Poster Presentations

WEDNESDAY, JULY 25, 2001

ASAS/ADSA Food Safety and PSA Pathology

Board Number	Abstract Number	
1	1053	Effect of dietary fiber on enterohemorrhagic *Escherichia coli* O157:H7 shedding in lambs. M. Lema* and L. Williams, Alabama A & M University.
2	1054	Simultaneous detection of Salmonella sp. and E. coli O157:H7 using PCR on beef carcasses from a slaughterhouse in Mexico City. E Lopez, R Alonso, MS Rubio*, F Nuñez, M Nicoli, and P Miranda, Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autonoma de Mexico.
3	1055	Simple and rapid method for screening antimicrobial activities of *Bifidobacterium* species of human isolates. S.A. Ibrahim* and M.M. Salameh, North Carolina Agricultural and Technical State University.
4	1056	D-value Determination of *Listeria monocytogenes* and *Salmonella typhimurium* in low fat ready-to-eat processed meat. Kevin McCormick*, Inyee Y. Han, and Paul L. Dawson, Clemson University, Clemson, South Carolina/US.
5	1057	Molecular subtyping and tracking of *Listeria monocytogenes* in Hispanic cheese factories. D.Y. Kabuki[1], A.Y. Kuaye[1], M. Wiedmann[2], and K.J. Boor*[2], [1]Faculdade de Engenharia de Alimentos-UNICAMP-Brazil, [2]Food Safety Laboratory -Department of Food Science-Cornell University-USA.
6	1058	Characterization of isolated bacterial strains with antagonistic properties against food-borne pathogen *Listeria monocytogenes*. H. Roman*, E. T. Ryser, S. Rust, and M. T. Yokoyama, Michigan State University, East Lansing, MI/United States.
7	1059	The effect of environmental and substrate factors on the growth and survival of *Salmonella agona*. S.A. Ibrahim*, T.A. Lloyd, M.M. Salameh, A. Shahbazi, R. Purcell, and C.W. Seo, North Carolina Agricultural and Technical State University.
8	1060	Effects of Tasco # 14 on prevalence levels of enterohemorragic Escherichia coli and Salmonella spp. in feedlot steers. A.R. Barham[1], B.L. Barham*[1], J.R. Blanton, Jr.[1], V.G. Allen[1], K.R. Pond[1], and M.F. Miller[1], [1]Texas Tech University.
9	1061	A challenge trial testing the effects of Acid Pak 4-Way on Salmonella cecal colonization in broiler chicks. J.W. Evans* and M.S. Plunkett, Alltech Biotechnology, Inc., Nicholasville, KY.
10	1062	Effect of an essential oil blend on coccidiosis in broiler chicks. J.W. Evans*, M.S. Plunkett, and M.J. Banfield, Alltech Biotechnology, Inc., Nicholasville, KY.
11	1063	Apramycin resistance of *E. coli* isolated from cold-stressed swine. D.B. Arnett*, P. Cullen, P.D. Ebner, and A.G. Mathew, University of Tennessee, Knoxville, TN.
12	1064	The effect of antibiotics on broiler body weight, feed conversion and tibial dyschondroplasia scores. T.L. Peters*, K.D. Roberson, R.M. Fulton, and M.W. Orth, Michigan State University, East Lansing, MI/USA.
13	1065	Haematological and histological findings in experimental Newcastle disease. F Galindo[1], N Calderon[1], M Charles[1], G Tellez[1], and T Fortoul[2], [1]Departamento de Producción Animal Aves, FMVZ, UNAM , [2]Departamento de Biologia Celular y Tisular, Facultad de Medicina, UNAM.
14	1066	Pathogenesis of thrombocytopenia in Newcastle disease: ultrastructural study. F Galindo[1], N Calderon*[1], G Tellez[1], and T Fortoul[2], [1]Departamento de Producción Animal Aves, FMVZ, UNAM, [2]Departamento de Biologia Celular y Tisular, Facultad de Medicina, UNAM.
15	1067	Organochlorine pesticide residues in cow's milk from tropical region of Veracruz (Mexico). V.T. Pardio*[1], K.N. Waliszewski[2], and A. Ramirez[1], [1]Universidad Veracruzana, Veracruz, Veracruz/Mexico, [2]Instituto Tecnologico de Veracruz, Veracruz, Veracruz/Mexico.

16	1068	Detection of ochratoxin A in sorghum grain using various methods. J.H. Franco de la Torre*, W.P. Reyes, R. Nuño, and A. Taylor, Centro Univ. de Los Altos, Universidad de Guadalajara.
17	1069	Interaction between ochratoxin and aluminosilicate on the histopathologic aspect of organs and the humoral immunity against Newcastle disease virus in broilers. Elizabeth Santin*, A.C Paulillo, A.C., Alessi, E.L. Krabbe, and A. Maiorka, Faculdade de Ciencias Agrarias e Veterinarias - UNESP, Jaboticabal, SP, Brasil.
18	1070	Surveillance programme of the microbiological safety and hygiene of meat in South Africa. AE de Jesus[1], EM Buys*[1], RP Greebe[1], J Kruger[1], L Kgosana[1], and WH Giesicke[2], [1]Animal Nutrition and Animal Products Institute, Agricultural Research Council, Irene 0062, South Af, [2]Department of Agriculture North West Province, Mmabatho 2735, South Africa.
19	1071	Fermentation of whey permeate to lactic acid by *Lactobacillus helveticus* in a spiral-sheet bioreactor. M.M. Salameh*, A. Shahbazi, S.A. Ibrahim, M. Mims, and V. Shirley, North Carolina Agricultural and Technical State University.
20	1072	Molecular certification in chicken meat channel. V. Haezebroeck[1], R. Renaville*[1], I. Parmentier[1], S. Fontaine[1], S. Hetzel[1], and D. Portetelle[1], [1]Animal and microbial biology Unit, Gembloux Agricultural University, Gembloux, Belgium.
21	1073	Nutritional evaluation of Bt-corn in pigs . Tim Reuter, Karen Aulrich*, Andreas Berk, and Gerhard Flachowsky, Institute of Animal Nutrition, Federal Agricultural Research Centre.

PSA Environment and Management

Board Number	Abstract Number	
22	1074	The effect of lighting program and light intensity on the performance and the incidence of leg abnormalities of broiler chickens . A. Kamyab*[1], S. Raja-Abadi[2], K. Yousefi[3], and A. Taghipour Farshi[4], [1]University of Tehran, Animal Sci. Dept., [2]University of Mazandaran, [3]Mobark Andish, Co., [4]Telavang, Co.
23	1075	Effect of a subtherapeutic level of virginiamycin on the clearance of *E. coli* 0157:H7 from an anaerobic continuous-flow culture of chicken microflora. Toni Poole*, Kenneth Bischoff, Todd Callaway, and David Nisbet, USDA,ARS, College Station, TX 77845.
24	1076	Effect of organic acids and formaldehyde on pellet quality and pellet process efficiencies. S. Moore, M. Neill, P. Bentley, R. Odgaard, and P. A. Welch*, Kemin Americas, Inc.
25	1077	Phylogenetic analysis of cecum mucosal bacteria in broiler chickens. J. Gong[1], J.R. Chambers*[1], R.J. Forster[2], H. Yu[1], P. Sabour[1], R. Wheatcroft[1], and S. Chen[3], [1]Food Research Program, Agriculture & Agri-Food Canada, [2]Lethbridge Research Center, Agriculture & Agri-Food Canada, [3]Laboratory Service, University of Guelph, Guelph.
26	1078	Bioprocessing of poultry feather wastes using three feather-degrading microorganisms: fermentation characteristics, keratinases activities and biochemical properties. A. A. Onifade*[1] and N.A. Al-Sane[1], [1]Department of Biological Sciences, Kuwait University, P.O. Box 5969, Safat 13060, Kuwait.
27	1079	Effect of timing of hypobaric exposure on the incidence of ascites syndrome in broilers. J. M. Balog*[1], N. B. Anthony[2], M. A. Cooper[2], B. D. Kidd[1,2], G. R. Huff[1], W. E. Huff[1], N. C. Rath[1], and Y. K. Kirby[1], [1]PP&PSR/ARS/USDA, Fayetteville, AR, [2]University of Arkansas, Fayetteville, AR.
28	1080	Campylobacter jejuni isolation trends of broilers reared on different bedding materials. W Willis*, C Murray, and W Willis, North Carolina A&T State University.
29	1081	Multi-phase versus single-phase feeding during the broiler starter period: Effects on performance and nitrogen excretion. N. Nasril*, C. Zhang, A.U. Haq, J. Carey, and C.A. Bailey, Texas Agricultural Experiment Station.
30	1082	Limitation of *Salmonella enteritidis* colonization by diets containing low calcium and low zinc. S.C. Ricke*[1], Y.M. Kwon[2], C.L. Woodward[1], J.A. Byrd[2], D.J. Nisbet[2], and L.F. Kubena[2], [1]Texas A&M University, College Station, Texas/USA, [2]USDA-ARS, SPARC, College Station, Texas/USA.
31	1083	*Salmonella typhimurium* virulence response to poultry house water as measured by *hilA:lacZY* fusion. J. D. Nutt*, K. L. Medvedev, C. L. Woodward, S. D. Pillai, and S. C. Ricke, Texas A&M University, College Station, TX, USA.

32	1084	Differential response in fertility of broiler breeder males selected for the sperm quality index prior to heat exposure. A. G. Karaca*, H. M. Parker, J. B. Yeatman, and C. D. McDaniel, Mississippi State University, Mississippi State, MS.
33	1085	Employing ultrasound technology to measure testicular development in broiler breeder roosters. L. J. Richardson*[1], A. B. Caudle[1], and J. L. Wilson[1], [1]The University of Georgia.
34	1086	The effects of chlorine and hydrogen peroxide at various concentrations on total bacteria and coliform counts in poultry drinking water. J Zhang*, D McGhee, and S VanBoekel, Cold Springs Farm Ltd. Thamesford, Ontario, Canada.
35	1087	Prevalence of *Campylobacter* in a turkey production facility. A. S. Kiess* and P. B. Kenney, West Virginia University.
36	1088	Does genetic selection for contrasting adrenocortical responsiveness influence underlying sociality in Japanese quail? R. H. Marin*[1], R. B. Jones[2], D. G. Satterlee[1], and G. G. Cadd[1], [1]Dept. of Poultry Science, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, US, [2]Roslin Institute (Edinburgh), Midlothian EH25 9PS, Scotland.
37	1089	Early T-maze behavior, puberty and egg production in Japanese quail selected for contrasting adrenocortical responsiveness. R. H. Marin*[1], D. G. Satterlee[1], G. G. Cadd[1], and R. B. Jones[2], [1]Dept. of Poultry Science, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, [2]Roslin Institute (Edinburgh), Midlothian EH25 9PS, Scotland.
38	1090	Effect of age, body weight, and sex ratio on fertility and hatchability in the Japanese quail (*Coturnix coturnix japonica*) under subtropical conditions. Gehan Ragheb*, H. El-Hammady, and M. Abdelnabi, Assiut University, Assiut, Egypt.
39	1091	Optimum timing of amino acid injections in broiler breeder eggs. Y. Ohta*[1], T. Yoshida[2], and M. T. Kidd[1], [1]Department of Poultry Science, Mississippi State University, Mississippi State, MS 39762, [2]Nippon Veterinary and Animal Science University, Tokyo, Japan 180-8602.
40	1092	Effect of number of birds per cage on the reproductive performance of Japanese quail breeders. J.F. Obregon[1], G. Contreras[1], A. Montoya[1], M.E. Gamez[1], and R. Barajas[1], [1]FMVZ-Universidad Autonoma de Sinaloa (Mexico).

ASAS/ADSA Production, Management, and Environment

Board Number	Abstract Number	
41	1093	Multiple-objective programming to reduce ration cost and nutrient excretion. P.R. Tozer* and J.R. Stokes, The Pennsylvania State University, University Park, PA.
42	1094	Feeding neonatal calves high levels of milk replacers (MR) with different protein and fat levels. T. M. Hill*, J. M. Aldrich, A. J. Proeschel, and R. L. Schlotterbeck, Akey, Inc., Lewisburg, OH.
43	1095	Feeding neonatal calves milk replacers (MR) containing egg proteins. T. M. Hill*, J. M. Aldrich, A. J. Proeschel, and R. L. Schlotterbeck, Akey, Inc., Lewisburg, OH.
44	1096	Protein levels for neonatal calf starters. T. M. Hill*, J. M. Aldrich, A. J. Proeschel, and R. L. Schlotterbeck, Akey, Inc., Lewisburg, OH.
45	1097	Behaviour and meat quality of veal calves receiving solid feeds for welfare purpose. G. Cozzi *[1], F. Gottardo[1], S. Mattiello[2], E. Canali[2], G. M. Burato[1], S. Segato[1], and I. Andrighetto[1], [1]University of Padova, Italy , [2]University of Milano, Italy.
46	1098	Effects of milk replacer fermented with yogurt culture on performance and health of dairy calves. S.C. Chan*, Department of Animal Science, Chinese Culture University, Taiwan.
47	1099	Absorption of immunoglobulin G in calves fed colostrum or colostrum replacement and animal plasma in milk replacer. C. M. Mowrey*[1], R. E. James[1], J. D. Quigley, III[2], and M. L. McGilliard[1], [1]Virginia Tech, Blacksburg VA, [2]American Protein Corporation, Ames IA.
48	1100	Growth characteristics of replacement heifers in selected high producing Wisconsin dairy herds. N.C. Dorshorst*[1], H.A. Lonning[2], P.C. Hoffman[1], K.A. Weigel[1], and C. Dechow[1], [1]University of Wisconsin-Madison, [2]University of Wisconsin-River Falls.

49	1101	Comparison of lactational response of dairy cows in Georgia and Israel to heat load and photoperiod. Y. Aharoni*[1], O. Ravagnolo[2], and I. Misztal[2], [1]Department of Beef Cattle, Agricultural Research Organization, Newe Yaar Research Center,Israel, [2]Animal and dairy Science Departmenrt, University of georgia, Athens 30605.
50	1102	Seasonal variation in the composition of milk from New Zealand Friesian and US Holstein dairy cows: impact of nutrition. M.J. Auldist*, A.R. Napper, and E.S. Kolver, Dexcel Ltd. (formerly Dairying Research Corporation Ltd.), Hamilton, New Zealand.
51	1103	Milk and meat samples obtained in Illinois contain variable amounts of conjugated linoleic acid. A.D. Beaulieu* and J.K. Drackley, University of Illinois, Urbana .
52	1104	Relationship of milk urea nitrogen and DHIA production variables in western commercial dairy herds. R.G. Johnson*, J.L. Walters, and A.J. Young, Utah State University, Logan, Utah.
53	1105	Stochastic modeling of different approaches to dairy cattle reproductive management . M.W. Overton*, U.C. Davis- Veterinary Medicine Teaching and Research Center.
54	1106	Changes in rumen temperature, vaginal temperature and drinking behaviour throughout the estrous cycle in dairy cows. A. D. Kennedy* and S. R. Mathew, University of Manitoba.
55	1107	Follicular growth in lactating cows receiving recombinant bovine somatotropin, gonadotropin releasing hormone, and prostaglandins: contrasts between winter and summer months. Z Keister*, R Collier, and R Ax, University of Arizona, Tucson, AZ/USA.
56	1108	The relationship of indicators of thermal balance and milk production of cows on Missouri dairy farms. James Spain*[1], Julie Sampson[1], and Don Spiers[1], [1]University of Missouri.
57	1109	Effect of feeding of yeast to crossbred calves. Dilip Kumar Garikipati*[1], Sarjan Rao Kapa[1], Rajasekar K[2], and Kailash MM[3], [1]College of Veterinary Science, Tirupati, [2]College of Veterinary Science, Hyderabad, [3]Bangalore Agricultural University.
58	1110	The response of a non-medicated replacer containing a mannanoligosaccharide on growth and health parameters in neonatal dairy calves. A. J. Heinrichs*, M. R. Long, and T. S. Schriefer, The Pennsylvania State University, University Park, PA.
59	1111	Evaluation of spray dried animal plasma addition to milk replacer fed to calves at 2 feeding rates. D. R. Catherman*, Strauss Feeds, Watertown, WI.
60	1112	Effects of supplemental vitamin E and lasalocid on disease severity and immune responses of calves challenged with *Eimeria bovis*. G. E. Goodier*[1], C. C. Williams[1], K. L. O'Reilly[2], T. G. Snider[2], J. C. Williams[1], H. G. Bateman, II[1], D. T. Gantt[1], and C. M. Cheatham[1], [1]LSU Agricultural Center, Baton Rouge, LA, [2]LSU School of Veterinary Medicine, Baton Rouge, LA.
61	1113	Effect of monensin, lasalocid, and decoquinate on growth, feed intake, and feed efficiency of dairy heifers. D.G. Schmidt*[1], J.E. Shirley[1], E.C. Titgemeyer[1], M.V. Scheffel[1], and E.E. Thomas[2], [1]Kansas State University, Manhattan, [2]Elanco Animal Health, Greenfield, IN.
62	1114	Effect of rearing methods of dairy-heifers prior to weaning on growth and reproduction. Jan J.J. Broucek*[1], Clive W. Arave[2], Ted H. Friend[3], Stefan Mihina[1], Michael Uhrincat[1], Anton Hanus[1], Stefan Marencak[1], and Peter Kisac, [1]Research Institute of Animal Production, Nitra, Slovakia, [2]Utah State University, Logan, USA, [3]Texas A&M University, College Station, USA.
63	1115	Prediction and ranking of first lactation milk production using parents' predicted transmitting abilities. B. R. Radke*[1], J. W. Lloyd[2], J. B. Kaneene[2], J. R. Black[2], and S. Harsh[2], [1]Alberta Agriculture, Food and Rural Development, Edmonton, AB, [2]Michigan State University, East Lansing, MI.
64	1116	Effect of wheat variety and replacing wheat with maize grain on feed intake and milk production of Holstein dairy cows. . R.H. Phipps*, J.D. Sutton, and A.K. Jones, The University of Reading, Reading, UK.
65	1117	Evaluation of cow preference between modern and old free-stall design. R. J. Norell*[1], A. Ahmadzadeh[2], and E. P. Wagner[2], University of Idaho, [1]Idaho Falls, [2]Moscow.
66	1118	Whole-farm nitrogen efficiency and balance compared with the milk urea nitrogen test. R.A. Swain*[1], J.L. Walters[1], R.A. Kohn[2], and A.J. Young[1], [1]Utah State University, Logan, UT, [2]University of Maryland, College Park, MD.
67	1119	Determining the relationships among milk urea nitrogen and milk production, milk protein, milk fat and somatic cell count from lactating cows in Texas. G.M. Goodall*[1], M.A. Tomaszewski[1], L.W. Greene[2], R.B. Schwart[1], J.W. Stuth[1], and E.M. Sudweeks[3], [1]Texas A & M University, College Station, TX./ USA, [2]Texas A&M University Research and Extension Center, Amarillo, TX./USA, [3]Texas A&M University Research and Extension, Overton,TX./USA.

68 1120 Comparing nutrient analysis of liquid dairy waste in storage versus field application. R. J. Norell*[1], S. C. Parkinson[2], and D. E. Falk[3], University of Idaho, [1]Idaho Falls, [2]Preston, [3]Twin Falls.

69 1121 Utility of body condition score (BCS) system in relation to the physical and production parameters in crossbred cows. Dilipkumar Garikipati*[1], Sarjanrao Kapa[1], and Kailash MM[2], [1]College of veterinary science, Tirupati, ANGRAU, [2]University of Agricultural science, Bangalore.

70 1122 Solids and phosphorus removal from flushed dairy manure using organic polymers and aluminum chloride. G.G. Timby[1], T.C. Daniel[1], D.R. Smith*[1], and P.A. Moore[2], [1]University of Arkansas, Fayetteville,AR, [2]USDA-ARS.

71 1123 Manure sample processing effects on nitrogen and phosphorus. Z. Dou*[1], J. Ferguson[1], G. Zhang[1], J. Toth[1], D. Galligan[1], R. Munson[1], and C. Ramberg, Jr.[1], [1]University of Pennsylvania.

72 1124 Implementation of innovative best management practices and a nutrient monitoring system to reduce nitrogen and phosphorus loading from dairy cattle production systems. . G.M. Goodall*[1], M.A. Tomaszewski[1], E.R. Jordan[2], S.R. Stokes[3], and L.W. Greene[4], [1]Texas A & M University, College Station, TX./ USA, [2]Texas A&M University Research and Extension Center, Dallas, TX./USA, [3]Texas A&M University Research and Extension Center, Stephenville, TX./USA, [4]Texas A&M University Research and Extension Center, Amarillo, TX./USA.

73 1125 Development of a global positioning system to monitor cattle. G. P. Austin*[1], A. D. Herring[1], G. J. Creager[2], S. P. Jackson[1], and D. K. Lunt[3], [1]Texas Tech University, Lubbock, [2]Texas A&M University, College Station, [3]Texas Agricultural Experiment Station, McGregor.

74 1126 Effects of liquid supplement pH and acid source on liquid supplement intake of beef heifers and gestating beef cows. P.A. Davis*[1], W.E. Kunkle[1], and J.D. Arthington[2], [1]University of Florida, Gainesville, [2]UF-IFAS Range Cattle Research and Education Center, Ona, FL.

75 1127 Effects of plane of nutrition on milk and weight traits in lactating beef cows . M. A. Johnson*, A. D. Herring, L. J. Hughes, and P. D. Bleick, Texas Tech University, Lubbock, Texas .

76 1128 Effects of feedbunk management strategies and monensin levels on feedlot performance in cattle fed to harvest. . G.J. Vogel*[1], J.C. Parrott[1], S.B. Laudert[1], and D.R. White[1], [1]Elanco Animal Health, Indianapolis, IN.

77 1129 Serum concentrations of trenbolone acetate and estradiol benzoate in cattle implanted with coated SYNOVEX Plus long-acting implants. L. A. Kraft*[1], D. M. Henricks[2], S. Gray[2], A. N. Sinha[1], and K. L. Simkins[1], [1]Fort Dodge Animal Health, Princeton, NJ, [2]Clemson University, Clemson, SC.

78 1130 Factors affecting net value of feedlot steers. N.K. Grathwohl*[1], W.B. Epperson[1], B.J. Johnson[2], and S.W. Fausti[1], [1]South Dakota State University, [2]Kansas State University.

79 1131 A systems approach for adding value to Montana feeder calves. . D. J. Fennewald*, J. A. Paterson, R. N. Funston, and L. P. Anderson, Montana State University-Bozeman Bozeman, MT.

80 1132 Predicting nutrient balance in the feedlot. H. Fairweather, K. A. Beauchemin, and K. M. Koenig, Agriculture and Agri-Food Canada, Research Centre, Lethbridge, AB, Canada.

81 1133 Farm-level management practices of cattle: Effects on Enterohemorragic *Escherichia coli* and *Salmonella* in feedlot cattle. A.D. Herring[1], A.R. Barham*[1], S.K. Misra[1], C. Akers[1], and J.R. Blanton Jr.[1], Texas Tech University, Lubbock TX.

82 1134 The effect on economics of integrating pasturing systems into cattle finishing programs. H Koknaroglu*[1] and M.P. Hoffman[1], [1]Iowa State University.

83 1135 Repeated administration of implants to Holstein steers increases average daily gain, *longissimus* muscle area and the percentage of USDA Select carcasses. J.M. Scheffler*, D.D. Buskirk, S.R. Rust, J.D. Cowley, and M.E. Doumit, Michigan State University, East Lansing, MI.

84 1136 Effects of pre and/or postpartum fat supplementation on reproduction in mature beef cows. S.K. Johnson*, J.S. Stevenson, K.R. Harmoney, and J.R. Brethour, Kansas State University.

85 1137 Comparison of pregnancy rates in beef cows for two synchronization regimens using GnRH, PGF_{2a} and MGA. W.A. Greene and M.L. Borger*, The Ohio State University, Wooster USA.

86 1138 Predicting resistance to compression of wool fibers. F.A. Pfeiffer*, C.J. Lupton, and B.A. Kuykendall, Texas Agricultural Experiment Station, San Angelo, Texas/USA.

87 1139 Evaluation of forages for outdoor gestating sows. H. A. Rachuonyo*[1], V. G. Allen[1], J. L. Morrow-Tesch[2], J. W. Dailey[2], and J. J. McGlone[1], [1]Texas Tech University, Lubbock, [2]USDA-ARS, Lubbock.

88	1140	Improving the viability of piglets with oxygen. J Zhang, V Osborne, M Fan, and R Hacker*, Dept. of Animal & Poultry Science, University of Guelph, Guelph, Ontario Canada N1G 2W1.
89	1141	The impact of farrowing crate design on litter performance traits in swine. S.J. Moeller*, K.M. Irvin, K.R Black, and S.M. Neal, The Ohio State University, Columbus, OH.
90	1142	Supplemental feeding lactating Fallow does increased body condition score and circulating leptin but failed to improve reproductive efficiency. K. C. Candler*[1], C. G. Brown[1], D. A. Neuendorff[1], A. W. Lewis[1], J. A. Sterle[2], D.H. Keisler[3], and R. D. Randel[1], [1]Texas Agricultural Experiment Station, Overton, [2]College Station, [3]University of Missouri, Columbia.
91	1143	Angus steer performance grazing bermudagrass on degraded soils fertilized with poultry litter, ammonium nitrate, or crimson clover. D. H. Seman*[1], J. A. Stuedemann[1], and A. J. Franzluebbers[1], [1]USDA-ARS, Watkinsville, GA USA 30677.

ASAS/ADSA Animal Behavior and Well Being

Board Number	Abstract Number	
92	1144	Quiet handling of heifers reduces aversion to restraint. V. Littlefield[1], T. Grandin[1], and J. L. Lanier*[1], [1]Colorado State University.
93	1145	Genetic determination of maintenance behavior of calves . Jan J.J. Broucek*[1], Ted H. Friend[2], Clive W. Arave[3], Paul Flak[1], Stefan Mihina[1], Michael Uhrincat[1], Anton Hanus[1], and Peter Kisac[1], [1]Research Institute of Animal Production, Nitra, Slovakia , [2]Texas A&M University, College Station, USA, [3]Utah State University, Logan, USA.
94	1146	Feeding behavior of lactating dairy cows as measured by real-time control system . Zadok Shabi*[1], Michael Murphy[1], and Uzi Moallem[2], [1]University of Illinois, [2]A.R.O, The Volcani Center, Israel.
95	1147	Behavioral and physiological responses of calves to dehorning using a long acting local anesthetic. J. W. Forehand*[1], H. G. Kattesh[1], T. J. Doherty[1], M. G. Welborn[1], A. M. Saxton[1], J. L. Morrow[2], and J. W. Dailey[2], [1]University of Tennessee, Knoxville TN, [2]ARS-USDA, Lubbock, TX.
96	1148	The effects of management stressors on cortisol production in various breeds of bulls. J.W. Koch*[1,2], S.R. Tatman[1], D.A. Nueundorff[1], T.W. Wilson[1], A.W. Lewis[1], C.C. Chase[3], T.H. Welsh[2], and R.D. Randel[1], [1]Texas Agricultural Experiment Station, Overton, TX, [2]College Station, TX, [3]ARS, USDA, Brookesville, FL.
97	1149	Effects of cooling strategies on physiological responses to heat challenge. K. M. Spurlin*, D. E. Spiers, M. Ellersieck, and J. N. Spain, University of Missouri - Columbia.
98	1150	Evaluation of a model to predict internal body temperature in feedlot cattle during summer heat. L. E. McVicker*, M. J. Leonard, and D. E. Spiers, University of Missouri, Columbia, MO.
99	1151	Effects of simulated preslaughter holding and isolation on stress responses and live weight shrinkage in goats. G. Kannan*, T. H. Terrill, B. Kouakou, S. Miller, S. Gelaye, and E. A. Amoah, Agricultural Research Station, Fort Valley State University, Fort Valley, GA.
100	1152	Effect of animal handling method on the incidence of stress response in market swine in a model system. M. E. Benjamin*[1], H. W. Gonyou[2], D. J. Ivers[3], L. F. Richardson[3], D. J. Jones[3], J. R. Wagner[3], R. Seneriz[3], and D. B. Anderson[3], [1]Elanco/Provel Animal Health, Calgary, Canada, [2]Prairie Swine Centre, Saskatoon, SK, Canada, [3]Elanco Animal Health, Greenfield, Indiana.
101	1153	Variation in hen vocalizations during pre-hatch, hatch and post-hatch. M.B. Woodcock*, M.A. Latour, and E.A. Pajor, Purdue University, West Lafayette, IN 47907.
102	1154	The relationship between physiological parameters and behavioral response to social stress among three genetic lines of laying hens. R. Freire*[2], P. Singleton[1], Y. Chen[1], M.W. Muir[2], Ed. Pajor[2], and H.W. Cheng[1], [1]USDA-ARS, Livestock Behavior Research Unit, [2]Dept of Animal Science, Purdue University.
103	1155	Stress induced alterations of IgG concentrations and hematological parameters in genetically selected chicken lines. Y. Chen*[1], P. Singleton[1], M.W. Muir[2], and H.W. Cheng[1], [1]USDA-ARS, Livestock Behavior Research Unit, [2]Dept of Animal Science, Purdue University.

ASAS/ADSA Ruminant Nutrition: Feed Additives, Rumen Fermentation, Minerals, and Transition Cows

Board Number	Abstract Number	
104	1156	Use of exogenous enzymes from amylases from *Bacillus licheniformis* and *Aspergillus niger* in high-grain diets. R Rojo, G Mendoza*, S Gonzalez, R Barcena, M Crosby, and L Landois, Colegio de Postgraduados.
105	1157	Effect of direct-fed microbials supplementation on dairy cows fed nitrogen deficient diets and on *in vitro* bacterial growth. D. R. Ouellet* and J. Chiquette, Dairy and Swine R&D Centre, Agriculture and Agri-Food Canada, Lennoxville, Canada.
106	1158	Exogenous amylases from Bacillus licheniformis and Aspergillus niger improve starch digestion but not performance of sheep. G Mora, R Barcena, G Mendoza, S Gonzalez, and J Herrera, Colegio de Postgraduados.
107	1159	Influence of monomer or dimer forms of isopropyl ester of HMB, on the supply of metabolisable methionine to the blood of ruminants. J.C. Robert*, C. Richard, and B. Bouza, Aventis Animal Nutrition, Antony, France.
108	1160	A blood kinetics methodology to measure bioavailability of rumen protected methionine sources for ruminants. J.C. Robert*, G. Etave, T. D'Alfonso, and B. Bouza, Aventis Animal Nutrition, Antony, France.
109	1161	Effect of live yeast versus yeast culture on milk yield and related parameters in early lactation cows. G. Higginbotham*[1], J. Merriam[2], E. DePeters[3], and J. Sullivan[4], [1]University of California Cooperative Extension, Fresno/Madera Counties, [2]University of California Cooperative Extension, Stanislaus/Merced Counties, [3]University of California, Davis, [4]Nutrius/Bioproducts, Kingsburg, CA.
110	1162	Milk production effects of a mycotoxin binder in diets with normal levels of contamination. A. Garcia*[1], M. L. Cuevas[1], G. A. Loarca[2], C. Landetta[3], and R. A. Patton[4], [1]Instituto Tecnologico y de Estudios Superiores de Monterrey, Queretaro, Qro/Mexico, [2]Universidad Autonoma de Queretaro, Queretaro/Qro/Mexico, [3]Grupo Karluis, Queretaro,Qro/Mexico, [4]Nittany Dairy Nutrition, Mifflinburg, PA/USA.
111	1163	Milk production in Holstein cows supplemented with different levels of ruminally protected methionine. A Lara*[1], G.D. Mendoza[2], R Barcena[2], C.M. Garcia[2], and L Landois[2], [1]Universidad Autonoma Chapingo, [2]Colegio de Postgraduados.
112	1164	Enzymic release of reducing sugars from oat hulls by cellulase, as influenced by a synergistic interaction between *Aspergillus* ferulic acid esterase and *Trichoderma* xylanase. P. Yu*[1], J.J. McKinnon[1], D.D. Maenz[1], V.J. Racz[1,2], and D.A. Christensen[1], [1]Department of Animal and Poultry Science, University of Saskatchewan, Canada, [2]Prairie Feed Resource Centre Inc., Canada.
113	1165	Effects of exogenous enzymes on fiber degradation of corn stalks. G. Tirado-Estrada[1], I. Mejia-Haro[1], C.R. Cruz-Vazquez[1], G.D. Mendoza-Martinez[2], I. Tovar-Luna[3], and J. Fajardo-Peña[1], [1]CIGA ITA de Aguascalientes, Mexico, [2]Colegio de Posgraduados, Texcoco, Mexico, [3]URUZA- UACH.
114	1166	Effects of an acetyl esterase containing preparation produced by a ruminal fungal isolate on *in vitro* ruminal fermentations. J. M. Tricarico*[1] and K. A. Dawson[2], [1]University of Kentucky, Lexington, KY, [2]Alltech Biotechnology Inc., Nicholasville, KY.
115	1167	Contribution of an acetyl esterase containing enzyme preparation to the action of exogenous enzyme supplements for ruminants. J. M. Tricarico*[1] and K. A. Dawson[2], [1]University of Kentucky, Lexington, KY, [2]Alltech Biotechnology Inc., Nicholasville, KY.
116	1168	Intake and milk production of dairy cows fed lactic acid bacteria and mannanoligosaccharide. J. Gomez-Basauri*[1], M.B. de Ondarza[2], and J. Siciliano-Jones[2], [1]Alltech, Inc., Nicholasville, Kentucky, [2]F.A.R.M.E. Institute, Homer, New York.
117	1169	Effects of a commercial bacterial culture feed supplement on ruminal microorganisms. S. A. Martin*, University of Georgia.
118	1170	Effect of forage level and fibrolytic enzymes on nitrogen digestion in beef cattle diets. M. Murillo, M.S. Vazquez, H.L. Castro, J.F. Sanchez, and M.A. Cerrillo*, Universidad Juarez del Estado de Durango, Durango, Dgo. Mexico.

119	1171	The effect of monensin and bovine somatotropin on lactation performance and body condition score of dairy cows. L J Erasmus*[1], L C Coetzee[1], C H Hesse[2], and T E Spike[3], [1]Agricultural Research Council, Irene, South Africa, [2]Elanco Animal Health, Bryanston, South Africa, [3] Elanco Animal Health, Indianapolis, IN.
120	1172	Differential response of D- and L-Met free plasma in cows fed different sources of rumen protected Met. Mercedes Vazquez-Anon, David Parker*, and Julia Dibner, [1]Novus International, Inc. St. Louis, MO.
121	1173	Effect of ruminally protected methionine and inert fat on milk production in primiparous Holstein cows . J Ayala*[1], G Mendoza[2], L Landois[2], A Ramirez[3], and S Vega[3], [1]Universidad Autonoma Chapingo, [2]Colegio de Postgraduados, [3]Universidad Autonoma Metropolitana.
122	1174	Ruminal degradability of different feeds in the presence of *Saccharmoyces cervisiae*. G. Scaglia*[1], J.J. Williams[1], L.W. Greene[1], and N.A. Cole[2], [1]Texas A&M University Agricultural Research and Extension Center, Amarillo, [2]USDA-ARS at Bushland.
123	1175	The effects of ethoxyquin on performance and antioxidant status of feedlot steers. K. W. McBride*[1], L. W. Greene[1], N. K. Chirase[1], E. B. Kegley[2], and N. A. Cole[3], [1]Texas A&M University System, Amarillo, TX, [2]University of Arkansas, Fayetteville, AR, [3]USDA-ARS, Bushland, TX.
124	1176	Effect of exogenous fibrolytic enzymes on the digestion of alfalfa hay and barley straw by cellulolytic ruminal bacteria. Y. Wang*[1], T. A. McAllister[1], L. J. Yanke[1], K. A. Beauchemin[1], D. P. Morgavi[1], L. M. Rode[2], and W. Yang[1], [1]Agriculture and Agri-Food Canada Research Centre, Lethbridge, AB, [2]Rosebud Technology Development Ltd., Lethbridge, AB.
125	1177	Sources of non-protein nitrogen and the addition of Sacharomyces cerevisiae to sugar cane based diets for young bulls: Intake, digestibility, nitrogen balances and ruminal parameters. E. S. Pereira*[1], A. C. Queiroz[2], S. C. Valadares Filho[2], L. F. Miranda[3], and A. M. V. Arruda[1], [1]Universidade Estadual Oeste Parana , [2]Universidade Federal Viçosa, [3]Universidade Federal Minas Gerais, Brazil.
126	1178	Effects of live yeast concentrates on the in vitro semi-continuous culture fermentation of a high concentrate diet. J. J. Williams*, G. Scaglia, and L. W. Greene, Texas A&M University Research and Extension Center.
127	1179	Use of gas production technique to estimate the rate and extent of starch degradation from starchy feedstuffs in rumen fluid. Weizhong Chai[1], A. H. van Gelder[1], and J. W. Cone[1], [1]ID TNO Animal Nutrition, Institute for Animal Science and Health, The Netherlands.
128	1180	The effects of substrate, ammonia and pH on gas production and starch degradation from starchy feedstuffs in buffered rumen fluid . W. Z. Chai[1], J. W. Cone*[1], A. H. van Gelder[1], and A. A. Kamman[1], [1]ID TNO Animal Nutrition, The Institute for Animal Science and Health, The Netherlands.
129	1181	Splanchnic first pass sequestration of acetate absorbed from the washed reticulo-rumen of dairy cows. N. B. Kristensen*, Danish Institute of Agricultural Sciences, Tjele, Denmark.
130	1182	The effect of dietary roughage on rates of glucose, acetate and beta-hydroxybutyrate clearance from plasma in dairy calves. D.L.J. Benschop*[1], J.P Cant[1], and R. Spratt[2], [1]University of Guelph, Guelph, Canada, [2]Agribrands Purina Canada Inc., Woodstock, Canada.
131	1183	Altering ruminal microbial colonization and synthesis by manipulation of dietary factors. W. Z. Yang*[1], K. A. Beauchemin[1], and L. M. Rode[2], [1]Agriculture and Agri-Food Canada, [2]Biovance Technologies Inc.
132	1184	Metabolism of 2-13C-propionate in the rumen epithelium of sheep. N. B. Kristensen*[1], T. H. Steensen[1], S. G. Pierzynowski[2], and A. Danfær[1], [1]Danish Institute of Agricultural Sciences, Tjele, Denmark, [2]Lund University, Lund, Sweden.
133	1185	Validation of the Sulphur hexafluoride(SF_6) tracer gas technique in measuring methane and carbon dioxide production of cattle. D. A. Boadi*, K. M. Wittenberg, and A. Kennedy, University of Manitoba, Winnipeg, Manitoba Canada.
134	1186	Effect of pH and solid dilution rate on microbial fermentation and nutrient flow in a dual flow continuous culture system. M. Rodriguez, S. Calsamiglia*, and A. Ferret, Universidad Autonoma de Barcelona, Spain.
135	1187	A dynamic mechanistic model of small intestinal starch digestion and glucose absorption in the dairy cow. J A N Mills*[1], L A Crompton[1], J Dijkstra[2], J A Maas[3], C K Reynolds[1], and J France[1], [1]The University of Reading, Reading, UK, [2]Wageningen University, Wageningen, NL, [3]University of Delaware, Delaware, USA.

136 1188 Effect of rumen degradable protein and fiber quality on ruminal bacterial populations in continuous culture. D. L. Hastings*[1], K. E. Griswold[1], G. A. Apgar[1], S. A. Kocherginskaya[2], R. I. Mackie[2], and B. A. White[2], [1]Southern Illinois University, Carbondale, IL, [2]University of Illinois, Urbana, IL.

137 1189 Effects of an inhibitor of obligate amino acid fermenting bacteria upon ruminal and nutrient utilization by calves. E.L. Moody*[1], C.E. Cole[1], F.O. Carrette-Carron[1], W.C. Ellis[1], G. Wu[1], M.M. Kothmann[1], and R.J. Wallace[2], [1]Texas A&M University, [2]Rowett Research Institute.

138 1190 Colonization patterns of forage fragments by rumen microbes. C.A. Marsh*, W.C. Ellis, J.H. Matis, E. Moody, C. Lowe, and J. Johnson, Texas A&M University, College Station, TX, Brazos.

139 1191 Effect of pH and solid dilution rate on the amino acid profile of liquid and solid associated bacteria, and its impact on the estimation of the contribution of microbial amino acids to the total amino acid flow in a continuous culture system. M. Rodriguez, S. Calsamiglia, and A. Ferret, Universidad Autonoma de Barcelona, Spain.

140 1192 Methane emissions from lactating dairy cows fed diets based on conserved forage and grain or pasture. . T. R. Dhiman*, K. C. Olson, M. S. Zaman, I. S. MacQueen, and R. L. Boman, Department of Animal, Dairy and Veterinary Sciences, Utah State University, Logan, UT 84322-4815.

141 1193 A role for rumen microbial protein synthesis in regulating ruminal turnover. W.C. Ellis*[1] and J. H. Matis[1], [1]Texas A & M University.

142 1194 Effect of replacing dietary starch with sucrose on nutrient utilization by ruminal microorganisms during continuous culture fermentation. G. A. Varga[1], T. W. Cassidy[1], V. A. Ishler[1], X. Markantonatos*[1], N. D. Luchini[2], and G. A. Broderick[3], [1]Pennsylvania State University, [2]Bioproducts, Inc, [3]U.S. Dairy Forage Research Center.

143 1195 In vitro effects of lactate-utilizing rumen bacteria on ruminal fermentation. S.-W. Kim*, S. R. Rust, H. Roman-Rosario, and M. T. Yokoyama, Michigan State University, East Lansing, MI.

1196 Withdrawn.

144 1197 Ethanol absorption from the rumen. T. Veresegyhazy*[1], H. Febel[2], G. Nagy[1], and A. Rimanoczy[1], [1]Faculty of Veterinary Science, Szent Istvan University, Budapest, [2]Researche Institute of Animal Breeding and Nutrition, Herceghalom.

145 1198 Influence of drinking saline water and feeding level on feed and water intake, digestibility, thermo-respiratory response and blood constituents in sheep. Mostafa Kobeisy*[1], Fisal Elhommosi[1], Galal Abdel-Hafiz[1], and Hassanain Badawy[2], [1]Animal Prod. Dept., Fac. of Agric., Assiut University, Assiut-Egypt, [2]Desert Research Center, Cairo-Egypt.

146 1199 Influence of supplemental chromium on performance, concentrations of liver triglycerides, and blood metabolites during the transition period of dairy cows. J. A. Jackson*, V. Akay, R. Scaletti, S. T. Franklin, D. M. Amaral-Phillips, C. H. Hamilton, and R. J. Harmon, University of Kentucky, Lexington, Kentucky.

147 1200 Effect of dietary phosphorus concentration on estrous behavior of lactating dairy cows. H. Lopez*[1], Z. Wu[1], R. Cherel[2], L. D. Satter[1,2], and M. C. Wiltbank[1], [1]Dairy Science Department, University of Wisconsin, Madison, [2]US Dairy Forage Research Center, USDA-ARS, Madison.

148 1201 Mineral content of Acacia mangium Willd under defoliation conditions. T. Clavero*, E. Miquelena, and A. Rodríguez-Petit, [1]La Universidad del Zulia.

149 1202 Pasture applied biosolids as related to copper status of grazing beef steers. M. E. Tiffany, L. R. McDowell*, G. A. O'Connor, F. G. Martin, N. S. Wilkinson, and H. Q. Nguyen, University of Florida.

150 1203 Effect of shade and organic zinc supplementation on performance of Brahman bull calves fed growing diets in dry tropic weather. R. Barajas* and A. Felix, Universidad Autonoma de Sinaloa (Mexico).

151 1204 Supplementation of ascorbic acid and plasma concentration in the neonatal dairy calf. T.R. Johnson*[1], S.D. Eicher[2], C.A. McKee[1], K.L. Cutshall[3], M.L. Henry[3], and S.P. Coburn[3], [1]Purdue University, West Lafayette, IN, [2]USDA-ARS, West Lafayette, IN, [3]Indiana University Purdue University Fort Wayne, IN.

153 1205 Effect of organic (Availa-Cu) versus inorganic ($CuSO_4$) Cu on the rate and extent of copper repletion in post-partum Brangus heifers. G. P. Yost[1], L. R. McDowell[1], C. K. Swenson[3], and J. D. Arthington*[2], [1]University of Florida - IFAS, Dept. of Animal Sciences, Gainesville, [2]Range Cattle Research and Education Center, Ona, [3]Zinpro Corporation, Eden Prairie, MN.

153	1206	Supplementation effects of calcium salts of unsaturated fatty acids on ruminal environment and forage digestion in grazing dairy cows. . S. Wagner[1], G.F. Schroeder*[1,2], G.A. Gagliostro[3], I. Vidaurreta[1], and J. Couderc[1], [1]Fac.Cs. Agrarias UNMdP, [2]CONICET, [3]INTA EEA Balcarce, Argentina.
154	1207	Effects of Zinc and(or) monensin on the utilization of a barley-alfalfa diet in beef cattle. . H. M. Arelovich*[1], H. E. Laborde[1], C. J. Ackerman[2], M. I. Amela[1], and M. B. Torrea[1], [1]Universidad Nacional Del Sur, Bahia Blanca, Argentina, [2]Oregon State University, Corvallis, OR.
155	1208	Performance and conservation of phosphorus in growing cattle. L. W. Greene*[1,2], F. T. McCollum III[1], N. K. Chirase[1,2], and T. M. Montgomery[2], [1]Texas A&M University Agricultural Research and Extension Center, [2]West Texas A&M University.
156	1209	The effect of copper source and level on the rate and extent of copper repletion in Holstein heifers. G. P. Yost*[1], L. R. McDowell[1], C. K. Swenson[3], and J. D. Arthington[2], [1]University of Florida — IFAS, Gainesville , [2]University of Florida — IFAS, Ona, [3]Zinpro Corporation, Eden Prairie, MN.
157	1210	Effects of biotin on liver metabolism in lactating dairy cows. C. K. Reynolds*[1], A. J. Packington[2], and G. M. Weber[3], [1]The University or Reading, UK, [2]Roche Vitamins (UK), [3]F. Hoffmann-La Roche Ltd., Switzerland.
158	1211	Organic chromium and selenium effects on performance, digestibility and carcass characteristics of lambs. I Dominguez-Vara*[1], S Gonzalez[2], C Garcia-Bojalil[2], R Barcena[2], M Cobos[2], G Mendoza[2], and L Landois[2], [1]Universidad Autonoma del Estado de Mexico, [2]Colegio de Postgraduados.
159	1212	Effects of source of supplemental zinc on heifer performance during receiving and finishing phases. G. A. Nunnery*[1], M. L. Galyean[1], and J. Horton[2], [1]Texas Tech University, Lubbock, TX, [2]Kemin Industries, Des Moines, IA.
160	1213	Adaptations in amino acid concentrations, body fat and body protein in dairy cattle fed varying amounts of protein in the transition period. . J. P. McNamara*, J.J. Sage, T.L. Citron, and G.J. Phillips, Washington State University.
161	1214	Challenging performance of a mechanistic model of metabolism to describe nutrient flux and body pools in early lactation. J. P. McNamara*, J.J. Sage, T.L. Citron, and G.J. Phillips, Washington State University.
162	1215	Effects of prepartum intake, postpartum induction of primary ketosis, and periparturient disorders on performance and blood metabolites in dairy cows. H. M. Dann*, J. K. Drackley, and D. E. Morin, University of Illinois, Urbana.
163	1216	Rumen volume and liquid dilution rate in transition dairy cows. C. K. Reynolds*, D. J. Humphries, and J. D. Sutton, The University of Reading, UK.
164	1217	Effects of dietary energy density on performance of transition dairy cows. E. Rabelo*, R. L. Rezende, S. J. Bertics, and R. R. Grummer, University of Wisconsin, Madison.
165	1218	Effects of dietary energy density on blood parameters and liver triglyceride of transition dairy cows. E. Rabelo*, R. L. Rezende, S. J. Bertics, and R. R. Grummer, University of Wisconsin, Madison.
166	1219	Changes in hepatic methylmalonylcoenzyme A mutase (MCM, E.C. 5.4.99.2) activity during the transition period in the dairy cows. B. Graulet*[1], A. Desrochers[2], and C.L. Girard[1], [1]Dairy and Swine R&D Centre, Agriculture and Agri-Food Canada, Lennoxville, [2]Faculté de Médecine Vétérinaire, St-Hyacinthe, Canada.
167	1220	Effects of a modified stair-step compensatory growth model for gestating beef heifers. A. M. Encinias*, H. B. Encinias, T. D. Klein, G. P. Lardy, M. L . Bauer, and C. S. Park, [1]North Dakota State University, Fargo, ND USA.

PSA Processing and Products

Board Number	Abstract Number	
168	1221	Influence of CO_2 cryogenic cooling on low populations of *Salmonella* Enteritidis in inoculated table eggs. J.B. Gurtler* and D.E. Conner, Department of Poultry Science, Poultry Product Safety and Quality Program, Auburn University, AL.
169	1222	Effect of soybean soapstock on laying hen performance and egg quality parameters. V. Pardio*[1], L. Landin[1], K. Waliszewski[2], M. Avalos[1], A. Flores[1], and L. Guzman[1], [1]Universidad Veracruzana, Veracruz, Veracruz/Mexico, [2]Instituto Tecnológico de Veracruz, Veracruz, Veracruz/Mexico.
170	1223	Development of generic HACCP model plans for the egg processing industry. Mindy Brashears[1], Shelly McKee-Hensarling[1], Jason Mann*[1], and Dennis Burson[1], [1]University of Nebraska.
171	1224	Tuna oil as n-3 fatty acids source to egg yolk. C. Castillo Badillo[1], M. González Alcorta[1], E. Morales Barrera[2], S. Carrillo Domínguez*[3], and R.M. Castillo Domínguez[3], [1]Universidad Autonóma de Chapingo. Chapingo,Texcoco. México, [2]Instituto Nacional de Investigaciones Forestales, Agrícolas y Forestales. Chapingo, Texcoco. México, [3]Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, México D.F., México.
172	1225	Effect of cooking methods and packaging conditions on the TBARS and COPs of turkey thigh meat patties during storage. S. J. Hur*, M. Du, K. C. Nam, Y. H. Kim, and D. U. Ahn, Iowa State University.
173	1226	Identification of bacteria found in broiler deboning operations. Tam Mai* and Donald Conner, Auburn University.
174	1227	Broiler skin and meat color changes during storage. M. Petracci*[2] and D. L. Fletcher[1], [1]University of Georgia, Athens, USA, [2]University of Bologna, Bologna, ITALY.
175	1228	Use of marine algae to enrich DHA content of heavy broiler breast and thigh muscle. J.E. Garrett*[1], J.R. Abril[1], and M.D. Sims[2], [1]Omega Tech, Inc., Boulder, CO, [2]Virginia Scientific Research, Harrisonburg, VA.
176	1229	Growth of *Campylobacter jejuni* under acidic conditions. Lei Zhang* and Donald Conner, Auburn University.
177	1230	Comparison of carcass damage in turkeys stunned on constant voltage and constant amperage electrical pre-slaughter stunning systems. J.D. Reiman* and J.A. Marcy, University of Arkansas.
178	1231	Survival of Campylobacter jejuni on poultry skin and meat at varying temperatures. M. A. Davis* and D. E. Conner, Auburn University, AL, USA.
179	1232	Comparison of electrolyzed oxidizing water with various antimicrobial interventions to reduce Salmonella spp. on poultry. K. A. Barstad*, R. R. Sharma, A. Demirci, and C. N. Cutter, Penn State University.
180	1233	Application of sodium citrate or sodium lactate in breast meat chicken roll processing. A. Supatanont[1] and T. C. Chen*[1], [1]Mississippi State University.
181	1234	Influence of measurement position on the color values of turkey breast meat. T. J. Buttles[1], J. Kalbfleisch[1], S. L. Noll[1], and B. S. Walters*[2], [1]University of Minnesota, St. Paul, MN, [2]University of Wisconsin - River Falls, River Falls, WI.
182	1235	Pinking in further-processed turkey due to residual nitrate reduction by *Pseudomonas fluorescens*. Chad Clem* and John Marcy, University of Arkansas, Fayetteville, AR.
183	1236	Effect of rosemary oleoresin on quality of ground thigh chicken meat packed in high oxygen modified atmosphere environment. T. Keokamnerd*, I. Y. Han, and P.L. Dawson, Clemson University, Clemson, SC.
184	1237	Imaging system for fecal and ingesta detection on poultry carcasses. K. C. Lawrence, B. Park, W. R. Windham, and D. P. Smith*, USDA, ARS.
185	1238	Effects of post-mortem deboning time and L-value classification of raw fillets on color and texture characteristics of cooked broiler breast meat. B. G. Lyon*[1], E. T. Moran[2], C. E. Lyon[1], and E. M. Savage[1], [1]USDA, ARS, Russell Research Center, Athens, GA, [2]Auburn University, Auburn, AL.
186	1239	Lipid and fatty acid composition of some specialty eggs. Gita Cherian*, Troy B. Holsonbake, and Mary P. Goeger, Oregon State University, Corvallis, Oregon, USA.

PSA Immunology

Board Number	Abstract Number	
187	1240	Enhanced macrophage function in broilers fed diets supplemented with *E. coli* bacterial cell powder. . G. F. Erf*[1], T. K. Bersi[1], and Y. Toride[2], [1]University of Arkansas, Fayetteville, AR, USA, [2]Ajinomoto Co., Inc., Tokyo, Japan.
188	1241	Enhanced macrophage function in broilers fed diets supplemented with digested bacterial cell powder prepared from *Brevibacterium lactofermentum*. T. K. Bersi*[1], B. B. Madison[1], M. K. Redhorse[1], Y. Toride[2], and G. F. Erf[1], [1]University of Arkansas, Fayetteville, AR, USA, [2]Ajinomoto Co., Inc., Tokyo, Japan.
189	1242	The effects of epigallocatechin gallate on the avian macrophage *in vitro*. Jennifer Paquette* and Fred McCorkle, PhD., Central Michigan University, Mt. Pleasant, MI.
190	1243	The *in vitro* effects of Caffeic Acid Phenethyl Ester, the active component of Bee Propolis, on the avian macrophage. Tricia Anscomb*[1] and McCorkle Fred[1], Central Michigan University, Mt. Pleasant, MI.
191	1244	Pulmonary hypertensive response to endotoxin and immune activity in primed and unprimed broiler chickens. W. Wang*, R. F. Wideman, and G. F. Erf, University of Arkansas, Fayetteville, AR, USA.
192	1245	Humoral Immunity Against Newcastle Disease Virus in broilers fed S. cerevisiae cell wall and aflatoxin. Elizabeth Santin*[1], A.C Paulillo[1], E.L. Krabbe[1], A. Maiorka[1], and M. Macari[1], [1]FCAV - Universidade Estadual Paulista.
193	1246	*In vitro* or *in vivo* effects of recombinant turkey interferon gamma (rtIFNγ) on *Eimeria* invasion or infection. R Beltran*[1], P Augustine[2], M El Halawani[3], H Danforth[2], A McElroy[4], and D Caldwell[1], [1]Texas A&M University, College Station, TX, [2]USDA/ARS/LPSI/PBEL, Beltsville, MD, [3]University of Minnesota, St. Paul, MN, [4]Virginia Tech, Blacksburg, VA.
	1247	Withdrawn.
194	1248	Cross reactivity determination for *Salmonella enteritidis* biovar issatschenko and *Salmonella gallinarum* using LT antibodies in immunoblot thecnique. O. Urquiza*[1], G. Tellez[1], L. Paasch[1], G. Ruiz-Palacios[2], and B. Diaz[2], [1]Departamento de Produccion Animal Aves, FMVZ, UNAM , [2]Departamento de Infectologia e Investigacion del instituto nacional de nutricion (INNSZ).
195	1249	The Interleukin-1ß sequence of Japanese quail (*Coturnix coturnix japonica*) and Mallard ducks (*Anas platyrhynchos*). B.D. Humphrey*, E.A. Koutsos, and K.C. Klasing, University of California, Davis, Davis, CA.
196	1250	Initiation of humoral immunity: The role of cytokines and hormones in the initiation of humoral immunity using T-independent and T-dependent antigens. A.E. Gehad[1], H.S. Lillehoj[2], G.L. Hendricks III[3], and M.M. Mashaly*[3], [1]Virginia Commonwealth University, Richmond, VA/USA, [2]USDA-ARS, Beltsville, MD/USA, [3]The Pennsylvania State University, University Park, PA/USA.
197	1251	Control of coccoidiosis in chiken by trickle immunisation. Srinivasan K[1], Dilip Kumar Garikipati*[2], and Venkaram A[2], [1]Madras Vety College, [2]College of Vety Sci, Tirupati.
198	1252	Gamma-interferon and IL-2 activities in supernatant of lymphocytes on chicken splenocytes stimulated with concanavalina A. G. Gomez*[1], G. Tellez[1], A. Isibasi[3], and V. Ortiz[2], [1]Departamento de Producción Animal Aves, FMVZ, UNAM , [2]Departamento de Biomedicina Molecular del CINVESTAV del IPN, [3]Unidad de Investigación Medica en Inmunoquimica del hosp. de especialidades del centro medico nacion.
199		No poster presentation.
200		No poster presentation.

ADSA Dairy Foods: Microbiology and Cheese Technology

Board Number	Abstract Number	
201	1253	Flavor development of cholesterol-reduced Cheddar cheese slurries. H. S. Kwak*[1], C. S. Chung[1], S. J. Lee[1], and J. Ahn[1], [1]Sejong University.
202	1254	Dynamic headspace analysis and sensory characteristics of ewes milk La Serena cheese. María Carbonell, Estrella Fernández-García*, and Manuel Nunez, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA).
203	1255	The volatile compounds of raw milk Manchego cheese and their relationship to some sensory attributes. Estrella Fernández-García* and Manuel Nunez, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA).
204	1256	Effect of long term frozen storage on Manchego-type cheese proteolysis. Esther Sendra*[1], Jose Pons[1], Jordi Saldo[2], Reyes Pla[2], Montserrat Mor-Mur[2], and Ventura Guamis[2], [1]Universidad Miguel Hernández, [2]Universitat Autonoma de Barcelona.
205	1257	Texture of artisan Spanish fresh goat's milk cheese. Esther Sendra*[1], Laura Alenda[1], Casilda Navarro[1], Estrella Sayas[1], Juana Fernández-López[1], and José Angel Pérez-Alvarez[1], [1]Universidad Miguel Hernández.
206	1258	Survivability of probiotic cultures in symbiotic goat's milk yogurt. Patricia Buldo*, Velitchka Gotcheva, and Mingruo Guo, University of Vermont, Burlington VT .
207	1259	Protein profiles and rheological properties of fresh goat milk cheese. D. L. Van Hekken*[1], M. H. Tunick[1], and Y. W. Park[2], [1]USDA-ARS-ERRC, [2]Fort Valley State University.
208	1260	Characterization of potential probiotic and milk fermenting properties of lactic acid bacteria strains. Velitchka Gotcheva*[2], Ely Hristozova[3], Tsonka Hristozova[4], Angel Angelov[2], Zlatka Roshkova[2], and Mingruo Guo[1], [1]University of Vermont, Burlington 05405, [2]Higher Institute of Food and Flavor Industries, Plovdiv, Bulgaria, , [3]Medical Academy, Plovdiv, [4]Institute of Microbiology, Plovdiv.
209	1261	Melt and proteolysis of Mozzarella cheese as affected by starter culture and coagulating enzymes. P. Sharma*[1], R. I. Dave[1], K. Muthukumarappan[1], D. J. McMahon[2], and J. R. Broadbent[2], [1]MN-SD Dairy Center, South Dakota State University, Brookings, SD 57007, [2]Western Dairy Center, Utah State University, Logan, UT 84322.
210	1262	Effects of refrigerated storage on proteolytic and lipolytic properties of soft goat milk cheeses manufactured in a southern U.S. state. Aref Kalantari*[1], Young W. Park[1], and Diane Van Hekken[2], [1]Agricultural Research Station, Fort Valley State University, Fort Valley, GA, [2]Eastern Regional Research Center, USDA/ARS, Wyndmoor, PA.
211	1263	Fluid milk quality: Microbiological analysis of fluid milk at the carton encoded sell by date. T.J. Pritchard*[1] and P.S. Kindstedt[1], [1]Northeast Dairy Foods Research Center, University of Vermont.
212	1264	Linoleic acid isomerase activity in *Lactobacillus acidophilus* and *Propionibacterium freudenreichii* subsp. *shermanii*. T Lin*[1], C Lin[2], and Y Wang[2], [1]Chinese Culture University, [2]National Taiwan University.
213	1265	Comparison of effect of vacuum condensed and ultrafiltered milk on Cheddar cheese quality. M. R. Acharya* and V. V. Mistry, MN-SD Dairy Foods Research Center, South Dakota State University, Brookings.
214	1266	Comparison of rennet curd formation characteristics of milk concentrated by vacuum condensing and ultrafiltration. . V. V. Mistry*, P. Upreti, and M. R. Acharya, MN-SD Dairy Foods Research Center, South Dakota State University, Brookings.
215	1267	Standardization of cheesemilks using cold ultrafiltration retentates for the manufacture of Parmesan cheese. J.J. Jaeggi*[1], S. Govindasamy-Lucey[1], M.E. Johnson[1], and J.A. Lucey[2], [1]Wisconsin Center for Dairy Research, University of Wisconsin, Madison, Wisconsin/USA, [2]Department of Food Science, University of Wisconsin, Madison, Wisconsin/USA.
216	1268	Modulation of colonic microbiota with sweet bifidus milk. Elisa Teshima[1], Celia L. L F. Ferreira*[1], Neuza M. B. Costa[1], Ferlando L. Santos[1], and Izabele D. P. Marliere[1], [1]Federal University of Viçosa.
217	1269	Structural and functional properties of a small cryptic plasmid of *Streptococus thermophilus*. G.A. Somkuti and D.H. Steinberg, Eastern Regional Research Center, ARS-USDA.

218	1270	Production and functional properties of dairy products fermented with probiotic bacteria. Sharareh Hekmat*, Brescia College at University of Western Ontario.
219	1271	Changes in functionality of Mozzarella cheese produced from bovine and caprine milk during refrigerated storage. E. J. Oh[1], J. Y. Imm*[2], K. S. Han[1], J. S. Kim[2], S. Oh[3], and S. H. Kim[1], [1]Korea University, [2]Korea Food Research Institute, [3]Korea Yakult Co. Ltd.
220	1272	Effect of Lactococcus lactis ssp. lactis ml3 and c2 bacteriophage peptides and Lactobacillus plantarum yit0068 bacteriophage peptides on the growth of L. lactis ssp. lactis C2 and the inhibition of ml3 and c2 bacteriophage proliferation. C. Hicks*[1], I. Surjawan[1], N. Jose[1], C. Jose[2], and B. Barlow[1], [1]University of Kentucky, Lexington, Kentucky, [2]University of Riau, Pekanbaru, Indonesia.
221	1273	Effect of black pepper essential oils and orange peel terpenes on the inhibition of *Lactobacillus plantarum* and the inhibition of *L. plantarum* yit0068 bacteriophage proliferation. C. Jose[1], N. Jose[2], C. Hicks*[2], and I. Surjawan[2], [1]University of Riau, Pekanbaru, Indonesia, [2]University of Kentucky, Lexington, Kentucky.
222	1274	Estimation of vitamin D_3 content in process cheese. P. Upreti*[1], V. V. Mistry[1], and J. J. Warthesen[2], [1]MN-SD Dairy Foods Research Center, South Dakota State University, Brookings, [2]University of Minnesota, St. Paul.
223	1275	Cheese treated by high pressure in an early stage of ripening. Changes in textural attributes. J. Saldo[1], E. Sendra*[2], and B. Guamis[1], [1]Planta de Tecnologia d'Aliments, UAB. CeRTA. XiT. Bellaterra, Spain, [2]División de Tecnología de Alimentos. Universidad Miguel Hernández. Orihuela, Spain.
224	1276	Cheeses of Spain: classification and description. M. Almena Aliste*[1,2], A. Cepeda Sáez [1], and Y. Noël [2], [1]Hygiene and Food Inspection, Faculty of Veterinary Lugo-University of Santiago de Compostela, Spain, [2]INRA Dairy Technology and Analysis Research unit Poligny, France.
225	1277	Stress relaxation test: an approach to study cheese openness. C. Achilleos, M. Almena Aliste*, and Y. Noël, INRA Dairy Technology and Analysis Research unit Poligny, France.
226	1278	Evaluation of reduced fat Cheddar cheese made with attenuated and not attenuated adjunct culture of *Lactobacillus helveticus I*: Effect of make procedure and cell attenuation. S.A. Madkor[1], P.S. Tong*[1], and M. El-Soda[2], [1]California Polytechnic State University, [2]Alexandria University.
227	1279	Genetic typing of Swiss cheese starter culture strains by pulsed field gel electrophoresis and arbitrarily primed-PCR. J. K. Jenkins*, W. J. Harper, and P. D. Courtney, The Ohio State University Columbus, Ohio.
228	1280	Salt tolerance of dairy propionibacteria. O. Anggraeni, J. K. Jenkins*, and P. D. Courtney, The Ohio State University Columbus, Ohio.

ASAS/ADSA Milk Synthesis

Board Number	Abstract Number	
229	1281	Feeding dairy cattle to increase the content of conjugated linoleic acid in milk. Ying Huang, Barry Bradford*, Nicholas Heig, Jerry Young, and Donald Beitz, Iowa State University.
230	1282	Dietary fish oil plus vegetable oil maximizes trans-18:1 and rumenic acids in milk fat. D.L. Palmquist*[1] and J.M. Griinari[2], [1]OARDC/The Ohio State University, Wooster, Ohio, [2]University of Helsinki, Finland.
231	1283	Effect of dietary conjugated linoleic acids on the yield and composition of cow's milk. K.N. Simard*[1], P. Lacasse[2], L. Delbecchi[2], and P.Y. Chouinard[1], [1]Universite Laval, QC, Canada, [2]Agriculture and Agri-Food Canada.
232	1284	The effect of *trans*-10,*cis*12 conjugated linoleic acid (CLA) infusion on milk fat synthesis and expression of lipogenic enzymes in the mammary gland of lactating cows. E. Matitashvili*[1], L.H. Baumgard[1], and D.E. Bauman[1], [1]Department of Animal Science, Cornell University.
233	1285	In vitro lipid synthesis using bovine mammary homogenate. T. C. Wright*, J. P. Cant, and B. W. McBride, University of Guelph.
234	1286	Kinetics of glucose transport by isolated bovine mammary epithelial cells. Changting Xiao*, John P. Cant, Michael I. Lindinger, and Brian W. McBride, University of Guelph, Guelph, Ontario, Canada.

235 1287 Factors affecting lactose production of lactating rat mammary acini. K. H. Myung*[1] and S. R. Davis[2], [1]Chonnam National University, Kwangju, Korea, [2]AgResearch, Ruakura Research Centre, Hamilton, New Zealand.

236 1288 The expression polymorphism of kappa-casein gene affects cheese yield. G Robitaille*[1], D Petitclerc[1], J Morisset[2], and M Britten[3], [1]DSRDC, Agriculture and Agri-Food Canada, Lennoxville, Canada, [2]Sherbrooke University, Sherbrooke, Canada, [3]FRDC, Agriculture and Agri-Food Canada, St-Hyacinthe, Canada.

237 1289 Distribution of delta-9 desaturase mRNA in bovine tissues: effect of physiological state and diet. E. Matitashvili*[1], D.G. Peterson[1], D.H. Beermann[1], and D.E. Bauman[1], [1]Dept. of Animal Science, Cornell University.

238 1290 Milk fat globule size is not affected by diet restriction or soy oil supplementation. A.D. Beaulieu*[1], J.K. Drackley[1], J.M. Lynch[2], and D.M. Barbano[2], [1]University of Illinois, Urbana. , [2]Cornell University, Ithaca, NY.

239 1291 Supplementary infusion of amino acids and bovine somatotropin in atropine treated cows. P.H. Luimes*[1], J.P. Cant[2], X. Zhao[1], and D. Petitclerc[3], [1]McGill University, St.Anne-de-Bellevue, Quebec, [2]University of Guelph, Guelph, Ontario, [3]Agriculture and Agri-Food Canada, Lennoxville, Quebec.

240 1292 Correlations between specific binding of bST to desaturated hepatic membranes and various serum endocrine and nutrient components. M. Léonard[1], P.H. Luimes[1], E. Block[1], and D. Petitclerc*[2], [1]McGill University, St.Anne-de-Bellevue, Quebec, [2]Agriculture and Agri-Food Canada, Lennoxville, Quebec.

241 1293 Effect of 17ß-estradiol on milk production and mammary gland involution in Holstein cows in mid-late lactation. L. Delbecchi*, D. Petitclerc, and P. Lacasse, AAFC-Dairy and Swine R&D Centre, Lennoxville, Quebec, Canada.

242 1294 Transgenic sows overexpressing alpha-lactalbumin: Piglet growth and milk component intake early in lactation. M.S. Noble*, M.B. Wheeler, and W.L. Hurley, University of Illinois, Urbana, IL.

243 1295 A redefinition of the effects of mammary cell numbers and enzyme activities on predictions of milk yield and composition by a lactating dairy cow model. M. D. Hanigan*, F. E. Standaert, and D. C. Weakley, Purina Mills, Inc., St. Louis, MO.

244 1296 Amino peptidase gene expression in caprine mammary gland; A possible role in peptide-bound amino acid uptake. S.J. Mabjeesh*[1], M. Cohen[1], O. Gal-Garber[1], A. Shamay[2], and Z. Uni[1], [1]The Hebrew University of Jerusalem, [2]Agricultural Research Organization, The Volcani Center.

245 1297 Analysis of the sources of variation in CLA production in dairy cows. J.A. Kelsey*, D.G. Peterson, and D.E. Bauman, Cornell University, Ithaca, NY.

246 1298 Effect of postpartum changes in BCS on milk components. Dilip Kumar Garikipati*[1], Sarjan Rao Kapa[1], and Kailash MM[2], [1]College of Vety Science, Tirupati, [2]College of Vety Science , Bangalore.

247 1299 Evaluation of the antibacterial activities of lactoferricin derived peptides. P.-W. Chen, C.-L. Shyu, and F. C. Mao*, National Chung Hsing University, Taichung, Taiwan.

248 1300 Local expression of IGF-1 and IGFBP-3 mRNA in mammary tissue of prepubertal heifers after treatment with growth hormone. P.M. Jobst*[1], S.D. Berry[1], M.L. McGilliard[1], D. Ayares[2], D.A. Henderson[1], W.E. Beal[1], and R.M. Akers[1], [1]Virginia Polytechnic Institute and State University, [2]PPL Therapeutics Inc.

249 1301 MILK yield and constituents of Fleckvieh cattle in Bavaria:1-First lactation. Kamal Marzouk*[#], [#]Minia Univ.

ASAS/ADSA Extension Education and ASAS/ADSA Teaching Undergraduate and Graduate Education

Board Number	Abstract Number	
250	1302	Dairy farm HACCP: PMO bulk tank temperature and wash cycle compliance on 10 Minnesota dairies. S. Nagel and J. K. Reneau*, University of Minnesota, St. Paul, MN, USA.
251	1303	Environmental mastitis pathogens in fresh bedding material. V. Eckes, M.A. LaValle, R.F. Bey, R.J. Farnsworth, and J.K. Reneau*, University of Minnesota, St. Paul, MN, USA.
252	1304	Phosphorus adsorption implications on phosphorus management on dairies. T. Downing* and J. Hart, Oregon State University.
253	1305	Evaluation of dairy farmers' use of financial long-range planning. G. W. Robb*, S. B. Nott, and B. A. Dartt, Michigan State University.
254	1306	A training workshop for the National Dairy InfoBase. M. A. Varner*[1], [1]University of Maryland.
255	1307	Teaching pork producers breeding and gestation herd management skills via the Internet. M.T. See* and B.A. Belstra, North Carolina State University, Raleigh NC.
256	1308	Undergraduate education: exposing first- and second-year students to laboratory research. G. F. Erf*, W. G. Bottje, H. D. Chapman, M. Iqbal, R. Okimoto, and M. S. Parcells, University of Arkansas, Fayetteville, AR, USA.

ASAS/ADSA International Animal Agriculture

Board Number	Abstract Number	
257	1309	Interaction between chopping length of corn silage and long hay on chewing activity of dry cows. Paolo Berzaghi*[1,2], Giulio Cozzi[1], Flaviana Gottardo[1], and Igino Andrighetto[1], [1]University of Padova, Italy, [2]US Dairy Forage Research Center, Madison, WI.
258	1310	The peruvian dairy sector: farmers' perpectives, development strategies and policy options. Thomas Bernet[1] and Carlos Gomez*[2], [1]International Potato Center,Lima/Swiss Agency for Development and Cooperation, [2]Universidad Nacional Agraria La Molina,Lima.
259	1311	Macedonian Dairy Industry situation and outlook. Alexsandra Depinovska*[1] and Mingruo Guo[2], [1]Land O'Lakes-Macedonia, Kej 13 Noemvri bb,1000 Skopje, Macedonia, [2]University of Vermont, Burlington VT 05405.
260	1312	The suitability of the Beefmaster as a dam breed in hot and arid regions of Israel. J.E. Huston[1], Z. Holzer[2], P.V. Thompson*[1], Y. Aharoni[2], and B.S. Engdahl[1], [1]Texas A&M University System, San Angelo, TX, [2]Israeli Ministry of Agriculture, Haifa, Israel.
261	1313	Effect of seasons on milk production and calving pattern in nili ravi buffaloes . Syed Hassa Raza*[1], Arshad Iqbal[1], M.S. Khan[1], Shahid Mahboob[2], and M. Abdullah[1], [1]FAculty of Aniaml Husbandry, University of Agriculture, Faisalabad, PAKISTAN, [2]Dept.Zoology, Govt. Colleage, Faisalabad, PAKISTAN.
262	1314	Effect of high-levels of brewery supplementation on blood metabolites of Holstein cows from a semi-intensive dairy in north-central Mexico. E Guzman, RM Rincon, DF Cortes, R Bañuelos-Valenzuela*, and CF Arechiga, [1]Universidad Autonoma de Zacatecas. Zacatecas, Mexico.
263	1315	Timed-embryo transfer (Gyr/Holstein) in recipient cows exposed to a synchronized ovulation. BA Barrios, LA Guillen, JC Acuña, and CF Arechiga*, [1]Universidad Autonoma de Zacatecas. Zacatecas, Mexico.
264	1316	Meat quality characteristics of loin eye and tenderloin muscles of native Korean (Hanwoo) steers. Y.K. Lee[1], K.H. Kim*[1], Y.S. Kim[2], S.S. Sun[1], and M.G. Baik[1], [1]Chonnam National University, Kwangju, Korea, [2]University of Hawaii at Manoa, Honolulu.

265 1317 Characterization of forage trees as strategic feed sources for goats under semiarid rangeland conditions of Tamaulipas, Mexico. R. Hernandez[1], A. Tewolde[1], S. S. Gonzalez*[2], E. Gutierrez[3], H. Diaz[4], and F. Briones[1], [1]U. Autonoma de Tamaulipas, [2]Colegio de Posgraduados, [3]U. Autonoma de Nuevo Leon, [4]U. Autonoma Agraria Anotonio Narro.

ASAS Nonruminant Nutrition: Specialty Grains and Amino Acids

Board Number	Abstract Number	
266	1318	Soybean meal from Roundup Ready® or conventional soybeans in diets for growing-finishing pigs. G. L. Cromwell*[1], M. D. Lindemann[1], J. H. Randolph[1], E. P. Stanisiewski[2], and G. F. Hartnell[2], [1]University of Kentucky, Lexington, [2]Monsanto Co., St. Louis, MO.
267	1319	Comparison of apparent ileal amino acid digestibility values of high oil (HOC), high oil/high oleic acid (HOHOC), and low phytate (LP) corn diets fed to finishing pigs. J. W. Frank*[1], G. L. Allee[1], and T. E. Sauber[2], [1]University of Missouri, Columbia, MO, [2]Dupont Specialty Grains, Johnston, IA.
268	1320	Effects of low-phytic acid corn on growth performance, bone strength, and serum osteocalcin concentration in growing-finishing pigs. M. W. Klunzinger*, K. D. Roberson, G. M. Hill, D. W. Rozeboom, and J. E. Link, Michigan State University.
269	1321	Comparision of broiler performance when fed diets containing YieldGard® corn, YieldGard® and Roundup Ready® corn, parental lines, or commercial corn. M.L. Taylor*[1], G.F. Hartnell[1], M.A. Nemeth[1], B. George[2], and J.D. Astwood[1], [1]Monsanto Company, [2]Colorado Quality Research.
270	1322	Comparison of swine performance when fed diets containing Roundup Ready® corn (GA21), parental line or conventional corn. E. P. Stanisiewski*[1], G. F. Hartnell[1], and D. R. Cook[2], [1]Monsanto Company, St. Louis, MO, [2]Akey, Inc., Lewisburg, OH.
271	1323	Comparison of broiler performance when fed diets containing Roundup Ready® corn event NK603, parental line, or commercial corn . M.L. Taylor*[1], G.F. Hartnell[1], M.A. Nemeth[1], B. George[2], and J.D. Astwood[1], [1]Monsanto Company, [2]Colorado Quality Research.
272	1324	Growth performance of broilers fed insect-protected (MON 810) or near isogenic control corn. G. Piva*[1], M. Morlacchini[2], A. Pietri[1], F. Rossi[1], and A. Prandini[1], [1]Istituto di Scienze degli Alimenti e della Nutrizione, U.C.S.C., Facoltà di Agraria, Piacenza,Italy., [2]CERZOO, Piacenza, Italy.
273	1325	Evaluation of *Streptomyces lividans* and *Pichia pastoris* as extra-cellular expression systems for *Escherichia coli* phytase. C.H. Stahl* and X.G. Lei, Cornell University, Ithaca, NY.
274	1326	Apparent and true ileal digestibility of amino acids in soybean meals as affected by heat treatments and trypsin inhibitors. S. W. Kim*[1], Z. H. Zhang[1], L. A. Johnson[2], and R. A. Easter[1], [1]University of Illinois, [2]Iowa State University.
275	1327	Effect of increased levels of crystalline nonessential amino acids on growth performance and nitrogen retention of broiler chicks fed low-CP diets. K. Bregendahl* and D.R. Zimmerman, Iowa State University, Ames.
276	1328	Lysine to Protein ratios in growing-finishing pigs. E. O. Castaneda-Silva*[1] and J. A. Cuaron[2], [1]Nutrimentos Concentra, S.A. de C.V., [2]C. N. I. Fisiologia y Mejoramiento Animal, INIFAP. Queretaro, Mexico.
277	1329	Effect of synchronizing dietary protein and glucose supply on nitrogen retention of growing pigs. W.J.J. Gerrits*, K.P.C.M. Frijters, J.M. Linden, M.J.W. Heetkamp, T. Zandstra, and J.W. Schrama, Wageningen Institute of Animal Sciences, Wageningen, The Netherlands.
278	1330	Portal recovery of enteral supplied alpha-ketoglutaric acid in growing pigs. N. B. Kristensen*[1], S. G. Pierzynowski[2], H. Jungvid[2], and J. A. Fernandez[1], [1]Danish Institute of Agricultural Sciences, Tjele, Denmark, [2]Gramineer Int. AB, Lund, Sweden.
279	1331	The change of growth performance and carcass characteristics in finishing pigs treated with N-methyl-d,l,-aspartate(NMA). GANG XI*[1], ZIRONG XU[2], and PING XIAO[2], [1]University of Minnesota, St. Paul, MN, [2]Zhejiang University, Hangzhou, China.
280	1332	Response of weanling pigs to dietary lysine sulfate fermentation product or L-lysine•HCl supplementation. B. R. Frederick* and E. van Heugten, North Carolina State University, Raleigh.

281	1333	Effects of dietary supplementation of crystalline L-glutamine on the gastrointestinal tract and whole body growth in early-weaned piglets fed corn and soybean meal-based diets. D. Lackeyram*[1], X. Yue[1], and M.Z. Fan[1], University of Guelph, Guelph, Ontario, Canada.
282	1334	The performance and protein ,amino acid and phosphorus utilization of piglets were improved by phytase supplementation. Keying Zhang*, Daiwen Chen, Bing Yu, Xianmei Luo, and Yongyi Li, Institute of Animal Nutrition, Sichuan Agricultural University,Yaan,Sichuan 625014,PR.China.
283	1335	Metabolic adaptation to synthetic feed and different amino acid patterns. J. A. Nolles, V. V. A. M Schreurs, R. E. Koopmanschap, and M. W. A. Verstegen*, Wageningen Institute of Animal Sciences (WIAS).
284	1336	Cysteine and sulfite enhance reduction of trypsin inhibitor during heating of soybeans. Y.X. Huang and E.L. Miller*, Department of Clinical Veterinary Medicine, University of Cambridge.
285	1337	Effect of Zinc-Methionine on growth performance of Japanese quail (Coturnix coturnix japonica) fed with starting-growing diets. A. Montoya*[1], R. Barajas[1], and G. Contreras[1], [1]FMVZ-Universidad Autonoma de Sinaloa.
286	1338	Effect of chromium-methionine level in diet on hatchability of Japanese quail in dry tropic weather:II. Respone under temperature-controlled in winter season. G. Contreras*[1] and R. Barajas[1], [1]Universidad Autonoma de Sinaloa.
287	1339	Effect of chromium-methionine level in diet on hatchability of Japanese quail in dry tropic weather:I. Respone under temperature-controlled in summer season. G. Contreras*[1] and R. Barajas[1], [1]Universidad Autonoma de Sinaloa.

PSA Nutrition: Amino Acids, Feed Ingredients, and Feed Processing

Board Number	Abstract Number	
288	1340	Digestible lysine levels in the diets of broilers from 1 to 21 days of age. L. F. Araujo*[1], O. M. Junqueira[1], C. S. S. Araujo[1], and S. M. Baraldi Artoni[1], [1]Universidade Estadual Paulista - UNESP/ Jaboticabal - SP - Brazil.
289	1341	Dietary crude protein levels needed for broilers from three to six weeks of age as influenced by gender. Q. Jiang*, C. A. Fritts, and P. W. Waldroup, University of Arkansas.
290	1342	mRNA that encode for proteins capable of transporting L-methionine and/or dl-2-hydroxy-4-(methylthio) butanoic acid are present in the intestinal epithelium of broilers. Y-X. Pan*[1], E. A. Wong[1], J. J. Dibner[2], and K. E. Webb, Jr. [1], [1]Virginia Tech, Blacksburg, VA, [2]Novus International, Inc., St. Charles, MO.
291	1343	Effects of amino acids and calcium levels on radiographic density and calcium excretion in broilers from 1 to 21 days of age. C. S. S. Araujo*[1], S. M. Baraldi-Artoni[1], L. F. Araujo[1], M. J. Q. Lousada[2], and O. M. Junqueira[1], [1]Universidade Estadual Paulista - UNESP/Jaboticabal - SP - Brasil, [2]Universidade Estadual Paulista - UNESP/ Araçatuba - SP - Brasil.
292	1344	Effects of amino acids and calcium levels on radiographic density and calcium excretion in broilers from 22 to 42 days of age. C. S. S. Araujo*[1], S. M. Baraldi-Artoni[1], L. F. Araujo[1], M. J. Q. Louzada[2], and O. M. Junqueira[1], [1]Universidade Estadual Paulista - UNESP/Jaboticabal, SP - Brazil, [2]Universidade Estadual Paulista - UNESP/Araçatuba, SP - Brazil.
293	1345	Effects of amino acids and calcium levels on radiographic density and calcium excretion in broilers from 43 to 49 days of age. S. M. Baraldi-Artoni[1], C. S. S. Araujo*[1], L. F. Araujo[1], O. M. Junqueira[1], M. J. Q. Louzada[2], and N. K. Sakomura[1], [1]Universidade Estadual Paulista - UNESP/ Jaboticabal, SP - Brazil, [2]Universidade Estadual Paulista - UNESP/Araçatuba, SP - Brazil.
294	1346	Effect of diets containing cashew nut meal and an enzyme complex on broiler performance. M.F.F. Fuentes*[1], S.F. Militao[1], E.R. Freitas[1], and G.B. Espíndola[1], [1]Universidade Federal do Ceará, Fortaleza, CE, Brasil.
295	1347	Dehydrated poultry meal as a replacement for soybean meal in broiler diets. J.B. Hess*[1], J.P. Blake[1], R.A. Norton[1], K.M. Downs[2], A. Kalinowski[1], and A. Corzo[1], [1]Poultry Science Department, Auburn University, Auburn, AL, [2]Middle Tennessee State Univ., Murfreesboro, TN.

296 1348 Biological evaluation of a phosphorus source prepared with a new process on broiler chicks. H. Motallebi[1], M. Masoumi Esfahani*[2], and A. Faghihnasiri[3], [1]University of Mazandaran, [2]Telavang Co., [3]Deputy of Livestock Affairs.

297 1349 Organ and body growth in full-fed and pair-fed chickens consuming raw and heated velvet beans (*Mucuna pruriens*). L. B. Carew*[1], J. Weis[1], A. G. Gernat[2], F. A. Alster[1], and E. I. Zakrzewska[1], [1]University of Vermont, Burlington, VT/USA, [2]Escuela Agricola Panamericana, Tegucigalpa, Honduras.

298 1350 Effect of moisture, polyamines, and iron concentration on the nutritional value of biosolids harvested from poultry processing effluent. D.V. Maurice, S.F. Lightsey*, Zulfan, D. Wicker, and J.E. Toler[1], Department of Animal & Veterinary Sciences, [1]Department of Experimental Statistics, Clemson University, Clemson, SC 29634-0361.

299 1351 Utilization of spent hen meal in diets for laying hens. C. A. Fritts*, J. A. Kersey, and P. W. Waldroup, University of Arkansas.

300 1352 Nutritive and economic values of high oil corn in laying hen diets. D. J. Kim and B. D. Lee *, Chungnam National University, Daejeon, South Korea.

301 1353 Effect of treated ervil (*Vicia ervilia*) diets on the performance of laying hens. M. T. Farran*, W. S. Halaby, F. T. Sleiman, M. G. Uwayjan, and V. M. Ashkarian, American University of Beirut, Beirut, LEBANON.

302 1354 The effect of Eggshell 49™ and mussel shell on performance and eggshell quality of laying hens. Ruedi Hadorn[1], Hans Wiedmer[1], and Peter Spring*[2], [1]Swiss Poultry Husbandry School, Zollikofen, Switzerland, [2]Swiss College for Agriculture, Zollikofen, Switzerland.

303 1355 High oleic acid corn in turkey diets: carcass composition and parts yield of market tom turkeys. T. Ergul*[1], P.B. Addis[1], J. Brannon[1], M.L. Endres[2], and S.L. Noll[1], [1]University of Minnesota, St. Paul, MN/USA, [2]Mycogen Seeds, Inc., Eagan, MN/USA.

304 1356 Evaluation of chachafruto (erythrina edulis) foliage meal as a source of protein in laying diets for Japanese quails. H Collazos* and L.E. Davila, Universidad Nacional Abierta y a Distancia, UNAD, Departamento de Zootecnia.

305 1357 Cholecalciferol, 25-hydroxycholecalciferol and vitamin C for laying hens during the initial phase of the cycle of lay. Douglas Faria*[1], Daniely Salvador[1], Monica Mazalli[1], Samir Correa[1], and Diogo Ito, Faculdade de Zootecnia e Engenharia de Alimentos, Pirassununga, SP, Brasil.

306 1358 Effect of formulation density and feed moisture type additives on feed manufacturing and pellet quality. J.S. Moritz*, K.J. Wilson, K.R. Cramer, R.S. Beyer, L.J. McKinney, and W.B. Cavalcanti, Kansas State University, Manhattan, KS.

307 1359 Influence of expander conditioning and feed form on broiler performance. K. J. Wilson, K. R. Cramer*, J. S. Moritz, W. B. Cavalcanti, and R. S. Beyer, Kansas State University.

308 1360 Effect of increasing level of fines in a crumbled starter diet on broiler performance. K. J. Wilson*, J. S. Moritz, K. R. Cramer, R. S. Beyer, and W. B. Cavalcanti, Kansas State University.

309 1361 Impact of increasing levels of expander cone pressure on feed manufacturing characteristics of a broiler starter ration. K. J. Wilson*, L. J. McKinney, K. R. Cramer, J. S. Moritz, W. B. Cavalcanti, R. S. Beyer, and K. C. Behnke, Kansas State University.

310 1362 Effect of crumble quality on broiler performance. K. J. Wilson*, R. S. Beyer, J. S. Moritz, K. R. Cramer, W. B. Cavalcanti, L. J. McKinney, and K. C. Behnke, Kansas State University.

311 1363 Effect of *Aspergillus* sp and bacterial phytase containing broiler diets on body weight, gastrointestinal transit time and the crop and cecum pH of the broiler chick. G Nava*[1], N Ledesma[1], A Priego[2], C Priego[2], L Sutton[3], and G Tellez[1], [1]Departamento de Produccion Animal: Aves, Facultad de Medicina Veterinaria y Zootecnia, UNAM-México, [2]Productos Quimicos-Agropecuarios S.A. de C.V. Mexico , [3]PetAg Inc, Hampshire, IL 60140 USA.

312 1364 Effect of *Aspergillus* sp and bacterial phytase containing broiler diets on intestinal villi size and blood chemistries of the broiler chick. G Nava*[1], N Ledesma[1], A Priego[2], C Priego[2], L Sutton[3], and G Tellez[1], [1]Departamento de Produccion Animal: Aves, Facultad de Medicina Veterinaria y Zootecnia, UNAM-México, [2]Productos Quimicos-Agropecuarios S.A. de C.V. Mexico , [3]PetAg Inc, Hampshire, IL 60140 USA.

313 1365 Effect of phytase, organic trace minerals and age at photostimulation on performance of brown eggshell laying hens. T. Ao*, N. D. Paton, A. H. Cantor, A. J. Pescatore, M. J. Ford, and C. A. Smith, University of Kentucky.

314	1366	Sources and levels of total phosphorus in the diet of broilers from 2 to 28 days of age. L. F. Araujo*[1], O. M. Junqueira[1], D. Mucke[2], R. Knoop[2], and C. S. S. Araujo[1], [1]Universidade Estadual Paulista - UNESP/Jaboticabal - Brazil, [2]Burge Fertilizantes S/A - Sao Paulo - Brazil.
315	1367	Total phosphorus (TP) requirements of meat chickens from 3 to 7 weeks of age. A. Abudabos*, D. V. Maurice, S. F. Lightsey, and W. C. Bridges, Jr.[1], Animal & Veterinary Sciences, [1]Department of Experimental Statistics, Clemson University, Clemson, SC.

THURSDAY, JULY 26, 2001
TECH FORUM DAY

ASAS/ADSA Animal Health

Board Number	Abstract Number	
1	1368	*In vitro* aflatoxin binding characteristics of an esterified glucomannan product. J.W. Evans* and M. Kudupoje, Alltech Biotechnology Inc., Nicholasville, KY.
2	1369	Growth and immune function of calves fed milk replacer with added nitrate. S. T. Franklin, R. O'Carra, R. J. Harmon, D. M. Amaral-Phillips, and J. A. Jackson, University of Kentucky, Lexington, KY.
3	1370	Brain cholinesterase activity in cattle exposed to coumaphos in Mexico. V. Pardio*[1], N. Ibarra[1], A. Velasquez[2], B. Nochebuena[1], E. De la Cruz[1], and J. Alfaro[1], [1]Universidad Veracruzana, Veracruz, Veracruz/Mexico, [2]Instituto Mexicano del Seguro Social, Veracruz, Veracruz/Mexico.
4	1371	Extension needs and approaches towards livestock health improvement in Bangladesh : Proshika experience. Nuru Miah, Proshika Manobik Unnayan Kendra, Bangladesh.
5	1372	Bedding material preferences of crossbred cattle. Dilip Kumar Garikipati*[1], Kailash M. M.[2], and Sarjan Rao Kapa[1], [1]College of Veterinary Sciences,Tirupati, [2]Bangalore Agricultual University.
6	1373	Economic efficacy of treatment protocols for clinical mastitis. E.H. Shim*, R.D. Shanks, and D.E. Morin, University of Illinois, Urbana.
7	1374	Effect of left displacement of abomasum (LDA) corrected by toggle pin suture on performance of Holstein dairy cows. J.E.P. Santos[1], E. Raizman*[1], L.G. Corbelini[2], and R.A. Cerri[1], [1]University of California, Davis, [2]Universidade Federal do Rio Grande do Sul.
8	1375	Effect of disease on fertility traits in Swedish dairy cattle using survival analysis methodology. D.O. Maizon*[1,2] and P.A. Oltenacu[1], [1]Department of Animal Science, Cornell University, [2]Facultad de Ciencias Veterinarias, Universidad de Buenos Aires.
9	1376	The diagnostic value of serum cholesterol in cows and newborn calves. R. Skrzypek*, Agricultural University of Poznan, Poland.
10	1377	Development of a DNA-based vaccine for the prevention of staphylococcal mastitis. E.W. Carter* and D.E. Kerr, University of Vermont, Burlington VT.
11	1378	Immunogenicity of a putative intranasal vaccine against bovine respiratory syncytial virus (BRSV)in calves. B. Earley*[1], O. Kavanagh[2], B. Adair[2], and R. Fallon[1], [1]Teagasc, Grange Research Centre, Dunsany, Co. Meath, Ireland, [2]Veterinary Science Division, Stormont, The Queen's University of Belfast, BT4 3SD, Northern Ireland.
12	1379	Differential tyrosine phosphorylation on bovine PMN. Kynita Campbell[1], Max Paape[2], Mulumebet Worku*[1], and Yan Wang[2], [1]North Carolina Agricultural and Technical State University, [2]USDA Beltsville, Maryland.
13	1380	Bovine PMN release the COX-2 protein when stimulated with bacterial lipopolysaccharide. Jenora Waterman and Mulumebet Worku*, North Carolina Agricultural and Technical State University.
14	1381	Modulation of apoptosis in bovine blood PMN by actinomycin-D, lipopolysaccharide, and sodium butyrate. P Matterson*, S Knight, and M Worku, NC Agricultural and Technical State University.
15	1382	Techniques for RNA isolation and cDNA integrity in bovine blood PMN. S Knight*, M Worku, P Matterson, and S Dance, NC Agricultural and Technical State University Greensboro, NC USA.

16 1383 Isolation of membrane protein associated with IgM binding from bovine neutrophils. A Johnston-Ward*, S Knight, and M Worku, NC Agricultural and Technical State University Greensboro, NC USA.

17 1384 Establishing and comparing profiles of antimicrobial resistance in *Staphylococcus aureus* isolates from selected organic and conventional dairy farms in Vermont. C. Nugent*, P. Murdough, W. Panky, and J. Barlow, University of Vermont, Burlington, VT.

18 1385 Improved quantification of total lipids from liver samples. B. N. Ametaj*, Y. Lu, G. Bobe, J. W. Young, and D. C. Beitz, Iowa State University, Ames, IA.

19 1386 Effect of slow-release insulin on bovine hepatic lipidosis. A. Hayirli*, J. E. Kayhart, S. J. Bertics, and R. R. Grummer, University of Wisconsin, Madison.

20 1387 Utility of RAP-PCR to identify genes in bovine liver differentially expressed following in vivo endotoxin (LPS) challenge. E. E. Connor*, C. M. Ashwell, S. Kahl, and T. H. Elsasser, USDA-ARS, Beltsville, MD.

21 1388 Prepartum body condition score and liver glycogen concentration decrease circulating memory activity to viral antigens in periparturient dairy cows. D. C. Donovan*[1], A. R. Hippen[1], and D. J. Hurley[1], [1]South Dakota State University, Brookings.

22 1389 Impact of season and heat stress on SCC from infected and uninfected quarters. B. A. Broaddus*, R. J. Harmon, R. W. Scaletti, K. Akers, B. A. Smith, S. H. Hayes, and C. H. Hamilton, University of Kentucky, Lexington, KY.

23 1390 Relationship of somatic cell score with fertility measures. R.H. Miller[1], J.S. Clay[2], and H.D. Norman*[1], [1]Animal Improvement Programs Laboratory, Agricultural Research Service, USDA, Beltsville, MD, [2]Dairy Records Management Systems, Raleigh, NC.

24 1391 Efficacy of a concentrated equine serum product to prevent failure of passive transfer of immunity in neonatal foals. C.J. Hammer*[1], J.A. Booth[1], L. Etzel[2], and H.D. Tyler[1], [1]Iowa State University, Ames, IA USA, [2]Proliant, Ames, IA USA.

25 1392 Heritability of Ascaridia galli egg output in laying hens. Matthias Gauly*[1], Christian Bauer[2], and Georg Erhardt[1], [1]Institute of Animal Breeding and Genetics, University of Giessen, [2]Institute of Parasitology, University of Giessen, Germany.

26 1393 Antibiotic effects of Tylosin in the large intestine of swine fed sub-therapeutic concentrations of Tylan. M.D. Howard*[1], J.A Zahn[1], and D.L. Harris[2], [1]National Swine Research Information Center, USDA-ARS, [2]Iowa State University.

27 1394 Adhesion of *Actinobacillus pleuropneumoniae* to swine soluble fibronectin. R.C. Hamer*[1,2], I. Enriquez[2], D. Godinez[2], R.Z. Martinez[2], P. Talamas[2], S. Vaca[3], and M. de la Garza[2], [1]FMVZ-Universidad Autonoma de Sinaloa. Culiacan, Sinaloa Mexico., [2]CINVESTAV-IPN. Zacatenco. Mex. D.F. Mexico., [3]ENEP- Iztacala. Universidad Nacional Autonoma de Mexico. Mexico.

28 1395 Testing for the Presence of Enterotoxigenic *Escherichia coli* Infections Causing Diarrhea in Swine Using PCR and ELISA Techniques. S. Cole*[1] and R. R. Marquardt[1], [1]University of Manitoba.

29 1396 Differential effect of dexamethasone on lymphocyte proliferation and immunoglobin production *in vitro*. M.R. Rogers*[1], S.C. Lozano[1], K.M. Kammlah[1], T.H. Welsh, Jr.[2], and J.C. Laurenz[1], [1]Texas A&M University-Kingsville, [2]Texas A&M University-College Station.

30 1397 Effect of oral administration of dehydroepiandosterone-sulfate (DHEAS) on pig lymphocyte function *in vitro*. S.C. Lozano*[1], T.H. Welsh, Jr.[2], and J.C. Laurenz[1], [1]Texas A&M University-Kingsville, [2]Texas A&M University-College Station.

ASAS/ADSA Breeding and Genetics: Gene Mapping, QTL, and Statistical Methods

Board Number	Abstract Number	
31	1398	A novel and highly effective method to generate transgenic mice and chickens: linker-based sperm-mediated gene transfer. Jin Qian*[1], Yi-Hsin Liu[2], Mason Jiang[3], Tsehay Mekonnen[1], and Ken Wang[1], [1]BioAgri Corp., [2]Center for Craniofacial Molecular Biology, USC, [3]Dept. of Anesthesiology, UCLA.

32 1399 Generation of transgenic pigs by sperm-mediated gene transfer using a linker protein (mAb C). Keejong Chang[2,3], Jin Qian[1], Mason Jiang[4], Ming-Che Wu[5], Chidar Chen[2], Hin-Lung Lo[3], Meng-Chun Hu[2], Wen-Wen Lin[2], Iris Ho[2], and Ken Wang*[1], [1]BioAgri Corp., [2]BioAgri Corp., Taiwan Division, [3]Dept. of Chemistry, Soochow University, [4]Dept. of Physiology, Taiwan Livestock Research Center, [5]Dept. of Anesthesiology, UCLA.

33 1400 Macroarray analyses of differential gene expression in porcine fetal and postnatal skeletal muscle RNA. S. Zhao*[1,3], C. Fitzsimmons[1], C. Ernst[2], and C. Tuggle[1], [1]Iowa State.University, Ames, IA, [2]Michigan State Univeristy, East Lansing, MI, [3]Huanzhong Agricultural University, Wuhan, PRC.

34 1401 Production of 17 cDNA libraries and successful EST sequencing of 10,124 clones from porcine female reproductive tissues. C.K. Tuggle*[1], J.A. Green[2], C. Fitzsimmons[1], R. Woods[2], R. Prather[2], S. Malchenko[3], M.B. Soares[3], C.A. Roberts[4], K. Pedretti[4], T. Casavant[4], D. Pomp[5], G. Bertani[5], S. Olberding[5], Y. Zhang[1], M. F. Rothschild[1], C. Harger[6], and W. Beavis[6], [1]Iowa State University, Ames, IA, [2]University of Missouri-Columbia, Columbia, MO, [3]Pediatrics-University of Iowa, Iowa City, IA, [4]ECE-University of Iowa, Iowa City, IA, [5]Department of Animal Science, University of Nebraska, Lincoln, NE 68583, [6]National Center for Genomic Resources, Santa Fe, NM.

35 1402 Development of a physical map of bovine chromosome 4 that contains the gene responsible for Bovine Progressive Degenerative Myeloencephalopathy (PDME). Mheni Ben Abdallah*, Scott Speidel, Emily Oberg, and Sue DeNise, University of Arizona, Tucson, AZ, USA.

36 1403 Comparative mapping and linkage analysis to identify the genetic region responsible for Bovine Spinal Muscular Atrophy (SMA). E.A. Oberg*[1], N. Vukasinovic[2], and S.K. DeNise[1], [1]University of Arizona, [2]Utah State University.

37 1404 Genetic analysis of candidate genes for Weaver Syndrome in Brown Swiss cattle. Scott Speidel*, Emily Oberg, Mheni Ben Abdallah, and Sue DeNise, University of Arizona, Tucson, AZ/USA.

38 1405 Evaluation of genetic relativeness and diversity in five goat breeds using randomly amplified polymorphic DNA (RAPD) analysis. J. Luo*[1], Z. G. Liu[2], G. S. Yang[2], and X. M. Zhen[3], [1]E(Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK, [2]Northwest Agricultural University, Yangling, Shaanxi, China, [3]Biotechnology Laboratory of Hubei Agricultural Science Academy, Wuhan, Hubei, China.

39 1406 PIT-1 gene sequencing and mutation analysis in sheep . E Bastos*[1], I Parmentier[2], I Santos[3], A Cravador[4], H Guedes-Pinto[1], and R Renaville[2], [1]University of Tras-os-Montes e Alto Douro, Vila Real, Portugal, [2]Gembloux Agricultural University, Gembloux, Belgium, [3]National Zootechnical Station, Santarem, Portugal, [4]University of Algarve, Faro, Portugal.

40 1407 The pairwise relatedness between relatives conditional on genetic markers. Yuefu Liu*[1], Gerald Jansen[1], and Ching Lin[2], [1]University of Guelph, Guelph, Canada, [2]Agriculture and Agri-Food Canada, Lennoxville, Canada.

41 1408 Marker assisted selection for first calving age at embryo level: a simulation study. A. J. M. Rosa*[1], R. B. Lobo[1], P. Bijma[2], M. Rutten[2], H. N. Oliveira[3], and J. van Arendonk[2], [1]USP - Ribeirao Preto,SP/Brazil, [2]Wageningen Institute of Animal Science, Wageningen, Holland, [3]UNESP - Botucatu,SP/Brazil.

42 1409 A heterogeneity model for estimating the number of QTL alleles in a segregating population. Jean Xu* and Yang Da, Department of Animal Science, University of Minnesota.

43 1410 Evidence of paternally imprinted QTL around *IGF2* in a Berkshire-Yorkshire cross. H. K. Lee[2], J. C. M. Dekkers*[1], R. L. Fernando[1], and M. F. Rothschild[1], [1]National Livestock Research Institute, Korea, [2]Iowa State University, Ames, IA.

44 1411 Combined interval mapping of QTL using mixed models in reference families with complex pedigrees and its application to chromosome 13 of swine . X. L. Wu and C. Lee*, Hallym University, Chuncheon, Korea.

45 1412 PIT-1, a candidate gene for mass assisted selection in dairy bulls. I. Parmentier*[1], N. Gengler[2], S. Fontaine[1], B. Auvray[2], T. Burnside[3], D. Portetelle[1], and R. Renaville[1], [1]Gembloux Agricultural University, Animal and microbial biology unit, Gembloux, Belgium, [2]Gembloux Agricultural University, Husbandry unit, Gembloux, Belgium, [3]Semex-Alliance, Guelph, Canada.

46 1413 Composite interval mapping analysis of milk production and health traits in US Holsteins. A. B. Kurtz*, S. L. Rodriguez-Zas, H. A. Lewin, and D. W. Heyen, University of Illinios at Urbana-Champaign, Urbana, IL.

47 1414 Interval mapping of quantitative trait loci affecting yield and health traits in dairy cattle . A. B. Kurtz*, S. L. Rodriguez-Zas, H. A. Lewin, and D. W. Heyen, University of Illinois at Urbana-Champaign, Urbana, IL.

48	1415	Identification of genome positions associated to monthly production and health records using a single-marker model. S. L. Rodriguez-Zas*, B. R. Southey, H. A. Lewin, and D. W. Heyen, University of Illinois, Urbana, IL.
49	1416	Random regression models to estimate genetic growth parameters of young zebu beef cattle. E. S. Sakaguti*[1], R. L. Quaas[2], M. A. Silva[3], E. N. Martins[1], P. S. Lopes[4], and L. O. C. Silva[5], [1]Universidade Estadual de Maringa, Maringa, Brazil, [2]Cornell University, Ithaca, New York, [3]Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, [4]Universidade Federal de Vicosa, Vicosa, Brazil, [5]$EMBRAPA - Gado de Corte, Campo Grande, Brazil.
50	1417	Inversion-free method for variance component estimation under the animal model. Jean Xu* and Yang Da, Department of Animal Science, University of Minnesota.
51	1418	Incorporating external information in multi-breed genetic evaluation. R. L. Quaas* and Z. Zhang, Cornell University, Ithaca, NY.
52	1419	Bayesian linear mixed models employing the contaminated normal distribution: a simulation study in animal breeding. I. G. Pereira*, G. J. M. Rosa, and H. N. Oliveira, UNESP - Botucatu, SP/ Brazil.
53	1420	Effect of reducing the frequency of milk recording on accuracy of genetic evaluation using a random regression model. J.J. Tosh[1], J.A.B. Robinson*[1], G.B. Jansen[1], and C.Y. Lin[2], [1]Centre for Genetic Improvement of Livestock, University of Guelph, Ontario, Canada, [2]Dairy and Swine Research and Development Centre, Agriculture & Agri-Food Canada, Lennoxville, Quebec.
54	1421	Bayesian analysis of multiple-linear and categorical traits with varying number of categories. D.H. Lee*[1], I. Misztal[1], J.K. Bertrand[1], and R. Rekaya[2], [1]University of Georgia, Athens, Georgia, [2]University of Wisconsin, Madison, Wisconsin.
55	1422	Analyses of sequential weights of Brazilian Zebu cattle using a multiple trait model by REML and Bayesian method. P. R. C. Nobre*[1], I. Misztal[1], S. Tsuruta[1], D. Lee[1], J. K. Bertrand[1], L. O. C. Silva[2], and P. S. Lopes[3], [1]University of Georgia, [2]CNPGC/Embrapa, Brazil, [3]UFV, Brazil.

PSA Genetics

Board Number	Abstract Number	
56	1423	Influence of genetics on phytate phosphorus utilization by chickens. T. N. Smith, S. E. Aggrey*, R. I. Bakalli, and G. M. Pesti, University of Georgia.
57	1424	Inheritance of Alkaline Phosphates in Local Iraqi Chicken and its association with Production. Ali Al-HilIali[1] and Khalid Al-Soudi*[2], [1]Iraqi Atomic Energy Commission, Baghdad. Iraq, [2]Animal Production Department. Agriculture College, Baghdad University. Baghdad, Iraq.
58	1425	Multisource Multitrait Selection Indices For Genetic Improvement In Poultry Breeding Programs For Laying Hens. 2. Construction And Evaluation Of Various Indices. A. A. Enab[1], N. Kolstad[2], and F.H. Abdou[1], [1]Fac. Of Agric., Minufyia Univ., Shebin El-Kom, EGYPT, [2]Agricultural Univ. Of Norway.
59	1426	A comparative genomic approach to identifying QTL's for growth in chickens. J. Funk-Keenan and G. F. Barbato, The Pennsylvania State University, University Park, PA .
60	1427	Preliminary mapping of a gene affecting male fertility in the chicken. K Song*[1], F.G. Sizemore III[2], J.D. Kirby[1], and D.D. Rhoads[1], [1]University of Arkansas, Fayetteville, AR, [2]USDA-Avian Disease and Oncology Lab, East Lansing, MI.
61	1428	Zona pellucida 3 protein (ZP3) and gene (ZPC) expression in the turkey, *Meleagris gallopavo*. M. L. Block*[1], K. E. Nestor[2], and G. F. Barbato, [1]The Pennsylvania State University, University Park, PA , [2]The Ohio State University, Wooster, OH.
62	1429	Molecular characterization of a partial inverted repetitive (PIR) DNA family in the chicken genome. Juan Li, Xiaofei Wang, and Frederick Leung*, University of Hong Kong.
63	1430	The temporal expression of the Myogenic Regulatory Factor genes during proliferation and differentiation of satellite cells derived from chicken *Biceps femoris* and *Pectoralis major* muscles. A Sarver, J Richter*, H Kocamis, S Gahr, and J Killefer, [1]West Virginia University, Morgantown, WV 26506.

64	1431	Social stress induced different alterations of dopamine concentrations and adrenal function in genetically selected chicken lines. P. Singleton*[1], Y. Chen[1], M.W. Muir[2], and H.W. Cheng[1], [1]USDA-ARS, Livestock Behavior Research Unit, [2]Dept of Animal Science, Purdue University.
65	1432	MHC and family effects of cellulitis on lymphocyte proliferation in MHC defined broiler chickens. K. S. Macklin*, R. A. Norton, and S. J. Ewald, Auburn University, Auburn, AL.

ASAS/ADSA Forages and Pastures: Silages, Forage Quality, and Digestion

Board Number	Abstract Number	
66	1433	Effect of wilting and molasses on silage quality of Leucaena leucocephala. T. Clavero*[1] and Rosa Razz[1], [1]La Universidad del Zulia.
67	1434	Prediction of reed canarygrass quality as influenced by N fertilization and maturity. D.J.R. Cherney*, D.R. Dewing, and J.H. Cherney, Cornell University, Ithaca, NY.
68	1435	A survey of phytoestrogen activity in Kansas Flint Hills native grass pastures. D.A. Blasi*[1], S.I. Paisley[1], W.V. Welshons[2], and G.E. Rottinghaus[2], [1]Kansas State University, [2]University of Missouri, Columbia.
69	1436	Changes in nutritive value for bermudagrass hay as affected by initial concentration of moisture and sampling date. J.E. Turner*, W.K. Coblentz, D.A. Scarbrough, K.P. Coffey, D.W. Kellogg, L.J. McBeth, and R.T. Rhein, Animal Science Department, Univesity of Arkansas.
70	1437	Partitioning of nitrogen in bermudagrass forages in response to nitrogen fertilization. J.L. Gunsaulis, W.K. Coblentz*, M.B. Daniels, J.E. Turner, D.A. Scarbrough, J.B. Humphry, K.A. Teague, K.P. Coffey, and N.W. Galdamez, University of Arkansas.
71	1438	Brown midrib-3 corn silage as the major forage for transition cows. H.H.B. Santos*[1], V.R. Moreira[1], Z. Wu[2], and L.D. Satter[1,2], [1]U.S. Dairy Forage Research Center, USDA-ARS, [2]University of Wisconsin, Madison.
72	1439	Effects of the heterotrophic bacterium *Lactobacillus buchneri* on preservation of alfalfa and timothy hay. J. Baah*[1], L. Bos[2], F. H. VanHerk[1], R. C. Charley[3], and T. A. McAllister[1], [1]Agriculture and Agri-Food Canada Research Centre, Lethbridge, AB, [2]Wageningen University, Wageningen, The Netherlands, [3]Biotal Canada Ltd., Niagara-on-the-Lake, ON.
73	1440	Effects of maturity and N fertilization on in vitro biohydrogenation of timothy linolenic and linoleic acids. H. Boufaied*[1], P.Y. Chouinard[1], G.F. Tremblay[2], H.V. Petit[3], R. Michaud[2], and G. Bélanger[2], [1]Universite Laval, QC, Canada, [2]Agriculture and Agri-Food Canada, Ste-Foy, QC, Canada, [3]Agriculture and Agri-Food Canada, Lennoxville, QC, Canada.
74	1441	Effects of ensiling carbohydrates with wheat straw and 4% urea. T.V. Nguyen*, M.J. Montgomery, and C.J. Richards, University of Tennessee, Knoxville, TN.
75	1442	Production and quality of Buffel grass (*Cenchrus ciliaris*)grown and utilized under different conditions in Northern Mexico. C Lizarazo-Ortega, H Bernal-Barragan, and E Gutierrez-Ornelas*, Facultad de Agronomia, UANL. Marin N.L. Mexico.
76	1443	Effect of mott dwarf elephant grass (*Pennisetum purpureum*) silage on dry matter intake, milk production, digestibility and rumen characteristics in Nili-Ravi buffaloes. M. Q. Bilal, M. Abdullah*, and M. Lateef, University of Agriculture, Faisalabad, Pakistan 38040.
77	1444	Assessment of forage quality and DM digestion kinetics for wheat forage as affected by harvest technique and sampling date. W.K. Coblentz, K.P. Coffey, J.E. Turner, D.A. Scarbrough, J.B. Humphry, J.V. Skinner, and D.W. Kellogg, University of Arkansas.
78	1445	Physical and chemical characteristics affecting in vitro digestibility of corn silages of different particle sizes. G. Ferreira*[1] and D.R. Mertens[2], [1]Universidad Catolica Argentina, Buenos Aires, [2]US Dairy Forage Research Center, Madison, WI.
79	1446	Factors affecting the measurement of forage digestibility. W. A. Scheer*, D. M. Chatman, and J. N. Spain, University of Missouri, Columbia, MO.
80	1447	Comparison of three methods to estimate digestible NDF of forages. D. K. Combs*[1] and P. Berzaghi[2], [1]University of Wisconsin, Madison, [2]University of Padova, Italy and U.S. Dairy Forage Research Center, Madison, WI.

81	1448	Evaluation of the influence of host animal diet and forage type on the ruminal degradation of grass silage and intercropped pea-wheat silages. A.T. Adesogan*[1], M.B. Salawu[1], and R.D. Dewhurst[2], [1]IRS, University of Wales, Aberystwyth, SY23 3AL UK, [2]Institute of Grassland and Environmental Research, SY23 3EB, UK.
82	1449	Eastern gamagrass digestion kinetics and forage quality as influenced by harvest management. D.J.R. Cherney*[1], P.R. Salon[2], and J.H. Cherney[1], [1]Cornell University, Ithaca, NY, [2]USDA-NRCS, Big Flats Materials Center, Big Flats, NY.
83	1450	Nutrient digestibility and bacterial protein synthesis of a pasture diet in response to increased level of dietary brassica in continuous culture. K. J. Soder*[2], L. A. Holden[1], S. R. Hershey[1], and M. R. Long[1], [1]The Pennsylvania State University, PA, [2]USDA-ARS, University Park, PA.
84	1451	Crop processing and chop length effects in brown midrib corn silage on chewing activity and mean particle size of silage and masticates. E. C. Schwab* and R. D. Shaver, University of Wisconsin, Madison, WI.
85	1452	N-alkanes as markers for estimation of dry matter intake and diet composition in steers consuming all-forage or forage-concentrate diets. S.A. Moshtagh Nia*[1], K.M. Wittenberg[1], and W. Chen[2], [1]University of Manitoba, Winnipeg, MB, [2]Agriculture and Agri-Food Canada, Brandon, MB.
86	1453	Estimation of forage intake of lactating dairy cows on pasture using n-alkanes. H. M. Froebe*, K. M. Wittenberg, and S. A. Moshtaghi Nia, University of Manitoba, Winnipeg, Canada.
87	1454	Evaluation of cultivates of alfalfa (Medicago sativa L.) by in situ degradability technique. E. C. J. Sales, A. R. Evangelista*, R. A Santos, and J. C. Teixeira, Universidade Federal de Lavras, Minas Gerais, Brazil.

ASAS/ADSA Ruminant Nutrition: Fat, Protein, Intake, and Feedlot

Board Number	Abstract Number	
88	1455	Effect of housing and fat supplementation on reproduction and productivity of Holstein cows in early lactation. S.L. Boken*, C.R. Staples, L.E. Sollenberger, W.W. Thatcher, and P.J. Hansen, University of Florida, Gainesville, FL.
89	1456	Increasing the concentration of beneficial fatty acids in lamb muscle. K Nuernberg[1], S Grumbach[2], K Ender[1], and G Nuernberg[1], [1]Research Institute for the Biology of Farm Animals, [2]State Institute of Agriculture and Fishery M/V.
90	1457	Modification of essential fatty acids in phospholipids and triglycerides from beef cattle. S Lorenz*[1], K Nuernberg[1], and K Ender[1], [1]Research Institute for the Biology of Farm Animals.
91	1458	Effect of L-carnitine on lamb growth and metabolites. T. W. White*[1], J. M. Fernandez[1], G. D. Harding[1], R. L. Walker[1], C. C. Williams[1], H.G. Bateman[1], and M. A. Froetschel[2], [1]Louisiana State University Agricultural Center, Baton Rouge, [2]University of Georgia, Athens.
92	1459	Effect of fat source on plasma fatty acids in sheep. H. Febel[1], F. Husveth[2], and T. Veresegyhazy*[3], [1]Research Institute of Animal Breeding and Nutrition, Herceghalom, [2]University of Veszprem, Keszthely, [3]Szent Istvan University, Faculty of Veterinary Science, Budapest, Hungary.
93	1460	The feeding of fish oil as fish meal with linoleic acid sources enhances milk CLA content. A. A. Abu-Ghazaleh*, D. J. Schingoethe, A. R. Hippen, and L. A. Whitlock, [1]South Dakota State University.
94	1461	Validation of a model for the digestion of fat in dairy cows. P. J. Moate*, R. C. Boston, and W. Chalupa, University of Pennsylvania, Kennett Square, PA.
95	1462	*Trans* fatty acids in milk of Holstein cows fed soybean oil or two forms of conjugated linoleic acid. T. C. Jenkins*, S. A. Mosley, and J. A. Bertrand, Clemson University, Clemson, SC.
96	1463	Effects of prepartum intake, postpartum induction of primary ketosis, and periparturient disorders on carnitine palmitoyltransferase I activity in dairy cows. H. M. Dann*, J. K. Drackley, and D. E. Morin, University of Illinois, Urbana.

97	1464	Influence of feeding canola seed on lactation performance and conjugated linoleic acid concentration in milk fat of lactating Holstein cows. J.D. Handegard*[1], D.B. Carlson[1], M.S. Laubach[1], D.E. Schimek[1], W.L. Keller[1], J.W. Schroeder[1], C.S. Park[1], G.D. Marx[2], and J.H. Herbein[3], [1]North Dakota State University, Fargo, [2]University of Minnesota-Crookston, [3]Virginia Polytechnic and State University, Blacksburg.
98	1465	Conjugated linoleic acids in duodenal and milk lipids of lactating dairy cows fed different diets. L. S. Piperova*[1], J. Sampugna[1], B. B. Teter[1], K. F. Kalscheur[1], R. A. Erdman[1], M. P. Yurawecz[2], K. Ku[2], and K. Morehouse[2], [1]University of Maryland, College Park., [2]U.S. Food and Drug Administration, Washington, D.C.
99	1466	Metabolic fate of long chain fatty acids by ruminant hepatocytes. D.G. Mashek*, S.J. Bertics, and R.R. Grummer, University of Wisconsin, Madison.
100	1467	Effects of feeding whole linseed on milk production and composition of dairy ewes. M. V. Pol, R. Casals*, E. Albanell, and X. Such, Universitat Autonoma de Barcelona.
101	1468	Effect of supplementing Solin, a high linoleic acid oilseed, to a TMR containing fresh grass, on bovine plasma and milk conjugated linoleic acid (CLA) and fatty acid levels. A.T. Ward* and K.M. Wittenberg, University of Manitoba, Winnipeg, Canada.
102	1469	Effect of feeding frequency and dietary sunflower oil on conjugated linoleic acid (CLA) concentrations in milk from dairy cows. N.W. Lafond[1], V. Girard[2], and P.Y. Chouinard[1], [1]Universite Laval, QC, Canada, [2]Institut de recherche et de developpement en agroenvironnement, QC, Canada.
103	1470	Comparison of prilled tallow and free fatty acids from tallow as fat supplements for dairy cows. S. T. Franklin*[1], D. M. Amaral-Phillips[1], J. A. Jackson[1], K. J. Touchette[2], and J. A. Coalson[2], [1]University of Kentucky, [2]Merrick's, Inc.
104	1471	Short-term feeding strategies for altering conjugated linoleic acid (CLA) content of meat. R. A. Robinson*, K. E. Griswold, G. A. Apgar, B. N. Jacobson, D. Johnson, and H. D. Woody, Southern Illinois University, Carbondale, IL.
105	1472	Conjugated linoleic acid (CLA) must be protected from rumen hydrogenation for the greatest impact on milk composition. M.M. Hawley*[1], M.A. McGuire[1], T.W. Hanson[1], and A.F. Kertz[2], [1]University of Idaho, Moscow, [2]Agribrands International, St. Louis, MO.
106	1473	Feeding calcium salts of oleic acid on dry matter intake, milk yield, and milk fatty acid content. J.E. Delahoy*, L.D. Muller, R.F. Roberts, L.A. Kalwasinski, and F. Bargo, The Pennsylvania State University, University Park, PA.
107	1474	Effect of processing methods on the utilization of corn grain by ruminants. S.Y. Lee* and J.K. Ha, [1]Seoul National University, Suwon, Korea.
108	1475	Effect of two protein sources on ADG, reproductive performance, ruminal fermentation and digestion kinetics in beef cattle. O. Ruiz-Barrera[1], J. Mejia-Haro[2], J.A. Jimenez-Castro[1], J.A. Ramirez-Godinez[1], I. Mejia-Haro*[3], and A. Flores-Mariñelarena[1], [1]Universidad Autonoma de Chihuahua, Mexico, [2]Universidad de Guanajuato, Mexico, [3]CIGA-ITA de Aguascalientes, Mexico.
109	1476	Finishing system (feedlot or pasture) and copper supplementation affect conjugated linoleic acid in beef muscle. T.E. Engle*[1] and J.W. Spears[2], [1]Colorado State University, Fort Collins, [2]North Carolina State University, Raleigh.
110	1477	Interaction of steam reduction and tempering on the feeding value of steam-flaked corn for feedlot cattle. R. A. Ware*, S. A. Rodriguez, and R. A. Zinn, University of California, Davis.
111	1478	Alternate equation forms for heat production estimation in ruminant growth and composition models. J.W. Oltjen* and R.D. Sainz, University of California, Davis.
112	1479	Effects of moisture, roller setting and saponin-based surfactant on growth performance of feedlot steers. Y. Wang*[1], T. A. McAllister[1], and D. Greer[2], [1]Agriculture and Agri-Food Canada Research Centre, Lethbridge, AB, [2]AgriChem, Inc., Anoka, MN.
113	1480	Effects of high oil corn and shade on respiration rates and acid-base balance of Angus and Bonsmara x Beefmaster feedlot steers. T. C. Bramble[1], C. R. Richardson*[1], J. D. Thiebaud[2], F. N. Owens[3], and G. R. Chapman[4], [1]Texas Tech University, Lubbock, [2]Texas Tech Howard Hughes Medical Institute, Lubbock, [3]Du Pont Specialty Grains, Des Moines, IA, [4]Amarillo, TX.
114	1481	An evaluation of breed and diet on plasma leptin concentration in beef steers. K.A. Johnson*[1], P.S. Mir[2], P.S. Kuber[1], Z. Mir[2], D.H. Keisler[3], C.T. Gaskins[1], J.J. Michal[1], J.R. Busboom[1], and J.J. Reeves[1], [1]Washington State University, Pullman, WA, [2]Agri-Food Canada, Lethbridge, Alberta, [3]University of Missouri, Columbia, MO.

115 1482 Corn processing method in finishing diets containing wet corn gluten feed. T.L. Scott*, C.T. Milton, T.J. Klopfenstein, and R.A. Stock, University of Nebraska-Lincoln.

116 1483 Sub-clinical ruminal acidosis in feedlot cattle fed a barley-based diet. G. R. Ghorbani*[1,2], K. A. Beauchemin[1], and D. P. Morgavi[1], [1]Agriculture and Agri-Food Canada, Lehtbridge, AB, T1J 4B1, Canada, [2]Isfahan University of Technology, Isfahan, Iran.

117 1484 Adaptation of the Cornell Net Carbohydrate and Protein System to sheep: validation of feed digestibility. A. Cannas*[1], D.G. Fox[2], A.N. Pell[2], and P.J. Van Soest[2], [1]University of Sassari, Sassari, Italy, [2]Cornell University, Ithaca, NY.

118 1485 Effect of moisture heat damage on ruminal degradation of cottonseed dry matter and crude protein using nylon bag technique in sheep. A. Estrada* and R. Barajas, Universidad Autonoma de Sinaloa (Mexico).

119 1486 Effect of close-up protein supplementation on milk, fat and protein yields of late gestation primiparous Holstein dairy cows. P. H. Robinson*[1], J. M. Moorby[2], and M. Arana[3], [1]University of California, Davis, CA, [2]IGER, Aberystwyth, UK, [3]UCCE, Stockton, CA.

120 1487 Effect of close-up dry period protein supplementation on milk, fat and protein yields of multiparous Holstein dairy cows. J. M. Moorby[1], P. H. Robinson*[2], and M. Arana[3], [1]IGER, Aberystwyth, UK, [2]University of California, Davis, CA, [3]UCCE, Stockton, CA.

121 1488 Simulation of the effect of N excretion on environmental pollution arising from dairy cows using a dynamic model. E. Kebreab*[1], J. France[1], J.A.N. Mills[1], R. Allison[2], and J. Dijkstra[3], [1]The University of Reading, [2]ADAS Bridgets, [3]Wageningen Institute of Animal Sciences.

122 1489 Should residual plots use Y or Yhat?. N.R. St-Pierre*, The Ohio State University.

123 1490 Short-term mammary blood flow responses to changes in circulating metabolite concentrations. S.R.L. Cieslar*[1], D.R. Trout[1], T.G. Madsen[2], N.G. Purdie[3], and J.P. Cant[1], [1]University of Guelph, Ontario, [2]The Royal Veterinary and Agricultural University, Frederiksberg C, Denmark, [3]University of Queensland, St. Lucia, Australia.

124 1491 True intestinal digestibility of nitrogen, lysine and methionine estimated with sheep on intragastric infusion and by mobile bag technique. T. Hvelplund*[1], L. Misciattelli[1], F.D.DeB Hovell[2], and M.R. Weisbjerg[1], [1]Danish Institute of Agricultural Sciences, Denmark, [2]University of Aberdeen, UK.

125 1492 Effects of diet on milk allantoin and its relationship with milk production in dairy goats. B.R. Min*[1], R. Puchala[1], and S.P. Hart[1], [1]E (Kika) de la Garza Institute for Goat Research, Langston, OK, 73050.

126 1493 Correction for microbial contamination does not alter estimates of intestinal digestibility of rumen undegraded protein. Y. G. Goh*[1] and G. A. Broderick[2], [1]Kangwon National University, Chunchon, South Korea, [2]U.S. Dairy Forage Research Center, Madison, WI.

127 1494 In vitro effects of feed oils, ionophores, tannic acid, saponin-containing plant extracts and other bioactive agents on ruminal fermentation and protozoal activity. A. N. Hristov*[1], M. Ivan[2], and T. A. McAllister[2], [1]Department of Animal and Veterinary Sci., University of Idaho, Moscow, ID 83844-2330, [2]Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, AB T1J 4B1.

128 1495 In vitro rates of bacterial incorporation of nitrogen fractions from ^{15}N-labeled whole-crop barley ensiled at two dry matter contents. A. N. Hristov*[1] and T. A. McAllister[2], [1]Department of Animal and Veterinary Sci., University of Idaho, Moscow, ID 83844-2330, [2]Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, AB T1J 4B1.

129 1496 Effect of barley variety and amylopectin content on bacterial utilization of ammonia-N in vitro. A. N. Hristov*, J. K. Ropp, and C. W. Hunt, Department of Animal and Veterinary Sci., University of Idaho, Moscow, ID 83844-2330.

130 1497 Fractionation of ammonia nitrogen isotopes by ruminal bacteria in vitro. A. N. Hristov*, Department of Animal and Veterinary Sci., University of Idaho, Moscow, ID 83844-2330.

131 1498 Effect of Jackbean urease immunization on nitrogen recycling in mature sheep. J.C. Marini*, K.W. Simpson, A. Gerold, and M.E. Van Amburgh, Cornell University.

132 1499 Incorporation of nitrogen from ammonia, amino acids, peptides, or protein by mixed ruminal bacteria in vivo. A. N. Hristov*[1], J. K. Ropp[1], R. J. Wallace[2], and T. A. McAllister[3], [1]Department of Animal and Veterinary Sci., University of Idaho, Moscow, ID 83844-2330, [2]Rowett Research Institute, Bucksburn, Aberdeen AB21 9SB, [3]Agriculture and Agri-Food Canada, Lethbridge Research Centre, Lethbridge, AB T1J 4B1.

133 1500 Influence of methionine and/or lysine deficiencies, formulated at three different protein levels, on protein nitrogen metabolism when fed to lactating dairy cows. D. C. Weakley*[1], M. D. Hanigan[1], L. F. Reutzel[1], J. A. Besancenez[1], K. B. Cunningham[1], H. C. Puch[1], and B. K. Sloan[2], [1]Purina Mills, Inc., St. Louis, MO, [2]Aventis Animal Nutrition, Alpharetta, GA.

134 1501 Effect of level of cracked Pima cottonseed in the diet of lactating dairy cows on milk yield and plasma gossypol. J. Prieto*[1], E. DePeters[1], P. Robinson[1], J. Santos[1], J. Pareas[1], S. Taylor[1], M. Calhoun[2], B. Baldwin[2], and S. Kuhlmann[2], [1]University of California, Davis, CA, [2]Texas Agricultural Experiment Station, San Angelo, TX.

135 1502 Effects of intake and lactation on absorption and metabolism of leucine and phenylalanine by splanchnic tissues of dairy cows. C. K. Reynolds*[1], B. J. Bequette[2], J. S. Caton[3], D. J. Humphries[1], P. C. Aikman[1], B. Lupoli[1], and J. D. Sutton[1], [1]University of Reading, Reading, UK, [2]Rowett Research Institute, Aberdeen, UK, [3]North Dakota State University, Fargo, USA.

136 1503 Peptide amino acid net flux in ruminal vein of dairy cow. D. Remond*[1], C. L. Girard[2], and B. Chauveau[1], [1]INRA, Clermont Fd-Theix/France, [2]AAC , Lennoxville/Canada.

137 1504 Effects of abomasal casein or essential amino acid infusions on splanchnic leucine and phenylalanine metabolism in lactating dairy cows. J. S. Caton*[1], C. K. Reynolds[2], B. J. Bequette[3], B. Lupoli[1], P. C. Aikman[1], and D. J. Humphries[1], [1]North Dakota State University, Fargo, USA, [2]University of Reading, Reading, UK, [3]Rowett Research Institute, Aberdeen, UK.

138 1505 Effect of type of cottonseed and gossypol intake on plasma gossypol and performance of lactating Holstein dairy cows. J.E.P. Santos*[1], M. Villasenor[1], D. Ringen[1], E.J. DePeters[1], P.H. Robinson[1], M.C. Calhoun[2], B. Baldwin[2], and J.P. Reynolds[1], [1]University of California - Davis, [2]Texas A&M University.

139 1506 Use of an inhibitor *in vitro* method to determine protein degradability coefficients in the NRC (2001) protein evaluation system. J.R. Newbold*[1], B. De Wannemaeker[1], and P. Gerardy[1], [1]Provimi Research and Technology Centre.

140 1507 Intake and production by Holstein cows fed different amounts and sources of supplemental protein prepartum and postpartum. J.P. Underwood*, J.K. Drackley, and J.H. Clark, University of Illinois, Urbana, IL.

141 1508 Effect of barley and rapeseed meal supplementation on amino acid profile of microbial fractions and postruminal amino acid supply in lactating dairy cows fed grass-red clover silage. M. Korhonen*, S. Ahvenjärvi, A. Vanhatalo, and P. Huhtanen, MTT, Agrifood Research Finland.

142 1509 Effect of type of dietary protein on mRNA expression for urea cycle enzymes in lactating dairy cows. J.R. Townsend*, S.M. Crowder, J.C. Velez, and S.S. Donkin, Purdue University, West Lafayette, IN.

143 1510 Responses of dairy cows fed grass silage-cereal diet to increased supply of histidine provided either by abomasal infusion of histidine or dietary inclusion of rape seed meal. A. Vanhatalo*, P. Huhtanen, M. Korhonen, and T. Varvikko, MTT Agrifood Research Finland, Jokioinen, Finland.

144 1511 A comparison of different methods to measure milk urea nitrogen. R.A. Kohn*, K.R. French, and E. Russek-Cohen, University of Maryland, College Park.

145 1512 A role for rumen degraded protein in regulating intake rate of digested fiber. W. C. Ellis*[1], J.H. Matis[1], Dennis Herd[1], H. Lippke[1], F.M. Rouquette[1], D. P. Poppi[2], and R. J. Wallace[3], [1]Texas A & M University, [2]University of Queensland, [3]Rowett Research Institute.

146 1513 The prediction of microbial protein supply to growing lambs fed raw and dry roasted legume seeds as protein supplements from the urinary excretion of purine derivatives. P. Yu*[1], L. Boonek[2], A.R. Egan[2], and B.J. Leury[2], [1]Department of Animal and Poultry Science, University of Saskatchewan, Canada, [2]Institute of Land and Food Resources, University of Melbourne, Australia.

147 1514 A role for ruminally degraded protein in determining yield and efficiency of rumen efflux microbial protein. W.C. Ellis*[1], Dennis Herd[1], J.H. Matis[1], H. Lippke[1], F.M Rouquette[1], D.P. Poppi[2], and R. J. Wallace[3], [1]Texas A & M University, [2]University of Queensland, [3]Rowett Research Institute.

148 1515 Effect of type of cottonseed and gossypol intake on reproduction and health of lactating Holstein dairy cows. J.E.P. Santos*[1], M. Villasenor[1], C.H. Holmberg[1], D. Ringen[1], E.J. DePeters[1], P.H. Robinson[1], B. Bretz[1], and P.W. Jardon[2], [1]University of California - Davis, [2]Visalia, CA.

149 1516 Bloodmeal and fishmeal addition to receiving diets. J. W. Lehmkuhler*[1], E.E.D. Felton[1], C.J. Fu[1], and M. S. Kerley[1], [1]University of Missouri.

AMSA Graduate Student Research Posters (M.S. and Ph.D. Divisions) and AMSA General Abstracts

Board Number	Abstract Number	
150	1517	Oxymyoglobin and lipid oxidation in a-tocopherol supplemented pork liver microsomes. S Lee*, A L Phillips, and C Faustman, University of Connecticut, Storrs, CT.
151	1518	Effect of high oil corn and vitaimin E supplementation on beef steak case-life properties. M.S. Eibs*[1], B.J. Johnson[1], D.M. Wulf[1], B.C. Shanks[1], and T.A. Wittig[1], [1]South Dakota State University.
152	1519	Evaluation of growth rate, carcass composition and meat quality of Berkshire- and Yorkshire-sired progeny. M.J. Ritter*, C.P. Allison, S.R. Debar, J.M. Scheffler, R.J. Tempelman, and M.E. Doumit, Michigan State University, East Lansing, MI.
153	1520	Mechanisms of vitamin D3 on tenderness of lamb. C. T. Boleman[1], J. W. Savell*[1], W. S. Ramsey[1], and R. K. Peel[1], [1]Texas A&M University.
154	1521	Lean lamb production: Bioelectrical impedance as a lean tissue evaluation method. P. T. Berg*[1], T. C. Faller[2], and M. N. Maddux[1], [1]North Dakota State University, Main Station, Fargo, [2]North Dakota State University, Hettinger Research Extension Center.
155	1522	IMPACT of HACCP implemenation on the Kansas meat and poultry processing industry. E. Boyle*[1], D. Hoffman[1], and M. Schoenbeck[2], [1]Kansas State University, Manhattan, KS, [2]Food Brands, Hutchinson, KS.
156	1523	Development and evaluation of an advanced HACCP workshop for meat processors. Mindy Brashears[1], Dennis Burson[1], Liz Boyle[2], Fadi Aramouni[2], Jason Mann[1], and Mark Murphy[2], [1]University of Nebraksa, [2]Kansas State University.
157	1524	Development of a beef myology and muscle profiling cd-rom. S.J. Jones*[1], C.R. Calikins[1], K.S. Podany[1], D.E. Burson[1], and B.L. Gwartney[2], [1]University of Nebraska, [2]National Cattlemen's Beef Association.
158	1525	Microbial condition of aged lamb meat treated with 1% acetic acid. E.C. Vasconcelos[1], J.F.F Zapata*[1], E.A.T. Figueiredo[1], and M.A.A. Castelo-Branco[1], [1]Universidade Federal do Ceará, Fortaleza, CE, Brasil.
159	1526	Comparison of recovery methods for freeze-injured Listeria monocytogenes, Salmonella Typhimurium and Campylobacter coli associated with cell suspensions and pork surfaces. V. P. Chang*, E. W. Mills, and C. N. Cutter, Penn State University, University Park, PA 16802.
160	1527	Incorporation of nisin into a collagen film retains antimicrobial activity against *Listeria monocytogenes* and *Brochothrix thermosphacta* associated with a ready-to-eat meat product. B. J. Miller* and C. N. Cutter, Penn State University.
161	1528	Survival of Listeria spp. following bacon processing. L. J. Heffner*, S. L. Flowers, S. L. Histand, G. L. Kehres, S. Doores, E. W. Mills, and C. N. Cutter, Penn State University.
162	1529	Effects of electrolyzed oxidizing water on microbial growth, lipid oxidation and color of displayed beef during refrigerated storage. Seon-Tea Joo*[1], Kumar Venkitanarayanan[2], and Cameron Faustman[2], [1]Gyeongsang National University, Chinju, Korea, [2]University of Connecticut, Storrs, CT, USA.
163	1530	Thermal conductivity model for predicting heat penetration in non-stirred raw rendered products. A. K. Greene, C. S. Knight, W. B. Bridges, and P. L. Dawson*, Clemson University.
164	1531	Analyzing plant sanitation processes using statistical process control techniques. K.J.K Getty* and J.G. Surak, Clemson University, Clemson, SC.
165	1532	Recombinant production of chicken egg-yolk antibodies against Enterotoxigenic *Escherichia coli* by use of a DNA vaccine. S.H. Cho*, P.C. Loewen, and R.R. Marquardt, University of Manitoba, winnipeg, MB, Canada, R3T2N2.
166	1533	Decreasing cost in processed meat products with the addition of pork collagen. D.R. Doerscher*[1,2], G. Prabhu[1], and E. Schoenberg[1], [1]Proliant Inc., [2]Iowa State University.
167	1534	Evaluation of wet salting in the #Charqui# processing. M. Pinto Neto*[1], H.A. Arima[1], R.O. Villarreal, S.B. Toma, and M.L.Q. Andrade, [1]Instituto de Tecnologia de Alimentos, Campinas, Sao Paulo, Brazil.

168	1535	Effect of freezing rate and storage on the functional properties of manufacturing beef. M.M. Farouk*, K.J. Wieliczko, and I. Merts, AgResearch Ltd.
169	1536	High temperature conditioning prior to rigor onset does not affect the functional properties of beef subsequently chilled rapidly. M.M. Farouk*, A.E. Graffhuis, and K.J. Wieliczko, AgResearch Ltd.
170	1537	Influence of beef cuts and cooking time on color properties of a beef sausage model system. J.A. Pérez-Alvarez[1], J.M. Fernández-Ginés[1], J. Fernández-López[1], E. Sayas[1], C. Navarro[1], A. Aznar[2], and E. Sendra*[1], [1]Universidad Miguel Hernández, [2]Universidad Politécnica de Cartagena.
171	1538	Antioxidant effect of dried milk mineral in fresh and cooked ground pork. P. Jayasingh* and D.P. Cornforth, Utah State University, Logan, UT.
172	1539	Effect of rosemary extract, sodium lactate and film permeability on the shelf-life of vacuum packaged ground ostrich meat. A. C. Seydim, Z. B. Güzel-Seydim, I. Y. Han, and P. L. Dawson*, Clemson University.
173	1540	Functionality of prerigor meat on the chemical, physical, and textural properties of beef patties. J.R. Claus*[1], O. Sorheim[2], and H.-J. Skarpeid[2], [1]University of Wisconsin-Madison, [2]MATFORSK, [2]MATFORSK.
174	1541	Postharvest interventions to overcome the tenderness problems in meat from older animals. M.B. Solomon*[1], B.W. Berry[1], J. Stika[2], and W.G. Moody[2], [1]USDA, ARS, FTSL, Beltsville, MD, [2]Univ of Kentucky, Lexington, KY.
175	1542	Improving tenderness of beef round and sirloin muscles through pre-rigor skeletal separations. B. C. Shanks*, D. M. Wulf, B. J. Reuter, J. M. Bok, and R. J. Maddock, South Dakota State University.
176	1543	Relationship of pork quality traits to consumer acceptability. T.K. Ford*[1], R.K. Miller[1], S.J. Moeller[2], and R.N. Goodwin[3], [1]The Texas A&M University, [2]The Ohio State University, [3]National Pork Producers Council.
177	1544	Repeatability of Warner-Bratzler shear values in beef steaks using three different cooking methods. C.R. Kerth*, L.K. Blair-Kerth, and W.R. Jones, Auburn University, Auburn AL.
178	1545	Sample location within muscle affects pork quality measurments. E.W. Mills*, S.L. Flowers, and B.M. Moser, Penn State University, University Park PA.
179	1546	Heat penetration patterns of biceps femoris, longissimus lumborum and semitendinosus muscles cooked by electric broiler, electric belt grill, or forced-air convection oven. E. Obuz, E. J. Yancey, T. E. Lawrence, D. A. King, and M. E. Dikeman, Kansas State University.
180	1547	Instruments differ in estimating lightness of fresh meat. C.P. Allison*, R.O. Bates, M.E. Doumit, and A.M. Booren, Michigan State University, East Lansing, MI.
181	1548	Effects of high protein/low carbohydrate swine diets during the final finishing phase on pork muscle quality. J.B. Bok*, D.M. Wulf, B.C. Shanks, B.A. Reuter, and R.J. Maddock, South Dakota State University, Brookings, SD.
182	1549	Effect of supplemental fat on growth, quality, palatability, and fatty acid composition of beef from steers fed barley-potato product finishing diets. D. J. Marks*[1], J. R. Busboom[1], M. L. Nelson[1], J. D. Cronrath[1], L. Falen[1], A. E. Koepp[1], and P. S. Kuber[1], [1]Washington State University.
183	1550	Sensory evaluation of pork longissimus muscle from swine fed soybean meal from Roundup Ready® or conventional soybeans. C. L. Armstrong*, W. B. Mikel, and G. L. Cromwell, University of Kentucky, Lexington, KY.
184	1551	Assessing real time augmentation of USDA yield grade application to beef carcasses using video image analysis (VIA) instrumentation word. R. Steiner*[1], A.M. Wyle[2], K.E. Belk[1], J.A. Scanga[1], J.W. Wise[3], J.D. Tatum[1], and G.C. Smith[1], [1]Colorado State University, Fort Collins, CO/ USA, [2]Research Management Systems, Fort Collins, CO/ USA, [3]USDA AMS Branch, Washington, DC/ USA.
185	1552	Ozonation of animal wastewater to reduce environmental impact. J. K. Duke*, L. W. Grimes, G. C. Skelley, and A. K. Greene, Clemson University.
186	1553	Reducing airborne bacteria and molds using a germicidal air cleaning system. C.J. Cundith*, C.R. Kerth, W.R. Jones, T.A. McCaskey, and D.L. Kuhlers, Auburn University, Auburn AL.
187	1554	Development of decontamination procedures for beef trimmings. C. S. Ebeling*, R. K. Miller, and G. R. Acuff, Dept. Animal Sci., Texas A&M University, College Station, TX.

188 1555 Processing and product development of goat meat products: fermented cabrito snack stick and cabrito smoked sausage. G.H. Cosenza*, S.K. Williams, D.D. Johnson, and C. Sims, University of Florida, Gainesville, FL.

189 1556 Use of sodium citrate to enhance tenderness and palatability of pre-rigor beef muscles. C. D. Perversi*[1], C. R. Calkins[1], and J. Velazco[2], [1]University of Nebraska-Lincoln, [2]Instituto Tecnológico de Estudios Superiores de Monterrey, Monterrey, México.

190 1557 Mapping intramuscular tenderness variation in four major muscles of the beef round. B. J. Reuter*, D. M. Wulf, B. C. Shanks, J. M. Bok, and R. J. Maddock, South Dakota State University, Brookings, SD.

191 1558 Chemical characterization of beef inside and outside semimembranosus for improved color stability. LM Sammel*[1], MC Hunt[1], and DH Kropf[1], [1]Kansas State University.

192 1559 Effects of cold shortening and cooking rate on tenderness, postmortem proteolysis, and cooking traits of beef longissimus and triceps brachii muscles. D.A. King*[1], M.E. Dikeman[1], T.L. Wheeler[2], C.L. Kastner[1], and M. Koohmaraie[2], [1]Kansas State University, Manhattan, KS, [2]Roman L. Hruska U.S. Meat Animal Research Center, Clay Center, NE.

193 1560 Relationships between mechanical tenderness measurements and trained sensory panel attributes of beef Longissimus lumborum muscle. T. S. Hively*[1], R. K. Miller[1], D. S. Hale[1], D. K. Lunt[2], T. L. Wheeler[3], and M. Koohmaraie[3], [1]Dept. Animal Sci., Texas A&M University, College Station, TX, [2]Texas Agriculture Experiment Station, McGregor, TX, [3]Roman L. Hruska U. S. Meat Animal Research Center, Clay Center, NE.

194 1561 Quality evaluation of case-ready beef steaks from various USDA grades. J. M. Behrends*[1], W. B. Mikel[1], C. L. Armstrong[1], Y. L. Xiong[1], and S. Harris[2], [1]University of Kentucky, [2]Cryovac/Sealed Air Corporation.

195 1562 Diverse birth and rearing housing systems: effects on pig growth, meat quality and muscle fiber types. J. G. Gentry*, J. R. Blanton, Jr., J. J. McGlone, and M. F. Miller, Texas Tech University, Lubbock.

196 1563 Goat kids meat quality: artificial rearing and weight at slaughter effects. A. Arguello*[1], A. Marichal[1], J.F. Capote[2], and J.L. Lopez[1], [1]Animal Production Unit, Las Palmas de Gran Canaria University, Arucas, Spain., [2]ICIA, La Laguna, Spain.

197 1564 Comparison of breed and diet on factors associated with tenderness in two muscles. P. S. Kuber*[1], J. R. Busboom[1], S. K. Duckett[2], D. J. Marks[1], P. S. Mir[3], Z. Mir[3], R. G. McCormick[4], C. T. Gaskins[1], J. D. Cronrath[1], and M. V. Dodson[1], [1]Washington State University, Pullman, WA, [2]University of Idaho, Moscow, ID, [3]Agriculture and Agri-food Canada, Lethbridge, AB, [4]University of Wyoming, Laramie, WY.

198 1565 *In-vitro* oxidation of bovine oxymyoglobin as affected by 4-hydroxy-nonenal. A.L. Phillips*, S. Lee, L.K. Silbart, and C. Faustman, University of Connecticut, Storrs, CT.

199 2006 Effect of potato-processing waste in finishing diets on meat quality from yearling heifers. A. E. Radunz*, M. L. Bauer, G. P. Lardy, M. J. Marchello, and E. R. Loe, North Dakota State University, Fargo, ND.

200 No poster presentation.

ADSA Dairy Foods: Products, Processing, Chemistry, Sensory

Board Number	Abstract Number	
201	1566	Rheological Characterization of Butter Oil Obtained from Yogurt and Milk. Sevim Kaya* and Ahmet Kaya, Gaziantep University.
202	1567	Acceptance of camel milk among elementary school students in Al Ain,UAE. Isameldin Hashim*, United Arab Emirates University.
203	1568	Effect of formulation and processing on emulsion stability of recombined sterilized milk. G. Pérez-Hernández, S. Bhatia, and R. L. Richter, Texas A&M University, College Station, TX.

204	1569	Commercial whey protein concentrates: protein aggregation profile study. Samira Roufik*[1], Michel Britten[2], and Paul Paquin[1], [1]Centre de recherche en sciences et technologie du lait (STELA), Universite Laval, Quebec/Canada, [2]Centre de recherche et de developpement sur les aliments (CRDA), St-Hyacinthe, Quebec/Canada.
205	1570	Effect of drying methods on functional properties of tarhana, a wheat flour-yogurt mixture. Mehmet Hayta*[1], Mehmet Alpaslan[1], and Ahmet Baysar[2], [1]Inonu University,Department of Food Engineering, [2]Inonu University,Department of Chemical Engineering.
206	1571	Effect of freezing process on the microstructure and stability of stabilized ice cream-type systems. K. Montoya and H. D. Goff*, University of Guelph, ON, Canada.
207	1572	Effect of incubation temperature and homogenization on the rheological properties of set yogurt during gelation process. S.A. Ibrahim*[1], R.R. Shaker[2], B. Abu-Jdayil[2], and R.Y. Jumah[2], [1]North Carolina Agricultural and Technical State University, Greensboro, NC., [2]Jordan University of Science and Technology, Irbid, Jordan.
208	1573	The effect of salep and locust bean gum concentration on the rheological characteristics of a Turkish-type ice-cream mix. Sevim Kaya*[1], [1]Gaziantep University.
209	1574	Effect of double homogenization and whey protein concentrate on the texture of ice cream. P. R. Ruger*[1], R. J. Baer[1], and K. M. Kasperson[1], [1]Dairy Science Department, South Dakota State University, Brookings, SD, USA.
210	1575	Lack of effect of a specially designed yogurt for the eradication of *Helicobacter pylori* infection. L. Ozimek*[1], C. Wendakoon[1], S. Appelman[2], and A. Thomson[2], [1]Department of Agricultural, Food & Nutritional Sc., [2]Division of Gastroenterology, University of Alberta.
211	1576	Determination of B_{12}, biotin, and folic acid in infant formula by Biomolecular Interactive Assay. Thom Grace*[1], Deliang Cai[2], and Mingruo Guo[2], [1]Biacore Inc. 384 Sam Webb Rd. Fairfax, VT. 05454, [2]Dept. of Nutrition and Food Sciences, University of Vermont, Burlington, VT 05405.
212	1577	Microbial content and distribution in Turkish kefir grains. Z. B. Guzel-Seydim*, A. C. Seydim, J. T. Wyffels, and A. K. Greene, Clemson University, Clemson, SC, USA.
213	1578	Comparison of component interactions and mineral distribution in infant formulas prepared with organic or inorganic mineral salts. Casey R. Smith*[1], Mingruo Guo[1], Gregory M. Hendricks[2], and Robert S. Tyzbir[1], [1]Dept. Nutrition and Food Sciences, University of Vermont, [2]Medical School, University of Massachusetts.
214	1579	The effect of human milk pasteurization on the growth of Bifidobacteria. Luciana M. Borba[1], Celia L. L F. Ferreira*[1], Sylvia C. Franceschini[1], and Tania Toledo[1], [1]Federal University of Viçosa.
215	1580	*Lactobacillus acidophilus* translocation in rats feeding cholesterol rich diet. Dayse F. Machado[1], Celia L. L F. Ferreira*[1], Neuza M. B. Costa[1], Lorena M. Ybarra[1], Eveline M. C. Azevedo[1], and Maria R. G. Condé[1], [1]Federal University of Viçosa.
216	1581	A comparitive study of the microstructure of casiens in dried milk products. B. S. Oommen*[1], D. J. McMahon[1], and W. R. McManus[1], [1]Utah State University.
217	1582	Effect of SCC on proteolysis and lipolysis of pasteurized fluid milk during shelf-life storage. M. V. Santos*[1], Y. Ma[2], and D. M. Barbano[2], [1]Universidade de Sao Paulo, Sao Paulo, SP, Brazil, [2]Cornell University, Ithaca, NY.
218	1583	Rheological properties of primary stabilizer/milk protein/κ-carrageenan/sucrose systems simulating ice cream mix. S. Thaiudom* and H.D. Goff, University of Guelph, Guelph, ON, Canada.
219	1584	Control of acidification of yogurt by microencapsulated bacteriocin. J. Y. Imm*[1], S. J. Oh[2], J. S. Kim[1], and S. H. Kim[3], [1]Korea Food Research Institute, [2]Korea Yakult Co. Ltd., [3]Korea University.
220	1585	Consumer evaluation of "high-CLA dairy products" produced from cows fed fish oil. S. T. Franklin, L. J. Maynard, A. Pasley, and M. C. Newman, University of Kentucky, Lexington, KY.
221	1586	Sensory and analytical analysis of milk formulations with sweet cream buttermilk. J. Powell*, S.E. Duncan, S.F. O'Keefe, and S.S. Sumner, Virginia Polytechnic Institute and State University.
222	1587	Use of Capillary Electrophoresis (CE) to determine metabolic organic acids in milk. Jesus M. Izco*[1], Monica Tormo[1], and Rafael Jimenez-Flores[1], [1]Dairy Products Technology Center, Cal Poly.
223	1588	Effect of addition of whey protein concentrate in the manufacturing of set yogurt. S. C. G. Lima, A. J. Petenate, and M. L. Gigante*, State University of Campinas, Campinas, SP/Brazil.
224	1589	Texture Profiling of Skim Milk and Carrageenan Solutions. N.R. Pollen*[1] and C.R. Daubert[1], [1]North Carolina State University.

225 1590 Effect of sterilization on physical properties of recombined milk. G. Pérez-Hernández, B. Magaña-Yépez*, and R. L. Richter, Texas A&M University, College Station, TX.

226 1591 Selection of cows producing fat of low- and high-atherogenicity and the properties of butter and cheese made from their milk. She Chen[1], Shelly Zimmerman[1], Earl Hammond[1], Gene Freeman[1], David Kelley[1], Naomi Scott[2], Cindie Luhman[2], and Donald Beitz*[1], [1]Iowa State University, [2]Land O'Lakes/Farmland.

ASAS/ADSA Physiology: General Physiology

Board Number	Abstract Number	
227	1592	Influence of corticotropin-releasing hormone (CRH) on the expression of steroidogenic acute regulatory (StAR) protein in neonatal pigs derived by Caesarian section or natural birth. J.A. Carroll*[1], D. Alberts[2], D.J. Parzik[2], D.M. Stocco[2,3], and T.H. Welsh, Jr[2,3], [1]Animal Physiology Research Unit, ARS-USDA, Columbia, MO, [2]Texas Tech University Health Science Center, Lubbock, TX, [3]Texas A&M University, College Station, TX.
228	1593	Hepatic corticosteroid-binding globulin (CBG) mRNA expression and plasma CBG levels in pigs in response to social and heat stress. J. Heo*[1], H. G. Kattesh[1], M. P. Roberts[1], R. L. Matteri[2], J. L. Morrow[3], and J. W. Dailey[3], [1]University of Tennessee, Knoxville TN, [2]ARS-USDA, Columbia MO, [3]ARS-USDA, Lubbock TX.
229	1594	Cold-induced changes in brown adipose tissue (BAT) composition and iodothyronine 5'-deiodinase (5'D) activity in newborn Angus and Brahman calves. S.J. Falck*[1], G.E. Carstens[1], S. Kahl[2], S.R. Busch[1], L.J. Slay[1], C.D. Gilbert[1], and S.B. Smith[1], [1]Texas A&M University, College Station, TX, [2]USDA, Agricultural Research Service, Beltsville, MD.
230	1595	Growth rates of Holstein heifers fed diets differing in amounts of protein, energy and protein:energy ratios and treated or not with bST. M. Liboni*, T.I. Belloso, M.S. Gulay, M.L. Schairer, M.J. Hayen, L.C. Teixeira, K.C. Bachman, and H.H. Head, University of Florida.
231	1596	Hepatic oxidative metabolism in lactating dairy cows is modulated by increasing doses of intravenous lipopolysaccharide. M. R. Waldron*[1], T. Nishida[1], B. J. Nonnecke[2], and T. R. Overton[1], [1]Cornell University, Ithaca, NY, [2]National Animal Disease Center, USDA ARS, Ames, IA.
232	1597	Circulating leukocyte populations, serum cytokines and plasma vitamins A and E in mid-lactation dairy cows infused with varied doses of lipopolysaccharide (LPS). B. J. Nonnecke[1], M. R. Waldron*[2], T. Nishida[2], T. R. Overton[2], and R. L. Horst[1], [1]National Animal Disease Center (NADC), USDA ARS, Ames, IA, [2]Cornell University, Ithaca, NY.
233	1598	Metabolic responses of lactating dairy cows to intravenous infusion of increasing amounts of lipopolysaccharide. M. R. Waldron*[1], T. Nishida[1], B. J. Nonnecke[2], and T. R. Overton[1], [1]Cornell University, Ithaca, NY, [2]National Animal Disease Center, USDA ARS, Ames, IA.
234	1599	Propionibacteria as a direct fed microbial: effects on the insulin-like growth factor system and reproduction in early postpartum dairy cows. C. C. Francisco*, D. N. Waldner, C. S. Chamberlain, and L. J. Spicer, Oklahoma State University, Stillwater, OK.
235	1600	Propionibacteria as a direct fed microbial: effects on energy balance, milk production, milk components, metabolic hormones and metabolites in early postpartum dairy cows. C. C. Francisco, D. N. Waldner*, C. S. Chamberlain, R. P. Wettemann, and L. J. Spicer, Oklahoma State University, Stillwater, OK.
236	1601	Administration of bST elevates phosphoenolpyruvate carboxykinase mRNA in lactating dairy cows. J.C. Velez* and S.S. Donkin, Purdue University West Lafayette, IN.
237	1602	Pyruvate carboxylase 5' untranslated region mRNA variants are heterogeneously expressed within and among bovine tissues. C. Agca* and S.S. Donkin, Department of Animal Sciences, Purdue University, West Lafayette, IN 47907.
238	1603	Differential relationships of metabolic hormones to growth and reproductive development in performance-tested Angus, Brangus, and Brahman bulls. M.G. Thomas*[1], R.M. Enns[2], D.M. Hallford[1], D.H. Keisler[3], B.S. Obeidat[1], C.D. Morrison[3], J.A. Hernandez[1], W.D. Bryant[1], R. Flores[1], and R. Lopez-Ordaz[1], [1]New Mexico State University, [2]University of Arizona, [3]University of Missouri.

239 1604 LH and leptin pulsatile secretions are independent in ewe lambs. S.E. Recabarren, A. Lobos, C.A. Vilches*, and P. Munoz, University of Concepcion, Chillan, Chile.

240 1605 Effect of obesity and fasting on leptin secretion and message expression in ewes. J. A. Daniel*[1], B. K. Whitlock[1], J. A. Baker[1], B. Steele[1], C. D. Morrison[2], D. H. Keisler[2], T. H. Elsasser[3], and J. L. Sartin[1], [1]Auburn University, Auburn, AL, [2]University of Missouri, Columbia, MO, [3]USDA, Beltsville, MD.

241 1606 Intracerebroventricular melanin-concentrating hormone stimulates food intake in sheep. B.K. Whitlock*[1], L.A. Daniel[1], D.F. Buxton[1], F.C. Buonomo[2], C.J. Dyer[2], and J.L. Sartin[1], [1]Auburn University, [2]Monsanto Company.

242 1607 GHRH-receptor is essential to the regulation of GH by GHS in cultured rat pituitary cells. Sanggun Roh*[1], Chen Chen[2], Ki-choon Choi[1], Shin-ichi Sasaki[1], and Chang Yoon[3], [1]Lab of Animal Molecular Physiology, Faculty of Agriculture, Shinshu University, Naganoken, JAPAN , [2]Endocrine Cell Biology Group, Prince Henry's Institute of Medical Research, Melbourne, Australia, [3]Dept of Animal Science, Iksan College, Iksan, Korea.

243 1608 Effect of growth hormone releasing factor (GRF) on long form leptin receptor (Ob-Rl) expression in porcine anterior pituitary. J. Lin*[1], C. R. Barb[2], R. R. Kraeling[2], and G. B. Rampacek[1], [1]University of Georgia, Athens, [2]USDA-ARS, Athens, GA.

244 1609 Sequence and distribution of a single cDNA encoding growth hormone-releasing hormone-like peptide and pituitary adenylate cyclase activating polypeptide in channel catfish. B. Small* and D. Nonneman, USDA/ARS Catfish Genetics Research Unit, Stoneville, MS.

245 1610 Development of specific antibodies for the quantification of plasma insulin-like growth factor-binding protein-3 in cattle. R. Renaville*[1], C. Bertozzi[1], S. Hetzel[1], I. Parmentier[1], S. Fontaine[1], V. Haezebroeck[1], and D. Portetelle[1], [1]Gembloux Agricultural University, Animal and microbial biology unit, Gembloux, Belgium.

246 1611 Responses of Holstein cows to low dose of somatotropin (bST) prepartum and postpartum. M. S. Gulay*, J Hayen, and H. H. Head, University of Florida, Gainesville, FL.

247 1612 Induction of lactation during winter and summer seasons in non-pregnant reproductive cull Holstein cows. M. Chahine*[1], W. J. Weber[1], J. K. Reneau[1], B. A. Crooker[1], T. H. Klusmeyer[2], M. F. McGrath[2], E. A. Reed[2], and J. L. Vicini[2], [1]University of Minnesota, St. Paul, [2]Monsanto Animal Agriculture Group, St. Louis, MO.

248 1613 Reduced milk ejection as a consequence of chronic treatment with exogenous oxytocin in cows. R. M. Bruckmaier*, Institute of Physiology, Techn. Univ. Munich-Weihenstpehan, Freising, Germany.

249 1614 Gene expression of immunologically relevant factors in blood cells, milk cells and mammary tissue of cows. R. M. Bruckmaier*, S. L. Wittmann, H. H. D. Meyer, and M. W. Pfaffl, Institute of Physiology, Techn. Univ. Munich-Weihenstephan, Freising, Germany.

250 1615 Effect of intramammary infusion of Escherichia coli endotoxin on ovulation in lactating dairy cows. A. M. Nugent, T. B. Hatler, S. H. Hayes, S. C. Kiggins, and W. J. Silvia*, University of Kentucky, Lexington.

251 1616 Effects of N-nitro-arginine on blood flow and nutrient uptake in the mammary glands of dairy cows. T. G. Madsen*[1], D. R. Trout[2], S. Cieslar[3], N. G. Purdie[4], M. O. Nielsen[1], and J. P. Cant[3], [1]Department of Anatomy and Physiology, The Royal Veterinary and Agricultural University, Denmark, [3]Department of Animal and Poultry Science, University of Guelph, Canada, [2]Department of Clinical Studies, University of Guelph, Canada, [4]School of Land and Food Sciences, University of Queensland, Australia.

252 1617 Effects of an induced mammogenesis and lactogenesis in sheep on the mRNA expression levels of immune globulin receptors (FcRn; pIGR) and zona occludens proteins (ZO1; ZO2; ZO3). MW Pfaffl*, A Dzidic, P Rojas, RM Bruckmaier, and D Schams, Institute of Physiology, Technical University of Munich, Freising-Weihenstephan, Germany.

253 1618 Effect of chromium-methionine level supplementation on inmune response of bull calves recently arrived to feedlot. L. Almeida*[1] and R. Barajas[1], [1]FMVZ-Universidad Autonoma de Sinaloa.

254 1619 The effect of equi-molar dietary betaine and choline additions on liver, plasma and gut of pig. K. Tiihonen*[1], S. Peuranen[1], H. Siljander-Rasi[2], and H.P. Simmins[3], [1]Danisco Cultor Innovation Center, Kantvik, Finland, [2]Agricultural Research Centre of Finland, Hyvinkää, Finland, [3]Finnfeeds International Ltd., Marlborough, Wilts, UK.

PSA Physiology: Cardiopulmonary, Immune, and Other Physiology

Board Number	Abstract Number	
255	1620	Differences of autonomic nervous system activity in high and low body weight-selected chickens. A. Y. Kuo*[1], J. C. Lee[2], P. B. Siegel[1], and D. M. Denbow[1], [1]Virginia Tech, Blacksburg, [2]VA-MD Regional Veterinary College, Blacksburg.
256	1621	Hemodynamic responses of broiler pulmonary vasculature to intravenously infused serotonin. M. E. Chapman* and R. F. Wideman, University of Arkansas, Fayetteville, AR, USA.
257	1622	Pulmonary wedge pressures confirm pulmonary hypertension in broilers is initiated by an excessive pulmonary arterial resistance. M. E. Chapman* and R. F. Wideman, University of Arkansas, Fayetteville, AR, USA.
258	1623	Cardiopulmonary and blood gas responses to cold exposure in broiler chickens. T.W. Odom*[1], M.A. Thompson[1], K.P. Floren[1], G.A. Ramirez[1], N. Puebla-Osorio[1], L.A. Martinez-Lemus[2], and J.S. Thomas[3], [1]Department of Poultry Science, Texas Agricultural Experiment Station, [2]Deparments of Medical Physiology, [3]Veterinary Pathobiology, Texas A&M University, College Station, TX 77483.
259	1624	Thrombocyte aggregation does not correspond with nitric oxide and cardiovascular parameters in broiler chickens with pulmonary hypertension. A.R. Carpenter[1], L.A. Martinez-Lemus[2], J.S. Thomas[3], and T.W. Odom*[1], [1]Department of Poultry Science, Texas Agricultural Experiment Station, [2]Deparments of Medical Physiology, [3]Veterinary Pathobiology, Texas A&M University, College Station, TX 77843.
260	1625	Assessment of factor V, VII, and X activity, the key coagulant proteins of the tissue factor pathway in poultry plasma. A.E. Thomson*, E.J. Squires, and P.A. Gentry, University of Guelph, Guelph Ontario Canada.
261	1626	Establishing endocrine and behavioral indices for endocrine-disrupting chemicals in birds. M.A. Abdelnabi*, N. Thompson, and M.A. Ottinger, University of Maryland, College Park, MD USA.
262	1627	Immunological effects of genistein exposure in chicks. Alexander Peterson[1], Haitao Li[1], and Wallace Berry*[1], [1]Auburn University Department of Poultry Science.
263	1628	Partial structural characterization of Bursal Anti-Steroidogenic Peptide (BASP) with structural homology to chicken histone H1. R.W. Moore*[1,2], D.Y. Caldwell[2], T.E. Porter[3], L.R. Berghman[2], F. Vandesande[4], J.A. Byrd[1], and B.M. Hargis[5], [1]USDA-ARS-SPARC, [2]Texas A&M University, [3]University of Maryland, [4]University of Leuven, Belgium, [5]University of Arkansas.
264	1629	Influence of broiler breeders age on villous and microvillous height in the embryo intestinal mucosa. Alex Maiorka[1], A.V. Fischer da Silva[1], E. Santin[1], L.O. Nakagui[1], and M. Macari[1], [1]FCAV - UNESP.
265	1630	Effect of feed and/or water withdrawal on intestinal mucosa development in broiler chicks after hatching. Alex Maiorka*[1], Elizabeth Santin[1], Fabiano Dahlke[1], and Marcos Macari[1], [1]FCAV-UNESP.
266	1631	Expression of selected hepatic genes related to lipid metabolism in broiler breeders.. M.P. Richards*[1], S.M. Poch[1], C.N. Coon[2], Y. Kirby[2], R.W. Rosebrough[1], C.M. Ashwell[1], and J.P. McMurtry[1], [1]USDA, ARS, Beltsville, MD, [2]University of Arkansas, Fayetteville, AR.
267	1632	Identification and expression of the turkey leptin receptor gene.. M. P. Richards*, S. M. Poch, and C. M. Ashwell, USDA, ARS, Beltsville, MD.
268	1633	*Campylobacter* colonization of the crops of newly hatched chicks. R. L. Ziprin* and L. F. Kubena, FFSRU/SPARC/ARS/USDA, College Station, TX/USA.
269	1634	Heterogeneity of ryanodine receptors in turkeys. Wen Chiang* and Gale Strasburg, Michigan State University.
270	1635	Intestinal calcium uptake and reproductive hormones in three laying hen varieties after prolonged egg production. D. J. Franco*[1], K. K. Franzen[1], C. F. Toombs[1], and M. M. Beck[1], [1]University of Nebraska.
271	1636	Estrogen receptor populations in various calcium regulating tissues in laying hens at three ages. K. K. Franzen*[1], D. Clopton[1], N. Caceres[2], G. Sarath[2], and M.M. Beck[1], [1]Animal Sciences Dept., University of Nebraska, [2]Biochemistry Dept., University of Nebraska.

272	1637	Frequency of preovulatory luteinizing surges in turkey hens and egg production rate. H.-K. Liu, D.W. Long, and W.L. Bacon, The Ohio State University, Wooster OH.
273	1638	Changes in morphology of granulosa cells in heat-stressed laying hens. M. A. Alodan*[1] and M. M. Beck[1], [1]University of Nebraska.
274	1639	Active immunization against inhibin enhances reproductive measures in male broiler breeders. S. T. Pittman*, D. G. Satterlee, and G. G. Cadd, Louisiana State University, Baton Rouge, LA/USA.
275	1640	Dual labeling immunofluorescent staining demonstrates the presence of a protease-inhibiting protein (ovoinhibitor) in the chicken pituitary. C. M. Oubre*[1], K. E. Clements[1], F. Vandesande[2], and L.R. Berghman[1], [1]Texas A&M University, [2]University of Leuven, Belgium.

ASAS Nonruminant Nutrition: Vitamins, Minerals, and Energy

Board Number	Abstract Number	
276	1641	The effect of genotype, parity and folic acid supplement on the expression of leptin, and its receptors in embryonic and endometrial tissues from pigs at 15 days of gestation. F. Guay[1], A. Giguère*[2], M.-F. Palin[2], C.L. Girard[2], J.J. Matte[2], and J.P. Laforest[1], [1]Laval University, Department of Animal Science, Qc, Canada, [2]Dairy and Swine R & D Centre, Lennoxville, QC, Canada.
277	1642	The effect of genetic type and parity and folic acid supplement on homocysteine metabolism from sows on day 15 of gestation. F. Guay*[1], A. Giguere[2], M.-F. Palin[2], C.L. Girard[2], J.J. Matte[2], and J.-P. Laforest[1], [1]Laval University, Department of Animal Science, Qc Canada, [2]Dairy and Swine R & D Centre, AAC, Qc Canada.
278	1643	Phosphorus removal with and without phytase in finishing pigs. G.A. Apgar*[1], C.M. Peter[2], T.A. Guthrie[1], K.E. Griswold[1], and D.H. Baker[2], [1]Southern Illinois University, Carbondale, [2]University of Illinois, Urbana.
279	1644	Effects of dietary chromium yeast supplementation on growth performance and carcass characteristics in growing-finishing pigs. C. Y. Liu*, J. N. Hsu, and L. C. Cheng, Pig Research Institute Taiwan, ROC.
280	1645	Vitamin E and selenium improve pork stability in finishing pigs fed diets deleted of vitamin-mineral premix. S. C. Choi*[1], B. J. Chae, and In K. Han[2], [1]Division of Animal Res. Sci., Kangwon National University, [2]Dept. of Animal Sci. and Tech., Seoul National University, Suwon, Korea.
281	1646	Effect of calcium to phosphorus ratio on grower-finisher pig performance and mineral excretion. J.J. Callan*[1], S.M. Brady[1], D. Cowan[2], M. McGrane[3], and J.V. O' Doherty, [1]University College Dublin, [2]Novo Nordisk, Novo Nordisk S.A., Chesham, Bucks, UK , [3]Trouw Nutrition, Leixlip, Co. Kildare, Ireland.
282	1647	Determination of true phosphorus digestibility and the gastrointestinal endogenous phosphorus loss associated with soybean meal for growing-finishing pigs. A. Ajakaiye*, M. Z. Fan, T. Archbold, R. R. Hacker, C. W. Forsberg, and J. P. Phillips, University of Guelph, Guelph, Ontario, Canada.
283	1648	Boron supplementation to pigs increases the production of tumor necrosis factor-alpha and interferon-gamma. T.A. Armstrong* and J.W. Spears, North Carolina State University, Raleigh.
284	1649	The effects of a-lipoic acid (LA) on performance and health of weaned neonatal pigs. K. R. Maddock*[1], E. P. Berg[1], C. A. Stahl[1], M. L. Linville[1], and J. A. Carroll[2], [1]University of Missouri, Columbia, [2]ARS-USDA, Columbia, MO.
285	1650	Effects of feeding different chelated copper and zinc sources on growth performance and their excretions in feces for weaning pigs. S. H. Lee*[1], S. C. Choi, W. T. Kim, B. J. Chae, and Y. K. Han[2], [1]Division of Animal Res. Sci., Kangwon National Univ., [2]Feed Res. Inst., National Agri. Coop. Fed., Anyang, Korea.
286	1651	Dietary copper source and level increases pituitary growth hormone mRNA levels in weanling pigs. X. G. Luo*[1], X. Kuang[1], Q. H. Li[1], J. F. Li[1], T. D. Crenshaw[2], B. Liu[1], G. Z. Shao[1], and S. X. Yu[1], [1]Institute of Animal Science, Chinese Academy of Agricultural Sciences, Beijing, P. R. China, [2]University of Wisconsin, Madison, U. S. A.

287	1652	Effects of long-chain polyunsaturated fatty acids (LCPUFA) on body composition and tissue accretion rates in the neonatal pig. S. A. Mathews*[1], R. J. Harrell[1], W. T. Oliver[1], J. A. Brown[1], O. Phillips[1], X. Lin[1], J. Odle[1], and D. A. Diersen-Schade[2], [1]North Carolina State University, Raleigh, [2]Mead Johnson Nutritionals, Evansville, IN.
288	1653	Utilization of energy and performance of piglets fed low protein diets. L. Le Bellego* and J. Noblet, INRA, St Gilles, France.
289	1654	Effects of feed processing methods on growth performance and ileal digestibility in weaning pigs. S. H. Ohh*[1], J. W. Joo, S. H. Lee, S. C. Choi, Y. H. Shim, K. N. Han, B. J. Chae, and In K. Han[2], [1]Division of Animal Res. Sci., Kangwon National Univ., Chunchon, [2]Dept. of Animal Sci. and Tech., Seoul National Univ., Suwon, Korea.
290	1655	The effect of pelleting temperature on *anti-E. coli* F4 immunoglobulin activity in spray-dried egg and porcine plasma. M. D. Drew*, A. E. Estrada, and A. G. Van Kessel, University of Saskatchewan, Saskatoon SK Canada.
291	1656	Solutein enhances piglet growth post weaning. H.M. Miller*[1] and P. Toplis[2], [1]University of Leeds, Leeds, LS2 9JT, UK, [2]Primary Diets Ltd, Ripon, HG4 5HT, UK.
292	1657	Effect of weaning weight and diet on the post-weaning performance of pigs. P.G. Lawlor*[1], P.B. Lynch[1], J.V. O'Doherty[2], and P.J. Caffrey[2], [1]Teagasc, Moorepark Research Centre, Cork, Ireland, [2]University College Dublin, Ireland.
293	1658	Effect of pre-weaning management and post-weaning nutrition on the performance of weaned pigs. P.G. Lawlor[1], P.B. Lynch*[1], J.V. O'Doherty[2], and P.J. Caffrey[2], [1]Teagasc, Moorepark Research Centre, Cork, Ireland, [2]University College Dublin, Ireland.
294	1659	The effect of choice feeding complete diets on the performance of weaned pigs. P.G. Lawlor*[1], P.B. Lynch[1], J.V. O'Doherty[2], and P.J. Caffrey[2], [1]Teagasc, Moorepark Research Centre, Cork, Ireland., [2]University College Dublin, Ireland.
295	1660	Effects of microencapsulation of natural antimicrobials on the secretory, microbiological and digestive processes in the small intestine of piglets. Z. Mroz*[1] and W. Krasucki[2], [1]Institute for Animal Science and Health, ID-TNO Animal Nutrition, Lelystad, The Netherlands, [2]Agricultural University of Lublin, Poland.
296	1661	Effects of dietary conjugated linoleic acid (CLA) on carcass characteristics and serum leptin and lipid profile of rabbits. C. Corino[1], V. Bontempo*[2], S. Magni[1], and G. Pastorelli[1], [1]University of Milan/Italy, [2]University of Molise, Campobasso/Italy.
297	1662	Physiological adaptation to prolonged food restriction: a model study in growing rats. Ewa Furstenberg*[1], [1]Warsaw Agricultural University, Warsaw, Poland.

PSA Nutrition: Feed Regimens, Digestion, and Gut Morphology

Board Number	Abstract Number	
298	1663	Effects of protein levels on ostrich performance and carcass traits. I. Cormier*, M.R. Lefrancois, and R. Bergeron, Universite Laval, Quebec, Quebec, Canada.
299	1664	Feeding program for broiler breeder hens based on the prediction equations of metabolizable energy requirements. N.K. Sakomura*, E.R. Freitas, C.B.V. Rabello, A.L. Santos, and O.M. Junqueira, [UNESP]Faculdade de Ciências Agrárias e Veterinárias de Jaboticabal - Sao Paulo - Brasil.
300	1665	The effect of different energy and protein levels on the performance of W-36 Hy-Line laying hens. M. Shahnazari*[1], M. Shivazad[1], A. Kamyab[1], and A. Nikkhah[1], [1]University of Tehran, Animal Sci. Dept.
301	1666	Effect of formulation density and feed moisture type additives on broiler performance. J.S. Moritz*, K.J. Wilson, K.R. Cramer, R.S. Beyer, L.J. McKinney, and W.B. Cavalcanti, Kansas State University, Manhattan, KS.
302	1667	Whole wheat feeding and influence of initial body weight on broiler performance. A. Golian*, L.D. Campbell, and W. Guenter, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.

303 1668 The performance of broiler chickens during and following of different feed restriction methods at an early age. M. Houshmand[1], A. Kamyab[2], K. Yousefi[3], and A. Taghipour Farshi*[4], [1]University of Yasouj, [2]University of Tehran, [3]Mobarak Andish Co., [4]Tehran Shaltouk Research Center.

304 1669 The effects of early skip-a-day feeding regimen on the performance of Ross male broiler chicken. K. Yousefi[1], A. Kamyab[2], M. Houshmand[3], and A. Taghipour Farshi*[4], [1]Mobarak Andish, [2]University of Tehran, [3]University of Yasoudj, [4]Telavang Co.

305 1670 The effect of dietary 1,4-diaminobutane (putrescine) on the performance and gastrointestinal development of broiler chicks. F.A. Santoyo* and T.K. Smith, University of Guelph, Guelph, Ontario, Canada.

306 1671 Effects of dietary supplemental Betaglucan on performance and blood components of broiler chicks. S. H. Kim*[1], S. J. Lee[1], K. H. Jung[2], D. J. Yu[1], S. Y. Park[3], J. C. Na[1], and K. S. Ryu[3], [1]National Livestock Research Institute of Rural Development Administration, Daejeon, [2]Dawmajin biotech, Daejeon, [3]Dept. of Animal Resources and Biotech., Chonbuk National University, Chonju, Republic of Korea.

307 1672 Influence of feeding *lactobacillus*, live yeast and its combination on the performance and intestinal microflora of laying hens. S. H. Kim*[1], S. J. Lee[1], D. J. Yu[1], S. Y. Park[2], J. C. Na[1], C. H. Choi[1], and K. S. Ryu[2], [1]National Livestock Research Institute of Rural Development Administration, Daejeon, [2]Dept. of Animal Resources and Biotech., Chonbuk National University, Chonju, Republic of Korea.

308 1673 Influence of feeding various *lactobacillus* on performance and intestinal microflora of laying hens. S. J. Lee[1], S. H. Kim*[1], S. Y. Park[2], D. J. Yu[1], B. S. Kang[1], J. C. Na[1], C. H. Choi[1], and K. S. Ryu[2], [1]National Livestock Research Institute, Rural Development Administration, Daejeon, [2]Dept. of Animal Resources and Biotechnology., Chonbuk National University, Chonju, Republic of Korea.

309 1674 Influence of dietary supplemental live yeast on performance of laying hens. S. J. Lee*[1], S. H. Kim[1], S. Y. Park[2], D. J. Yu[1], J. C. Na[1], C. H. Choi[1], and K. S. Ryu[2], [1]National Livestock Research Institute, Rural Development Administration, Daejeon, [2]Dept. of Animal Resources and Biotech., Chonbuk National University, Chonju, Republic of Korea.

310 1675 Influence of dietary supplemental various *lactobacillus* on performance and fecal noxious gas of broiler chicks. S. H. Kim*, S. J. Lee, D. J. Yu, J. C. Na, S. Y. Park[1], C. H. Choi, and K. S. Ryu[1], National Livestock Research Institute, Rural Development Administration,Daejeon , [1]Dept. of Animal Resources and Biotech. Chonbuk National University Republic of Korea.

311 1676 A comparison of feeding *lactobacillus* and Virginiamycin influence on performance and intestinal microflora of broiler chicks. S. H. Kim*, S. J. Lee, S. Y. Park[1], D. J. Yu, B. S. Kang, C. H. choi, and K. S. Ryu[1], National Livestock Research Institute, Rural Development Administration, Daejeon, [1]Dept. of Animal Resources and Biotechnology. Chonbuk National University, Chonju, Republic of Korea.

312 1677 Survivability of "pelletable" strain of lactic acid producing bacteria in the new direct-fed microbial, Avi-Lution™, in broiler diets and resulting changes in intestinal and cecal microflora associated with enhanced performance. D. M. Hooge*[1], J. R. Corley[2], D. Spangler[3], P. Brown[3], M. D. Sims[4], and G. F. Mathis[5], [1]Hooge Consulting Service, Inc., Eagle Mountain, UT, [2]Prince Agri Products, Inc., Quincy, IL, [3]Agri-King, Inc., Fulton, IL, [4]Virginia Scientific Research, Inc., Harrisonburg, VA, [5]Southern Poultry Research, Inc., Athens, GA.

313 1678 Effect of *Aspergillus* sp and bacterial phytase containing broiler diets on *Salmonella enteritidis* organ invasion in the broiler chick. G Nava*[1], N Ledesma[1], A Priego[2], C Priego[2], L Sutton[3], and G Tellez[1], [1]Departamento de Produccion Animal: Aves, Facultad de Medicina Veterinaria y Zootecnia, UNAM-México, [2]Productos Quimicos-Agropecuarios S.A. de C.V. Mexico , [3]PetAg Inc, Hampshire, IL 60140 USA.

314 1679 Energy and lysine for broilers from 44 to 55 days of age. O. M. Junqueira*[1], L. F. Araujo[1], C. S. S. Araujo[1], D. E. Faria[2], and N. K. Sakomura[1], [1]Universidade Estadual Paulista - UNESP/Jaboticabal - SP - Brazil, [2]Faculdade de Zootecnia e Engenharia de Alimentos - USP/ Pirassununga - SP - Brazil.

315 1680 Dietary supplementation of a blend of galactosidase, galactomannanase and amylase(Endopower®) improves energy utilization and intestinal development in broilers. C.W. Kang*[1], S.K. Kim[1], I.H. Chang[1], S.K. Kwan[1], and B.J. Jang[2], [1]Konkuk University, Department of Animal Science , [2]College of Veterinary Medicine.

316 1681 Effect of Kemzyme® on apparent metabolizable energy and ileal digestible energy of wheat and barley samples with differing AME values in broiler chickens. R. R. Carter*[1] and V. Ravindran[2], [1]Kemin Industries (Asia) Pte Limited, Hornsby, NSW, Australia, [2]Massey University, Palmerston North, New Zealand.

317 1682 Kemzyme C/S® brand for broilers supplementation and its effects on commercial broiler performance. L. Lewis, A. Lamptey, M. Smith, J. Murphy, and P. A. Welch*, Kemin Americas, Inc.

318 1683 Release of water insoluble arabinoxylans from rye bran by ferulic acid esterase and pancreatin. Z. Zhang*, R. R. Marquardt, and W. Guenter, Department of Animal Science, University of Manitoba, Winnipeg, Manitoba, Canada R3T 2N2.

319 1684 Prediction of wheat viscosity by near infrared spectroscopy and development of AviNIR calibration. J. V. Holm[1] and M. Hruby*[2], [1]Danisco Cultor, Brabrand, Denmark, [2]Finnfeeds Int. Ltd, Marlborough, Wiltshire, United Kingdom.

320 1685 Cell wall polysaccharidase[1] and proteolytic[2] enzyme combinations may enhance the *in vitro* carbohydrate and protein hydrolysis from toasted and untoasted soybean meal. I. Ouhida, J. Galobart*, J.F. Perez, and J. Gasa, Universidad Autonoma de Barcelona.

321 1686 Effect of Kemzyme® on egg production and economics with prior adjustment of wheat and barley AME levels. R.R. Carter*[1] and R.J. Hughes[2], [1]Kemin Industries (Asia) Pte Limited, Hornsby, NSW, Australia, [2]Pig and Poultry Production Institute, University of Adelaide, Roseworthy, Australia.

322 1687 Effect of diet metabolizable energy level on performance and energy metabolism of broilers. N.K. Sakomura*, C.B.V. Rabello, F.A. Longo, O.M. Junqueira, K. Watanabe, and K. Pelícia, [UNESP]Faculdade de Ciências Agrárias e Veterinárias de Jaboticabal - Sao Paulo - Brasil.

323 1688 Effect of two sources of sodium on performance and electrolyte balance in broilers. Sultan Mahmood*, R. Ahmad, and S. Hassan Raza, Dept. of Poultry Husbandry, University of Agriculture, Faisalabad, PAKISTAN.

324 1689 The effects of homocysteine on the avian macrophage *In Vitro*. F. McCorkle* and J. Paquette, Central Michigan University.

FRIDAY, JULY 27, 2001

ASAS/ADSA Breeding and Genetics: Genetic Parameters and Breeding Strategies

Board Number	Abstract Number	
1	1690	Utilization of ultrasound data from designed progeny testing programs for calculation of carcass trait expected progeny differences. D. J. Kemp*[1], W. O. Herring[1], and C. J. Kaiser[2], [1]University of Missouri, Columbia, [2]Eli Lilly and Company, Indianapolis, IN.
2	1691	Genetic evaluations based on ultrasound of yearling beef cattle as related to carcass characteristics of commercially produced progeny. C.J.B. Devitt*[1] and J.W. Wilton[2], [1]Beef Improvement Ontario, Guelph, Canada, [2]University of Guelph, Ontario, Canada.
3	1692	Breed direct and maternal genetic effects and predicted means for cow weight. D. E. Franke*, Louisiana State University Agricultural Center.
4	1693	Genetic variation between two tropically adapted *Bos taurus* breeds, the Romosinuano and the Senepol. R. A. Brenneman*[1], C. C. Chase, Jr.[1], T. A. Olson[2], D. G. Riley[1], and S. W. Coleman[1], [1]USDA, ARS, SubTropical Agricultural Research Station (STARS), Brooksville, FL, [2]University of Florida, Gainesville.

5	1694	Estimates of genetic and phenotypic parameters of calf birth weight and calving difficulty in Limousin cattle. Adolfo Pérez Márquez[1], Francisco Ponce Medina[1], Juan Rodriguez García[1], Fulgencio Bueno Fierro[1], Héctor González García[1], Abelardo Correa Calderón[1], Juan Guerrero Cruz[2], and Jesús Trejo Castillo[3], [1]Universidad Autónoma de Baja California, [2]University of California, Davis, Holtville, [3]Universidad Autónoma de Ciudad Juárez.
6	1695	Genetic parameters estimates for lean growth rate and its components in U.S. Yorkshire, Duroc, Hampshire, and Landrace pigs. P. Chen*, T.J. Baas, and J.W. Mabry, Iowa State University, Ames, IA.
7	1696	Evaluation of Duroc vs. Pietrain sired progeny for meat quality. D. B. Edwards*, R. O. Bates, and W. N. Osburn, Michigan State University, E. Lansing, MI/USA.
8	1697	Determining inbreeding levels for the Navajo-Churro sheep breed. A. Maiwashe*[1], B. Tseveenjav[1], B. Golden[1], and H. Blackburn[2], [1]Colorado State University, [2]USDA/ARS.
9	1698	Genetic parameters for some growth traits of Local breed of goat in the United Arab Emirates. Salih Al-Shorepy *, Ghaleb Alhadrami , and Khalfan Abdulwahab, United Arab Emirates University.
10	1699	Estimation of heritability and repeatability for superovulatory responses of Japanese Holstein population. Y. Asada*[1] and Y. Terawaki[2], [1]The Graduate School of Dairy Science, Rakuno Gakuen University, [2]Rakuno Gakuen University Dairy Science Institute.
11	1700	Genetic correlation between final scores over time in Holsteins. S. Tsuruta*[1], I. Misztal[1], L. Klei[2], and T. J. Lawlor[2], [1]University of Georgia, Athens, [2]Holstein Association USA, Inc., Brattleboro, VT.
12	1701	The genetic relationships among milk yield, herd life and productive life in Holstein cows in Hokkaido, Japan. T. Obayasi*[1] and Y. Terawaki[2], [1]The Graduate School of Dairy Science, Rakuno Gakuen University, [2]Rakuno Gakuen University Dairy Science Institute.
13	1702	Suitability of physiological traits of young cattle for the evaluation of their performance stability. L. Panicke*[1], R. Staufenbiel[2], and E. Fischer[3], [1]Research Institute for the Biology of Farm Animals, Dummerstorf, Germany, [2]Free University Berlin, Institute of Veterinary Physiology, Germany, [3]University Rostock, Faculty of Agricultural and Environmental Sciences, Germany.
14	1703	Influence of the quality of reproductive event data on heritability of gestation length in DHI herds. W. Zhang* and G. E. Shook, University of Wisconsin, Madison.
15	1704	Heritabilities and genetic correlations between height, length, weight and body condition score of Holstein heifers in high producing Wisconsin dairy herds. C. D. Dechow*[1], N. C. Dorshorst[2], P. C. Hoffman[2], K. A. Weigel[2], J. Jensen[3], and G. W. Rogers[1], [1]Pennsylvania State University, [2]University of Wisconsin-Madison, [3]Danish Institute of Agricultural Research.
16	1705	Accuracy of reported birth and calving dates of dairy cattle in the United States. H.D. Norman*, J.L. Edwards, and J.R. Wright, Animal Improvement Programs Laboratory, Agricultural Research Service, USDA, Beltsville, MD.
17	1706	Expected correlated responses for conformation traits, 48 month stayability and milk yield of Mexican Holstein cattle. M Valencia-Posadas[1], F Ruiz-Lopez*[2], J Moro-Mendez[3], and H Montaldo-Valdenegro[1], [1]Instituto de Ciencias Agricolas. Universidad de Guanajuato. Guanajuato, Mexico., [2]Cent. Nal. de Invest. en Fisiologia y Mejoramiento Animal. INIFAP-SAGARPA, [3]Holstein de Mexico A.C.
18	1707	The relationship between the estrous situation of donor cows and genetic gain in Japanese Holstein MOET populations. Yoshinori Terawaki*[1] and Yohei Asada[2], [1]Rakuno Gakuen University Dairy Science Institute, [2]Rakuno Gakuen University.
19	1708	Economic weight and selection index with variance of milk yield, herd life, and depreciation cost. Y. Matsuoka*[1] and Y. Terawaki[2], [1]The Graduate School of Dairy Science, Rakuno Gakuen Univ., [2]Rakuno Gakuen Univ. Dairy Science Institute.
20	1709	Determining weights in a multiple objective programming dairy breeding problem. Peter Tozer* and Jeffrey Stokes, The Pennsylvania State University.
21	1710	Relationships and inbreeding among young dairy bulls entering AI progeny test programs. K. A. Weigel*, University of Wisconsin, Madison.

22	1711	The use of fuzzy set to reduce inbreeding in MOET breeding schemes. Atsushi Nakamura*[1], Kenji Togashi[2], Naoyuki Yamamoto[2], and Akiko Nishiura[2], [1]Japan Science and Technology Corporation, [2]Hokkaido National Agricultural Experiment Station.

ASAS/ADSA Ruminant Nutrition: By-Products, Fiber, and Silages

Board Number	Abstract Number	
23	1712	Effect of feeding dairy cows with either BollGard®, BollGard® II, Roundup Ready® or control cottonseeds on feed intake, milk yield and milk composition. A.R. Castillo*[1], M.R. Gallardo[1], M. Maciel[1], J.M. Giordano[1], G.A. Conti[1], M.C. Gaggiotti[1], O. Quaino[1], C. Gianni[2], and G.F. Hartnell[2], [1]Experimental Station Rafaela INTA. Argentina, [2]Monsanto Co., St. Louis, MO.
24	1713	Effect of feeding dairy cows with cottonseeds containing Bollgard® and Roundup Ready® genes or control non-transgenic cottonseeds on feed intake, milk yield and milk composition. A.R. Castillo*[1], M.R. Gallardo[1], M. Maciel[1], J.M. Giordano[1], G.A. Conti[1], M.C. Gaggiotti[1], O. Quaino[1], C. Giani[2], and G.F. Hartnell[2], [1]Experimental Station Rafaela, INTA. Argentina., [2]Monsanto Co., St. Louis, MO.
25	1714	Effect of chopped and ground roughage on ruminal parameters and voluntary feed intake of sheep. H. G. Gonzalez*[1,3], O. B. Ruiz[2], L. C. De la Vega[2], E. T. Rubio[1], O. R. Barrozo[1], N. E. Bujanda[1], N. A. Loya[1], E. S. Garcia[1], I. G. Ramos[1], and H. C. Hernandez[4], [1]Medicina Veterinaria y Zootecnia-ICB, Universidad Autonoma de Ciudad Juarez, [2]Universidad Autonoma de Chihuahua, [3]Universidad Autonoma de Baja California, [4]Universidad Autonoma de Baja California Sur.
26	1715	A comparison of methods used to measure eating and ruminating time in cattle. H. A. Lehman, P. J. Kononoff, and A. J. Heinrichs, The Pennsylvania State University.
27	1716	Effect of two particle sizes of forage on ruminal parameters and voluntary feed intake of steers fed a basal oat straw diet. H. G. Gonzalez*[1,3], O. B. Ruiz[2], L. C. De la Vega[2], E. T. Rubio[1], O. R. Barrozo[1], N. E. Bujanda[1], N. A. Loya[1], I. G. Ramos[1], E. S. Garcia[1], and H. C. Hernandez[4], [1]Medicina Veterinaria y Zootecnia-ICB, Universidad Autonoma de Ciudad Juarez, Mexico, [2]Universidad Autonoma de Chihuahua, [3]Universidad Autonoma de Baja California, [4]Universidad Autonoma de Baja California Sur.
28	1717	Feed intake, digestibility, and growth of Spanish goats consuming different quality diets. T. Wuliji, A.L. Goetsch, R. Puchala, S. Soto-Navarro*, R.C. Merkel, G. Detweiler, T.A. Gipson, and T. Sahlu, E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK.
29	1718	Methane loss, nutrient digestibility, and net energy value of distiller's grains fed to steers or fermented invitro . M. J. Jarosz*[1] and D. E. Johnson[2], [1]Purina Mills, St. Louis, MO, [2]Colorado State University.
30	1719	The effect of feeding a novel silage, consisting of liquid cheese whey and wheat straw, on production and digestibility characteristics of growing dairy heifers and beef steers. D.R. ZoBell*, K.C. Olson, R.D. Wiedmeier, and C.A. Stonecipher, Utah State University, Logan, UT.
31	1720	Selected fractionate digestibility coefficients of wheat middling and soybean hull mixtures amended with human food waste. P.M. Walker*, J.M. Dust, D.M. Finnigan, and S.B. Brown, Illinois State University, Normal, IL USA.
32	1721	Effects of feeding wheat middlings on performance of dairy cows in early lactation. G.D. Marx*, University of Minnesota, Crookston, MN.
33	1722	The prediction of potential nutrient supply to dairy cows from field pea (*Pisum sativum*) seeds pressure-toasted at various conditions . P. Yu*[1] and J.O. Goelema[2], [1]Department of Animal and Poultry Science, University of Saskatchewan, Canada, [2]Department of Animal Nutrition, Wageningen Agricultural University, The Netherlands.
34	1723	Ruminal degradability of feather meal in tropical crossbred steers. J. Vergara-Lopez*[1], O. Araujo-Febres[2], Y. Troconis[2], and M. Lachmann[3], [1]Instituto Nacional de Investigaciones Agricolas, [2]Departamento de Zootecnia, Facultad de Agronomia, La Universidad del Zulia, [3]Departamento de Produccion Animal, Facultad de Ciencias Veterinarias, La Universidad del Zulia.
35	1724	Effect of cull chickpeas variety on apparent digestibility of diets for sheep. G. Quevedo[2], J. F. Obregon*[1], R. Barajas[1], and A. Estrada[1], [1]Universidad Autonoma de Sinaloa (Mexico), [2]DGETA-SEP- Sinaloa (Mexico).

36 1725 Effect of feeding dairy cows with whey permeate on ruminal environment under alfalfa grazing conditions. M.C. Gaggiotti[1], M.R. Gallardo[1], A.A. Abdala[1], C. Arakaki[2], L. Burdisso[1], and A.R. Castillo*[1], [1]INTA-EEA Rafaela, [2]INTA-CICV.

37 1726 Nutritional value of nonforage fiber sources used by feed industry in Costa Rica. M. Cruz[1], J. Ml. Sanchez*[1], and E. Vargas, [1]Universidad de Costa Rica, San Jose, Costa Rica.

38 1727 Performance and apparent digestibility of ram lambs fed safflower silage. F.T. Sleiman*[1], O.D. Sayour[1], S.K. Yau[1], M.T. Farran[1], and M.G. Uwayjan[1], [1]American University of Beirut. Beirut, Lebanon.

39 1728 Potential of apple pulp as silage for ram lambs. F.T. Sleiman*[1], R.A. Sarkis[1], M.G. Uwayjan[1], and M.T. Farran[1], [1]American University of Beirut. Beirut, Lebanon.

40 1729 Effect of substitution of common beans hay with Sudan grass hay on apparent digestibility of diets for sheep. R. Barajas*[1], J.F. Obregon[1], G. Quevedo[2], and A. Estrada[1], [1]Universidad Autonoma de Sinaloa, [2]DGETA-SEP-Sinaloa.

41 1730 Ruminal degradation of crude protein of cull chickpeas using nylon bag technique in sheep. J.F. Obregon*[1] and R. Barajas[1], [1]Universidad Autonoma de Sinaloa.

42 1731 Ruminal fermentation, digestion kinetics, and nutrient flow in steers fed diets containing poultry manure and urea or blood meal as the main source of nitrogen. J. Mejia-Haro[1], O. Ruiz-Barrera[2], I. Mejia-Haro[3], and J.A. Jimenez-Castro[2], [1]Universidad de Guanajuato, Mexico, [2]Universidad Autonoma de Chihuahua, Mexico, [3]CIGA-ITA de Aguascalientes, Mexico.

43 1732 Comparison of nutrient digestibility between Roundup Ready® beets and pulp derived from Roundup Ready® beets and conventional beets and pulps. T. Hvelplund* and M.R. Weisbjerg, Danish Institute of Agricultural Sciences, Denmark.

44 1733 Growth performance of Xizhen cattle fed either urea or microbial treated rice straw. J. Luo[1], B. Wang*[1], X. F. Zhao[2], D. H. Tian[1], H. Y. Yang[2], and Q. Liu[3], [1]Northwest Agricultural University, Yangling, Shaanxi, China, [2]Animal husbandry bureau of Xixiang county, Xixiang, Shaanxi, China, [3]Ankang Agricultural School, Ankang, Shaanxi, China.

45 1734 Correlation between texture and *in situ* degradation of corn grain. C.E.S. Correa[1], R.D. Shaver[2], M.N. Pereira*[1], J.G. Lauer[2], and K. Kohn[2], [1]Universidade Federal de Lavras, Brazil, [2]University of Wisconsin, Madison.

46 1735 Comparative dry matter degradation in rumen of cull chickpeas, soybean meal and sorghum grain using nylon bag technique in rumen of sheep . J.F. Obregon*[1] and R. Barajas[1], [1]FMVZ-Universidad Autonoma de Sinaloa. Culiacan, Sinaloa Mexico.

47 1736 Ruminal *in situ* degradation was lower for Brazilian than United States corn grains. C.E.S. Correa[1], R.D. Shaver[2], M.N. Pereira*[1], J.G. Lauer[2], and K. Kohn[2], [1]Universidade Federal de Lavras, Brazil, [2]University of Wisconsin, Madison.

48 1737 Evaluation of water powered liquid metering system to provide molasses for lactating dairy cattle on pasture. J.L. Amick*, L.D. Muller, D.R. Buckmaster, H.D. Karsten, T.W. Cassidy, and E.M. Seconi, The Pennsylvania State University, University Park, PA.

49 1738 Effect of corn grain texture and maturity on ruminal in situ degradation. G.A. Calestine, M.N. Pereira*, R.G.S. Bruno, R.G. Von Pinho, and C.E.S. Correa, Universidade Federal de Lavras, Brazil.

50 1739 Optimal inclusion level of a raw soybean hull-corn steep liquor pellet in diets for lactating dairy cows. J. M. DeFrain*[1], J. E. Shirley[1], E. C. Titgemeyer[1], A. F. Park[1], and R. T. Ethington[2], [1]Kansas State University, Manhattan, [2]Minnesota Corn Processors, Inc.

51 1740 Corn crop residue grazing effects on soil physical properties and soybean production in a corn-soybean crop rotation. J. R. Russell[1], J. T. Clark*[1], D. L. Karlen[2], W. D. Busby[1], L. J. Secor[1], B. Peterson[3], C. R Olsen[1], and S. C. Shouse[1], [1]Iowa State University, [2]National Soil Tilth Laboratory, [3]USDA Natural Resource Conservation Service.

52 1741 Dynamics of the nutrients in the gastrointestinal tract: Validation of the Cornell system for bovine fed with sugar cane based diets. E. S. Pereira*[1], A. C. Queiroz[2], S. C. Valadares Filho[2], L. F. Miranda[3], and A. M. V. Arruda[1], [1]Universidade Estadual Oeste Paraná, [2]Universidade Federal Viçosa, [3]Universidade Federal Minas Gerais, Brazil.

53 1742 Determination of the protein and carbohydrates fractions, and in vitro degradation rates of the sugar cane, poultry litter and cottonseed meal . E. S. Pereira*[1], A. C. Queiroz[2], S. C. Valadares Filho[2], L. F. Miranda[3], and A. M. V. Arruda[1], [1]Universidade Estadual Oeste Parana , [2]Universidade Federal Viçosa, [3]Universidade Federal Minas Gerais, Brazil.

54 1743 Effect of whole or ground cottonseed on apparent digestibility of finishing diets for sheep. A. Estrada*[1], J.F. Obregon[1], R. Barajas[1], and B. Valenzuela[1], [1]FMVZ-Universidad Autonoma de Sinaloa (Mexico).

55 1744 Effect of feeding foliage of a multipurpose tree (*Enterolobium cyclocarpum*) on ciliate protozoa and ruminal fermentation in sheep. K. M. Koenig*[1], M. Ivan[1], B. Teferedenge[2], L. M. Rode[1], M. Ibrahim[3], D. P. Morgavi[1], and C. J. Newbold[2], [1]Agriculture and Agri-Food Canada, Research Centre, Lethbridge, AB Canada, [2]Rowett Research Institute, Aberdeen, Scotland, [3]CATIE, Turrialba, Costa Rica.

56 1745 Effect of subacute ruminal acidosis on in situ digestion of mixed hay in lactating dairy cows. J.C. Plaizier*[1], J.E. Keunen[2], J-P. Walton[2], T.F. Duffield[3], and B.W. McBride[2], [1]Department of Animal Science, University of Manitoba, [2]Department of Animal and Poultry Science, University of Guelph, [3]Ontario Veterinary College.

57 1746 Diets with high non-fiber carbohydrate and different solubilities for Llamas (Lama glama): effects on digestive activity in compartment 1 of the digestive system. M. Sol Morales*[1], R. Cabrera[1], A. Lopez[1], C. Carvajal[1], J. Gutierrez[1], and M. Goic[1], [1]Facultad Ciencias Veterinarias y Pecuarias, Universidad de Chile, Santiago, Chile.

58 1747 Improving the nutritional value of oat hulls for ruminant animals: Study of synergistic interaction between *Aspergillus* ferulic acid esterase and *Trichoderma* xylanase on release of hydroxycinnamic acids from oat hulls . P. Yu*[1], J.J. McKinnon[1], D.D. Maenz[1], V.J. Racz[1,2], and D.A. Christensen[1], [1]Department of Animal and Poultry Science, University of Saskatchewan, Canada, [2]Prairie Feed Resource Centre Inc., Canada.

59 1748 Effect of supplementation on rate of neutral detergent fiber degradation in forages measured *in situ* and by rumen evacuation . M.R. Weisbjerg*, P. Lund, and T. Hvelplund, Danish Institute of Agricultural Sciences, Denmark.

60 1749 Mean ruminal retention time of fiber measured using indigestible neutral detergent fiber or ytterbium-labelled feed. P. Lund*, M.R. Weisbjerg, and T. Hvelplund, Danish Institute of Agricultural Sciences.

61 1750 Effects of physically effective fiber on chewing activity and rumen fermentation of dairy cows fed barley-based diets. W. Z. Yang*[1], K. A. Beauchemin[1], and L. M. Rode[2], [1]Agriculture and Agri-Food Canada, [2]Biovance Technologies Inc.

62 1751 The effect of copper oxide bolus administration on forage fiber digestibility in growing steers. J. D. Arthington* and W. F. Brown, Range Cattle Research and Education Center, University of Florida, Ona.

63 1752 Effect of forage particle length on ruminal liquid fraction kinetics and straw degradability of steers fed an oat straw diet. H. G. Gonzalez*[1,3], O. B. Ruiz[2], M. L. De la Vega[2], A. E. Orozco[2], A. C. Correa[3], A. M. Perez[3], V. V. Gonzalez[3], H. C. Hernandez[4], E. T. Rubio[1], and L. B. Gerlach[5], [1]Medicina Veterinaria y Zootecnia-ICB, Universidad Autonoma de Ciudad Juarez, Mexico, [2]Universidad Autonoma de Chihuahua, [3]Universidad Autonoma de Baja California, [4]Universidad Autonoma de Baja California Sur, [5]Universidad de Sonora.

64 1753 Models for describing kinetics of fiber digestion in the rumen. F. O. Carrete-Carreon*, C. E. Cole, J. H. Matis, W. C. Ellis, and C. Lowe, Texas A & M University.

65 1754 Rumen fluid dilution rates in cattle grazing tropical pastures. M.K. Bowen*[1,2], S.R. McLennan[1], and D.P. Poppi[2], [1]Queensland Beef Industry Institute, Yeerongpilly Australia, [2]University of Queensland, St Lucia Australia.

66 1755 The low forage feeding program, Totalac®, increases milk production in high producing Holstein cows. P.A. Porter*, C.M. Luhman, and D.W. LaCount, Land O Lakes, Inc. and Cooperative Research Farms.

67 1756 Growth rate of buffalo female calves on urea treated low quality roughages . Syed, H. Raza*[1], Shahid Mahboob[2], M.S. Khan[1], and Arshad Iqbal[1], [1]FAculty of Aniaml Husbandry, University of Agriculture, Faisalabad, PAKISTAN, [2]Dept. Zoology, Govt. College, FAisalabad, PAKISTAN.

68 1757 Utilization of gas production manometric system to estimate the rate of degradation of the dry matter (DM), neutral detergent fiber (NDF) and neutral detergent soluble fraction (NDS) of concentrate feeds by cattle, sheep and goat. J. C. Teixeira* and R. A. Santos, Universidade Federal de Lavras, Minas Gerais, Brazil.

69 1758 Comparison of the in vitro gas production and the nylon bag degradability techniques to measure degradation rate in cattle, sheep and goat. R. A. Santos and J. C. Teixeira*, Universidade Federal de Lavras, Minas Gerais, Brazil.

70	1759	The effect of rumen pH and forage type on in situ fiber hydrolysis in dairy heifers. C. Spackman*, R.L Baldwin, E.J. DePeters, and M.L. Sweany, University of California, Davis, CA.
71	1760	Effects of dietary proportions of CP/potentially digestible NDF, PDF, upon rates of digestion, turnover and intake of PDF. C. A. Lowe*, W. C. Ellis, F. O. Carrete-Carreon, C. A. Marsh, and E. Moody, Texas A & M University.
72	1761	Effects of ensiling temperature and enzyme additives on the fermentation and in vitro rumen degradation of maize silage. D. Colombatto*[1], F. L. Mould[1], M. K. Bhat[2], R. H. Phipps[1], and E. Owen[1], [1]The University of Reading, UK, [2]Institute of Food Research, Norwich, UK.
73	1762	Evaluation of a novel psychrophilic enzyme mixture as a potential additive for maize silage. D. Colombatto*[1], F. L. Mould[1], M. K. Bhat[2], G. Black[3], and E. Owen[1], [1]The University of Reading, UK, [2]Institute of Food Research, Norwich, UK, [3]University of Sunderland, UK.
74	1763	Effect of ensiling, storage time and innoculant use on amino acid composition of alfalfa silage preserved in silage bags. S. P. Crosby*[1], J. Zmich[1], R. A. Patton[2], M. J. Stevenson[3], and R. T. Ward[4], [1]Finger Lakes Nutrition, Genoa, NY/USA, [2]Nittany Dairy Nutrition, Mifflinburg, PA/USA, [3]Degussa-Huls Canada, Burlington, Ont/Canada, [4]Cumberland Valley Analytical Services, Maugansville, MD/USA.
75	1764	Effect of added degradable intake protein on *in situ* and *in vivo* digestibility of processed and unprocessed corn silage fed to beef steers. C.W. Hunt[1], L.R. Kennington*[1], G.T. Pritchard[1], J.I. Szasz[1], and W. Mahanna[2], [1]University of Idaho, Moscow, [2]Pioneer Hybrid International, Des Moines, IA.
76	1765	Interactions of corn silage particle size and tallow supplementation on rumen fermentation and performance of dairy cows fed corn silage-based diets. S. G. Onetti*, R. D. Shaver, and R. R. Grummer, Uinversity of Wisconsin-Madison.
77	1766	The effect of ensiling whole plant corn and wet corn gluten feed simultaneously on silage fermentation.. J.A. Mills* and R.J. Grant, University of Nebraska, Lincoln NE.
78	1767	Fermentation characteristics of alfalfa hay harvested at different stages of maturity and cutting times in continuous cultures of rumen contents. H. Han*[1], H. S. Hussein[1], J. P. Tanner[1], and H. F. Mayland[2], [1]University of Nevada-Reno, Reno, NV, [2]USDA-ARS, Kimberly, ID.
79	1768	High oil corn silage versus typical corn silage for cows early in lactation. J. G. Linn[1], D. G. Johnson[1], J-M. Akayezy[1], F. N. Owens*[2], D. W. Rice[2], B. L. Smith[2], and M. A. Hinds[2], [1]University of Minnesota, St. Paul, MN 55108, [2]DuPont Specialty Grains, Des Moines, IA 50322.

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80	1769	Granular-secretory fraction of the bovine fetal cotyledons: I. Elution pattern and electrophoretic characterization. F.G. Rios[1] and F.A. Nuñez[2], [1]FMVZ- Universidad Autonoma de Sinaloa. Culiacan, Sinaloa Mexico., [2]FZ-Universidad Autonoma de Chihuahua.
81	1770	Granular-secretory fraction of the bovine fetal cotyledons: II. Effect on rate of growth of mice. F.G. Rios[1], F.A. Nuñez[2], and R. Barajas[1], [1]FMVZ- Universidad Autonoma de Sinaloa. Culiacan, Sinaloa Mexico., [2]FZ-Universidad Autonoma de Chihuahua.
82	1771	Tibial lesions in broiler chicks after feeding different dietary concentrations of calcium and ammonium chloride. I. B. Toure*, S. Weisbrode, and J. D. Latshaw, The Ohio State University.
83	1772	Relationships between a single-point mutation in the chloride channel-1 gene and phenotypic responses in the Myotonic goat. B. L. Sayre*, S. Wildeus, M. P. L. Dismann, and J. R. Collins, Virginia State University, Petersburg, VA.
84	1773	Effect of somatostatin-14 (SS-14) and passive immunization against SS-14 on circulating levels of growth hormone (GH) in rainbow trout (*Oncorhyncus mykiss*). B. C. Peterson*, P. R. Simpson, R. W. Hardy, T. L. Ott, A. Ahmadzadeh, and G. T. Schelling, [1]University of Idaho, Moscow, ID/USA.
85	1774	Graded levels of rbST (recombinant bovine somatotropin) at multiple time injections on growth performance response of Arctic charr *Salvelinus alpinus*. N.J. Hughes, B.C. Peterson, P.R. Simpson, and G.T. Schelling*, University of Idaho, Moscow, ID / USA.

86 1775 Growth and carcass quality of offspring in response to somatotropin (pST) treatment of sows during early gestation. G. Kuhn, C. Rehfeldt*, G. Nürnberg, and K. Ender, Research Institute for the Biology of Farm Animals, Dummerstorf, Germany.

87 1776 Effect of oxytocin (OT) on hourly milk secretion in gilts with mastitis. R. S. Kensinger*, D. M. Sanzotti, A. L. Magliaro, A. C. W. Kauf, and L. C. Griel, Jr. , Penn State University.

88 1777 Influence of long-term maternal nutrition on ovine fetal growth and development. SP Quigley*[1], DO Kleemann[1], SK Walker[1], JA Owens[2], PI Hynd[2], G Nattrass[1], SR Barritt[1], and PA Speck[1], [1]South Australian Research and Development Institute, South Australia, [2]University of Adelaide, South Australia.

89 1778 Stereoselectivity of porcine beta-adrenergic receptors for ractopamine isomers. J.D. Kissel*[1], D.J. Smith[2], and S.E. Mills[1], [1]Purdue University, [2]USDA-ARS Fargo, ND.

90 1779 Leptin in neonatal pigs: effects of oral versus intramuscular administration. N.C. Whitley[1], E.L. McFadin-Buff*[2], P.R. Buff[2], and D.H. Keisler[2], [1]University of Maryland-Eastern Shore, Princess Anne, MD, [2]University of Maryland, Columbia, MO.

91 1780 Endocrine response and fat metabolism change in finishing pigs treated with N-methyl-d,l,-aspartate(NMA). GANG XI*, ZIRONG XU[2], and PING XIAO[2], [1]University of Minnesota, St. Paul, MN, [2]Zhejiang University, Hangzhou, China .

92 1781 Studies on lipid metabolism in hepatocytes from growing pigs. T.J. Caperna*[1], I. Fernandez-Figares[1], A.E. Shannon[1], and D. Wray-Cahen[2], [1]USDA, ARS, Beltsville, MD, [2]FDA, Rockville, MD.

93 1782 Recruitment and differentiation of intramuscular preadipocytes in stromal-vascular (S-V) cell cultures derived from fetal pig semitendinosus muscles. G.J. Hausman, R. Gaines, and S.P. Poulos, USDA ARS, Athens, GA .

94 1783 The effect of LXRα ligands on adipocyte differentiation. T.D. Brandebourg* and C.Y. Hu, Oregon State University, Corvallis.

95 1784 Hormonal regulation of postnatal chicken preadipocyte differentiation in vitro. T. G. Ramsay* and R. W. Rosebrough, USDA-ARS, Beltsville, MD .

96 1785 Effects of dietary protein on the endogenous calpain/calpastatin proteolytic system in canine skeletal muscle. E. E. Helman*[1], E. H. Lonergan[1], S. M. Lonergan[1], and G. M. Davenport[2], [1]Iowa State University, Ames, IA, [2]The Iams Company, Lewisburg, OH.

97 1786 Growth of myoblasts derived from genetically different mice, pigs, and cattle. C. Rehfeldt*[1], G. Nürnberg[1], U.K. Zettl[2], E. Mix[2], M. Wittstock[2], U. Renne[1], H.J. Papstein[1], and K. Ender[1], [1]Research Institute for the Biology of Farm Animals, Dummerstorf, Germany, [2]Rostock University, Rostock, Germany.

98 1787 Solubilization and purification of a recombinant chicken myostatin expressed as inclusion bodies in *E. coli*. Y. S. Kim*[1], K. S. Baek[2], and M. A. Dunn[1], [1]University of Hawaii, Honolulu, HI, [2]National Livestock Research Institute, Namwon, Korea.

99 1788 Stair-step compensatory growth regimen in dairy heifers and its effects on transition health. M.S. Laubach*[1], D.E. Schimek[1], D.B. Carlson[1], A.M. Encinias[1], J.L. Burton[2], J.W. Schroeder[1], W.L. Keller[1], and C.S. Park[1], [1]North Dakota State University, [2]Michigan State University.

100 1789 Effects of added rumen undegraded protein and bovine somatotropin administration on skeletal growth rates in prepubertal dairy heifers. U. Moallem*[1], G. E. Dahl[1], E. K. Duffey-Tower[1], A. V. Capuco[2], and R. A. Erdman[1], [1]University of Maryland, College Park., [2]USDA-ARS, Beltsville, MD.

101 1790 Effects of added rumen undegraded protein and bovine somatotropin administration on organ and tissue weights in prepubertal dairy heifers. U. Moallem[1], G. E. Dahl*[1], A. V. Capuco[2], R. L. Baldwin[2], and R. A. Erdman[1], [1]University of Maryland, College Park, [2]USDA-ARS, Beltsville, MD.

102 1791 Effects of added rumen undegraded protein and bovine somatotropin administration on body composition in prepubertal dairy heifers. U. Moallem[1], K. R. McLeod[2], A. V. Capuco[2], K. E. Duffey-Tower[1], G. E. Dahl[1], and R. A. Erdman*[1], [1]University of Maryland, College Park, [2]USDA-ARS, Beltsville, MD.

103 1792 Relationships between concentration of serum immunoglobulins and growth rate of dairy heifers. W. Jarmuz[1], I. Szelag[2], and R. Skrzypek*[2], [1]IGiHZ PAN Jastrzebiec, [2]Agricultural University of Poznan, Poland.

104	1793	Growth performance, metabolic and endocrine traits in calves pair-fed by automate or by bucket during the first month of life. H.M. Hammon*, A. Nussbaum, G. Schiessler, and J.W. Blum, University of Berne, Switzerland.
105	1794	Age-related changes of the somatotropic axis in cloned Holstein calves. K.E. Govoni*, X.C. Tian, G.W. Kazmer, M. Taneja, B. Enright, A.L. Rivard, X. Yang, and S.A. Zinn, University of Connecticut, Storrs, CT.
106	1795	Feed intake patterns, metabolic and endocrine traits, and growth performance during the first month of life of calves provided restricted or unlimited amounts of colostrum and milk with an automate. J.W. Blum*, A. Nussbaum, G. Schiessler, and H.M. Hammon, University of Berne, Switzerland.
107	1796	Glucose metabolism in Holstein and Jersey calves fed milk replacer once versus twice daily. C. M. Cheatham*[1], C. C. Williams[1], J. M. Fernandez[1], W. A. Nipper[1], H. G. Bateman, II[1], J. C. Lovejoy[2], D. T. Gantt[1], L. R. Gentry[1], and G.E. Goodier[1], [1]Louisiana State Unuversity Agricultural Center, Baton Rouge, LA, [2]Pennington Biomedical Research Center, Louisiana State University, Baton Rouge, LA.
108	1797	Evaluation of bovine or porcine plasma in calf milk replacers on mortality, morbidity, intake and growth of young dairy calves . J. D. Quigley, C. J. Kost, and T. M. Anspach*, APC Company, Inc., Ames, IA.
109	1798	Body composition of Piedmontese x Hereford and Wagyu x Hereford newborn calves. P.L. Greenwood*[1,2], H. Hearnshaw[1,3], D.W. Hennessy[1,3], J.M. Thompson[1,4], and G.S. Harper[1,5], [1]Cooperative Research Centre for Cattle and Beef Quality, Armidale, Australia, [2]NSW Agriculture Beef Industry Centre, Armidale, Australia, [3]NSW Agriculture Research and Advisory Station, Grafton, Australia, [4]University of New England, Armidale, Australia, [5]CSIRO Livestock Industries, Brisbane, Australia.
110	1799	Post-weaning growth of cattle destined for Japanese and Korean markets: Relationships between growth during backgrounding and intramuscular fat percentage (IMF%) at slaughter. M.J. McPhee[1,2], S. Harden[1,3], P.L. Greenwood*[1,2], and V.H. Oddy[1,4], [1]Cooperative Research Centre for Cattle and Beef Quality, Armidale, Australia, [2]NSW Agriculture, Beef Industry Centre, University of New England, Armidale, NSW 2351, Australia, [3]NSW Agriculture, Tamworth Centre for Crop Improvement, Tamworth, NSW 2340, Australia, [4]Meat and Livestock Australia, 165 Walker Street, North Sydney, NSW 2060, Australia.
111	1800	Effect of Synovex-S® on pituitary-thyroid axis response to challenge with a combination of thyrotropin releasing hormone (TRH) and growth hormone releasing hormone (GHRH) in beef steers. S. Kahl*, T.S. Rumsey, and T.H. Elsasser, USDA, Agricultural Research Service, Beltsville, MD.
112	1801	Performance, carcass characteristics and plasma levels of thyroid hormones and insulin like growth factor-I in feedlot intact crossbred (*Bos taurus* × *Bos indicus*) Brazilian Superyoung System. L. A. L. Chardulo*[1], J. A. Ferro[2], A. C. Silveira[1], L. R. Furlan[1], M. D. B. Arrigoni[1], H. N. Oliveira[1], M. I. T. Ferro[2], and M. Macari[2], [1]UNESP - Botucatu, SP/Brazil, [2]UNESP - Jaboticabal, SP/Brazil.
113	1802	Effects of estradiol administration and level of protein intake on nitrogen metabolism and insulin-like growth factor-1 (IGF-1) gene expression in muscle in growing steers. O Cheng*[1], W Knaus[1], M Boehm[1], and D Beermann[1,2], [1]Cornell University, [2]University of Nebraska at Lincoln.
114	1803	Temporal effects of daily estradiol administration on nitrogen metabolism and insulin-like growth factor-1 (IGF-1) gene expression in liver and skeletal muscle in growing lambs. O Cheng*[1], M Boehm[1], and D Beermann[1,2], [1]Cornell University, [2]University of Nebraska at Linclon.
115	1804	Effects of immunization aganist LHRH on growth performance, sex characteristics, and meat quality of intact male pigs. C. Y. Liu*[1], L. C. Cheng[1], P. C. Yang[1], T. Y. Chang[2,3], M. Shen[3], C. L. Finstad[3], and C. Y. Wang[2,3], [1]Pig Research Institute Taiwan, ROC, [2]United Biochemical, Inc., Asia, ROC, [3]United Biochemical, Inc., USA.
116	1805	The effects of zinc and thyroid hormone on the expression of growth hormone and thyroid stimulating hormone in primary rat anterior pituitary cells. A.L. Rivard*, M.A. Shaller, H.C. Freake, and S.A Zinn, University of Connecticut.
117	1806	Effects of dietary conjugated linoleic acid (CLA) on the composition and function of peripheral blood mononuclear leukocyte populations in heifer calves. J.M. Smith*[1], B.J. Nonnecke[2], M.E. Van Amburgh[1], B.A. Pesch[2], and J.A. Harp[2], [1]Cornell University, Ithaca, NY, [2]National Animal Disease Center (NADC), USDA, ARS, Ames, IA.

118	1807	Feeding conjugated linoleic acid to reduce the impact of an infectious disease challenge in growing swine. J.A. Brown*, G.W. Almond, S.A. Mathews, W.T. Oliver, and R.J. Harrell, North Carolina State University, Raleigh, NC.

AMSA/ASAS Meat Science and Muscle Biology

Board Number	Abstract Number	
119	1808	Prediction of the fat content of pork carcasses based on cross-sectional region analysis of dual energy X-ray absorptiometry scans. A. D. Mitchell*[1], A. M. Scholz[2], and V. G. Pursel[1], [1]USDA, Agricultural Research Service, Beltsville, MD , [2]Ludwig Maximillians University-Munich, Oberschleissheim, Germany.
120	1809	Effect of supplemental fat on growth performance and quality of beef from steers fed barley-potato product finishing diets I. Feedlot performance, carcass characteristics, and appearance. M. L. Nelson*, J. R. Busboom, D.J. Marks, L.F. Falen, and J.D. Cronrath, Washington State University, Pullman, WA/USA.
121	1810	Catalysis of meat tenderization during postmortem aging by calpain 3 (p94). M. A. Ilian*, A. E. Bekhit, and R. Bickerstaffe, Lincoln University.
122	1811	Effect of transport temperature and post-slaughter chilling on channel catfish fillet quality. B. G. Bosworth*[1], W. R. Wolters[1], J. Silva[2], and R. Chamul[2], [1]USDA-ARS, Stoneville, MS, [2]Mississippi State University, Starkville, MS.
123	1812	Effects of pre-slaughter holding time on dressing-out percent and meat quality for bulls and steers. R. W. Purchas*, D. L. Burnham, and S. T. Morris, Massey University, Palmerston North, New Zealand.
124	1813	Instrumental and chemical characteristics, calpastatin mRNA genic expression and myofibrilar protein concentration in chilled meat of feedlot Brazilian Superyoung cattle *Bos taurus* × *Bos indicus* 24h postmortem. L. A. L. Chardulo*[1], J. A. Ferro[2], A. C. Silveira[1], L. R. Furlan[1], M. D. B. Arrigoni[1], H. N. Oliveira[1], M. I. T. Ferro[2], and C. Ludovico[1], [1]UNESP - Botucatu, SP/Brazil, [2]UNESP - Jaboticabal, SP/Brazil.
125	1814	Abundance and cellular distribution of the calpain proteolytic system proteins in the Longissimus of the ovine . R. Bickerstaffe*[1], M. Ilian[1], and H. Sorimachi[2], [1]Lincoln University, [2]The University of Tokyo.
126	1815	Effects of marination on the processing parameters and palatability of bison top round. J.S. Dhanda*[1], R.B. Pegg[1], J.A.M. Janz[2], J.L. Aalhus[3], and P.J. Shand[1], [1]University of Saskatchewan, Saskatoon, SK, Canada, [2]University of Alberta, Edmonton, AB, Canada, [3]Agriculture and Agri-Food Canada Research Centre, Lacombe, AB, Canada.
127	1816	Antihypertensive activities of enzymatic hydrolysates of porcine skeletal muscle proteins. Y Nakashima*, K Arihara, S Ishikawa, and M Itoh, Kitasato University, Towada-shi, Japan.
128	1817	Oxidative differentiation in muscle of small and large pig fetuses in late gestation. C. Ashton* and N. Stickland, The Royal Veterinary College, London, UK, NW1 0TU.
129	1818	Omega-3 fatty acids and meat lamb quality. F Nicastro*[1], L Zezza[1], and R Gallo, Department of Animal production, University of Bari, Bari, Italy.
130	1819	*In ovo* manipulation of posthatch growth in the turkey. A. R. Somaiya* and N. C. Stickland, Royal Veterinary College, London, UK.
131	1820	Effect of supplemental fat on growth performance and quality of beef from steers fed barley-potato product finishing diets II. Beef appearance, shelf-life, and palatability. D. J. Marks, J. R. Busboom*, M. L. Nelson, J. D. Cronrath, L. Falen, and P. S. Kuber, Washington State University.
132	1821	Effect of supplemental fat on growth performance and quality of beef from steers fed barley-potato product finishing diets III. Fatty acid composition of muscle and subcutaneous fat. D. J. Marks*, M. L. Nelson, J. R. Busboom, J. D. Cronrath, A. E. Koepp, and L. Falen, Washington State University.
133	1822	Market orientation: A possibility to improve consumers' acceptability of pork products. Charlotte Prestat* and M. Susan Brewer, University of Illinois, Urbana-Champaign, IL.

134	1823	Combined effects of pH and temperature on myoglobin in a model system. Liugen Zhu* and Susan Brewer, University of Illinois at Urbana-Champaign.
135	1824	Development of photographing equipment for the cross section of carcass and prediction of Beef Color Standard number by using obtained image from that equipment. K. Kuchida*, M. Hasegawa, M. Suzuki, and S. Miyoshi, Obihiro University of AVM, Obihiro-shi Japan.
136	1825	Effect of high oil corn and vitamin E supplementation on ground beef case-life properties. M.S. Eibs*, B.J. Johnson, D.M. Wulf, B.C. Shanks, and T.A. Wittig, South Dakota State University.
137	1826	Increased calcineurin activity is associated with muscle hypertrophy in callypyge sheep . C. E. Carpenter* and N. E. Cockett, Utah State University.
138	1827	Diets containing conventional corn, conventional corn and choice white grease, high oil corn, or high oleic, high oil corn will influence the fatty acid profile of fresh pork adipose tissue. C. A. Stahl*[1], M. L. Linville[1], K. R. Maddock[1], T. E. Sauber[2], G.L. Allee[1], and E. P. Berg[1], [1]University of Missouri, Columbia, MO, [2]DuPont Specialty Grains, Des Moines, IA.
139	1828	Genetic line effects on palatability, color and physical characteristics of fresh pork loin chops. J. M. Schlickau*[1], M. S. Brewer[1], A. Sosnicki[2], B. Field[2], and F.K. McKeith[1], [1]University of Illinois, [2]PIC.
140	1829	Effect of enhancement of beef rounds on sensory and retail display characteristics. K.L. Robbins* and M.S. Brewer, University of Illinois, Urbana-Champaign, IL.
141	1830	Effect of breed-type on the performance and carcass traits of hair-sheep. J. K. Apple[1], J. M. Burke[2], W. J. Roberts[1], J. S. Stephenson[1], and L. K. Rakes[1], [1]University of Arkansas, [2]USDA-ARS Small Farms Research Center, Booneville, AR.
142	1831	Relationship between porcine longissimus dorsi pH decline and µ-calpain activity/autolysis and protein degradation. L.J. Rowe, S.M. Lonergan, M.F. Rothschild, and E. Huff-Lonergan*, Iowa State University, Ames, IA.
143	1832	Potassium lactate and sodium diacetate affects on the microbial, sensory, color and chemical characteristics of vacuum-packaged beef top loin steaks. T. A. Williams*, R. K. Miller, N. Anwar, L. M. Lucia, and G. R. Acuff, Texas A&M University, College Station, TX.
144	1833	The influence of diets containing conventional corn, conventional corn and choice white grease, high oil corn, or high oleic, high oil corn on belly/bacon quality. G. Rentfrow*[1], K.R. Maddock[1], C.A. Stahl[1], M.L. Linville[1], T.E. Sauber[2], G.L. Allee[1], and E.P. Berg[1], [1]University of Missouri, [2]Dupont Specialty Grains.
145	1834	The effect of early weaning and intensive feeding on meat quality of beef cattle. PE Strydom* and EM Buys, Animal Nutrition and Products Institute of the Agricultural Research Council.
146	1835	The effect of dietary supplemental vitamin E and C on odors and color changes in irradiated pork. S. Ohene-Adjei*, T. Bertol, Y. Hyun, M. Ellis, S. Brewer, and F. K. McKeith, University of Illinois at Urbana-Champaign.
147	1836	Effect of the addition of electrolytes in drinking water and the chilling temperature on technological, physicochemical, and microbiological characteristics of pork. A. Alarcon-Rojo, S. Mendoza*, and A. Grado, Universidad Autonoma de Chihuahua. Chihuahua, Chih. Mexico.
148	1837	Relationship between a measure of troponin-T degradation and beef tenderness. L. J. Rowe, E. Huff-Lonergan, G. H. Rouse, D. E. Wilson, and S. M. Lonergan*, Iowa State University.
149	1838	Use of color and near-infrared reflectance analysis to predict Warner-Bratzler beef longissimus tenderness. C.E. Realini*[1], T.D. Pringle[1], W.R. Windham[2], B.G. Lyon[2], S.K. Duckett[1], and K.R. Smith[1], [1]The University of Georgia, Athens, [2]USDA-ARS, Russell Research Center, Athens.
150	1839	Effect of conjugated linoleic acid supplementation on pork quality and fatty acid profiles. M.W. Greene*[1], T.D. Pringle[1], M.J. Azain[1], M.H. Gillis[1], S.K. Duckett[1], G.J. Hausman[2], and C.R. Barb[2], [1]The University of Georgia, Athens, [2]USDA-ARS, Russell Research Center, Athens.
151	1840	Perimysium structure and collagen content change with muscle type and myostatin inheritance. R Taylor*[1], R Labas[1], P Berge[1], and J Culioli[1], Meat Research Station, INRA.

ASAS Beef Species

Board Number	Abstract Number	
152	1841	Pre-slaughter condition scoring of Zebu Cattle. O.T.F. Abanikannda*[1], A.O. Leigh[1], O.Y. Apena[1], and O. Olutogun[2], [1]Department of Zoology, Lagos State University, Ojo - Lagos, Nigeria, [2]Department of Animal Science, University of Ibadan, Nigeria.
153	1842	Safety of moxidectin 1% nonaqueous injectable solution for cattle. K.L. Simkins*, R.L. DeLay, and T.W.J. Olchowy, Fort Dodge Animal Health, Princeton, NJ.
154	1843	Effect of supplemental energy source on growth and reproductive performance of virgin heifers consuming corn silage diets. C.M. Howlett*, E.S. Vanzant, L.H. Anderson, W.R. Burris, J. Randolph, and R.F. Bapst, University of Kentucky.
155	1844	Influence of estrus synchronization on reproductive performance of cows exposed to natural service. J. D. Rhinehart*, J. W. Wyles, and L. H. Anderson, University of Kentucky.
156	1845	Influence of calving on body condition score in crossbred cows. Sarjan rao Kapa*[1], Dilipkumar Garikipati[1], and Kailash MM[2], [1]College of veterinary science, Tirupati, ANGRAU, [2]University of Agricultural science, Bangalore.
157	1846	Maternal performance of four biological types of Red Poll cows. B.A. Sandelin*[1], A.H. Brown, Jr.[1], Z.B. Johnson[1], A.M. Stelzleni[1], and C.F. Rosenkrans, Jr.[1], [1]University of Arkansas.

ASAS Goat Species and ASAS Companion Animal Species

Board Number	Abstract Number	
158	1847	Evaluation of corn gluten meal as a protein source in canine diets. R.M. Yamka*[1], S.E. Kitts[1], A.D. True[1], D.L. Harmon[1], and W.D. Schoenherr[2], [1]Dept. of Animal Sciences, University of Kentucky, Lexington, 40546, [2]Hill's Pet Nutrition, Topeka, KS 66617.
159	1848	The effects of an antioxidant system based on tocopherols and novel extracts from Rosemary on petfood shelf-life and acceptability by dogs and cats. C. G. Aldrich* and J. O. Mann, Kemin Americas, Inc., Des Moines, IA.
160	1849	The effect of hay and /or concentrate on performance, organ mass, blood metabolites and hormones in weaned kids. B. Kouakou*, S. Gelaye, G. Kannan, T. H. Terrill, E. A. Amoah, and S. Miller, Agricultural Research Station, Fort Valley State University.
161	1850	Weight Gain In Beetal Goats Under Two Different Rearing Systems. S. H. Raza*, A. Iqbal, and M. Abdullah, University of Agriculture, Faisalabad, PAKISTAN.
162	1851	Preslaughter stress effects on physiological responses and meat quality characteristics in goats. G. Kannan*, B. Kouakou, T. H. Terrill, S. Gelaye, and E. A. Amoah, Agricultural Research Station, Fort Valley State University, Fort Valley, GA.
163	1852	Live weight changes in grazing goats supplemented with protein during the dry season. A.S. Juarez-Reyes, M.A. Cerrillo*, and G. Nevarez-Carrasco, Universidad Juarez del Estado de Durango, Durango,Dgo. Mexico.
164	1853	Determination of supplementation requirements of grazing goats utilizing two protein systems. A.S. Juarez-Reyes*, M.A. Cerrillo, and G. Nevarez-Carrasco, Universidad Juarez del Estado de Durango. Durango, Dgo. Mexico.
165	1854	Effects of urea treatment of straw and dietary broiler litter on feed intake and digestion in Spanish wethers. G. Abebe[1], R. C. Merkel*[2], G. Animut[3], A. L. Goetsch[2], and T. Sahlu[2], [1]Awassa College of Agriculture, Debub University, Awassa, Ethiopia, [2]E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK , [3]Alemaya University, Dire Dawa, Ethiopia.
166	1855	Feed intake and growth by Spanish and Boer x Spanish doelings consuming diets with different levels of broiler litter. T. Negesse[1], R. C. Merkel[2], A. Tolera[1], A. L. Goetsch[2], T. Sahlu[2], R. Puchala[2], T. A. Gipson[2], and L. J. Dawson*[2], [1]Awassa College of Agriculture, Debub University, Awassa, Ethiopia, [2]E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK.

167	1856	Comparison of goats raised intensively versus pasture raised. N.C. Beckford*, J.M. Dzakuma, E. Risch, C.O. Smith, P.M. Johnson, and L.C. Nuti, Prairie View A&M University, Prairie View, TX. USA.
168	1857	Survey of goat meat sales in New Jersey. James Lechner*, James Wohlt, Ramu Govindasamy, and Patricia Schoknecht, Rutgers, The State University of New Jersey, New Brunswick, NJ.
169	1858	Extension of the cashmere growth period in Spanish goats with melatonin. T. Wuliji*[1], A. Litherland[2], A.L. Goetsch[1], T. Sahlu[1], R. Puchala[1], T.A. Gipson, and L.J. Dawson[1], [1]E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK, [2]AgResearch, Grasslands Research Centre, Palmerston, New Zealand.
170	1859	Milk yield, body weight and some physiological traits of Baladi goats and their crosses with Damascus and Anglo-Nubian breeds in Egypt. A. Hassan, M. Samak, A. Elkomy*, and M. Anwar, Fac.Of Agric.Alex.ElShatby,Egypt.
171	1860	Differences in growth and carcass characteristics in young goats of different genotypes. R. Kraig Peel*[1] and W. Shawn Ramsey[2], [1]Sam Houston State University, [2]Texas A\&M University.
172	1861	Effects of insulin administered to a perfused area of skin in Angora goats. R. Puchala*[1], S.G. Pierzynowski[2], T. Wuliji[1], A.L. Goetsch[1], and T. Sahlu[1], [1]E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK 73050, [2]Department of Zoophysiology, Lund University, Lund, Sweden.
173	1862	Effects of preweaning concentrate supplementation on performance of meat goats. A. L. Goetsch*, G. Detweiler, and T. Sahlu, E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK.
174	1863	Optimum herd size of small goat holders in Qinba Mountain district in China. J. Luo[1], H. Yao*[1], X. F. Zhao[2], and H. Y. Yang[2], [1]Northwest Agricultural University, Yangling, Shaanxi, China, [2]Animal husbandry bureau of Xixiang county, Xixiang, Shaanxi, China.
175	1864	Growth and survival of kids of three goat breeds during different seasons. S. Wildeus* and T. A. Gipson, Virginia State University, Petersburg, VA.
176	1865	Differences in intake, growth rate and carcass characteristics in young males of three hair sheep and meat goat breeds. S. Wildeus*[1], M. B. Solomon[2], A. D. Mitchell[2], J. S. Eastridge[2], and J. R. Collins[1], [1]Virginia State University, Petersburg, VA, [2]Beltsville Agricultural Research Center, USDA, Beltsville, MD.
177	1866	Modeling extended lactation curves in dairy goats using grafted polynomials. T.A. Gipson*[1] and G.R. Wiggans[2], [1]E (Kika) de la Garza Institute for Goat Research, Langston University, Langston, OK , [2]Agricultural Research Service, USDA, Beltsville, MD.

ASAS Sheep Species

Board Number	Abstract Number	
178	1867	Evaluation of resistance to H. contortus in Pelibuey sheep. Antonio Figueroa, Danilo Mendez*, Manuel Berruecos, Rogelio Alonso, and Hugo Perez, Facultad de Medicina Veterinaria y Zootecnia. Universidad Nacional Autonoma de Mexico.
179	1868	Pre-mating nutrition affects the onset and synchrony of oestrus in Merino ewes treated with progesterone CIDR dispensers. SP Quigley*[1], SK Walker[1], PA Speck[1], SR Barritt[1], and DO Kleemann[1], [1]South Australian Research and Development Institute, South Australia.
180	1869	The effects of offering grass or maize silages with a flat rate of concentrate supplementation to pregnant ewes on ewe and lamb performance. T.F. Crosby*, J.V. O'Doherty, P.J. Quinn, J.J. Callan, B. Flynn, D. Cunningham, P. Reilly, and E Massey, University College Dublin, Belfield, Dublin 4, Ireland.
181	1870	An evaluation of production systems for early season lamb production. T.F. Crosby, J.V. O'Doherty, P.J. Quinn, J.J. Callan, B. Flynn, and D. O'Shea, University College Dublin, Belfield, Dublin 4, Ireland.
182	1871	Feedlot performance, wool production, and carcass characteristics of Merino/Rambouillet wether lambs as affected by breed and dietary forage to concentrate ratios . S. L. Lake*, H. S. Hussein, H. A. Glimp, B. D. Kindred, T. P. Ringkob, and D. W. Holcombe, University of Nevada - Reno.

183	1872	Comparison of carcass data and ultrasound measures using both cattle and swine standoffs for loin eye area, loin eye depth and external fat in lambs. B.D. Banks*, M.E. Benson, J.D. Cowley, G.C. Good, M.T. Shane, and T.M. Villumsen, Michigan State University, East Lansing, MI/USA.

ASAS Swine Species

Board Number	Abstract Number	
184	1873	Lysine requirement of growing (35.1 to 60.5 kg) pigs, when formulated on ideal protein basis. I. Moreira*, M. Kutschenko, A.C. Furlan, A.E. Murakami, E.N. Martins, and C. Scapinello, Universidade Estadual de Maringa, Maringa-PR, BRAZIL.
185	1874	Substituition of corn to cofee hulls in a isoenergetic diets for growing and finishing pigs. E. T. Fialho*[UFLA], V. Oliveira[UFLA], J. A. F. Lima[UFLA], and R.T. Freitas[UFLA], [1]Universidade Federal de Lavras - UFLA/Brazil.
186	1875	Effect of deletion of vitamin and trace mineral premixes from diets on daily gain, feed:gain ratio, backfat thickness, red blood cell count in finishing pigs. S. C. Lee*[1], C. E. Lee[2], and K. I. Kim[1], [1]Cheju National University, Cheju, Rep. of Korea, [2]Cheju Agr. Exp. Station, RDA, Cheju, Rep. of Korea.
187	1876	Fatty acid polyunsaturation of boar semen: Positive effects on gilt reproduction . P.C Penny*[1], R.C Noble[1], and A. Maldjian[1], [1]JSR Healthbred Ltd, Southburn, Driffield, YO25 9ED, UK.
188	1877	Effect of docosahexaenoic acid (DHA) and cryopreservation on boar spermatozoa. A Maldjian[1], P.C Penny*[1], S Cerolini[2], and R.C Noble[1], [1]JSR Healthbred Ltd, Southburn, Driffield, YO25 9ED, UK, [2]Istituto Zootecnico, Via Celoria 10, 20133 Milano, Italy.
189	1878	Response of weaned pigs housed in large groups to alternative feeding strategies. P.C Penny*[1] and S Tibble[2], [1]JSR Healthbred Ltd, Southburn, Driffield, YO25 9ED, UK, [2]SCA Iberica S.A., Mequinenza, Spain.
190	1879	Increased progeny performance by elevating nutrient intake to sows during gestation. P.C Penny*[1], M.A Varley[2], and S Tibble[3], [1]JSR Healthbred Ltd, Southburn, Driffield, YO25 9ED, UK, [2]SCA Nutrition Ltd, Thirsk, UK, [3]SCA Iberica S.A., Mequinenza, Spain.
191	1880	Effect of storage and pelleting temperature on the activity of bacterial alkaline endoprotease (E.C. 3.4.21.14), Alpha D-(1,4) amylase (E.C. 3.2.1.1) and combination of both enzymes. I Pérez-Portabella[1], J Solá, and E Roura*, [1]Lucta, s.a.
192	1881	*Saccharomyces cerevisiae* for breeding sows in a Parvoviral challenge. V. G. Perez*[1], M. L. Angeles[2], A. M. Anaya[2], and J. A. Cuaron[2], [1]FES-C, UNAM, [2]C. N. I. Fisiologia y Mejoramiento Animal, INIFAP. Queretaro, Mexico.
193	1882	*Saccharomyces cerevisiae* for lactating sows in a septic environment. V. G. Perez*[1], S. Solorio[2], A. Juarez[3], J. Becerril[3], E. O. Castaneda-Silva[4], and J. A. Cuaron[5], [1]FES-C, UNAM, [2]PAIEPEME, A.C., [3]Grupo Delta, S.A., [4]Nutrimentos Concentra, S.A. de C.V., [5]C. N. I. Fisiologia y Mejoramiento Animal, INIFAP. Queretaro, Mexico.
194	1883	*Saccharomyces cerevisiae* for growing-finishing pigs in a septic environment. V. G. Perez[1], S. Solorio[2], A. M. M. Martinez[3], E. O. Castaneda-Silva[4], and J. A. Cuaron*[5], [1]FES-C, UNAM, [2]PAIEPEME, A.C., [3]CNID-Microbiologia, INIFAP, [4]Nutrimentos Concentra, S.A. de C.V., [5]C. N. I. Fisiologia y Mejoramiento Animal, INIFAP. Queretaro, Mexico.
195	1884	Molecular typing of hemolytic *Escherichia coli* isolated from swine. D. Parrott*[1], T. Rehberger[1], and M. Holt[2], [1]Agtech Products, Inc., Waukesha, WI, [2]Varied Industries Corporation, Mason City, IA.
196	1885	Effect of three dietary growth promoting additives on performance of nursery pigs. B. P. Corrigan*[1], B. F. Wolter[1], M. Ellis[1], and S. Moreland[2], [1]University of Illinois, Urbana, IL/USA, [2]Braes Feed Ingredients, Wheeling, IL/USA.
197	1886	Effect of iron supplementation and dietary iron source and level on bioavailability of iron in weanling pigs. B. K. Anderson*[1], N. R. Augspurger[1], M Ellis[1], and D. E. Nuzback[2], [1]University of Illinois at Urbana-Champaign, [2]Albion Laboratories, Inc.

198	1887	The response of starting pigs to increasing levels of dietary lysine, when formulated on ideal protein basis. I. Moreira*, A.L. Fraga, A.C. Furlan, A.O. Bastos, R.P. Oliveira, and D. Paiano, Universidade Estadual de Maringa, Maringa-PR BRAZIL.
199	1888	Effect of a GnRH-analogue at estrus on reproductive performance of gilts. J.A. Romo*[1], R. Barajas[1], and M.A. Luque[1], [1]FMVZ-Universidad Autonoma de Sinaloa (Mexico).
200		No poster presentation.

ASAS Horse Species

Board Number	Abstract Number	
201	1889	Temporal variables of the flat walk of the Tennessee Walking Horse weanling. K.M. Holt*[1] and M.C. Nicodemus[1], [1]Mississippi State University, Mississippi State, MS/USA.
202	1890	In vitro fermentation characteristics of vegetative and mature grasses by equine fecal inoculum. H. S. Hussein*, H. Han, J. P. Tanner, and A. A. Cirelli, University of Nevada - Reno.
203	1891	Environmental factors affecting racing time in Brazilian Thoroughbred horses in Cristal hippodrome. Rodrigo Taveira* and Marcilio Mota, [Unesp]Universidade Estadual Paulista.
204	1892	Environmental factors affecting the racing time of Quarter Horses in Brazil. Marcilio Mota and Rodrigo Taveira*, [Unesp]Universidade Estadual Paulista.

ASAS/ADSA Forages and Pastures: Grazing and Alternative Forages

Board Number	Abstract Number	
205	1893	Growth performance of stocker calves backgrounded on sod-seeded winter annuals or hay and grain. K. P. Coffey*[1], W. K. Coblentz[1], T. G. Montgomery[2], J. D. Shockey[2], K. J. Bryant[2], P. B. Francis[2], and C. F. Rosenkrans, Jr.[1], [1]University of Arkansas, Fayetteville, AR, USA, [2]Univ. of Ar. SE Research and Extension Center, Monticello, AR, USA.
206	1894	Steer grazing behavior on endophyte-free, toxic endophyte-infected, and non-toxic endophyte-infected (Max Q™) tall fescue. J. A. Bondurant*, M. A. McCann, J. S. McCann, J. H. Bouton, C. S. Hoveland, R. H. Watson, and J. G. Andrae, The University of Georgia, Athens, GA.
207	1895	Use of *Ascophyllum nodosum* for alleviation of fescue toxicosis in cattle. J.E. Williams*[1], A. Rodriquez[2], E. Navarro[1], and D.P. Colling[3], [1]University of Missouri, Columbia, MO, [2]University of Puerto Rico, Mayaguez, PR, [3]Land O'Lakes Farmland Feed, Kansas City, MO.
208	1896	The effects of grazing a brown midrib vs a conventional sorghum x sudan hybrid on animal performance and gain/ha. J. B. Banta*, F. T. McCollum, III, and L. W. Greene, Texas A & M University System, Amarillo.
209	1897	Use of temperature data loggers to measure body temperature in cows grazing toxic or non-toxic tall fescue. R.H. Watson*, M.A. McCann, J.A. Bondurant, J.G. Andrae, and L.L. Hawkins, The University of Georgia, Athens, GA.
210	1898	Effects on forage quality and animal performance of steers grazing smooth brome pastures interseeded with legumes. M. D. Ullerich*, B. E. Anderson, T. J. Klopfenstein, and M. A. Trammell, [1]University of Nebraska-Lincoln.
211	1899	Tall fescue based forage systems for developing beef replacement heifers. J.C. Waller*[1], F.N. Schrick[1], M.C. Dixon[3], A.E. Fisher[1], A.M. Saxton[1], and H.A. Fribourg[2], [1]Department of Animal Science, University of Tennessee, [2]Department of Plant and Soil Sciences, University of Tennessee, [3]Ames Plantation, Grand Junction, TN.
212	1900	Effect of grain supplementation on methane production of grazing steers. D. A. Boadi*[1], K. M. Wittenberg[1], and W. P. McCaughey[2], [1]University of Manitoba, Winnipeg, Manitoba Canada, [2]Agriculture and Agri-Food Canada, Brandon, Manitoba Canada.

213	1901	Effect of infusing protein postruminally and graded levels of ruminally available protein on the utilization of low-quality prairie hay by beef steers. T. A. Wickersham*, R. C. Cochran, E. C. Titgemeyer, C. G. Farmer, E. A. Klevesahl, and J. I. Arroquy, Kansas State University, Manhattan.
214	1902	Soybean genotypes for grain and stover in smallholder crop-livestock systems in West Africa. Asamoah Larbi*[1], Baffour Asafo-Adjei[2], Olayinka Yusuf[3], and Adekunle Isiaka[4], [1,3]International Livestock Research Institute (ILRI), West Africa, Ibadan, Nigeria, [2]International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria, [4]Federal University of Agriculture, Abeokuta, Nigeria.
215	1903	Yield and fodder quality of dual-purpose groundnut genotypes fed to West African Dwarf sheep. I. Etela[1], A. Larbi*[2], P.E. Olorunju[3], D.D. Dung[4], and U.I. Oji[5], [1]Department of Animal Science, University of Benin, Benin City, Nigeria, [2]International Livestock Research Institute (ILRI), Ibadan, Nigeria, [3]Institute of Agricultural Research, Samaru, Nigeria, [4]National Animal Production Research Institute, Shika, Nigeria, [5]Department of Animal Science, University of Science and Technology, Port Harcourt, Nigeria.
216	1904	Grazing method effects on growth rate of St. Croix White hair sheep lambs on a tropical grass-shrub legume over-story. E. Valencia* and R.W. Godfrey, University of the Virgin Islands, Agricultural Experiment Station, St. Croix VI USA.

ASAS/ADSA Physiology: Reproductive Physiology

Board Number	Abstract Number	
217	1905	Use of ECP in a timed insemination program. S. M. Pancarci*[1], C. A. Risco[1], F. L. Lopes[1], F. Moreira[1], E. R. Jordan[2], and W. W. Thatcher[1], [1]University of Florida, Gainesville, FL, [2]Texas A&M University, College Station, TX.
218	1906	Determining the effect of gonadotropin releasing hormone to synchronize returns to estrus in dairy heifer. K.S. Rosenkrans*[1], D.K . Hardin[1], M.C. Lucy[1], J.W. Tyler[1], and R.L. Larson[1], [1]University of Missouri, Columbia, MO/USA.
219	1907	Efficacy of using Ovsynch to initiate artificial insemination at the onset of the breeding season in lactating dairy cows managed for seasonal calving in a grazing based dairy system. M.C Cordoba* and P.M Fricke, University of Wisconsin-Madison, Department of Dairy Science.
220	1908	Ovulation synchronization protocols affect early postpartum reproductive efficiency in cross-bred dairy cows. J.L.M. Vasconcelos*, R.L. Valarelli, R.L.A. Cerri, A.H. Souza, and M. Meneghetti, FMVZ-UNESP, Botucatu, SP/Brazil.
221	1909	Administration of hCG during estrus and its effect on corpus luteum size and progesterone production. J.A. Bartolome, S.M. Pancarci*, T. Dickerson, L.F. Archbald, and W.W. Thatcher, University of Florida, Gainesville, FL.
222	1910	Follicular dynamics in postpartum cows after treatment with either GnRH or Estradiol benzoate (EB) at the intiation of a 7 d controlled intravaginal progesterone-releasing device (CIDR). MK. V. Dahms*, C. R. Barthle, E. A. Hiers, G. E. Portillo, and J. V. Yelich, University of Florida, Gianesville.
223	1911	Resynchonization of ovulation and timed insemination in beef cattle. S Lares*[1], G Dominguez[1], N Formia[2], C Scena[3], O Rambeaud[4], and R.L. de la Sota[1], [1]Instituto de Teriogenologia, Fac. Cs. Veterinarias-UNLP, [2]Escuela M.C. y M. Inchausti-UNLP, [3]Intervet Argentina SA, [4]INTA-Brandsen.
224	1912	Luteolysis after PGF_{2a} on day 6 or 7 of the estrous cycle in Angus and Angus x Brahman heifers. G. E. Portillo*, E. A. Hiers, C. R. Barthle, MK. V. Dahms, W. W. Thatcher, and J.V. Yelich, University of Florida, Gainesville, Florida.
225	1913	Reproductive performance of beef heifers following administration of an oral progestogen or GnRH. H. E. Blackmon*[1], M. E. Hockett[1], T. M. Towns[1], N. R. Rohrbach[1], R. B. Simpson[1], A. M. Saxton[1], and F. N. Schrick[1], [1]Department of Animal Science, University of Tennessee, Knoxville.
226	1914	A comparison of three progestin-GnRH-prostaglandin F_{2a} (PG) based protocols for estrus synchronization of beef cows. J. E. Stegner*, J. F. Bader, F. N. Kojima, M. F. Smith, and D. J. Patterson, University of Missouri, Columbia, MO.
227	1915	Evaluation of a fixed-time AI protocol for postpartum beef cows. G. A. Perry*, J. F. Bader, M. F. Smith, and D. J. Patterson, University of Missouri, Columbia, MO.

228 1916 Stage of cycle effects on response to different GnRH + prostaglandin F_{2a} (PG)treatments in *Bos indicus* x *Bos taurus* cows. E. A. Hiers*, C. R. Barthle, J. K. Fullenwider, G. E. Portillo, MK. V. Dahms, J. M. Kramer, and J. V. Yelich, University of Florida.

229 1917 Effects of exogenous GnRH infusion and steroid replacement on gonadotropins in ovariectomized nutritionally anovulatory cows. J.A. Vizcarra*[1] and R.P. Wettemann[1], [1]Animal Science Department, Oklahoma Agricultural Experiment Station.

230 1918 Vaginal electrical conductance for determining the timing of ovulation is also effective for monitoring rates of uterine involution in the postpartum dairy cow. S.D. Bowers*[1], B.S. Gandy[1], J. Spencer[1], K.B. Graves[1], A.B. Moore[1], and S.T. Willard[1], [1]Department of Animal and Dairy Sciences, Mississippi State University, Mississippi State, MS.

231 1919 Pregnancy rates of lactating beef cows losing body weight during the breeding season. T. M. Towns*[1], M. D. Davis[1], M. E. Hockett[1], N. R. Rohrbach[1], and F. N. Schrick[1], [1]Department of Animal Science, University of Tennessee, Knoxville.

232 1920 Use of doppler ultrasonography to estimate fetal age and monitor fetal heart rate and uterine artery pulse rate in dairy cattle. S. Willard[1], A. Webb*[1], S. Bowers[1], and B. Gandy[1], [1]Department of Animal and Dairy Sciences, Mississippi State University, Mississippi State, MS 39762.

233 1921 Factors affecting temporal relationships between estrus, ovulation and insemination in a commercial sow herd. B. A. Belstra*, W. L. Flowers, K. J. Rozeboom, and M. T. See, North Carolina State University, Raleigh, NC.

234 1922 Hormonal changes after manual rupture of follicular cysts. Ahmet Gumen* and Milo C. Wiltbank, Department of Dairy Science, University of Wisconsin-Madison.

235 1923 Pregnancy rates in lactating dairy cows following timed embryo transfer under heat stress conditions. Y.M. Al-Katanani*[1], M. Drost[1], R.L. Monson[2], J.J. Rutledge[2], C.E. Krininger III[1], J. Block[1], and P.J. Hansen, [1]University of Florida, Gainesville, FL/USA, [2]University of Wisconsin, Madison, WI/USA.

236 1924 Factors affecting the time intervals between estrus, LH surge and ovulation in high-yield dairy cows. A. Bloch*[1], D. Wolfenson[1], M. Kaim[2], Z. Roth[1], R. Braw-Tal[2], and Y. Folman[2], [1]Faculty of Agriculture, Hebrew University, Rehovot, Israel, [2]Agricultural Research Organization, Bet-Dagan, Israel.

237 1925 Hormonal induction of enhanced removal of impaired follicles improved oocyte quality in the autumn in previously heat-stressed cows. Z. Roth*[1], A. Arav[2], A. Bor[2], R. Braw-Tal[2], and D. Wolfenson[1], [1]Faculty of Agriculture, Hebrew University, Rehovot, Israel, [2]Agricultural Research Organization, Bet Dagan, Israel.

238 1926 Follicular dynamics and concentrations of steroids and gonadotropins in lactating cows and nulliparous heifers. G. Inbar[1], D. Wolfenson*[1], Z. Roth[1], M. Kaim[2], A. Bloch[1], and R. Braw-Tal[2], [1]Faculty of Agriculture, Hebrew University, Rehovot, Israel, [2]Agricultural Research Organization, Bet Dagan, Israel.

239 1927 Effects of fertilizing bovine oocytes with sperm aged post-thaw. J.A. Miller*, F.N. Schrick, A.M. Saxton, and J.L. Edwards, The University of Tennessee, Knoxville, TN, USA.

240 1928 Evaluation of the fertility potential of extended cooled equine spermatozoa using the resazurin reduction test and $NADH_2$. W. T. Campbell*, S. A. Ericsson, J. S. Pendergraft, K. K. Korth, and J. A. Pitchford, Sul Ross State University, Alpine, Texas.

241 1929 Motility of frozen-thawed bovine sperm after aging for extended time periods. M.N. Malone*, J.A. Miller, A.M. Saxton, and J.L. Edwards, The University of Tennessee, Knoxville, TN, USA.

242 1930 Effects of growth hormone (GH) and IGF-I on development of in vitro derived bovine embryos. F. Moreira, F. F. Paula-Lopes, P. J. Hansen, L. Badinga, and W. W. Thatcher, University of Florida.

243 1931 Nuclear progression of bovine oocytes maintained at germinal vesicle stage up to 66 hours using roscovitine. A.M. Clarke*, L.M. McCann, and J.L. Edwards, The University of Tennessee, Knoxville, TN, USA.

244 1932 Postweaning growth and puberty of Angus and Romosinuano bulls in Florida. C. C. Chase, Jr.*[1], R. E. Larsen[2], P. C. Sheerin[2], M. J. Williams[1], A. C. Hammond[3], T. A. Olson[2], and S. W. Coleman[1], [1]USDA, ARS, Brooksville, FL, [2]University of Florida, Gainesville, [3]USDA, ARS, Athens, GA.

245 1933 Concentrations of LH and testosterone in serum of sexually mature boars treated with naloxone. M.J. Estienne*[1], A.F. Harper[1], J.W. Knight[1], G.B. Rampacek[2], and C.R. Barb[3], [1]Virginia Polytechnic Institute and State University, Blacksburg, [2]University of Georgia, Athens, [3]USDA-ARS, Athens, GA.

246	1934	Early postnatal concentrations of plasma testicular steroid hormones as indicators of boar taint in market weight pigs. P.A. Sinclair*, E.J. Squires, and J.I. Raeside, University of Guelph, Guelph, Ontario, Canada.
247	1935	Vitamin supplements and reproductive performance in boars. I. Audet*[1], J. -P. Laforest[2], G. -P. Martineau[3], and J. J. Matte[1], [1]Agriculture and Agri-Food Canada, Lennoxville, QC, Canada, [2]Laval University, QC, Canada, [3]École Vétérinaire de Toulouse, France.

PSA Physiology: Reproduction and Endocrinology

Board Number	Abstract Number	
248	1936	Laying hen response to molt induction by either pelleted alfalfa or alfalfa meal. K Medvedev*[1], C Woodward[1], X Li[1], L Berghman[1], L Kubena[2], D Nisbet[2], and S Ricke[1], [1]Texas A&M University, Department of Poultry Science, [2]USDA-ARS, Food and Feed Safety Unit.
249	1937	Interleukin-1ß (IL-1ß) reduces the activity of 3ß-hydroxysteroid dehydrogenase (3ß-HSD) in granulosa cells of laying hens. M. A. Alodan*[1] and M. M. Beck[1], [1]University of Nebraska.
250	1938	Expression of the activin type II receptors and the inhibin/activin subunits during follicular development in broiler breeder hens. A. J. Davis* and S. N. Slappey, University of Georgia.
251	1939	Immunization of male broiler breeders against mammalian Gonadotropin Releasing Hormone . J.A. Vizcarra*[1], M.L. Rhoads[1], C.C. Hsu[1], J. Washington[1], J.L.M. Morgan[1], J. Yang[1], H. Tang[1], K. Shaffer[1], and J.D. Kirby[1], [1]Department of Poultry Science, University of Arkansas, Fayetteville, AR 72701.
252	1940	Thyroid hormone and prolactin profiles in male and female turkeys following photostimulation: Validation of an ELISA for turkey prolactin. J. A. Proudman*[1], T. D. Siopes[2], F. Vandesande[3], and L. R. Berghman[4], [1]Germplasm & Gamete Physiology Lab, ARS, USDA, Beltsville, MD 20705, [2]Department of Poultry Science, North Carolina State University, Raleigh, NC 27695, [3]Lab of Neuroendocrinology and Immunological Biotechnology, Catholic University of Leuven, Belgium, [4]Poultry Science Department, Texas A&M University, College Station, TX 77843.
253	1941	Dietary manipulation of rooster sperm. Denise C. Bongalhardo*[1] and Mary M. Buhr[1], [1]University of Guelph.
254	1942	Sperm mobility phenotype influences duration of fertility in turkeys after insemination at 0 or 24 hour *in vitro* storage of sperm. A. M. Donoghue[1], D. P. Froman[2], Y. K. Kirby*[1], D. J. Donoghue[3], and J. D. Kirby[3], [1]PPPSR, ARS, USDA, Fayetteville, AR, [2]Oregon State University, Corvallis, OR, [3]University of Arkansas, Fayetteville, AR.
255	1943	Demonstration of ovoinhibitor, a serine-protease inhibiting protein, in the chicken brain. L.R. Berghman*[1], E. D'Hondt[2], R.W. Moore[3], B.M. Hargis[4], C.M. Oubre[1], and F. Vandesande[2], [1]Texas A&M University, College Station TX, [2]University of Leuven, Belgium, [3]USDA-ARS, College Station TX, [4]University of Arkansas, Fayetteville AR.
256	1944	Vasotocin receptor mRNA expression in the brain and pituitary of broiler breeder hens. K. Shaffer*[1], J.A. Vizcarra[1], C.C. Hsu[1], J.Y. Yang[1], M.L. Rhoads[1], L.E. Cornett[2], D. Baeyens[3], N. Ali[3], and J.D. Kirby[1], [1]Department of Poultry Science, University of Arkansas, Fayetteville, AR, [2]Department of Physiology, University of Arkansas for Medical Sciences, [3]Department of Biology, University of Arkansas Little Rock, Little Rock, AR.

ASAS Nonruminant Nutrition: Feed Ingredients and Enzymes

Board Number	Abstract Number	
257	1945	Effect of lactic acid and lactosucrose supplementation in diets for nursery pigs. Acie Murry*[1], Susan Sanchez[1], and Parshall Bush[1], [1]The University of Georgia, Athens.

258 1946 The potential for egg by-products to replace spray-dried porcine plasma in early-weaned piglet diets. L.D. Schmidt*, C.M. Nyachoti, D. Boros, and B.A. Slominski, University of Manitoba Winnipeg, MB, Canada.

259 1947 Comparison of edible grade whey, granular whey, and Dairylac 80O as lactose sources for nursery pig diets. J.M. DeRouchey*, M.D. Tokach, J.L. Nelssen, R.D. Goodband, S.S. Dritz, J.C. Woodworth, and B.W. James, Kansas State Univesity, Manhattan, KS.

260 1948 Productive performance and carcass characteristics of growing and finishing pigs fed different level of oat groats with and without enzymatic compound. F. Salvador, C. Rodriguez*, F. Nunez, J. Jimenez, O. Ruiz, and A. Alarcon, Universidad Autonoma de Chihuahua, Chihuahua, Chih. Mexico.

261 1949 The effects of pretreating soybean meal with fiber-degrading enzymes on ileal and total tract digestibility by growing pigs. K. L. Saddoris*, M. R. Smiricky, D. M. Albin, V. M. Gabert, and M. R. Murphy, University of Illinois, Urbana.

262 1950 Evaluation of a carbohydrase combination on performance in growing-finishing pigs. M. D. Lindemann[1], G. A. Apgar[2], T. Guthrie*[2], G. L. Cromwell[1], H. J. Monegue[1], K. E. Griswold[2], and N. Inocencio[1], [1]University of Kentucky, Lexington, [2]Southern Illinois University, Carbondale.

263 1951 Amino acids ileal digestibility of hulless barley, barley and sorghum grains in growing pigs . G. Mariscal-Landin*[1] and J. E. Rodriguez[2], [1]C. N. I. Fisiologia y Mejoramiento Animal, INIFAP., [2]Nutrientes Basicos de Monterrey, S.A. de C.V. NL, Mexico.

264 1952 Effects of Fibrozyme® supplementation on ileal and total tract digestion of nitrogen and energy by finishing pigs fed diets containing a fibrous soy co-product. M. R. Smiricky*[1], D. M. Albin[1], V. M. Gabert[1], H. Yang[2], and R. Dvorak[3], [1]University of Illinois, Urbana, IL, [2]ADM Feed Products Group, Quincy, IL, [3]Alltech, Inc., Nicholasville, KY.

265 1953 Effects of dietary supplementation of crude inulin extract on the emission of volatile sulfides from manure slurry of growing-finishing pigs fed corn and soybean meal-based diets. T.C. Rideout[1], M.Z. Fan[1], Y. Gao[1], C. Wagner-Riddle[1], J.P. Cant[1], P. Stonehouse[1], G. Sheffrin[2], R. Cook[2], B. Raines[2], and R.R. Hacker[1], [1]University of Guelph, [2]Qtf Foods, Inc.

266 1954 Efficacy of mannan oligosaccharide (Bio-Mos®) addition with two levels of copper sulfate in the diets of growing-finishing pigs. M. E. Davis*[1], C. V. Maxwell[1], B. Z. de Rodas[2], D. C. Brown[1], Z. B. Johnson[1], and R. A. Dvorak[3], [1]University of Arkansas, Fayetteville, [2]Land O'Lakes Inc., Fort Dodge, IA, [3]Alltech, Nicholasville, KY.

267 1955 Dietary fiber level and xylanase affects nutrient digestibility and waste production in grower pigs . A.J. Moeser* and T.A.T.G. van Kempen, North Carolina State University.

268 1956 Wheat specific weight or added enzyme did not affect weaner performance. H.M. Miller[1], P. Toplis*[2], and P. Blanchard[3], [1]University of Leeds, School of Biology, Leeds, LS2 9JT, [2]Primary Diets Ltd., Melmerby, HG4 5HP, UK, [3]Frank Wright Ltd., Ashbourne, DE6 1HA, UK.

269 1957 Efficacy of Allzyme Vegpro in swine diets. L. J. Johnston*[1], H. G. Jung[2], J. A. Wilson[1], and J. E. Pettigrew[3], [1]University of Minnesota, Morris, [2]USDA-ARS, St. Paul, [3]Pettigrew Consulting International, Lousiana, MO.

270 1958 Beneficial effect of using a blend of flavoring substances in promoting appetite and growth performance in weaned piglets. A. Piva*[1], M. Morlacchini[2], F. Galvano[3], and A. Prandini[4], [1]University of Bologna, Ozzano Emilia, Italy, [2]CERZOO, Piacenza, Italy, [3]University of Reggio Calabria, Reggio Calabria, Italy, [4]Universita' Cattolica del S.Cuore, Piacenza, Italy.

271 1959 Effect of plant extracts on the performance and lower gut microflora of early weaned piglets. E.G. Manzanilla[1], F. Baucells[1], C. Kamel[2], J. Morales*[1], J.F. Perez[1], and J. Gasa[1], [1]Universidad Autonoma de Barcelona, [2]AXISS France, S.A.S. Archamps, France.

272 1960 Limiting amino acids in wheat for growing pigs. M. Cervantes*[1], A. Pichardo[2], M. Cuca[2], M. Cervantes[1], A.B. Araiza[1], and N. Torrentera[1], [1]Universidad Autónoma de Baja California, Mexicali, México, [2]Colegio de Postgraduados, Montecillos, México.

273 1961 Comparative nutritional value of wheat, grain sorghum and corn in diets for finishing pigs. A.B. Araiza, M. Cervantes*, S. Espinoza, N. Torrentera, and M. Cervantes, Universidad Autónoma de Baja California, Mexicali, México.

274 1962 Time response effects of cornstarch and raw potatoe starch on the whole-tract digestibility and digestive tract adaptation in growing (20-60 kg) pigs. D. Martinez-Puig[1], J. Morales*[1], J.F. Perez[1], S.M. Martin-Orue[1], and M.D. Baucells[1], [1]Universidad Autonoma de Barcelona.

275	1963	Performance and caecal microbial activity of growing rabbits fed different starch levels. A. M. V. Arruda*[1], R. D. Carregal[2], R. G. Ferreira[2], and E. S. Pereira[1], [1]Universidade Estadual Oeste Parana, [2]Universidade Estadual de Sao Paulo, Brazil.
276	1964	Apparent digestibility of diets with differents starch levels to growing rabbits . A. M. V. Arruda*[1], R. D. Carregal[2], R. G. Ferreira[2], and E. S. Pereira[1], [1]Universidade Estadual Oeste Parana, [2]Universidade Estadual de Sao Paulo, Brazil.
277	1965	Studying the effect of protein sources on meat quality of pigs using discriminant analyses. Cs. Szabo[1], A.J.M. Jansman[2], L. Babinszky*[1], E. Kanis[3], and M.W.A. Verstegen[3], [1]University of Kaposvár, Department of Animal Nutrition, Kaposvar, Hungary, [2]ID-TNO Animal Nutrition, Lelystad, The Netherlands, [3]Wageningen Institute of Animal Sciences (WIAS), Wageningen, The Netherlands.
278	1966	Feeding value in broiler chicken diets of a potato expressing a ß-glucanase from *Fibrobacter succinogenes*. J. Baah*[1], T. A. McAllister[1], T. A. Scott[2], L. M. Kawchuk[1], J. D. Armstrong[3], L. B. Selinger[4], and K.-J. Cheng[5], [1]Agriculture and Agri-Food Canada Research Centre, Lethbridge, AB, [2]Pacific Agri-Food Research Centre, Agassiz, BC, [3]Pacific Agri-Food Research Centre, Summerland, BC, [4]University of Lethbridge, Lethbridge, AB, [5]Academia Sinica, Taipei, Taiwan.
279	1967	Effect of protein fluctuations and space allocation on performance of growing-finishing pigs. M. S. Edmonds*[1] and D. H. Baker[2], [1]Kent Feeds, Inc., Muscatine, IA, [2]University of Illinois, Urbana, IL.

PSA Nutrition: Phytase and General Nutrition

Board Number	Abstract Number	
280	1968	Pelleting stability of Ronozyme™ P CT phytase in commercial feedmills. N.E. Ward* and J.W. Wilson, Roche Vitamins Inc.
281	1969	Comparison of Ronozyme P™ CT, Ronozyme P™ Liquid and Natuphos® Liquid in a commercial broiler pelleted feed. N.E. Ward*[1], J.W. Wilson[1], and J. McNaughton[2], [1]Roche Vitamins Inc., Parsippany NJ, [2]Solutions BioSciences Inc., Salisbury MD.
282	1970	Comparison of a solid-state fermentation produced phytase with a traditional liquid-fermented phytase in broiler chicks. J Pierce*[1], J Driver[2], and J Harter-Dennis[3], [1]Alltech, Nicholasville, KY, [2]University of Pretoria, South Africa, [3]University of Maryland Eastern Shore, Princess Anne.
283	1971	Efficacy of Allzyme Phytase® produced by solid-state fermentation in improving the phosphorus availability of wheat-soybean meal diets for broilers. Y.B. Wu[1], V Ravindran[1], D.T. Thomas[1], B.J. Camden[1], P.C.H. Morel[1], W.H. Hendriks[1], and J. Pierce*[2], [1]Massey University, Palmerston North, New Zealand, [2]Alltech, Nicholasville, KY.
284	1972	Effect of phytase on reduced available phosphorous levels in broiler diets. S. Parhizcar*, A. Kamyab, M. Shivazad, and R. Ashtiani, University of Tehran, Animal Science Dept.
285	1973	Effects of microbial phytase on apparent ileal digestibility of amino acids in broiler chicks fed a corn-soybean meal diet formulated on an ideal protein basis. D. R. Ledoux*, J. N. Broomhead, and J. D. Firman, University of Missouri Columbia, MO USA.
286	1974	The effect of a non-GMO phytase on the performance of broilers fed diets containing different concentrations of phosphorus . Ruedi Hadorn[1], Hans Wiedmer[1], Samuel Nydegger[2], and Peter Spring*[2], [1]Swiss Poultry Husbandry School, Zollikofen, Switzerland, [2]Swiss College for Agriculture, Zollikofen, Switzerland.
287	1975	Evaluation of a high coefficient of variation (CV) of phytase consumption on the performance of broilers from 21-42 days of age. J. M. Harter-Dennis*[1], J. Timmons[1], and A. E. Sefton[2], [1]University of Maryland Eastern Shore, Princess Anne, MD, [2]Alltech, Inc., Guelph, Canada.
288	1976	Influence of Allzyme (Phytase) supplementation on Bovans hens. H. Anwar Ahmad*[1], S. S. Yadalam[2], and David A Roland, Sr.[2], [1]Tuskegee University, [2]Auburn University.

289 1977 Effects of dietary supplemental microbial phytase and nonphytate phosphorus on performance, nutrient digestibility and egg quality of laying hens. S. H. Kim*[1], W. J. Lee[2], S. J. Lee[1], D. J. Yu[1], S. Y. Park[3], B.S. Kang[1], J. C. Na[1], and K. S. Ryu[3], [1]National Livestock Research Institute of Rural Development Administration, Daejeon, [2]Daesung Microbiology Co., LTD, [3]Department of Animal Resources and Biotechnology, Chonbuk National University.

290 1978 The response of laying hens to phytase added to corn-soybean meal-based diets containing two levels of available phosphorus. 2. Phytate phosphorus utilization. M.A Kamberi[1], H.M. Edwards[2], G.M. Pesti*[2], S. Muratovic[3], S. Muji[1], and R.I. Bakalli[2], [1]University of Prishtina, Prishtina, Kosova, [2]The University of Georgia, Athens, GA 30602-2772, [3]University of Sarajevo, Sarajevo, Bosnia and Herzegovina.

291 1979 Effects of Roche Ronozyme CT on Hy-Line W-98 laying hen performance when fed low phosphorus diets. S. E. Scheideler*[1], N. Ward[2], and M. Jalal[1], [1]University of Nebraska, [2]Roche Vitamins.

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295 1983 Influence of atorvastatin on select indices of lipid metabolism in normolipidemic and hereditary hyperlipidemic chickens. R. G. Elkin*[1], Y. Zhong[2], S. S. Donkin[2], C. R. Thomas[2], E. Hengstschlager-Ottnad[3], and W. J. Schneider[3], [1]The Pennsylvania State University, University Park, PA, [2]Purdue University, West Lafayette, IN, [3]Biocenter and University of Vienna, Vienna, Austria.

296 1984 Modification of the lipid profile of eggs yolks by feeding laying hens different sources of fatty acids. Douglas Faria*[1], Monica Mazalli[1], Daniely Salvador[1], Samir Correa[1], and Diogo Ito[1], Faculdade de Zootecnia e Engenharia de Alimentos, Pirassununga, SP, Brasil.

297 1985 Relationship between objective and subjective measurement of egg yolk colour. X. Rincon-Carruyo[1], R. Sala[1], B. Vila[2], J. Galobart*[1], and J. Gasa[1], [1]Universidad Autonoma de Barcelona, [2]Industrial Tecnica Pecuaria S.A. (ITPSA), R&D Dep., Barcelona Spain.

298 1986 Comparison of inert markers in poultry digestibility studies. P. R. Ferket*, A. D. Israel, and E. B. Morris, NC State University, Raleigh, NC USA.

299 1987 Additivity of amino acid and energy digestibility in barley and canola meal for ducks. D Hong*[1], D Ragland[2], and O Adeola[1], [1]Department of Animal Sciences, [2]Department of Veterinary Clinical Sciences, Purdue University.

300 1988 Utilization of various starch sources as affected by age in the chick. A.B. Batal* and C.M. Parsons, University of Illinois, Urbana, IL USA.

301 1989 Dietary protein and thyroid interactions broiler chickens. R. W. Rosebrough, ARS, Beltsville, MD, USA.

302 1990 Dietary protein level and stage of development affect expression of the intestinal peptide transporter (cPepT1) in chickens. H. Chen*, Y-X. Pan, E. A. Wong, and K. E. Webb, Jr. , Virginia Tech, Blacksburg, VA, USA.

303 1991 The effect of early nutrition and refeeding on satellite cell mitotic activity. P. E. Mozdziak*[1], T. J. Walsh[2], and D. W. McCoy[1], [1]North Carolina State University, [2]Novus International, Inc.

304 1992 Incorporation of n-6 and n-3 fatty acids into selected meat portions from male and female broilers fed sardine oil. Rosa Ma. Castillo Domínguez[1], Silvia Carrillo Domínguez*[1], Ernesto Avila Gonzalez[2], Benjamin Fuente Martínez[2], and Fernando Pérez-Gil Romo[1], [1]Instituto Nacional de Ciencias Medicas y Nutricion Salvador Zubiran, [2]Fac de Medicina Veterinaria y Zootecnia. Universidad Nacional Autonoma de Mexico.

305 1993 Changes of magnesium and calcium contents and adenosine triphosphatase activity of shell gland mucosa during eggshell formation in Brown Tsaiya ducks and White Leghorn hens. W. L. Chen and T. F. Shen*, National Taiwan University, Taipei, Taiwan.

ADSA Student Affiliate Division

Dairy Foods Undergraduate Paper Presentations

Wednesday, July 25, 2001

Chair: S. C. Kelm, University of Wisconsin–River Falls

Room: 123-124

Time	Abstract Number	
11:00 AM	1994	Drinking reduced-fat milk may reduce heart disease risk. C.M. Opsahl[1], [1]University of Minnesota-St. Paul.
11:15 AM	1995	Improving calcium availability with dairy foods and inulin. R. L. Blades[1], [1]Louisiana State University.
11:30 AM	1996	Conjugated linoleic acid: Cancer prevention from dairy products. B. E. Dixon*, University of Kentucky, Lexington, KY.
11:45 AM	1997	Biotechnology as a means of modifying milk composition. A.E. Iager*[1], [1]Virginia Polytechnic Institute.

Dairy Production Undergraduate Paper Presentations

Wednesday, July 25, 2001

Chair: S. C. Kelm, University of Wisconsin–River Falls

Room: 123-124

Time	Abstract Number	
1:00 PM	1998	The importance of biosecurity measures in dairy herds. D.D. Leuty*[1], Washington State Univerity, Pullman, WA.
1:15 PM	1999	Increasing cow milkability. Jana Edwards*[1], [1]Virginia Tech.
1:30 PM	2000	The effects of heat stress on conception rates and early embryonic development. I. A. Norris*[1], [1]Louisiana State University.
1:45 PM	2001	Agroterrorism: Is it a possibility? J.L. Flinchbaugh*[1], [1]Pennsylvania State University.
2:00 PM	2002	The advantages and disadvantages of accelerated heifer growth. M.H. London*, University of Kentucky Dairy Club.

Original Research/Independent Study Undergraduate Paper Presentations

Wednesday, July 25, 2001

Chair: S. C. Kelm, University of Wisconsin–River Falls

Room: 123-124

Time	Abstract Number	
2:45 PM	2003	Genetic relationships among electrical conductivity of milk, somatic cell scores and mastitis. R.C. Goodling*[1], G.W. Rogers[1], J.B. Cooper[1], and B. Rune[2], [1]Pennsylvania State University, [2]SAE Afikim, Kibbutz Afikim, Israel.

3:00 PM 2004 Effects of propylene glycol or fat drench on plasma metabolites and liver composition of transition dairy cows. M. M. Pickett*, M. S. Piepenbrink, and T. R. Overton, Cornell University, Ithaca, NY.

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AMERICAN REGISTRY OF PROFESSIONAL ANIMAL SCIENTISTS (ARPAS)

AMERICAN SOCIETY OF ANIMAL SCIENCE (ASAS)

Alpharma Beef Cattle

Beef Species

Companion Animals

Goat Species

Horse Species

Meat Science and Muscle Biology

Mixed Models

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Nonruminant Nutrition

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Sheep Species

Symposium:

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Swine Species

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Animal Behavior and Well Being

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Animal Health

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Physiology

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Production, Management, and Environment

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Ruminant Nutrition

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Teaching Undergraduate and Graduate Education

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FASS Committee on Environment, Waste Management, and Ecosystems

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Extension and Instruction

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