards Dairyman. Page 620. September 25.
20. **Kononoff, P.J.**, A.J. Heinrichs, and G.A. Varga. 2002. Using manure evaluation to enhance dairy cattle nutrition. Technical Bulletin of The Pennsylvania State University, College of Agriculture Science, Cooperative Extension. DAS 02-51.
21. Heinrichs, A.J. and **P.J. Kononoff**. 2002. Forage Particle Separators can tell us a lot. Hoard's Dairyman. Page 82. January 25.

22. **Kononoff, P.J.** and A.J. Heinrichs. 2002. Evaluating particle size of forages and TMRs using the Penn State Particle Size Separator. Technical Bulletin of The Pennsylvania State University, College of Agriculture Science, Cooperative Extension. DAS 96-20.

APPROVED EXTENSION ACCOMPLISHMENTS REPORTING SYSTEM (EARS) ENTRIES

1. 2010. I-29 Dairy Conference. Approval Date: 07/29/2010. Action Plan: Food Production & Natural Resource Systems.
2. 2010. Training the Trainer in Ethanol Co-Product Storage and Utilization in Small Cattle Operations 2010. Approval Date 04-07-10. Action Plan: Beef Systems. Team Members: Brent Plugge, Dennis Bauer, Galen Erickson, Larry Howard, Rick Rasby, Trpy Walz, Rock, Funston, Paul Kononoff, Aaron Stalker, Sara Ellicott, Terry Klopfenstein.
3. 2009. Second Annual Dairy Education Day. Approval Date: 09-21-10. Pending. Additional Team Members: Jeff Keown and Ms. Kimberly Machacek. Action Plan: Food Production & Natural Resource Systems.
4. 2009. Ethanol Co-Product Storage and Utilization in Small Cattle Operations. Approval Date: 05-04-09. Team Members: John Hay. Brent Plugge, Dennis Bauer, Galen Erickson, Larry Howard, Rick Rasby, Terry Mader, Troy Walz, Darrell Mark, Paul Kononoff, Aaron Stalker, and Terry Klopfenstein. Action Plan: Food Production & Natural Resource Systems.
5. 2009. Educational Seminar: Silage Fermentation and Quality; Nebraska State Dairy Association. Approval Date: Approval Date 03-06-09. Additional Team Members: David R. Smith, Jeff Keown. Action Plan: Food Production & Natural Resource Systems.
6. 2009. I-29 Dairy Conference. Approval Date: 05-04-09. Action Plan: Food Production & Natural Resource Systems.
7. 2008. Annual Dairy Open House and Education Day. Approval Date: 09-18-08. Additional Team Members: David R. Smith, Jeff Keown, Ms. Kimberly Machacek. Action Plan: Food Production & Natural Resource Systems.
8. 2008. I-29 Dairy Conference. Approval Date: 05-14-08. Action Plan: Food Production & Natural Resource Systems.
9. 2007. I-29 Dairy Conference. Approval Date: 09-13-07. Action Plan: Food Production & Natural Resource Systems.
10. 2007. Dairy Producer Meeting: Feeding Co-products to Dairy Cattle. Approval Date: 09-12-07. Additional Team Members: Paul Hay. Action Plan: Food Production & Natural Resource Systems.
11. 2006. The Dairy Technician Certification Program. Approval Date: 09-06-07. Additional Team Members: Jeff Keown, Amanda Gehman. Action Plan: Food Production & Natural Resource Systems.
12. 2006. Husker Nutrition Conference. Approval date: 12-22-06. Additional Team Members: Galen Erickson. Action Plan: Food Production & Natural Resource Systems.

13. 2006. The Dairy Technician Certification Program. Approval Date: 11-30-06. Additional Team Members: Jeff Keown, Amanda Gehman. Action Plan: Food Production & Natural Resource Systems.

INVENTIONS

Kononoff, P.J., and A.J. Heinrichs. Revised (addition to) Forage Particle Separator. PSU Invention Disclosure No. 2001-2491.

RESEARCH GRANTS

1. **Kononoff, P.J.** 2016. Tools for dairy nutritionists: calibrating ration balancing inputs for corn grain and distillers grains ruminal digestion of protein. NE Corn Board. \$ 51, 921. Pending.
2. Fernando, S.C., **P.J. Kononoff**. 2015. Improving soil health using biofertilizers. \$ 435, 958. Pending.
3. **Kononoff, P.J.** 2015. The Effects of a Novel Feed Additive on the Fatty Acid Profile of Bovine Milk. NOVA Microbial Technologies, LLC. \$ 60, 922. Funded.
4. Fernando, S.C., **P.J. Kononoff**. 2015. Understanding how soil microbes interact with environmental conditions and affect GHG flux dynamics in managed pastures. \$ 749, 996. Not Funded.
5. **Kononoff, P.J.** 2015. Enhancement of feed efficiency and performance of dairy heifers by increased management of nutrition and genomics. USDA-NIFA. \$ 233, 168. Not funded.
6. **Kononoff, P.J.** and S.C. Fernando. 2015. Investigations of Nutritive Entities Contained in Corn Distillers Grains and Testing the Influence on Methane Production in the Rumen. NE Corn Board. \$ 64, 633. Funded.
7. Fernando, S.C., G.E. Erickson and **P.J. Kononoff**. 2015. Improving Air Quality by Reducing Methane Emissions from Cattle. \$ 348, 298. NE Environmental Trust.
8. **Kononoff, P.J.** 2014. Methionine activity from different protected methionine sources. Novus International. \$ 60, 000. Funded.
9. **Kononoff, P.J., S.C. Fernando, and T. Burkey. 2014.** Understanding the interaction between rumen microbes and host metabolism during milk fat depression in dairy cows. \$499,242. Not Funded.
10. **Kononoff, P.J.** 2013. Evaluation of the effects of Alimet on microbial protein production in lactating dairy cows with different levels of degradable and undegradable protein. Novus International. \$38, 407. Funded.
11. **Kononoff, P.J.,** S.C. Fernando, E. N. Moriyama, and D. E. Hostetler. 2012. Understanding the interaction between rumen microbes and host metabolism during milk fat depression in dairy cows. \$499, 833.00. Not Funded.
12. **Kononoff, P.J.** and S.C. Fernando. 2012. Avoiding milk fat depression by feeding reduced fat DDGS (RFDDGS) to lactating dairy cows and understanding the associated rumen metagenome. Nebraska Corn Board. 2012. \$84, 554.00. Funded.

13. Fernando, S, G. Erickson, **P.J. Kononoff**, T.J. Klopfenstein, and J.J. Riethoven. 2011. Dissecting Structure-Function Relationships of the Microbial Food Chain: Towards Understanding Methanogenesis in Ruminants. \$654, 562.00. NSF. Status: Not Funded.
14. Erickson, G.E., S. C. Fernando, and **P.J. Kononoff**. 2011. Understanding microbial methanogenesis in ruminants towards methane mitigation. \$99, 500.00. NRI. Status: Not Funded.
15. **Kononoff, P.J.** 2011. Study of the rumen microbiome to understand the benefit of corn milling co-products to ruminants. Nebraska Corn Board. \$38, 689.00. Status: Not Funded.
16. **Kononoff, P.J.** and J. Miner. 2009. Characterization of Rumen Microbial Protein Through Amplification of Microbial DNA With Focus in Dairy Cows Consuming Corn Milling Co-Products. USDA Animal Growth and Nutrient Utilization. \$ 140, 928.00. Status: Not Funded.
17. **Kononoff, P.J.** 2008. Comparison of Dairy Cattle Performance in Nebraska When Fed Silage and Grain Produced From Second-Generation Insect Protected (B.t.) Corn (MON 89034), Parental Line or Reference Corn Grown During. Monsanto. Amount: \$38, 115.00. Status: Funded.
18. **Kononoff, P.J.** and L.O. Tedeschi. 2009. A nutritional model to predict milk yield with emphasis in understanding nutrient flow through the ruminal microbiome, with focus on ruminal carbohydrate fermentation. Alberta Livestock and Meat Agency. Amount \$ 1, 073, 000.00. Status: Not Funded.
19. Smith, D.R., T.J. Klopfenstein, G.E. Erickson, R.A. Moxley, **P.J. Kononoff**, Y.T. Grohn, C. Lanzas, and L.T. Tauer. 2009. Outreach and Discovery Methods to Mitigate Food Safety Hazards Associated with Live Cattle. USDA Program 93232: Food Safety and Epidemiology: Epidemiological Approached for Food Safety Solutions. Amount: \$ 1,250,000.00 Status: Not Funded.
20. **Kononoff, P.J. 2007.** Nebraska Corn Board. Milk Fat Depression and Wet Distillers Grains and Solubles. Amount: \$ 35, 855.00. Status: Funded.
21. **Kononoff, P.J.** and M. Schroeder. 2008. Pioneer, Agriculture and Nutrition. Field production and characterization of maize forage containing trait product DP-09810-6. Amount: \$98,734.86. Status: Funded.
22. **Kononoff, P.J.** 2008. Nebraska Corn Board. Development of safe and effective methods to store wet distillers grains for feeding to lactating dairy cows. Amount: \$ 35, 855.00. Status: Funded.
23. **Kononoff, P.J.** 2008. Influence of Corn Silage Hybrid on Feed Consumption and Milk Production in Holstein Cattle. Pioneer Hybrid. Amount: \$ 40, 714.00. Status: Funded.
24. **Kononoff, P.J.** 2008. Feeding Dairy Cows Brown Midrib Corn Silage and Corn Milling Co-Products: Effects on Milk Production and Utilization of N. Mycogen Seed/Dow Chemical. \$ 26, 808.00. Status: Funded.
25. **Kononoff, P.J.** 2007. Development of bioequivalent and sustainable dairy rations containing corn milling co-products. USDA-CREES. Amount \$205, 920.00. Status: Not Funded.
26. **Kononoff, P.J.** 2007. Nebraska Corn Board. Effects of Forage Type on N Excretion in Dairy Cows Consuming Diets High in Corn Distillers. Amount: \$ 34, 476.66. Status: Funded.

27. **Kononoff, P.J.** 2007. Nebraska Soybean Board. Evaluation of Nitrogen Excretion in Dairy Diets Where Distillers Grains Replace Soybean Meal. Amount: \$ 26,123. Status: Not Funded.
28. **Kononoff, P.J.** 2006. Nebraska Corn Board. Dairy Rations that Maximize the Inclusion of Corn Milling Co-Products. Amount: \$ 26,123. Status: Funded.
29. **Kononoff, P.J.** 2006. Development of bioequivalent and sustainable dairy rations containing corn milling co-products. USDA-CREES. Amount \$324, 396.00. Status: Not Funded.
30. **Kononoff, P.J.,** D.R. Smith, J. Keown. 2005. IANR Innovation Grant 2005: A Training Website for Dairy Farm Employees: www.huskermilk.unl.edu. Amount: \$19,037.00. Status: Not Funded.
31. **Kononoff, P.J.** 2005. Evaluation of Nitrogen Balance and Effects of Monensin on Dairy Cows Fed Brown Midrib Corn Silage. Mycogen Seed. \$36,000. Status: Funded.
32. **Kononoff, P.J.** 2005. Layman Award. Feeding Corn Ethanol Co-Products to Maximize Energy Capture in Dairy Production Systems. Amount: \$9,188.00. Status: Funded.
33. **Kononoff, P.J.** 2005 Nebraska Corn Board. Methods to determine the chemical composition of co-products from ethanol production in Nebraska. Amount: \$ 26,123. Status: Not Funded.

TEACHING (NO BUDGETED TIME)

2015 ANSCI 453 Dairy Management, University of Nebraska-Lincoln, 3 credit hours, 100% responsibility

2014 ANSCI 924 Forage Evaluation, University of Nebraska-Lincoln, 3 credit hours, 33% responsibility

2014 ANSCI 453 Dairy management, University of Nebraska-Lincoln, 3 credit hours, 100% responsibility

2013 ANSCI 453 Dairy management, University of Nebraska-Lincoln, 3 credit hours, 100% responsibility

2012 ANSCI 924 Forage Evaluation, University of Nebraska-Lincoln, 3 credit hours, 33% responsibility

2010 ANSCI 924 Forage Evaluation, University of Nebraska-Lincoln, 3 credit hours, 33% responsibility

2008 ANSCI 924 Forage Evaluation, University of Nebraska-Lincoln, 3 credit hours, 33% responsibility

2006 ANSCI 924 Forage Evaluation, University of Nebraska-Lincoln, 3 credit hours, 33% responsibility

2004 AGRI 2860 Dairy Production Management, North East Community College, 4 credit hours, 100% responsibility

GRADUATE STUDENTS

Student Name	My role	Degree	Date Completed
Brandy Janicek	Advisor	MS	Summer, 2007
Jolene Kelzer	Advisor	MS	Summer, 2008
Amanda Gehman	Advisor	PhD	Summer, 2009
Kim Machacek	Advisor	Mag	Spring, 2009
Ezequias Castillo Lopez	Co-Advisor	MS	Summer, 2009
Ezequias Castillo Lopez	Advisor	PhD	Fall, 2012
Hugo Rameriez	Advisor	MS	Fall, 2011
Hugo Rameriez	Advisor	PhD	Fall, 2013
Henry Paz	Advisor	PhD	Fall, 2013
Alison Foth	Advisor	MS	Summer, 2014
Chad Jenkins	Co-Advisor	MS	Fall, 2014
Gabriel Gomez	Advisor	MS	Fall, 2015
Olivia Drehmal	Advisor	MS	In Progress
Ellan Dufoor	Advisor	MS	In Progress
Jared Judy	Advisor	PhD	In Progress

UNDERGRADUATE EDUCATION & RESEARCH

Advisor for Kiley Algae. University Undergraduate Creative Activities & Research Experiences (UCARE) program.

Advisor for David Williams. University Undergraduate Creative Activities & Research Experiences (UCARE) program.

Advisor for Anna Geiss. University Undergraduate Creative Activities & Research Experiences (UCARE) program.

Advisor for Christina Heine. University Undergraduate Creative Activities & Research Experiences (UCARE) program.

Advisor for Kristina Hubbard. Undergraduate Honors Thesis. Title: Feeding a high protein distillers grains to lactating dairy cows. Completed Summer, 2008.

Advisor for 5 students in AGRI 199H Discovery Corps. Freshman Research Experience.

Advisor for Chad Mullins. University Undergraduate Creative Activities & Research Experiences (UCARE) program. Project Title: Feeding BMR Corn Silage to Dairy Cows.

Independent Study Advisor for Jose Baez. ANSC 399.1. Project Title: Dairy and Corn production and the feasibility of using corn for ethanol production as well as its by-product, distillers grains, in Ecuador.

Co-Advisor for Independent Study for Melissa Thompson. Pasture Based Dairy Production.

Instructor of Applied Dairy Production Management. AGRIC 2860. North East Community College. Spring Semester. 22 Students.

Guest lecture. 2005 Japanese Agricultural Training Program. February 2, March 7 and 8th, 2005. Computer Rations for dairy cattle.

Guest lecture. 2006. Japanese Agricultural Training Program. March 8 and 9, 2006. Dairy Management.