Tuesday, June 5

6:00-9:00 PM Welcome Reception – Garden Room and Gazebo
Martha Vogelsang, ESS President, University of Maryland Host Committee

Wednesday, June 6

8:00-8:15 AM Welcome – Hunt & Valley Rooms
Martha Vogelsang, ESS President, University of Maryland Host Committee

8:15-8:30 AM Invited Speaker – Hunt & Valley Rooms
Maryland Secretary of Agriculture – Welcome to Maryland Horse Country

POSTER PRESENTATIONS
Poster Session

Posters are to be set-up by 12:00 noon Wednesday, June 6, 2007 and will remain posted until 12:00 noon June 8, 2007. Authors should be present at their poster June 6 from 5:00-7:00 pm.

Chair: Dr. Mark Arns, University of Arizona
Assembly Area - Hunt/Valley

Effect of dietary energy source and time of adaptation on glycemic and insulminemic responses to feeding in mature horses. S. M. Coe*, A. M. Coe†, and S. E. Pratt‡, †Otterbein College, Westerville, OH, ‡North Carolina State University, Raleigh, NC.

Effect on the equine colon ecosystem following an abrupt change from hay to haylage or silage. S. Muñoz*, V. Julián†, J. E. Lindberg‡, J. Bertilsson§, and A. Jansson‖, †Department of Animal Nutrition and Management, Swedish University of Agricultural Sciences, Uppsala, Sweden, ‡ENESAD, Dijon, France.

Effect of dietary energy source and time of adaptation on muscle glycogen concentrations in horses. A. M. Coe*, S. M. Coe†, and S. E. Pratt‡, †Otterbein College, Westerville, OH, ‡North Carolina State University, Raleigh, NC.

The effect of milk basic protein supplementation on bone metabolism in mature horses. Y. Inoue*, M. Kobayashi†, K. Ando‡, Y. Toba‡, A. Serizawa‡, and Y. Asai†, †Equine Science Division, Hidaka Training and Research Center, Japan Racing Association, Urakawa-gun, Hokkaido, Japan, ‡Blood Horse Training Center, Urakawa-gun, Hokkaido, Japan, †Functional Products Business Development, Snow Brand Milk Products Co. Ltd., Shinjuku-ku, Tokyo, Japan, Technology and Research Institute, Snow Brand Milk Products Co. Ltd., Kawagoe-shi, Saitama, Japan.

Evaluating the technique of using nitrogen retention as a response criterion for amino acid studies in the horse. T. J. Antilley, G. D. Potter, P. G. Gibbs, B. D. Scott, E. M. Eller*, and L. D. Claborn, Texas A&M University, College Station, TX.

Effect of organic minerals (amino acid binded minerals) supplementation on bone development in yearling horses. H. Takakuwa*, Y. Inoue†, Y. Hatano†, M. Kobayashi‡, K. Ando‡, and Y. Asai‡, †R&D Centre, NOSAN Corporation, Tsukuba, Ibaraki, Japan, ‡Hidaka Training and Research Centre, Urakawa-gun, Hokkaido, Japan, †Blood Horse Training Center, Urakawa-gun, Hokkaido, Japan.

Growth performance of Draft Cross weanlings fed forage based total mixed ration cubes versus traditional hay/grain rations. S. L. Ralston*, H. Anderson†, and R. Johnson‡, †Rutgers, the State University of New Jersey, New Brunswick, NJ, ‡Idle acres, Cokato, MN, †Nutrena, Minnetonka, MN.


Effects of supra-dietary concentrations of Saccharomyces cerevisiae CBS 493494 on growth and health of foals, around the weaning period. J. Gobert*, G. Bertin†, and V. Julián‡, †ENESAD, Dijon, France, ‡ALLTECH, Levallois-Perret, France.

Clearance of omega-3 fatty acids from plasma and erythrocyte membranes following dietary fatty acid supplementation. K. R. Vineyard*, L. K. Warren, and J. Kivipelto, Department of Animal Sciences, University of Florida, Gainesville, FL.

Net joint moments and powers of the flat walk and fox trot of the Missouri Fox Trotter. M. Nicodemus* and K. Slater, Mississippi State University, Mississippi State, MS.

Comparisons of the Arabian Hunter and Country English Pleasure trot temoral variables. M. Nicodemus* and K. Slater, Mississippi State University, Mississippi State, MS.

Effect of a new electrolyte supplement on plasma tCO2 concentration in standardbred horses subjected to a simulated race test. J. G. Milizio†, T. J. Caltabibota*, S. R. Malone‡, R. W. Miller‡, and K. H. McKeever*, †Equine Science Center, Department of Animal Science, Rutgers the State University of New Jersey, New Brunswick, NJ, ‡Alpharma, Inc., Fort Lee, NJ.

Linear and temporal kinematics of the walk in suckling and weanling warmblood foals. S. F. Denham*, W. B. Stanier, and R. K. Splan, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Evaluation of indicators of weight carrying ability of light horses. D. Powell*, K. Bennett-Wimbush†, A. Peeples‡, and M. Duthie‡, †The Ohio State University Agriculture Technical Institute, Wooster, OH, ‡Annisse, Medina, OH.

Mare fertility following transport and separation from foal. A. J. Cawdell-Smith¹, K. M. Burey¹, W. L. Bryden*¹, and N. R. Perkins², ¹University of Queensland, Gatton, Qld, Australia, ²AusVet Animal Health Services, Toowoomba, Qld, Australia.

Investigation of the relationship of body temperature, serum estradiol, and serum progesterone to the onset of parturition in the mare. S. C. Morgan¹, M. M. Vogelsang¹, M. C. Bowman*¹, B. D. Scott¹, E. M. Eller¹, P. G. Gibbs¹, K. Hinrichs¹, and K. Owen¹, ¹Department of Animal Science, Texas A&M University, College Station, TX, ²Department of Veterinary Physiology and Pharmacology, Texas A&M University, College Station, TX, ³Electronic ID, Inc., Cleburne, TX.

Comparison of biological responses to injections of estradiol benzoate in oil, estradiol benzoate in biodegradable microspheres, and estradiol cypionate in geldings. D. L. Thompson, Jr.², P. B. Mitcham¹, M. L. Runles¹, P. J. Burns¹, and R. M. Gilley¹, ¹School of Animal Sciences, Louisiana Agricultural Experiment Station, LSU Agricultural Center, Baton Rouge, LA, ²Burns BioSolutions, Lexington, KY, ³BioRelease Technologies, Birmingham, AL.


Equine vocalization project (EVP): Mare-foal separation whinnies. D. Browning*¹, J. Nadeau², P. Scheifele², and J. Dinger², ¹Browning Biotech, Kingston, RI, ²Univ. of Connecticut, Storrs, CT.

Commercial trail riding industry’s impact on the economy of south central Missouri. K. E. Welker¹, A. Rimal, and G. Webb, Missouri State University, Springfield, MO.

Global positioning systems: A tool for quantifying distance, speed, and position in grazing horses. C. C. Clingman*¹, W. B. Stanier¹, T. L. Smith¹, and B. J. McIntosh¹, ¹Virginia Tech, Blacksburg, VA, ²Middleburg Agricultural Research and Extension Center, Middleburg, VA.

Feeding practices of hunter/jumper horses in the MidAtlantic region of the United States. P. M. Graham-Thiers*, Virginia Intermont College, Bristol, VA.

Simultaneous measurement of neutrophil phagocytosis and oxidative burst activity by flow cytometric evaluation in equine whole blood. K. R. Vineyard*¹, P. C. Crawford¹, and L. K. Warren¹, ¹Department of Animal Sciences, University of Florida, Gainesville, FL, ²Department of Small Animal Clinical Sciences, University of Florida, Gainesville, FL.

Plasma concentrations of bone biochemical markers, insulin-like growth factor-I, leptin and metacarpal ultrasound speed in lusitano suckling foals: A preliminary study. D. M. Fradinho*¹, L. Mateus¹, R. Agrícola¹, M. J. Correia¹, M. J. C. Vila-Viçosa¹, R. M. Caldeira¹, and G. Ferreira-Dias¹, ¹CIISA, Faculdade de Medicina Veterinária, Lisbon, Portugal, ²Coudelaria Nacional, Fonte Boa, Portugal, ³Coudelaria de Alter, Alter do Chão, Portugal, ⁴Departamento de Medicina Veterinária, Universidade de Évora, Évora, Portugal.

Shackleford Banks wild ponies: A nutritional survey. C. B. Bradshaw*¹, S. Stuska², and M. J. Yoder¹, ¹North Carolina State University, Raleigh, NC, ²National Park Service, Cape Lookout National Sea Shore, Harkers Island, NC.

Creating a niche market in an undergraduate equine science program. R. K. Splan* and E. A. Dunnington, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Defining the consumer profile of the adult horse enthusiast in Michigan. C. Skelly*, K. Waite, M. ZumBrunnen, C. Geith, and M. Suvedi, Michigan State University, East Lansing, MI.

Australian equine science symposium: An overview. W. L. Bryden*¹, T. E. Broad², A. J. Cawdell-Smith¹, M. N. Silience¹, N. R. Perkins⁴, and D. R. Hodgson¹, ¹University of Queensland, Gatton, Qld, Australia, ²Atawhai, Nelson, New Zealand, ³Charles Sturt University, Wagga Wagga, NSW, Australia, ⁴AusVet Animal Health Services, Toowoomba, Qld, Australia, ⁵University of Sydney, Camden, NSW, Australia.

An applied approach to the study of equine anatomy. C. Buckhout*, Cazenovia College, Cazenovia, NY.

Appraisal of critical thinking skills in animal science students. L. M. Morgan*, Clemson University, Clemson, SC.

Educational value of two teaching approaches for improved knowledge of youth leaders and team coaches. C. A. Cavinder*, P. G. Gibbs, and T. I. Antilley, Texas A&M University, College Station, TX.

Measuring the impact of a horse judging short course. R. A. Mowrey*, North Carolina Cooperative Extension Service, North Carolina State University, Raleigh, NC.

Equine behavior and training manual needs assessment study. L. M. McKenzie* and N. E. Jack, University of Arkansas, Fayetteville, AR.

Preparing underrepresented equine science students for success. J. Pendergraft*, Sul Ross State University, Alpine, TX.

Direct economic impact of the Missouri Fox Trotter Show and Celebration in Douglas County, Missouri. J. Deutsch, G. Webb*, and A. Rimal, Missouri State University, Springfield, MO.

SYMPOSIA AND ORAL SESSIONS
Nutrition
Graduate Competition
Chair: Dr. Steven Cooper,
Oklahoma State University
Hunt Ballroom

9:00 AM 39 Nutritional effects on insulin sensitivity and glucose dynamics in pregnant and non-pregnant mares. L. A. George1,2, W. B. Staniar1,2, T. A. Cubitt1,2, K. H. Treiber1,2, P. A. Harris1, and R. J. Geor1,2, 1Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA, 3Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

9:15 AM 40 Insulin sensitivity and glucose dynamics in foals as influenced by age and maternal diet during gestation. L. A. George1,2, W. B. Staniar1,2, K. H. Treiber1,2, P. A. Harris1, and R. J. Geor1,2, 1Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA, 3Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

9:30 AM 41 Effects of direct-fed microbial supplementation on digestibility and fermentation end-products in horses fed low– and high–starch concentrates. K. L. Swoyser1, A. O. Burk1, T. G. Hartsock1, E. M. Ungerfeld1, and J. L. Shelton2, 1University of Maryland, College Park, MD, 2Virginia Polytechnic and State University, Blacksburg, VA, 3University of Pennsylvania, Kennett Square, PA.

9:45 AM 42 Effect of weight gain and diet on insulin sensitivity in thoroughbred geldings. R. W. Quinn1, A. O. Burk1, T. G. Hartsock1, K. H. Treiber2, and R. C. Boston3, 1University of Maryland, College Park, MD, 2Virginia Polytechnic and State University, Blacksburg, VA, 3University of Pennsylvania, Kennett Square, PA.

10:00 AM 43 Effect of n-3 pufas on markers of inflammation in arthritic horses. D. R. Manhart1, B. D. Scott1, E. M. Eller1, C. M. Horns2, D. M. Hood1, J. A. Coverdale1, and P. G. Gibbs1, 1Department of Animal Science, Texas A&M University, College Station, TX, 2Large Animal Veterinary Hospital, Texas A&M University, College Station, TX, 3Veterinary Physiology and Pharmacology Department, College of Veterinary Medicine, Texas A&M University, College Station, TX.

10:15 AM 44 Effect of fish oil supplementation on neutrophil function and antibody production in yearling horses. K. R. Vineyard1, L. K. Warren1, S. K. Weibel1, and J. Kivipelto1, 1Department of Animal Sciences, University of Florida, Gainesville, FL, 2JBS United, Inc., Sheridan, IN.

10:30 AM Break.

10:45 AM 45 Downregulation of cyclooxygenase-2 expression and prostaglandin-e2 expression production in equine chondrocytes and osteoblasts by avocado soybean unsaponifiables, glucosamine, and chondroitin sulfate. A. Y. Au1,2, R. Y. Au1, A. M. Rashmir-Raven1, and C. G. Frondoza1,4, 1Nutramax Laboratories, Inc., Edgewood, MD, 2Syracuse University, Syracuse, NY, 3Mississippi State University, Mississippi State, MS, 4Johns Hopkins University, Baltimore, MD.

11:00 AM 46 Plant factors affecting preference of horses for cool season grasses. K. Watson1, S. Smith, Jr., and L. Lawrence, University of Kentucky, Lexington, KY.

11:15 AM 47 Effects of diet and weight gain on body condition score in mature thoroughbred geldings. J. K. Suagee1, A. O. Burk, R. W. Quinn, T. G. Hartsock, E. D. Petersen, and L. W. Douglass, University of Maryland, College Park, MD.

11:30 AM 48 In vitro inhibition of growth of Escherichia coli, Salmonella Typhimurium, and Clostridia perfringens using probiotics. B. L. Darby1,2, G. L. Heusner1, A. C. Mury, Jr.1, A. Hinton, Jr.2, M. H. Barton1, and R. A. Fayrer-Hosken1, 1Department of Animal and Dairy Science, University of Georgia, Athens, GA, 2Poultry Processing Unit, Agricultural Research Service, USDA, Athens, GA, 3College of Veterinary Medicine, University of Georgia, Athens, GA.

11:45 AM 49 Hydration status of horses during endurance exercise as affected by dietary fiber type. H. S. Spooner1, B. D. Nielsen1, P. A. Harris2, A. D. Woodward1, S. W. Eberhart1, and H. C. Schott II1, 1Department of Animal Science, Texas Tech University, Lubbock, TX, 2Department of Agricultural Sciences, Sam Houston State University, Huntsville, TX.

12:00 PM Lunch Break.

Production and Management
Graduate Competition
Chair: Dr. Arno Lindner, Arbeitsgruppe Pferd
Salon A

9:00 AM 50 Comparison of different management techniques on hay wastage in horses fed coastal bermudagrass round baled hay. W. C. Golden1, K. R. Wilson1, and M. L. McMillan1, 1Department of Animal and Food Sciences, Texas Tech University, Lubbock, TX, 2Department of Agricultural Sciences, Sam Houston State University, Huntsville, TX.


9:30 AM 52 The effects of various co-composting materials on the decomposition of equine carcasses. L. C. Brown1, L. A. Baker1, B. W. Auvermann2, K. B. Heflin2, and J. L. Pipkin1, 1West Texas A&M University, Canyon, TX, 2Texas Cooperative Extension, Amarillo, TX.
9:45 AM 53 Effects of Ractopamine HCl on physical and reproductive parameters in the horse. R. D. Kriewald*,1, M. M. Vogelsang,1, B. D. Scott,1, P. G. Gibbs,1, E. M. Eller,1, J. A. Sterle,1, and R. L. Walzem,1,1Department of Animal Science, Texas A&M University, College Station, TX, 2Department of Poultry Science, Texas A&M University, College Station, TX.

10:00 AM 54 Variation of cribbing frequency with altered feeding schedules. W. H. Brown*,1, C. A. McCall1, W. H. McElhenney*, and T. R. Fenn*,1Auburn University, Auburn University, AL, 3Ceres Farm, Notasulga, AL.

10:15 AM 55 Synovial fluid and plasma insulin-like growth factor I (IGF-I) in growing Thoroughbred horses. R. S. Cosden*,1,2, W. B. Staniar*1,2, J. A. Brown*, and P. A. Harris*,1Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA, 3Marion DuPont Scott Equine Medical Center, Virginia-Maryland Regional College of Veterinary Medicine, Leesburg, VA, 4Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

10:30 AM Break.

10:45 AM 56 Comparison of thoroughbred growth data to body weights predicted by the NRC. J. E. Ringler*, and L. M. Lawrence, University of Kentucky, Lexington, KY.

11:00 AM 57 Standardized scoring systems and morphometric measurements to assess adiposity in horses and ponies. R. A. Carter*,1,2, T. A. Cubitt*,1,2, W. B. Staniar*,1,2, P. A. Harris*,1, and R. J. Geor*,1,2, Virginia Tech, Blacksburg, VA, 3Middleburg Agricultural Research and Extension Center, Middleburg, VA, 4Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

Reproductive Physiology
Graduate Competition
Chair: Dr. Don Thompson,
Louisiana State University
Valley Ballroom

9:00 AM 58 Glucose and insulin dynamics during the estrous cycle of Thoroughbred mares. T. A. Cubitt*,1,2, L. A. George*,1,2, W. B. Staniar*,1,2, P. A. Harris*,1, and R. J. Geor*,1,2, Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, VA, 3Middleburg Agricultural Research and Extension Center, Middleburg, VA, 4Equine Studies Group, WALTHAM, Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

9:15 AM 59 Characterization of equine umbilical cord blood-derived stem cells. S. A. Reed* and S. E. Johnson, University of Florida, Gainesville, FL.


10:15 AM Break.

Undergraduate Competition
Chair: Dr. Bill Schurg,
University of Arizona
Salon C

9:00 AM 63 The effects of b-carotene supplementation on vitamin levels of horses. J. W. Lee* and C. A. Williams, Department of Animal Sciences, School of Environmental and Biological Sciences, Rutgers, the State University of New Jersey, New Brunswick, NJ.

9:15 AM 64 The effects of a supplemental antioxidant mixture on exercising standardbred mares. S. Cruz* and C. A. Williams, Department of Animal Sciences, School of Environmental and Biological Sciences, Rutgers, the State University of New Jersey, New Brunswick, NJ.

9:30 AM 65 Effects of feeding distillers dried grains with solubles on growth and feed efficiency of weanling horses. T. A. Bonoma*, A. C. Brogren, K. H. Kline, and K. M. Doyle, Department of Animal Sciences, University of Illinois, Urbana, IL.


10:00 AM 67 Effect of dietary capsaicin on immune function and health of horses. S. N. Hardin*, L. B. Potts, J. W. Waggoner, and J. L. Turner, New Mexico State University, Las Cruses, NM.

10:15 AM 68 Nitric oxide concentration in plasma and synovial fluid of intensely exercising horses. J. R. DeWitt*, E. D. Lamprecht, and C. A. Williams, Department of Animal Sciences, Equine Science Center, Rutgers, the State University of New Jersey, New Brunswick, NJ.

10:30 AM Break.
10:45 AM 69 Sucralfate® does not affect plasma total carbon dioxide concentration in horses subjected to a simulated race test. T. J. Callabilota*, J. G. Milizio1, S. R. Malone2, J. Kenney1, and K. H. McKeever1. 1Equine Science Center, Department of Animal Science, Rutgers the State University of New Jersey, New Brunswick, NJ, 2Kenney and Ketner, DVMs, L.L.C., Colts Neck, NJ.

11:00 AM 70 The effect of concentration on the motility of cooled stallion semen. W. B. French*, J. D. LeClair, K. Hurley, P. D. Moffett, and J.E. Bruemmer, Colorado State University, Fort Collins, CO.

Exercise Physiology
Graduate Competition
Chair: Dr. Joe Pagan,
Kentucky Equine Research, Inc.
Valley Ballroom

10:45 AM 71 Endurance training has little impact on mineral content of the third metacarpus in two-year-old Arabian horses. A. D. Woodward*, B. D. Nielsen1, H. S. Spooner1, H. C. Schott II1, P. A. Harris1, and D. S. Rosenstein1. 1Department of Animal Science, Michigan State University, East Lansing, MI, 2Large Animal Clinical Science, Michigan State University, East Lansing, MI, 3Equine Studies Group, WALTHAM Centre for Pet Nutrition, Leics, United Kingdom.

11:00 AM 72 Proliferative effects of bovine mammary lymph node proteins on equine chondrocytes in vitro. A. Reed*, L. Riggs2, and S. Ellis1. 1Clemson University, Clemson, SC, 2University of Georgia, Athens, GA.

11:15 AM 73 Validation of a three dimensional motion capture system for use in identifying characteristics of the running walk. P. Roberson*, S. Zhang, and C. Kojima, University of Tennessee, Knoxville, TN.

11:30 AM 74 Inflammatory responses to three modes of intense exercise in standardbred mares. E. D. Lamprechts*, C. A. Bagnell, and C. A. Williams, Department of Animal Sciences, Equine Science Center, Rutgers, the State University of New Jersey, New Brunswick, NJ.

Teaching and Extension
Graduate Competition
Chair: Dr. Gary Heusner, University of Georgia
Salon A

11:30 AM 75 The effect of a horse oriented curriculum on academic engagement in students with disabilities. L. A. Bassette*, S. Templin, A. M. Beck, M. A. Russell, and C. M. Brady, Purdue University, West Lafayette, IN.

11:45 AM 76 Economic and demographic survey of equine embryo transfer. A. J. Love*, L. A. Baker, J. L. Pipkin, and T. L. Kieth, Equine Industry Program, West Texas A&M University, Canyon, TX.

Nutrition I
Chair: Dr. Sara Ralston,
Rutgers University Cook College
Hunt Ballroom

1:00 PM 77 Comparison of hulless barley with crimped oats as carbohydrate sources in equine feeds. W. B. Stanisar*1,2, W. E. Thomason1, R. J. Geor1,2, D. S. Kronfeld1,2, and T. L. Smith2, 1Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA.

1:15 PM 78 The effects of feed form on consumption time and glucose and insulin response to a concentrate meal. M. Gordon*, M. Jerina, R. Raab, K. Davison, K. Young, and S. King, Land O’ Lakes, Purina Feed, St. Louis, MO.

1:30 PM 79 Circadian and seasonal fluctuations of glucose and insulin concentrations in grazing horses. B. McIntosh*1,2, D. Kronfeld1,2, R. Geor1,2, W. Stanisar1,2, A. Longland1, L. Gay1,2, D. Ward1, and P. Harris1, 1Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA, 3Equine Nutrition Consultant, Abertyswyth, Wales, United Kingdom, 4Rutgers Agricultural Research and Extension Center, Bridgeton, NJ, 5Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

1:45 PM 80 Circadian and seasonal patterns in forage nonstructural carbohydrate content. B. McIntosh*1,2, D. Kronfeld1,2, R. Geor1,2, W. Stanisar1,2, J. Chatterton1, P. Harrison1, A. Longland1, O. Abaye1, D. Ward1, and P. Harris1, 1Virginia Tech, Blacksburg, VA, 2Middleburg Agricultural Research and Extension Center, Middleburg, VA, 3USDA-ARS Forage and Range Research Laboratory, Utah State University, Logan, UT, 4Equine Nutrition Consultant, Abertyswyth, Wales, United Kingdom, 5Rutgers Agricultural Research and Extension Center, Bridgeton, NJ, 6Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

2:00 PM 81 Evaluation of inflammatory markers in yearlings fed various sources of polyunsaturated fatty acids. T. N. Ross*, G. D. Potter1, E. M. Eller1, B. D. Scott1, P. G. Gibbs1, and H. W. Sampson1, 1Department of Animal Science, Texas A&M University, College Station, TX, 2Department of Systems Biology & Translational Medicine, Texas A&M University, College Station, TX.
The role of insulin resistance in carbohydrate-sensitive versus stress-induced laminitis. R. M. Hoffman*, J. C. Haffner¹, H. Eiler², and K. Fecteau¹, ¹School of Agribusiness and Agriscience, Middle Tennessee State University, Murfreesboro, TN, ²College of Veterinary Medicine, The University of Tennessee, Knoxville, TN.

Production and Management I
Chair: Dr. Randy Robbins, Hi Pro Feeds
Valley Ballroom

1:00 PM 83 Evaluation of composed horse manure as a slow-release fertilizer and soil amendment for Florida pastures. S. C. Dilling*, L. K. Warren, and A. S. Peters, University of Florida, Gainesville, FL.

1:15 PM 84 Evaluation of a novel aspen and wheat pelleted horse bedding product. J. Thorson* and C. Hammer, North Dakota State University, Fargo, ND.

1:30 PM 85 Characteristics of soil and newly established bahiagrass forage in response to soil incorporation of unprocessed or composted horse stall materials. S. C. Dilling*, L. K. Warren, and A. S. Peters, University of Florida, Gainesville, FL.

1:45 PM 86 Evaluation of criteria for pre-laminitic metabolic syndrome. R. A. Carter¹², K. H. Treiber¹², P. A. Harris¹, and R. J. Geor¹², ¹Department of Animal and Poultry Sciences, Virginia Tech, Blacksburg, VA, ²Middleburg Agricultural Research and Extension Center, Middleburg, VA, ³Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

2:00 PM 87 Oxidative stress and inflammatory markers in laminitis-prone ponies. K. H. Treiber*¹², R. A. Carter¹², L. A. Gay¹², C. A. Williams¹, and R. Geor¹², ¹Virginia Tech, Blacksburg, VA, ²Middleburg Agricultural Research and Extension Center, Middleburg, VA, ³Rutgers, New Brunswick, NJ.

2:15 PM 88 Evaluation of 6-way rotational regimen on a previously documented fenbendazole-resistant farm. H. A. Brady*¹², W.T. Nichols², L. B. Bailey¹, K. R. Wilson¹, and S. P. Jackson¹, ¹Texas Tech University, Lubbock, TX, ²Intervet, Millboro, DE.

2:30 PM Break.

Teaching and Extension I
Chair: Dr. Shea Porr,
Virgina Cooperative Extension
Salon A

1:00 PM 89 Students can gain more from colt classes than just horse training skills: A pilot study. P. Evans*, L. Gagnon², D. Barnett¹, and L. Sullivan¹, ¹Utah State University, Logan, UT, ²Montana State University, Bozeman, MN, ³Murray State University, Murray, KY.

1:15 PM 90 The study of comparative equine behavior at the undergraduate level. K. Bump*, Cazenovia College, Cazenovia, NY.

1:30 PM 91 Undergraduate horse industry study tour enhances experiential learning. K. P. Anderson*, University of Nebraska, Lincoln, NE.

1:45 PM 92 Examining equine welfare issues and teaching natural horsemanship through observational experimentation. S. S. King*, Southern Illinois University, Carbondale, IL.

2:00 PM 93 An assessment of the needs and perceptions of the Florida horse owner and the UF/IFAS Extension Adult Horse Program. K. M. Wilson¹, S. H. TenBroeck², and G. D. Israel², ¹University of Maryland, College Park, MD, ²University of Florida, Gainesville, FL.

2:15 PM 94 Selected potential employers assessment of curriculum competencies taught in the D. E. King Equine Program at the University of Arkansas. K. S. Jogan*, D. R. Herring, and N. E. Jack, University of Arkansas, Fayetteville, AR.

2:30 PM Break.

Reproductive Physiology
Invited Speaker
Chair: Dr. Don Thompson,
Louisiana State University
Hunt Ballroom

3:00 PM Dr. Larry Johnson, Texas A & M University.
Thursday, June 7
SYMPOSIA AND ORAL SESSIONS

Production and Management
Invited Speaker
Chair: Dr. Randy Robbins, Hi Pro Feeds
Hunt Ballroom

8:00 AM Dr. Matthew Gibbons, Dakota Gold.

Nutrition II
Chair: Dr. Burt Staniar, Middleburg Agricultural Research & Extension Center
Hunt Ballroom

9:00 AM 95 Relationships between diet, plasma and muscle amino acids in horses in maintenance and horses in early lactation. P. M. Graham-Thiers and J. A. Wilson, 1Virginia Intermont College, Bristol, VA, 2Berry College, Mount Berry, GA.

9:15 AM 96 Relationships between diet, plasma and muscle amino acids in horses in maintenance and horses in weanling growth. P. M. Graham-Thiers and J. A. Wilson, 1Virginia Intermont College, Bristol, VA, 2Berry College, Mount Berry, GA.

9:30 AM 97 Potassium–free electrolytes affect plasma calcium during exercise. T. M. Hess, 1Virginia Polytechnic Institute and State University, Blacksburg, VA, 2Universidade Federal Rural do Rio de Janeiro, Seropédica, RJ, Brazil, 3Rectortown Equine Center, Rectortown, VA, 4University of Pennsylvania, Philadelphia, PA, 5Equine Studies Group-WALTHAM Centre for Pet Nutrition, Melton Mowbray, United Kingdom.

9:45 AM 98 Calcium digestibility in exercised yearling stallions fed calcium carbonate or calcium proteinate. L. A. Baker, 1Department of Agricultural Science, West Texas A&M University, Canyon, TX, 2Texas Veterinary Medical Diagnostic Laboratory, Amarillo, TX.

Production and Management II
Chair: Dr. Judy Wilson, Berry College
Valley Ballroom

9:00 AM 99 Evaluation of electroporatic plasmid delivery for hormone production in horses. W. A. Storer, 1School of Animal Sciences, Louisiana Agricultural Experiment Station, LSU Agricultural Center, Baton Rouge, LA, 2ADVSYs, Inc., Woodlands, TX.

9:15 AM 100 Skeletal adaptations with the onset of training in thoroughbreds. J. D. Pagan, L. A. Lawrence, and D. Nash, Kentucky Equine Research, Inc., Versailles, KY.

9:30 AM 101 Growth patterns in Lusitano foals: Evaluation from birth to weanling. M. J. Fradinho, 1School of Animal Sciences, Louisiana Agricultural Experiment Station, LSU Agricultural Center, Baton Rouge, LA, 2ADVSYs, Inc., Woodlands, TX.

9:45 AM 102 The relationship between size at yearling sale, sale price and future racing performance in Kentucky Thoroughbreds. C. G. Brown-Douglas, 1Department of Agricultural Science, Louisiana Agricultural Experiment Station, LSU Agricultural Center, Baton Rouge, LA, 2ADVSYs, Inc., Woodlands, TX.

10:00 AM 103 Effects of sire and growth rate on the incidence of radiographic abnormalities in Standardbred weanlings. K. H. Kline, 1Mississippi State University, Mississippi State, MS, 2Farmers Feed Mill, Lexington, KY.

10:15 AM 104 Growth and conformation changes in warmblood horses from birth to two years of age. R. K. Splan, W. B. Stanier, and S. F. Denham, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Teaching and Extension II
Chair: Dr. Jenifer Nadeau, University of Connecticut
Salon A

9:00 AM 105 Profile of medal Maclay finalists at the Syracuse Invitational Sport Horse Tournament. K. Bump, 1Cazenovia College, Cazenovia, NY, 2Morrisville State College, Morrisville, NY.

9:15 AM 106 Can a university produced horse camp for children be considered a recruiting tool for animal science? K. S. Jogan, 1University of Arkansas, Little Rock, AR, 2University of Illinois, Urbana, IL, 3Harvard Equine Practice, Harvard, IL.

9:30 AM 107 Impacts of an EHV-1 outbreak on teaching, research and extension programs: Is your college or university prepared? J. Nadeau, 1University of Connecticut, Storrs, CT, 2Tufts University School of Veterinary Medicine, Grafton, MA.
9:45 AM 108 Teaching undergraduate students events management through a hands on experience at a national level horse show. A. M. Swinker*, Penn State University, University Park, PA.

10:00 AM 109 New horse owners benefit from Equestrian Academy. K. P. Anderson*, University of Nebraska, Lincoln, NE.

10:15 AM 110 Leveraging equine expertise for an internet environment. E. A. Greene* and A. S. Griffin, 1University of Vermont, Burlington, VT, 2University of Kentucky, Lexington, KY.

Nutrition
Invited Speaker
Chair: Dr. Steven Cooper,
Oklahoma State University
Hunt Ballroom

10:45 AM Dr. Mike Davis, Oklahoma State University.

Friday, June 8

Nutrition III
Chair: Dr. Judy Reynolds,
ADM Alliance Nutrition
Hunt Ballroom

9:00 AM 111 Obligatory and fecal nitrogen losses in adult horses. N. L. Trottier* and C. L. Wickens, Michigan State University, East Lansing, MI.


9:45 AM 114 The effect of calcium carbonate and calcium proteinate on bone density in exercised yearling stallions. A. Atwood*, L. Baker, J. Pipkin, and M. Meyers, West Texas A&M University, Canyon, TX.

10:00 AM 115 Leptin receptor and neuropeptide Y in the medial basal hypothalamus of horses. P. R. Buff*, P. J. Johnson†, J. L. Casati†, B. A. Abel†, J. R. Turk*, D. H. Keisler†, N. T. Messer†, and V. K. Ganjam†, 1Department of Animal and Dairy Sciences, Mississippi State University, Mississippi State, MS, 2Department of Veterinary Medicine and Surgery, University of Missouri, Columbia, MO, 3Department of Biomedical Sciences, University of Missouri, Columbia, MO, 4Animal Sciences Unit, University of Missouri, Columbia, MO.

10:15 AM 116 Abrupt diet change alters body weight and abdominal circumference. K. R. Franks*, H. S. Spooner†, B. D. Nielsen†, S. W. Eberhart†, and H. C. Schott II†, 1Department of Animal Science, Michigan State University, East Lansing, MI, 2Department of Large Animal Clinical Sciences, East Lansing, MI.

10:30 AM 117 Gastric ulcer syndrome in exercising horses fed different types of hay. T. Lybbert*, P. Gibbs, N. Cohen, and D. Sigler, Texas A&M University, College Station, TX.

Reproductive Physiology I
Chair: Dr. Sheryl King,
Southern Illinois University
Valley Ballroom

9:00 AM 118 Establishment of a link between processionary caterpillars and pregnancy loss in Australian mare. A. J. Cawdell-Smith*†, K. H. Todhunter*†, S. Shini†, N. R. Perkins†, and W. L. Bryden*†, 1University of Queensland, Gatton, Qld, Australia, 2Tails and Scales Veterinary Services, The Junction, NSW, Australia, 3AusVet Animal Health Services, Toowoomba, Australia.

9:15 AM 119 Expression and localization of zonadhesin in different age stallions. L. Bailey*, H. Brady†, S. Tardif†, L. Thompson†, M. Arns†, and D. Hardy†, 1Texas Tech University, Lubbock, TX, 2Texas Tech University Health Sciences Center, Lubbock, TX, 3University of Arizona, Tucson, AZ.

9:30 AM 120 Metabolic and reproductive effects of recombinant equine leptin on seasonally anovulatory mares. P. B. Mitcham*, D. L. Thompson, Jr., W. A. Storer†, L. R. Gentry*†, R. A. Godke†, and A. Gertler†, 1School of Animal Sciences, LSU Agricultural Center, Baton Rouge, LA, 2The Hebrew University of Jerusalem, Rehovot, Israel.

9:45 AM 121 Breeding outcome of lactating mares with high vs. low plasma leptin concentrations. N. K. Huff*, D. L. Thompson, Jr., L. R. Gentry, and C. G. Depew, School of Animal Sciences, LSU Agricultural Center, Baton Rouge, LA.

10:00 AM 122 Search for polymorphism in exon 2 of the equine leptin gene. N. K. Huff*, D. L. Thompson, Jr., and K. R. Bondioli, School of Animal Sciences, LSU Agricultural Center, Baton Rouge, LA.
Impact of body condition on plasma leptin and insulin-like growth factor-I concentrations in stallions and geldings. T. N. Chancellor*, M. M. Vogelsang, B. D. Scott, D. D. Forest, and D. Kraemer. 1Department of Animal Science, Texas A&M University, College Station, TX, 2Department of Veterinary Physiology and Pharmacology, College Station, TX.

Teaching and Extension III
Chair: Dr. Elizabeth Greene, University of Vermont
Salon A


Mid-Atlantic equine pasture initiative. C. A. Williams*, D. Foulk, M. Westendorf, D. Kluchinski, R. Mickel, W. Bamka, W. Sciarappa, A. O. Burk, E. Petersen, D. Marshall, D. Ludwig, and P. Craig. 1Rutgers Cooperative Extension, Rutgers, the State University of New Jersey, New Brunswick, NJ, 2Department of Animal and Avian Sciences, University of Maryland, College Park, MD, 3Department of Animal Science, University of Delaware, Newark, DE, 4USDA- NRCS, Lebanon, PA, 5Dauphin County Cooperative Extension, Pennsylvania State University, Dauphin, PA.


Outcome measurements of working cowhorse summer horsemanship clinics in Texas. K. R. Wilson* and C. S. Sharp. 1Department of Animal and Food Sciences, Texas Tech University, Lubbock, TX, 2Texas Cooperative Extension, Texas A&M University, College Station, TX.

Developing and implementing exam review using game show format. K. S. Jogan*, N. E. Jack*, and M. K. Jogan. 1University of Arkansas, Fayetteville, AR, 2Albright College, Reading, PA.

Stride length as a measure of learning in horsemanship students. A. M. B. Brzezicki* and R. M. H. Hoffman. Middle Tennessee State University, Murfreesboro, TN.


Exercise Physiology I
Chair: Dr. Brian Nielsen, Michigan State University
Hunt Ballroom

Antioxidant status in horses competing in the Jersey Fresh CCI** and CCI*** three-day-event. C. A. Williams* and A. O. Burk. 1Department of Animal Science, Equine Science Center, Rutgers, the State University of New Jersey, New Brunswick, NJ, 2Department of Animal and Avian Sciences, University of Maryland, College Park, MD.

Relation between resting heart rate and heart rate during exercise and recovery. A. Lindner*, M. Esser, R. Lopez, and F. Boffi. 1Arbeitsgruppe Pferd, Juelich, Germany, 2Centro de Fisiología y Fisiopatología del Equino Deportivo, Facultad de Ciencias Veterinarias, Universidad Nacional de La Plata, La Plata, Argentina.


A sheep model: The effects of circular and linear exercise on macroscopic changes in articular cartilage. K. L. Vernon*, L. Riggs, S. Ellis, J. A. Coverdale, and J. Gibbons. 1Department of Animal and Veterinary Sciences, Clemson University, Clemson, SC, 2Large Animal Clinic, University of Georgia Veterinary School, Athens, GA, 3Department of Animal Science, Texas A & M University, College Station, TX.
10:45 AM 136 Moderate temperature shipment of equine semen using a DMSO jacketed container. W. E. Day*, S. M. Husky¹, and G. W. Webb², ¹Middle Tennessee State University Horse Science Center, Murfreesboro, TN, ²Missouri State University, Springfield, MO, ³Morrisville State College Equine Institute, Morrisville, NY.

11:00 AM 137 CD44 hyaluronon receptor in stallion spermatozoa. N. A. Luszcz*, R. C. Bott, E. L. Squires, J. K. Graham, and J. E. Bruemmer, Colorado State University, Fort Collins, CO.