

**The Canadian Society of Animal Science
Year 2000 Annual Meeting
July 15 – 19, 2000
Winnipeg Convention Centre**

Held in conjunction with



**Canadian Society of Animal Science
Monday, July 17, 2000**

Multi-Disciplinary Poster Session

Time: 13:00 – 20:00

Supplemental amino acids for reduction of nitrogen in swine manure. R.R.

Grandhi*, G.I. Turner, and N. Thiry. Agriculture and Agri-Food Canada, Brandon, MB, R7A 5Y3.

Swine manure characteristics on different varieties of hulless-barley. R.R. Grandhi*,

M.C. Therrien, and R.D. Westwood . Agriculture and Agri-Food Canada, Brandon, MB, R7A 5Y3.

The occurrence and genetics of sand cracks in beef cattle. L.A. Goonewardene*, R.K.

Hand, Z. Wang, L.Al-Ani, R. Carlyon, and R.C. Yang. Animal Industry Division, Alberta Agriculture, Food and Rural Development, Edmonton, AB, T6H 5T6.

Effects of sunflower oil on ruminal protozoa in sheep. M. Ivan*, P. S. Mir, Z. Mir, K.

Koenig, L. M. Rode, L. Neill, and T. Entz. Agriculture and Agri-Food Canada Research Centre, P.O. Box 3000, Lethbridge, AB, T1J 4B1.

Effect of sunflower oil on digesta viscosity in sheep. P.S. Mir*, M. Ivan, G.J. Mears,

C.M. Ross, S.D. Husar, and Z. Mir. Agriculture and Agri-Food Canada Research Centre, P.O. Box 3000, Lethbridge, AB, T1J 4B1.

A simple, improved method for collecting ruminal fluid. S.A. Buckley*, T.R.

Callaway, R.C. Anderson, L.F. Kubena, and D. J. Nisbet. USDA/ARS, SPARC Food and Feed Safety Research Unit, College Station, default, 77845

Variation in grain in vitro ruminal undegradable proteins and digestibility among cereal and pea cultivars. G.F. Tremblay*, D. Pageau, J. Beaulieu, and G. Bélanger. Agriculture and Agri-Food Canada, 2560 Hochelaga Blvd., Sainte-Foy, PQ, G1V 2J3.

Effect of yucca saponins on cellulolytic ruminal microbes. Y. Wang*¹, T.A. McAllister¹, L.J. Yanke¹, P.R. Cheeke² & K-J. Cheng³. ¹Agriculture and Agri-Food Canada Research Centre, Lethbridge, AB T1J 4B1; ²Desert King International, Chula Vista, CA; and ³University of British Columbia, Vancouver, BC,

Inhibition of Night Time Melatonin Secretion in Cattle: Threshold Light Intensity for Dairy Heifers. T. J. Lawson* and A. D. Kennedy. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Comparison of GH-RFLPs between an Iranian zebu cattle (Sistani) and European breeds. A. Torkamanzehi*, R. Hashemzehi, and A.H. Kaikha-Salar. University of Sistan and Baluchistan, P.O. Box 98135-411, Zahedan, Iran., 98135.

Genetic changes in birth weight and weaning gain of beef lines subject to phenotypic selection. Z. Wang¹*, R-C. Yang¹, L.A. Goonewardene², M.A. Price², M. Makarechian², J. Knapp², and R.T. Berg². Animal Industry Division, Alberta Agriculture, #204-7000 113 St., Edmonton, AB, T6H 5T6; Department of Agriculture, Food, and Nutritional Sciences, University of Alberta, Edmonton, AB, T6G 2P5.

Relationship between vaginal and tympanic membrane temperature in beef heifers. R.D. Bergen* and A.D. Kennedy. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 4W3.

Influence of hour of weaning on endocrine changes and rebreeding performance of sows. K. Bowen* and M.L. Connor. Department of Animal Science, University of Manitoba, Winnipeg, R3T 2N2.

Alloxan treatment of cattle has tissue specific effect on acetyl-CoA carboxylase and fatty acid synthase activity. J.A. Moibi*¹, R.J. Christopherson¹, P. Mir², W.T. Dixon², G. Mears², Z. Mir², E.K. Okine¹, and J.J. Kennelly¹. ¹Department of Agriculture, Food and Nutritional Science, University of Alberta, Edmonton, AB, T6G 2P5; and ²Agriculture and Agri-Food Canada, Lethbridge, AB, T1J 4B1.

Genetic testing using DNA from porcine or bovine hair samples. W.J. Meadus* and R. MacInnis. Agriculture and Agri-Food Canada, Lacombe, AB, T4L 1W1.

Microsatellite variation in captured elk (*Cervus elaphus*) in Manitoba. D.P. Rasali*¹, G.H. Crow¹, and E. Trout². ¹Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2; and ²Animal Industry Branch, Manitoba Agriculture and Food, 545 University Crescent, Winnipeg, MB, R3T 5S6.

Winter performance, plasma prolactin and hair shedding in morning and evening fed beef heifers with and without supplemental light. A.D. Kennedy*, R.D. Bergen, and T.J. Lawson. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Effect of feeding sunflower oil to steers on meat fatty acid composition. Z. Mir¹, P.S. Mir¹, M.S. Zaman¹, B. Pink*¹, T.A. McAllister¹, J.L. Aalhus², L.E. Jeremiah², L.A. Goonewardene³, E. Okine⁴, M.E.R. Dugan² and R.J. Weselake. ¹Agriculture and Agri-Food Canada, Lethbridge, AB, T1J 4B1; ²Agriculture and Agri-Food Canada, Lacombe, T4L 1W1; ³Department of Agriculture, Food, and Nutritional Sciences, University of Alberta, Edmonton, AB, T6G 2P5; and ⁴Animal Industry Division, Alberta Agriculture, Food and Rural Development, Edmonton, AB, T6H 5T6.

The effects of implant treatment on steer growth performance and carcass composition. P.L. McEwen. Ridgetown College, University of Guelph, Ridgetown, Ontario, Canada N0P 2C0.

Early detection of infection using infrared thermography. A.L. Schaefer*, S.V. Tessaro, D. Deregt, G. Desroches, N.J. Cook, P. Lepage, J.J. Colyn, P.L. Dubeski, and D.L. Godson. Agriculture and Agri-Food Canada, Lacombe, AB, T4L 1W1.

Effects of Photoperiod and Estrous Synchronization Method on Breeding Performance of Beef Heifers. N.D. Glover*¹, J.A. Small², A.D. Kennedy¹, D.R. Ward² and W.D. Sutherland². ¹Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2; and ²Agriculture and Agri-Food Canada, Brandon, MB, R7A 5Y3.

Differences among terminal sire lines in Ontario for growth performance and carcass merit. C.A. Aker¹, J.P. Gibson¹, J.R. Morris²* C. F. M. deLange¹. ¹Ridgetown College, University of Guelph, Ridgetown, ON, N0P 2C0; and ²Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

The effect of pig variation and marketing/management strategies on the economics of raising market pigs. J. Morris* and K. McEwan. Ridgetown College, University of Guelph, Ridgetown, ON, N0P 2C0.

Breed differences for a HaeIII RFLP at the ovine lipoprotein lipase locus. C.J. Otieno* and A. Farid. Department of Animal Science, Nova Scotia Agricultural College, Truro, NS, B2N 5E3.

Energy Metabolism in Growing Steers. B.T. Li*, J.A. Moibi, G.W. Mathison, and R.J. Christopherson. Department of Agriculture, Food and Nutritional Science, University of Alberta, Edmonton, AB, T6G 2P5.

Effect of cation-anion difference (CAD) in combination with EDTA on keeping properties of meat from grain-fed veal calves. A. Ghodrathnama¹, S.L. Scott¹³*, and C.

Gariépy². ¹Dépt. SAN, Université Laval, Ste-Foy, PQ, G1K 7P4; ²CRDA, Agriculture and Agri-Food Canada, St-Hyacinthe, PQ, J2S 8E3; and Agriculture and Agri-Food Canada, Brandon, MB, R7A 5Y3.

Effect of Multi-Enzyme Preparation on Performance and Nutrient Digestibility of Early-weaned Pigs. Y. Li*, B.A. Slominski, and S.K. Baidoo. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Long- term effects of the protein mass of gilts at parturition and their protein loss during lactation on the subsequent growth performance, carcass and meat quality of their litters. A. Fortin¹, E.J. Clowes², and A.L. Schaefer^{1*}. ¹Agriculture and Agri-Food Canada, Lacombe, AB, T4L 1W1; and ²Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, AB, T6G 2P5.

A Comparison of Cow Mats with Regard to Animal Comfort and Leg Problems of the Dairy Cow. T.L.Garner*, K.M.Wittenberg, and N.J.Lewis. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Influence of Different Light Sources on Physiological Responses, Puberty Onset and Embryo Survival in Gilts. J.E.D. Springer* and M.L. Connor. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Vitamin B₁₂ Requirement of the Early Weaned Pig. C.M.T. McDougall* and J. D. House. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Enzymic release of ferulic acid from oat hulls by *Aspergillus ferulic acid esterase*. P. Yu*, D.D. Maenz, J.J. McKinnon, and V.J. Racz. Department of Animal and Poultry Science, University of Saskatchewan, Saskatoon, SK, S7N 5A8.

Effect of monensin on *E. coli* O157:H7 and *E. coli* ATCC 25922. S.J. Buchko^{*12}, R.A. Holley¹, T.A. McAllister², L.R. McMahan², and D.M. Veira³. ¹*Department of Food Science, University of Manitoba, Winnipeg, R3T 2N2; ²Agriculture and Agri-Food Canada, Lethbridge, AB, T1J 4B1; and ³Agriculture and Agri-Food Canada, Kamloops, BC, V2B A8A.

Nutritive value of house fly larvae (*Musca domestica*) for turkey poults. C.L. Molnar¹, F.M. Morley¹, T.L. Wray¹, M. Zuidhof^{1*}, F. Robinson², B.A. Khan¹ and L.A. Goonewardene². ¹Alberta Agriculture Animal Industry Division # 204-7000-113 St., Edmonton, AB, T6H 5T6; and ²Department of Agricultural, Food and Nutritional Science, University of Alberta, Edmonton, AB, T6G

Effect of dietary energy and protein levels on body condition, ovarian activity, and plasma leptin concentrations in prepubertal dairy heifers. P.K.Chelikani, J.D. Ambrose*, D.R. Glimm, T.J. Kieffer, and J.K. Kennelly. Department of Agricultural,

Food, and Nutritional Science, University of Alberta, Edmonton, AB, T6G; and Alberta Agriculture, Food and Rural Development, Edmonton, AB, T6H 4P2.

Dietary acidification and/or enzyme supplementation of diets for newly weaned pigs.

N. Rodgers and D.M. Anderson. Department of Animal Science, Nova Scotia Agricultural College, Truro, NS, B2N 5E3.

Effect of whole hulless barley feeding of broiler chickens on growth performance and nutrient digestibility. J. MacLean* and D.M. Anderson. Atlantic Poultry Research Institute, Nova Scotia Agricultural College, Truro, NS, B2N 5E3.

Relationship between energy intake and whole body protein deposition at two body weights in a specific population of growing boars. R.N. Weis^{1*}, S.H. Birkett¹, P.C.H. Morel² and C.F.M. de Lange¹. ¹Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1; and ²Massey University, New Zealand.

Fecal energy and ileal energy and amino acid digestibilities in Ontario samples of hulless and regular barley. Y. Yin^{1*}, E.A. Jeaurond¹, S.K. Baidoo³ D. Falk² and C.F.M. de Lange¹. ¹Departments of Animal and Poultry Science & ² Plant Agriculture, University of Guelph, Guelph, ON, N1G 2W1; and ³University of Minnesota, Waseca, MN, USA, 56093.

Effect of methionine plus cysteine intake on whole body protein deposition in growing gilts. A.T.H. Reijmers*, A.M. Gillis, and C.F.M. de Lange. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Rapid evaluation of grain processing by reference to availability of starch. F. Ysunza*, Y.L. López, O. Lozano, and D. Mendoza. Research Center for Food and Development, Apartado Postal 1735, Carretera a La Victoria, Hermosillo, Brazil, 83000.

Effect of fiber on recovery of mucin in ileal digesta and feces of pigs. K. Lien, W. Sauer, and G. Huang*. Department of Agricultural, Food, and Nutritional Science, University of Alberta, Edmonton, AB, T6G 2P5.

Determination of true calcium digestibility in feedstuffs for pigs by the regression analysis technique. M.Z. Fan*, T. Archbold, and R.R. Hacker. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Partitioning various forms of phosphorous in the distal ileal digesta and feces. M.Z. Fan*, T. Archbold, K. Mead, and Y. Gao. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Quantification of volatile odor-causing compounds in swine manure by gas chromatography-mass spectrometry analysis. Y. Gao*, G. Duns, and M.Z. Fan . Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Measurement of ammonia emission from swine slurry. Y. Gao*, T. Rideout, and M.Z. Fan. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Measurement of hydrogen sulfide emission from swine slurry. Y. Gao*, T. Rideout, and M.Z. Fan. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Effect of feeding blends of grains naturally-contaminated with deoxynivalenol and fusaric acid on growth and metabolism of turkey poults. M. Modirsanei and T.K. Smith*. Department of Animal and Poultry Science, University of Guelph, Guelph, ON, N1G 2W1.

Folate enrichment of table eggs. J.D. House*, K. Orzechowski, D. Ballance, and W. Guenter. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2.

Effects of diet manipulation on growth performance, carcass quality and plasma concentrations of urea, indole and skatole in growing-finishing pigs. G. He^{1,2*}, S.K. Baidoo^{1,2}, and R. McKay³. ¹Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2; ²University of Minnesota, Waseca, MN, USA, 56093; and ³The Swine Consortium, Brandon, MB.

Phase feeding during gestation and lactation on hormonal and reproductive performance of gilts. D.Embury¹ and S.K. Baidoo^{1,2}. Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2; and ²University of Minnesota, Waseca, MN, USA, 56093.

Effect of multi-enzyme preparation on different varieties of hulless barley in young pigs. Y.L. Yin^{1,3}, S.K. Baidoo^{1,2}, H. Schulze⁴, P.H. Simmins⁴. ¹Department of Animal Science, University of Manitoba, Winnipeg, MB, R3T 2N2; ²Department of Poultry and Animal Science, University of Guelph, Guelph, ON, N1G 2W1; ³University of Minnesota, Waseca, MN, USA, 56093; and ⁴Finnfeeds International Ltd., MB.

