

**Tuesday, May 31**

**POSTER PRESENTATIONS and OPENING RECEPTION**

**Sponsored by: Zinpro Corporation**

**5:00 pm – 7:00 pm**

All posters will be in Oakleigh ABC room and need to be in place by 4:30 pm, Tuesday, May 31. They will be posted from Tuesday, May 31, at 4:30 until Friday, June 3, at noon. Authors are to be present on Tuesday, May 31 from 5:00 pm – 7:00 pm.

**Exercise Physiology Posters**

Chair: **Carey Williams, Rutgers University**  
**Oakleigh ABC**

- 1 **Dietary supplementation of conjugated linoleic acid in horses.** S. Headley<sup>1</sup>, J. Coverdale<sup>2</sup>, T. Jenkins<sup>1</sup>, L. Boone<sup>3</sup>, J. Sharp<sup>1</sup>, and K. Vernon\*<sup>1</sup>, <sup>1</sup>*Clemson University, Clemson, SC*, <sup>2</sup>*Texas A&M University, College Station*, <sup>3</sup>*University of Georgia, Athens*.
- 2 **Trot kinematics of the Arabian Country English Pleasure performance horse.** M. Nicodemus\*<sup>1</sup>, K. Slater<sup>2</sup>, and S. Lindsey<sup>1</sup>, <sup>1</sup>*Mississippi State University, Mississippi State*, <sup>2</sup>*Kasper and Rigby Veterinary Associates, Magnolia, TX*.

**Genetics Posters**

Chair: **Samantha Brooks, Cornell University**  
**Oakleigh ABC**

- 13 **A chromosome translocation [64,XX,t(2;13)] in a Thoroughbred mare with repeated early embryonic loss.** T. L. Lear\*<sup>1</sup>, T. Raudsepp<sup>2</sup>, J. Lundquist<sup>1</sup>, and S. Brown<sup>3</sup>, <sup>1</sup>*University of Kentucky, Lexington*, <sup>2</sup>*Texas A&M University, College Station*, <sup>3</sup>*Hagyard Equine Institute, Lexington, KY*.

**Nutrition Posters**

Chair: **Burton Staniar,**  
**The Pennsylvania State University**  
**Oakleigh ABC**

- 22 **Standardization of equine-specific enzyme-linked immunosorbent assay for measuring serum insulin concentrations.** J. P. Kayser\*<sup>1</sup>, R. M. Hoffman<sup>1</sup>, J. C. Haffner<sup>1</sup>, and H. Johansson<sup>2</sup>, <sup>1</sup>*Middle Tennessee State University, Murfreesboro, Tennessee*, <sup>2</sup>*Mercodia AB, Uppsala, Sweden*.
- 23 **Basal insulin and glucose concentrations in gestating and lactating mares.** S. McCown\*, M. Brummer, S. Hayes, J. Earing, and L. Lawrence, *University of Kentucky, Lexington*.
- 24 **Supplemental leucine's influence on plasma glucose, insulin, and amino acid responses in Quarter Horse yearlings.** L. C. Etz\*<sup>1</sup>, N. M. Lambert<sup>1</sup>,

J. T. Sylvester<sup>2</sup>, K. L. Urschel<sup>3</sup>, and W. B. Staniar<sup>1</sup>, <sup>1</sup>*The Pennsylvania State University, University Park*, <sup>2</sup>*Mars Horsecare US Inc., Dalton, OH*, <sup>3</sup>*University of Kentucky, Lexington*.

- 25 **Factors affecting the glucose response to insulin injection in mares: Epinephrine and supplementation with cinnamon extract or fish oil.** L. R. Earl\*, D. L. Thompson Jr., and P. B. Mitcham, *LSU Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge*.
- 26 **The effects of lipoic acid supplementation on blood glucose, insulin, and leptin concentrations in pony mares.** E. Berg\*<sup>1</sup>, D. McNamara<sup>2</sup>, and D. Keisler<sup>3</sup>, <sup>1</sup>*North Dakota State University, Fargo*, <sup>2</sup>*University of Wisconsin, Platteville*, <sup>3</sup>*University of Missouri, Columbia*.
- 27 **Relationships between inflammatory cytokines, body condition, and plasma insulin in light breed horses.** J. K. Suagee\*<sup>1</sup>, B. A. Corl<sup>1</sup>, M. V. Crisman<sup>2</sup>, R. S. Pleasant<sup>2</sup>, R. J. Geor<sup>3</sup>, and C. D. Thatcher<sup>4</sup>, <sup>1</sup>*Virginia Tech, Blacksburg*, <sup>2</sup>*Virginia-Maryland Regional College of Veterinary Medicine, Blacksburg, VA*, <sup>3</sup>*Michigan State University, East Lansing*, <sup>4</sup>*Arizona State University, Phoenix*.
- 28 **Effects of a feed supplement containing fatty acids and chromium on insulin sensitivity in old mares: A preliminary study.** S. Otabachian\*<sup>1</sup>, T. Hembrooke<sup>2</sup>, E. M. Carnevale<sup>1</sup>, and T. M. Hess<sup>1</sup>, <sup>1</sup>*Colorado State University, Fort Collins*, <sup>2</sup>*Platinum Performance Inc.™, Buellton, CA*.
- 29 **Dietary fish oil supplementation affects plasma fatty acids and glycemic response but not insulin sensitivity in horses.** R. M. Hoffman\*, J. P. Kayser, R. M. Lampley, and J. C. Haffner, *Middle Tennessee State University, Murfreesboro*.
- 30 **The body condition score of leisure horses competing at an unaffiliated championship in the United Kingdom.** I. J. Harker\*<sup>1</sup>, P. A. Harris<sup>2</sup>, and C. F. Barfoot<sup>1</sup>, <sup>1</sup>*Mars HorseCare UK Ltd., Milton Keynes, Bucks, United Kingdom*, <sup>2</sup>*Equine Studies Group, WALTHAM Centre for Pet Nutrition, Melton Mowbary, Leics, United Kingdom*.
- 31 **Evaluation of the safety and performance of an enteral diet formulated specifically for horses.** K. R. Vineyard\*, M. E. Gordon, K. K. Williamson, and M. L. Jerina, *Land O'Lakes Purina Feed, Gray Summit, MO*.
- 32 **Plasma amino acid response in mature geldings fed three concentrations of lysine.** S. M. Malesky, L. Chen, C. A. Löest, and J. L. Turner\*, *New Mexico State University, Las Cruces*.
- 33 **Nitrogen retention and nutrient digestibility in geldings fed three concentrations of lysine.** S. M. Malesky, F. Harrelson, M. Russell, K. DeAtley, B. Carter, C. A. Löest, and J. L. Turner\*, *New Mexico State University, Las Cruces*.
- 34 **Effect of selenium depletion on oxidative stress in mature horses.** M. Brummer\*, S. Hayes, J. E. Earing, S. M. McCown, and L. M. Lawrence, *University of Kentucky, Lexington*.

- 35 **Milk composition in mares fed a fat and fiber-added concentrate.** K. R. Vineyard\*, M. E. Gordon, and M. L. Jerina, *Land O'Lakes Purina Feed, Gray Summit, MO.*

## **Production and Management Posters**

Chair: **Lori Warren, University of Florida**  
**Oakleigh ABC**

- 67 **Yield and quality of twelve cool-season grasses under horse grazing.** E. Allen\*, K. Martinson, and C. Sheaffer, *University of Minnesota, St. Paul.*
- 68 **Continuous vs. rotational grazing of cool season pastures during the summer months.** G. Webb\*, S. Webb, C. Duey, and K. Minton, *Missouri State University, Springfield.*
- 69 **Insulin-glucose dose response curves in insulin sensitive and insensitive mares and effect of overnight and long-term feeding regimen.** J. D. Lestelle\*, L. R. Earl, D. L. Thompson Jr., R. C. Hebert, and P. B. Mitcham, *LSU Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge.*
- 70 **Growth rates in 3- and 4-month-old foals during the summer in central Kentucky.** L. Strasinger\* and L. Lawrence, *University of Kentucky, Lexington.*
- 71 **Evaluation of dental wear patterns and preferred chewing direction in horses.** K. Samley\*<sup>1</sup>, J. Brown<sup>2</sup>, R. Brooks<sup>2</sup>, R. Splan<sup>2</sup>, and C. A. Porr<sup>2</sup>, <sup>1</sup>*Boston College, Chesnut Hill, MA,* <sup>2</sup>*Virginia Tech, Blacksburg.*

## **Reproductive Physiology Posters**

Chair: **Sheryl King,**  
**Southern Illinois University**  
**Oakleigh ABC**

- 94 **Effects of flaxseed supplementation on mare progesterone and blood parameters.** T. J. Swanson\* and C. J. Hammer, *North Dakota State University, Fargo.*
- 95 **Estradiol stimulation of prolactin secretion in horses: Interaction with type of secretagogue.** D. L. Thompson Jr.\*, S. E. Clavier, P. B. Mitcham, and L. R. Earl, *LSU Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge.*
- 96 **Effect of dietary energy manipulation on mares and their foals: Colostrum and IgG.** C. J. Hammer\*<sup>1</sup>, K. N. Winsco<sup>2</sup>, J. L. Lucia<sup>2</sup>, and J. A. Coverdale<sup>2</sup>, <sup>1</sup>*North Dakota State University, Fargo,* <sup>2</sup>*Texas A&M University, College Station.*
- 97 **Factors affecting live foal rates of Thoroughbred stallions in Kentucky.** B. E. Davis\* and L. M. Lawrence, *University of Kentucky, Lexington.*
- 98 **Characterization of uterine pH during the estrous cycle of the mare.** L. V. Penrod\*<sup>1</sup>, S. E. Deaver<sup>1</sup>, E. K. Prendergast<sup>1</sup>, G. C. Duff<sup>2</sup>, M. L. Rhoads<sup>1</sup>, and M.

J. Arns<sup>1</sup>, <sup>1</sup>*The University of Arizona, Tucson*, <sup>2</sup>*Montana State University, Bozeman*.

- 99 **Oxytocin-stimulated release of PGF<sub>2</sub>α and its inhibition by indomethacin and atosiban during culture of equine endometrial explants.** L. V. Penrod\*, M. L. Rhoads, S. W. Limesand, and M. J. Arns, *The University of Arizona, Tucson*.
- 100 **Comparison of deslorelin and histrelin for induction of ovulation in mares.** A. R. G. Lindholm, R. A. Ferris\*, D. B. Scofield, and P. M. McCue, *Colorado State University, Fort Collins*.
- 101 **Stimulation of prolactin after estradiol pretreatment: Comparison of polymer formulations for domperidone and sulpiride and oral administration of sulpiride in horses.** R. C. Hebert\*<sup>1</sup>, D. L. Thompson Jr.<sup>1</sup>, P. B. Mitcham<sup>1</sup>, R. M. Gilley<sup>2</sup>, and P. J. Burns<sup>3</sup>, <sup>1</sup>*LSU Agricultural Center, Louisiana Agricultural Experiment Station, Baton Rouge*, <sup>2</sup>*BioRelease Technologies, Birmingham, AL*, <sup>3</sup>*BioRelease Technologies, Lexington, KY*.

## Teaching and Extension Posters

Chair: Jenifer Nadeau, University of Connecticut  
Oakleigh ABC

- 122 **The Master Equine Manager Level I Program.** P. M. Auwerda\* and D. Miller, *Iowa State University, Ames*.
- 123 **The Master Equine Manager Level II Program.** P. M. Auwerda\* and D. Miller, *Iowa State University, Ames*.
- 124 **Student confidence levels in horsemanship skills associated with a university equine assisted therapy course.** M. Nicodemus\*, *Mississippi State University, Mississippi State*.
- 125 **An assessment of the educational needs of Delaware equine owners.** C. Wickens\*<sup>1</sup>, K. Waite<sup>2</sup>, S. Garey<sup>1</sup>, and S. Frazee<sup>1</sup>, <sup>1</sup>*University of Delaware, Newark*, <sup>2</sup>*Michigan State University, East Lansing*.
- 126 **Economic impact and demographics of recreational horse trail users in Minnesota.** I. Schneider<sup>1</sup>, A. Date<sup>2</sup>, E. Venegas<sup>3</sup>, and K. Martinson\*<sup>1</sup>, <sup>1</sup>*University of Minnesota, St. Paul*, <sup>2</sup>*Department of Natural Resources, St. Paul, MN*, <sup>3</sup>*Department of Employment and Economic Development, St. Paul, MN*.
- 127 **Profile of the equine industry's environmental, best management practices and variations in Pennsylvania.** A. Swinker\*<sup>1</sup>, S. Worobey<sup>1</sup>, H. McKernan<sup>1</sup>, R. Meinen<sup>1</sup>, D. Kniffen<sup>1</sup>, D. Foulk<sup>1</sup>, M. Hall<sup>1</sup>, J. Weld<sup>1</sup>, F. Schneider<sup>2</sup>, A. Burk<sup>3</sup>, and M. Brubaker<sup>4</sup>, <sup>1</sup>*Pennsylvania State University, University Park*, <sup>2</sup>*Pennsylvania Department of Environmental Protection, Harrisburg*, <sup>3</sup>*University of Maryland Extension, College Park*, <sup>4</sup>*Pennsylvania State Conservation Commission, Harrisburg*.
- 128 **Healthy lands, healthy horses: Connecting South Dakota horse owners with skills for small acreage success.** R. C. Bott\*<sup>1</sup>, M. Hubert<sup>2</sup>, P. Nester<sup>3</sup>, T. Renelt<sup>3</sup>, R. Salverson<sup>3</sup>, and R. Gates<sup>2</sup>, <sup>1</sup>*South Dakota State University, Brook-*

ings, <sup>2</sup>South Dakota State University West River Ag Center, Rapid City, <sup>3</sup>South Dakota Cooperative Extension Service.

- 129 **Using an equine pasture evaluation disk (EPED) to document canopy cover and evaluate pasture improvement.** D. Foulk\*, A. Swinker, M. Hall, and H. McKernan, *Pennsylvania State University, University Park.*
- 130 **North Dakota 4-H Horse Participant Survey: Demographics and interests.** C. J. Hammer\*, J. F. Thorson, T. J. Swanson, D. E. Aakre, and C. L. Stoltenow, *North Dakota State University, Fargo.*
- 131 **Defining state extension opportunities associated with the unwanted horse.** M. J. Yoder\*<sup>1,5</sup>, J. Hamilton<sup>3</sup>, T. Ray<sup>2</sup>, S. Stewart<sup>2</sup>, and W. Walls<sup>4,5</sup>, <sup>1</sup>North Carolina State University, Department of Animal Science, Raleigh, <sup>2</sup>North Carolina Department of Agriculture & Consumer Services, Raleigh, <sup>3</sup>Southern Pines Equine Associates, Southern Pines, NC, <sup>4</sup>Equine Education Alliance Inc., Willow Spring, NC, <sup>5</sup>Regional Equine Information Network System, Raleigh, NC.
- 132 **Static composting of equine mortality.** C. A. Shea Porr\*<sup>1</sup>, R. A. Clark<sup>1</sup>, C. E. Smith<sup>2</sup>, R. M. Brooks<sup>1</sup>, and R. K. Splan<sup>1</sup>, <sup>1</sup>Virginia Tech, Blacksburg, <sup>2</sup>West Virginia University, Morgantown.

## OTHER EVENTS

### Reproductive Physiology Invited Speaker–Squire’s Lecture

Chair: **Sheryl King,**

**Southern Illinois University**

Moderator: **Jason Bruemmer**

**Oakleigh ABC**

7:00–7:15 Welcome

7:15 PM **Cloning horses: Development and advancement of the techniques.** J. Abraham and G. Veneklasen, Abraham Equine and Timber Creek Veterinary Hospital.

## **PREPARATION GUIDELINES FOR ORAL PRESENTATIONS**

Again this year each session room will be equipped with a laptop computer configured with Microsoft PowerPoint 2007; an LCD projector; and a podium microphone. The use of personal laptop computers for presentations in the session rooms is not permitted.

### **Presenters:**

The usual scheduled time for presentation of each oral paper is 12 minutes with 3 minutes for questions, discussion and speaker transition.

### **ON-SITE UPLOAD**

Files can be delivered to the Pre-load Room, at the Embassy Suites Hotel and Conference Center in Murfreesboro the day prior to the scheduled presentation time. Deadlines for on-site uploads are:

All Wednesday presentations will need to be submitted by Tuesday by 5:00 pm

All Thursday presentations will need to be submitted by Wednesday by 5:00 pm

All Friday presentations will need to be submitted by Thursday at 5:00 pm

### **Please note:**

All PowerPoint presentations must be loaded in advance of each session.

No presentations will be accepted or modified in the session rooms.

No presentations will be loaded while the session is in progress, between presentations, or during breaks.

## **Wednesday, June 1**

### **Fun Run**

6:00 AM meet in hotel lobby

### **Nutrition Invited Speaker**

Chair and Moderator: **Burton Staniar,**

**The Pennsylvania State University**

**Sponsored by: McCauley Brothers Inc.**

**Oakleigh AB**

8:00 AM **Recent developments in the formulation of energy and nutrient requirements in horses and the resulting feeding recommendations.** M. Coenen, University Leipzig.

## SYMPOSIA AND ORAL SESSIONS

### Genetics Graduate Student Competition

Chair: **Samantha Brooks, Cornell University**

Moderator: **Rebecca Splan, Virginia Tech**

**Mirabella C**

- 9:15 AM 14 **Whole mtDNA D-loop sequence variation of the Arabian horse strains.** A. Khanshour\* and E. G. Cothran, *Texas A&M University, College Station.*
- 9:30 AM 15 **Inbreeding and founder contributions of the Norwegian Fjord horse in North America.** A. S. Bhatnagar\*, C. M. East, and R. K. Splan, *Virginia Polytechnic Institute and State University, Blacksburg.*
- 9:45 AM 16 **Morphometric traits in gaited breeds of horse: Potential future targets for mapping.** E. A. Staiger\*<sup>1</sup>, N. B. Sutter<sup>2</sup>, R. R. Bellone<sup>3</sup>, and S. A. Brooks<sup>1</sup>, <sup>1</sup>*Cornell University, Department of Animal Sciences, Ithaca, NY*, <sup>2</sup>*Cornell University, Department of Clinical Sciences, Ithaca, NY*, <sup>3</sup>*University of Tampa, Department of Biology, Tampa, FL.*
- 10:00 AM 17 **Tensile strength of tendons from Quarter Horses with hereditary equine regional dermal asthenia (HERDA).** J. E. Bowser\*<sup>1</sup>, S. Elder<sup>2</sup>, A. M. Rashmir-Raven<sup>3</sup>, and C. E. Swiderski<sup>1</sup>, <sup>1</sup>*Mississippi State University College of Veterinary Medicine, Department of Clinical Sciences, Mississippi State*, <sup>2</sup>*Mississippi State University, College of Agricultural and Biological Engineering, Mississippi State*, <sup>3</sup>*Michigan State University, College of Veterinary Medicine, East Lansing.*

### Nutrition Graduate Student Competition

Chair: **Burton Staniar,**

**The Pennsylvania State University**

Moderators: **Patricia Harris, Amy Burk,**

**Sarah Ralston**

**Mirabella A**

- 9:15 AM 36 **Effect of diet on insulin sensitivity in insulin-resistant ponies.** K. D. Tinworth\*<sup>1</sup>, S. L. Raidal<sup>1</sup>, R. C. Boston<sup>2</sup>, P. A. Harris<sup>3</sup>, M. N. Sillence<sup>4</sup>, and G. K. Noble<sup>1</sup>, <sup>1</sup>*Charles Sturt University, Wagga Wagga, NSW 2650, Australia*, <sup>2</sup>*New Bolton Center, University of Pennsylvania, Kennett Square*, <sup>3</sup>*WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom*, <sup>4</sup>*Queensland University of Technology, Brisbane, QLD 4001, Australia.*
- 9:30 AM 37 **Growth hormone, glucose, insulin, and NEFA patterns in meal-fed Quarter Horse weanlings.** S. M. Gray\* and W. B. Staniar, *The Pennsylvania State University, University Park.*
- 9:45 AM 38 **In vitro starch availability of various grains and digestibility of popped milo, rice bran, and whole oats in mature geldings.** T. L.

Winchell\*, L. A. Baker, J. L. Pipkin, M. S. Brown, T. E. Lawrence, and R. Robbins, *West Texas A&M University, Canyon.*

- 10:00 AM 39 **Effects of fiber type, particle size, and soak time on water hydration and estimated potential water-releasing capacities of roughages fed to horses.** A. M. Parsons\*<sup>1</sup>, B. D. Nielsen<sup>1</sup>, H. C. Schott<sup>1</sup>, R. Geor<sup>1</sup>, M. Yokoyama<sup>1</sup>, and P. Harris<sup>2</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*WALTHAM Centre for Pet Nutrition, Leics, United Kingdom.*

10:15 AM **Break**

- 10:45 AM 40 **Comparison of bacterial populations from the cecum, right dorsal colon, and feces of horses using terminal restriction fragment length polymorphism (TRFLP).** K. Dougal\*<sup>1</sup>, T. Blackmore<sup>1</sup>, J. Pachebat<sup>1</sup>, P. Harris<sup>2</sup>, and C. Newbold<sup>1</sup>, <sup>1</sup>*Aberystwyth University, Aberystwyth, Ceredigion, United Kingdom*, <sup>2</sup>*WALTHAM Centre for Pet Nutrition, Melton Mowbray, Leicestershire, United Kingdom.*

- 11:00 AM 41 **Characterization of L-lysine transport across equine small intestine and large colon brush border membrane.** A. D. Woodward\*<sup>1</sup>, M. Z. Fan<sup>2</sup>, J. P. Steibel<sup>1</sup>, R. J. Goer<sup>1</sup>, N. P. Taylor<sup>1</sup>, and N. L. Trottier<sup>1</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*University of Guelph, Guelph, Ontario, Canada.*

- 11:15 AM 42 **Intake estimation of grazing or stall-fed horses.** S. J. Chavez\*, P. D. Siciliano, and G. B. Huntington, *North Carolina State University, Raleigh.*

- 11:30 AM 43 **Nutrient and dry matter intakes of broodmares fed high forage diets.** S. McCown\*, M. Brummer, S. Hayes, J. Earing, and L. Lawrence, *University of Kentucky, Lexington.*

- 11:45 AM 44 **Effect of dietary energy manipulation on mares and their foals: Determination of voluntary dry matter intake of mares during late pregnancy using a dual marker system.** K. N. Winsco\*<sup>1</sup>, T. A. Wickersham<sup>1</sup>, C. J. Hammer<sup>2</sup>, and J. A. Coverdale<sup>1</sup>, <sup>1</sup>*Texas A&M University, College Station*, <sup>2</sup>*North Dakota State University, Fargo.*

12:00 PM **Lunch**

- 1:30 PM 45 **Selenium depletion reduces vaccination response in horses.** M. Brummer\*, S. Hayes, S. M. McCown, A. A. Adams, D. W. Horohov, and L. M. Lawrence, *University of Kentucky, Lexington.*

- 1:45 PM 46 **Effects of dietary selenium supplementation and exercise on antioxidant enzyme activity in equine blood and skeletal muscle.** S. White\*, L. K. Warren, and J. Bobel, *University of Florida, Gainesville.*

- 2:00 PM 47 **Amino acid concentrations in late lactation mares' milk.** S. L. Tanner\*, A. L. Wagner, R. B. Ennis, and K. L. Urschel, *University of Kentucky.*

- 2:15 PM 48 **Effect of age on digestibility of various feedstuffs in horses.** S. Elzinga\*<sup>1</sup>, B. Nielsen<sup>1</sup>, H. Schott<sup>1</sup>, J. Rapson<sup>1</sup>, C. Robison<sup>1</sup>, J. McCutcheon<sup>1</sup>, P. Harris<sup>2</sup>, and R. Geor<sup>1</sup>, <sup>1</sup>*Michigan State University, East Lansing*,

<sup>2</sup>WALTHAM Center for Pet Nutrition, Leics, United Kingdom.

- 2:30 PM 49 **Discrimination of water acidity by mature horses.** K. Merkies and J. Carson\*, *University of Guelph, Guelph, ON, Canada.*

**Breaks sponsored by:**

**Performance Horse Nutrition  
Southern States  
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**Production and Management Graduate Student Competition**

Chair: **Lori Warren, University of Florida**

Moderator: **Krishona Martinson**

**Mirabella B**

- 9:15 AM 72 **The beneficial effects of equine events on the local economy.** A. A. Armstrong\*, J. P. Kayser, and J. G. Gardner, *Middle Tennessee State University, Murfreesboro.*
- 9:30 AM 73 **Use of best management practices and pasture and soil quality on Maryland horse farms.** N. M. Fiorellino\*<sup>1</sup>, S. K. Kariuki<sup>1</sup>, J. M. McGrath<sup>1</sup>, M. J. Calkins<sup>2</sup>, B. Momen<sup>1</sup>, and A. O. Burk<sup>1</sup>, <sup>1</sup>*University of Maryland, College Park*, <sup>2</sup>*Maryland Department of Agriculture, Annapolis.*
- 9:45 AM 74 **Effects of windrow composting on the viability of *Parascaris equorum* eggs within the interior of the windrow.** J. C. Gould\*, M. G. Rossano, E. T. Lyons, and L. M. Lawrence, *University of Kentucky, Lexington.*
- 10:00 AM 75 **The effect of endophyte-infected tall fescue on weanlings.** B. E. Davis\* and L. M. Lawrence, *University of Kentucky, Lexington.*
- 10:15 AM **Break**
- 10:45 AM 76 **Equine grazing preferences and persistence of cool-season grasses.** E. Allen\*, K. Martinson, and C. Sheaffer, *University of Minnesota, St Paul.*
- 11:00 AM 77 **Round-bale feeder design affects hay waste and economics during horse feeding.** K. Cleary\*, K. Martinson, J. Wilson, W. Lazarus, W. Thomas, and M. Hathaway, *University of Minnesota, St. Paul.*
- 11:15 AM 78 **Influence of confinement housing on the cecal environment of the horse.** A. N. Wolford\*<sup>1</sup>, J. A. Coverdale<sup>1</sup>, W. E. Pinchak<sup>2</sup>, R. C. Anderson<sup>3</sup>, and T. A. Wickersham<sup>1</sup>, <sup>1</sup>*Texas AM University, College Station*, <sup>2</sup>*Texas AgriLife Research, Vernon*, <sup>3</sup>*USDA, ARS, Southern Plains Agri-*

*cultural Research Center, Food and Feed Safety Research Unit, College Station, TX.*

- 11:30 AM 79 **The effects of hoof trimming and farrier on hoof shape.** S. R. Malone\* and H. M. S. Davies, *The University of Melbourne, Werribee, VIC, Australia.*
- 11:45 AM 80 **The effects of non-steroidal anti-inflammatory drug administration on systemic and muscle inflammation in mature and aged horses.** A. L. Wagner\*, R. B. Ennis, A. Betancourt, A. A. Adams, D. W. Horohov, and K. L. Urschel, *University of Kentucky, Lexington.*
- 12:00 PM **Lunch**
- 1:30 PM 81 **Horse intake estimation of AM versus PM grazing.** S. J. Chavez\*, P. D. Siciliano, and G. B. Huntington, *North Carolina State University, Raleigh.*
- 1:45 PM 82 **Effect of restricted grazing on dry matter intake rate.** E. C. Glunk\* and P. D. Siciliano, *North Carolina State University, Raleigh.*
- 2:00 PM 83 **Effect of turn-out time on pasture NSC intake and hindgut fermentation characteristics.** A. C. Pearson\*, P. D. Siciliano, S. J. McLeod, and V. Fellner, *North Carolina State University, Raleigh.*
- 2:15 PM 84 **Effect of pasture consumption on blood insulin, glucose, and volatile fatty acid concentrations in horses.** J. Sharlette\*, K. Hewitt, S. J. McLeod, V. Fellner, P. Siciliano, A. Pearson, and S. Pratt-Phillips, *North Carolina State University, Raleigh.*
- 2:30 PM 85 **Effect of feeding practice on glucose, insulin, and cortisol responses in Quarter Horse mares.** J. L. Saul\*, A. B. Nyhart, J. M. Reddish, M. Alman, and K. Cole, *The Ohio State University, Columbus.*
- 2:45 PM 86 **The effect of different feed delivery methods on rate of feed consumption and serum insulin concentration in horses.** J. Kutzner-Mulligan\*, K. Hewitt, J. Sharlette, J. Smith, and S. Pratt-Phillips, *North Carolina State University, Raleigh.*
- 3:00 PM 87 **Comparing glycemic and insulinemic responses of ponies and horses to dietary glucose.** K. D. Tinworth\*<sup>1</sup>, S. L. Raidal<sup>1</sup>, P. A. Harris<sup>2</sup>, M. N. Sillence<sup>3</sup>, and G. K. Noble<sup>1</sup>, <sup>1</sup>*Charles Sturt University, Wagga Wagga, NSW 2650, Australia,* <sup>2</sup>*WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom,* <sup>3</sup>*Queensland University of Technology, Brisbane, QLD 4001, Australia.*

## Student Competition Undergraduate Oral Presentations

Chair: Patricia Graham-Thiers,  
Virginia Intermont College

Moderators: Shea Porr, Debra Powell, Patricia Graham-Thiers  
Mirabella C

- 11:00 AM 108 **Investigation of *HERC2* and *OCA2* SNP for iris color variation in Puerto Rican Paso Fino horses.** E. J. A. Kowalski\* and R. R. Bellone, *University of Tampa, Tampa, FL.*
- 11:15 AM 109 **Influence of feeding practices on behavior and activity level in Quarter Horse mares.** A. B. Nyhart\*, J. L. Saul, E. R. Share, J. M. Reddish, and K. Cole, *The Ohio State University, Columbus.*
- 11:30 AM 110 **Effect of ivermectin and fenbendazole on fecal egg count reduction among foals in Virginia.** A. C. Carrington\*<sup>1</sup>, J. L. Carrington<sup>1</sup>, J. C. Gould<sup>2</sup>, R. M. Brooks<sup>1</sup>, C. A. Porr<sup>1</sup>, and R. K. Splan<sup>1</sup>, <sup>1</sup>*Virginia Tech, Blacksburg*, <sup>2</sup>*University of Kentucky, Lexington.*
- 11:45 AM 111 **Effect of music on the behavioral and physiological responses of stabled weanlings.** M. E. Wilson, C. J. C. Phillips, A. T. Lisle, S. T. Anderson, W. L. Bryden, and A. J. Cawdell-Smith\*, *The University of Queensland, Gatton, QLD, Australia.*
- 12:00 PM **Lunch**
- 1:30 PM 112 **Effect of equine sports massage therapy on cutaneous temperature.** M. M. Salter\*<sup>1</sup>, C. A. McCall<sup>1</sup>, D. D. Pascoe<sup>1</sup>, W. H. McElhenney<sup>2</sup>, and C. Pascoe<sup>1</sup>, <sup>1</sup>*Auburn University, Auburn, AL*, <sup>2</sup>*Tuskegee University, Tuskegee, AL.*
- 1:45 PM 113 **Comparison of moist heat and magnetic therapy on ultrasound changes in the loin area of adult horses.** D. Mulligan\* and D. Powell, *Ohio State University Agriculture Technical Institute, Wooster.*
- 2:00 PM 114 **Effects of a 90-day training program on gait quality in 2-year-old horses.** K. L. Kirbow\* and K. J. Duberstein, *The University of Georgia, Athens.*
- 2:15 PM 115 **Effects of steel and aluminum shoes on forelimb kinematics in stock horses.** E. Huguet\* and K. Duberstein, *The University of Georgia, Athens.*
- 2:30 PM 116 **Effect of caffeine, pentoxifylline, and taurine on post-thaw parameters of equine frozen semen.** J. L. Carrington\*, A. C. Carrington, R. K. Splan, C. A. Porr, and R. M. Brooks, *Virginia Tech, Blacksburg.*
- 2:45 PM 117 **Arginine supplementation in mares does not augment passive transfer of immunity to foals.** J. E. Skelton\*, L. K. Warren, J. Kivipelto, and C. J. Mortensen, *University of Florida, Gainesville.*
- 3:00 PM **Break**
- 3:30 PM 118 **Pituitary pars intermedia dysfunction down-regulates mRNA abundance of genes encoding GLUT4 and insulin receptor in the small**

**intestinal mucosa of the horse.** A. Buckley\*, N. P. Taylor, R. Manjarrin, H. C. Schott, A. D. Woodward, and N. L. Trotter, *Michigan State University, East Lansing.*

- 3:45 PM 119 **Postprandial changes in plasma free amino acids in weanling horses.** R. N. Digianantonio\*<sup>1</sup>, A. L. Wagner<sup>1</sup>, S. L. Tanner<sup>1</sup>, R. B. Ennis<sup>1</sup>, P. A. Harris<sup>2</sup>, J. T. Sylvester<sup>3</sup>, and K. L. Urschel<sup>1</sup>, <sup>1</sup>*University of Kentucky, Lexington*, <sup>2</sup>*WALTHAM Centre For Pet Nutrition, Melton Mowbray, United Kingdom*, <sup>3</sup>*Buckeye Nutrition, Dalton, OH.*
- 4:00 PM 120 **Feed intake as influenced by body condition score, outside temperature, and duration of stay in a teaching hospital in healthy adult horses.** J. Shaba\*<sup>1</sup>, B. D. Nielsen<sup>1</sup>, S. Elzinga<sup>1</sup>, J. Rapson<sup>1</sup>, C. I. Robison<sup>1</sup>, H. C. Schott<sup>1</sup>, J. McCutcheon<sup>1</sup>, R. Geor<sup>1</sup>, and P. Harris<sup>2</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*WALTHAM Centre for Pet Nutrition, Leics, United Kingdom.*
- 4:15 PM 121 **Effects of feed form on growth and stomach ulcers in yearling horses.** S. N. Warren\*, P. De Pedro Gonzalez, and K. H. Kline, *University of Illinois, Urbana.*

## Invited Speaker Luncheon

### Genetics/Exercise Physiology - Invited Speaker

Chair: **Samantha Brooks, Cornell University**

Sponsored by: **Buckeye Nutrition**

**Mirabella E**

- 12:00 PM **The interplay between genetics, exercise, and nutrition in managing muscle disease.** S. Valberg, *University of Minnesota.*

## SYMPOSIA AND ORAL SESSIONS

### Exercise Physiology Graduate Student Competition

Chair and Moderator: **Carey Williams, Rutgers University**

**Mirabella A**

- 3:30 PM 3 **Effects of the ergopeptines associated with tall fescue on post-exercise recovery of horses subjected to an anaerobic standard exercise test.** S. Demster\*, K. Minton, G. Webb, S. Webb, and B. Onyango, *Missouri State University, Springfield.*
- 3:45 PM 4 **Effect of ergotamine and ergovaline ingestion on recovery in horses subjected to an aerobic standard exercise test.** K. Minton\*, S. Demster, G. Webb, S. Webb, and B. Onyango, *Missouri State University, Springfield.*
- 4:00 PM 5 **Heart rate and hematology response to submaximal training in Quarter and miniature horses.** R. M. Legere\*<sup>1</sup>, M. J. Arns<sup>2</sup>, and J.

S. Pendergraft<sup>1</sup>, <sup>1</sup>*Sul Ross State University, Alpine, TX*, <sup>2</sup>*University of Arizona, Tucson*.

- 4:15 PM 6 **Effects of polysulfated glycosaminoglycan injections on joint range of motion and gait quality at the walk and trot.** R. Stewart\*, K. J. Duberstein, and A. Hanafi, *University of Georgia, Athens*.
- 4:30 PM 7 **Influence of an intra-articular lipopolysaccharide challenge on markers of inflammation and cartilage metabolism in young horses.** J. L. Lucia\*, J. A. Coverdale, and C. E. Arnold, *Texas A&M University, College Station*.
- 4:45 PM 8 **Relationship of osteochondrosis in yearling Standardbred horses to subsequent race earnings and number of starts at 2 and 3 years of age.** I. Hilliker\*, K. Kline, and P. Kapraun, *University of Illinois, Champaign*.

## Reproductive Physiology Graduate Student Competition

Chair and Moderator: **Sheryl King**,  
**Southern Illinois University**  
**Mirabella B**

- 3:45 PM 102 **Effects of oxytocin, LPS, and polyunsaturated fatty acids on PGF<sub>2</sub> $\alpha$  secretion and gene expression during equine endometrial culture.** L. V. Penrod\*<sup>1</sup>, R. E. Allen<sup>1</sup>, M. L. Rhoads<sup>1</sup>, J. L. Turner<sup>2</sup>, S. W. Lime-sand<sup>1</sup>, and M. J. Arns<sup>1</sup>, <sup>1</sup>*The University of Arizona, Tucson*, <sup>2</sup>*New Mexico State University, Las Cruces*.
- 4:00 PM 103 **Evaluation of exosomes containing miRNA as an indicator of pregnancy status in the mare.** A. Cameron\*, J. C. da Silveira, G. Bouma, and J. E. Bruemmer, *Colorado State University, Fort Collins*.
- 4:15 PM 104 **L-Arginine supplementation reduces uterine fluid accumulation after foaling in the mare.** D. E. Kelley\*, L. K. Warren, and C. J. Mortensen, *University of Florida, Gainesville*.
- 4:30 PM 105 **Fertility of mares inseminated with frozen/thawed semen centrifuged through a single layer density gradient.** K. L. Cerny\*, S. Hughes, J. R. Campos, M. H. T. Troedsson, and E. L. Squires, *University of Kentucky, Lexington*.
- 4:45 PM 106 **Thermoregulation of the testicle in response to exercise and subsequent effects on seminal characteristics in stallions.** J. D. Mawyer\*, R. K. Gordon, C. A. Cavinder, M. M. Vogelsang, D. H. Sigler, C. C. Love, S. P. Brinsko, T. L. Blanchard, and S. Teague, *Texas A&M University, College Station*.

## BBQ

7:00 PM–10:00 PM

Buses will depart from the Embassy Suites at 6:00 PM.

Enjoy a Barbeque dinner catered by Jim and Nick's BBQ while listening to Nashville recording artist Mr. Paul Bogart. Dancing and visiting are encouraged. Evening sponsored by The League of Agricultural and Equine Centers and the Rutherford County Chamber of Commerce.

## General Symposium

Sponsored by: **ADM Alliance Nutrition, Kent Nutrition Group,  
Equine Feed Oat Project-Peritus**

**Thursday, June 2**

### Nutrition Oral Presentations - I

Chair: **Burton Staniar,**

**The Pennsylvania State University**

Moderator: **Shannon Pratt-Phillips**

**Mirabella A**

- 8:00 AM 50 **Synovial prostaglandin E<sub>2</sub> concentrations in horses fed long-chain polyunsaturated fatty acids: An inquiry study.** T. Ross\*, T. Hess, D. Hansen, T. Engle, N. Schauermaun, and J. Rexford, *Colorado State University, Fort Collins.*
- 8:15 AM 51 **Total and water-soluble phosphorus excretion in horses consuming all-forage diets.** L. K. Warren\*, S. Dilling, J. Kivipelto, J. Bobel, and J. Eckert, *University of Florida, Gainesville.*
- 8:30 AM 52 **Digestibility and balance of organic and inorganic sources of calcium and magnesium in exercised 2- and 3-year-old geldings.** B. Dundon\*, L. Baker, J. Pipkin, and T. Lawrence, *West Texas A&M University, Canyon.*
- 8:45 AM 53 **The effect of conditioning on nitrogen balance in exercising horses.** P. M. Graham-Thiers\* and L. K. Bowen, *Virginia Intermont College, Bristol.*
- 9:00 AM 54 **Using urinary urea-N as an assessment of protein requirements and protein quality in exercising horses.** P. M. Graham-Thiers\* and L. K. Bowen, *Virginia Intermont College, Bristol.*
- 9:15 AM 55 **The apparent digestibility of hay and three concentrate feeds by exercised ponies.** A. C. Longland\*<sup>1</sup>, C. Barfoot<sup>2</sup>, and P. A. Harris<sup>3</sup>, <sup>1</sup>*Equine and Livestock Nutrition Services, Tregaron, Ceredigion, Wales, United Kingdom,*, <sup>2</sup>*Mars Horse Care UK Ltd., Old Wolverton, Buck-*

*inghamshire, United Kingdom, <sup>3</sup>WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom.*

- 9:30 AM 56 **Estimation of pasture intake by ponies from live weight change during six weeks at pasture.** A. C. Longland\*<sup>1</sup>, J. Ince<sup>2</sup>, and P. A. Harris<sup>3</sup>, <sup>1</sup>*Equine and Livestock Nutrition Services, Tregaron, Ceredigion, Wales, United Kingdom, <sup>2</sup>Nottingham Trent University, Nottingham, United Kingdom, <sup>3</sup>WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom.*
- 9:45 AM 57 **Techniques, equipment, and considerations applied in equine digestibility experiments.** M. Edwards\*<sup>1</sup>, L. Lawrence<sup>2</sup>, and C. O'Connor-Robison<sup>3</sup>, <sup>1</sup>*California Polytechnic State University, San Luis Obispo, <sup>2</sup>University of Kentucky, Lexington, <sup>3</sup>Michigan State University, East Lansing.*

## **Production and Management Oral Presentations - I**

Chair: **Lori Warren, University of Florida**

Moderator: **Janice Holland**

**Mirabella C**

- 8:00 AM 88 **Evaluation of hay fed to horses in Tennessee.** B. McIntosh\*<sup>1</sup>, D. Joines<sup>1</sup>, G. Parks<sup>1</sup>, and P. Buff<sup>2</sup>, <sup>1</sup>*University of Tennessee, Knoxville, <sup>2</sup>The Nutro Company, Franklin, TN.*
- 8:15 AM 89 **Field observations from the University of Maryland's equine rotational grazing demonstration site: A 2-year perspective.** A. O. Burk\*<sup>1</sup>, N. M. Fiorellino<sup>1</sup>, T. A. Shellem<sup>1</sup>, M. E. Dwyer<sup>1</sup>, L. R. Vough<sup>1</sup>, and E. Dengler<sup>2</sup>, <sup>1</sup>*University of Maryland, College Park, <sup>2</sup>USDA Natural Resources Conservation Service, Annapolis, MD.*
- 8:30 AM 90 **Observations of insulin responses to five glucocorticoids commonly used in equine medicine.** G. K. Noble\*<sup>1</sup>, A. J. Cawdell-Smith<sup>2</sup>, W. L. Bryden<sup>2</sup>, and M. N. Sillence<sup>3</sup>, <sup>1</sup>*Charles Sturt University, Wagga Wagga, NSW 2650, Australia, <sup>2</sup>The University of Queensland, Gatton, QLD, 4343, Australia, <sup>3</sup>Queensland University of Technology, Brisbane, QLD 4001, Australia.*
- 8:45 AM 91 **Breed and age effects on metabolic profiles of young horses using NMR-based metabonomic analyses of serum.** S. L. Ralston\*<sup>1</sup>, L. Pappalardo<sup>2</sup>, and I. Pelczer<sup>3</sup>, <sup>1</sup>*Rutgers, the State University of New Jersey, New Brunswick, <sup>2</sup>American University of Sharjah, United Arab Emirates, <sup>3</sup>Princeton University, Princeton, NJ.*
- 9:00 AM 92 **Dietary protein affects nitrogen and ammonia excretion in horses.** C. A. Williams\*, C. Urban, and M. L. Westendorf, *Rutgers, the State University of New Jersey, New Brunswick.*
- 9:15 AM 93 **Effects of excess dietary phosphorus on fecal phosphorus excretion and water extractable phosphorus in horses.** M. L. Westendorf\* and C. A. Williams, *Rutgers, the State University of New Jersey, New Brunswick.*

## Teaching and Extension Oral Presentations - I

Chair and Moderataor: **Jenifer Nadeau, University of Connecticut**  
**Mirabella B**

- 8:00 AM 133 **Measuring impact and subscriber engagement of an extension electronic newsletter.** C. Skelly\*<sup>1</sup>, A. Bodle<sup>1</sup>, G. Heyboer<sup>1</sup>, and M. Lambur<sup>2</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*Virginia Tech, Blacksburg*.
- 8:15 AM 134 **Assessing current equine welfare knowledge in Michigan 4-H leaders and youth.** T. A. Fabus and K. L. Waite\*, *Michigan State University, East Lansing, MI*.
- 8:30 AM 135 **Holy Hoofprints: Is that a horse in my science class?! Rutgers Equine Science Center launches *Equine Science 4 Kids*.** K. Malinowski\*, T. J. Cody, A. Palkhiwala, and W. Haduch, *Rutgers, the State University of New Jersey, New Brunswick*.
- 8:45 AM 136 **2010 Kentucky Equine Youth Festival: How to create an event that draws 6,000 people.** F. Camargo\* and E. LaBonty, *University of Kentucky, Lexington*.
- 9:00 AM 137 **Results of a 2010 survey assessing Tennessee 4-H horse and livestock volunteer training needs.** A. G. Parks\*, B. J. McIntosh, and F. N. Smith, *University of Tennessee, Knoxville*.
- 9:15 AM 138 **Survey of adult volunteer horse leaders for the development of an online equine education program.** K. Waite\*<sup>1</sup>, K. Wilson<sup>2</sup>, G. Heyboer<sup>1</sup>, and E. Greene<sup>3</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*University of Maryland, Ellicott City*, <sup>3</sup>*University of Vermont, Burlington*.
- 9:30 AM 139 **Measuring the effectiveness of a Facebook fan page for equine extension programs.** K. Martinson\*<sup>1</sup>, C. Skelly<sup>2</sup>, and L. Fisher<sup>2</sup>, <sup>1</sup>*University of Minnesota, St. Paul*, <sup>2</sup>*Michigan State University, East Lansing*.
- 9:45 AM 140 **Assessing the impact and usefulness of eXtension horses.** K. P. Anderson\*<sup>1</sup>, E. A. Greene<sup>2</sup>, and K. Martinson<sup>3</sup>, <sup>1</sup>*University of Nebraska, Lincoln*, <sup>2</sup>*University of Vermont, Burlington*, <sup>3</sup>*University of Minnesota, St. Paul*.

## OTHER EVENTS

### **Thursday Industry Tour: 10:30 AM-5:00PM**

Sponsored by: **Embassy Suites Hotel & Convention Center**

The Industry Tour buses will leave the Embassy at 10:30 AM. The first stop on the tour is The Tennessee Walking Horse Celebration grounds in Shelbyville, Tennessee. The Tennessee Walking Horse National Celebration® takes place each year during the 11 days and nights prior to Labor Day. It is the premier event for the Tennessee Walking Horse, during which the breed's World Grand Champion® and some 20 World Champions are named. While at The Celebration, owners, trainers and exhibitors from the local area will demonstrate the different gaits and classes of the Tennessee Walking Horse. Representatives from S.H.O.W. will discuss current regulations and inspection procedures required at approved shows. Southern style lunch will be served at the Celebration grounds.

The second stop on the tour will be Waterfall Farms. An industry showplace for more than a decade, Bill and Sandra Johnson's Waterfall Farms is nestled in the picturesque rolling hills of Middle Tennessee. Centered in the heart of Tennessee Walking Horse country, Waterfall continues to bring to the walking horse world an impeccable line-up of stallions. Their stallions have records of world championship competition, in the town where the World Grand Champion walking horses are crowned.

Jack Daniel's Distillery will be the final stop of the day. The Jack Daniel Distillery is the oldest registered distillery in the U.S. It's where Mr. Jack first crafted the recipe for Old No. 7. It's where the pure, iron-free cave spring water flows. And it's where every drop of Jack Daniel's Tennessee Sippin' Whiskey is still made today.

### **Graduate Student Professional Development Program**

Chair and Moderator: **Jessica Suagee, Virginia Tech**  
**Mirabella D**

6:30 PM **Graduate student professional development—Discussion panel.** A. Burk, J. Bruemmer, C. Larson, N. Luba, K. McKeever, K. Urschel.

### **Nutrition Workshop**

Chair and Moderator: **Mark Edwards, California**  
**Polytechnic State University**  
**Mirabella A**

8:00 PM **Total collections—Tips for success.** M. Edwards, C. I. O'Connor-Robison, L. Lawrence.

## **Production and Management Workshop**

Chair and Moderator: **Carey Williams, Rutgers University**  
**Mirabella C**

8:00 PM **Current research: Equine environmental impact.** C. Williams, K. Martinson, P. Siciliano.

## **Teaching and Extension Workshop**

Chair and Moderator: **Kathy Anderson, University of Nebraska Mirabella B**

8:00 PM **Research + Teaching + Extension = eXtension Horses: Making your research relevant and reaching new audiences.** K. Anderson, B. Greene, A. Griffin.

## **Friday, June 3**

### **Production and Management Invited Speaker**

Chair and Moderator: **Carey Williams, Rutgers University**  
**Oakleigh AB**

8:00 AM **Environmental issues for the horse industry.** W. Powers and T. Guthrie, Michigan State University.

## **SYMPOSIA AND ORAL SESSIONS**

### **Nutrition Oral Presentations - II**

Chair: **Burton Staniar,**  
**The Pennsylvania State University**  
Moderator: **Josie Coverdale**  
**Mirabella A**

- 9:15 AM 58 **Glucose and insulin dynamics in neonatal foals: Influence of maternal diet.** T. N. Dobbs<sup>1</sup>, C. E. Foote<sup>2</sup>, A. J. Cawdell-Smith<sup>1</sup>, S. T. Anderson<sup>1</sup>, R. C. Boston<sup>3</sup>, and W. L. Bryden<sup>\*1</sup>, <sup>1</sup>*The University of Queensland, Gatton, QLD, Australia*, <sup>2</sup>*Equine Consulting Services Pty Ltd., Glenorie, NSW, Australia*, <sup>3</sup>*University of Pennsylvania, Philadelphia.*
- 9:30 AM 59 **Insulin sensitivity in growing horses fed a higher starch versus a higher fat diet for 2 years.** M. E. Gordon\*, M. L. Jerina, R. H. Raub, and K. K. Williamson, *Land O'Lakes Purina Feed, Gray Summit, MO.*
- 9:45 AM 62 **Effect of prebiotic supplementation in mares on the evolution of the digestive ecosystem in feces of suckling foals from birth to pre-weaning period (6 months).** C. Faubladier, C. Philippeau, J. Danel, and V. Julliand\*, *AGROSUP Dijon USC INRA, Dijon, France.*
- 10:00 AM 61 **Changes in *in vitro* fermentative capacity in foals from birth to 2 months old.** C. Philippeau, C. Faubladier, S. Sadet-Bourgeteau, R. Blot, and V. Julliand\*, *Agrosupdijon, Dijon, France.*

- 10:15 AM      **Break**
- 10:45 AM    60    **The effect of soaking hay on dry matter loss and fructan removal.** K. Martinson\*<sup>1</sup>, H. Jung<sup>1,2</sup>, M. Hathaway<sup>1</sup>, and C. Sheaffer<sup>1</sup>, <sup>1</sup>*University of Minnesota, St. Paul*, <sup>2</sup>*USDA ARS, St. Paul, MN*.
- 11:00 AM    63    **Characterization of D-glucose transport across equine jejunal brush border membrane using the pig as an efficient model of jejunal glucose uptake.** A. D. Woodward\*<sup>1</sup>, M. Z. Fan<sup>2</sup>, J. P. Steibel<sup>1</sup>, R. J. Goer<sup>1</sup>, N. P. Taylor<sup>1</sup>, and N. L. Trottier<sup>1</sup>, <sup>1</sup>*Michigan State University, East Lansing*, <sup>2</sup>*University of Guelph, Guelph, Ontario, Canada*.
- 11:15 AM    64    **The effect of time of feeding on plasma amino acids during exercise and recovery.** P. M. Graham-Thiers\* and L. K. Bowen, *Virginia Intermont College, Bristol*.
- 11:30 AM    65    **The effect of wearing a grazing muzzle vs. not wearing a grazing muzzle on pasture dry matter intake by ponies.** A. C. Longland\*<sup>1</sup>, C. Barfoot<sup>2</sup>, and P. A. Harris<sup>3</sup>, <sup>1</sup>*Equine and Livestock Nutrition Services, Tregaron, Ceredigion, Wales, United Kingdom*, <sup>2</sup>*Mars Horse Care United Kingdom Ltd., Old Wolverton, Buckinghamshire, United Kingdom*, <sup>3</sup>*WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom*.
- 11:45 AM    66    **Changes in proportions of dry matter intakes by ponies with access to pasture and haylage for 3 and 20 hours per day, respectively, for 6 weeks.** J. Ince<sup>1</sup>, A. C. Longland\*<sup>2</sup>, J. C. Newbold<sup>1</sup>, and P. A. Harris<sup>3</sup>, <sup>1</sup>*IBERS, Aberystwyth, Wales, United Kingdom*, <sup>2</sup>*Equine and Livestock Nutrition Services, Tregaron, Ceredigion, Wales, United Kingdom*, <sup>3</sup>*WALTHAM Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, United Kingdom*.

## Teaching and Extension Oral Presentations - II

Chair: **Jenifer Nadeau, University of Connecticut**

Moderators: **Jenifer Nadeau, Jeff Pendergraft,  
and Mike Yoder  
Mirabella B**

- 9:15 AM    141    **What makes it legit? A look at factors impacting upon views of the legitimacy of the equine undergraduate discipline.** K. Bump\*<sup>1,2</sup>, <sup>1</sup>*Cazenovia College, Cazenovia, NY*, <sup>2</sup>*University at Albany, Albany, NY*.
- 9:30 AM    142    **Developing an assessment plan in an animal science department.** S. Burk\*, M. Rossano, E. Vanzant, W. Silvia, and R. Harmon, *University of Kentucky, Lexington*.
- 9:45 AM    143    **Contributions of an animal sciences major with equine science option to department and college enrollment trends at a land grant university.** E. Wagner\* and C. McCall, *Auburn University, Auburn, AL*.
- 10:00 AM    144    **The Penn State Equine Research Team.** W. B. Staniar\* and A. L. Macrina, *Pennsylvania State University, University Park*.

- 10:15 AM      **Break**
- 10:45 AM    145 **The status of equine-assisted therapy programs within higher education.** H. A. Brady\*, H. M. Hernandez, and K. A. Guay, *Texas Tech University, Lubbock.*
- 11:00 AM    146 **Development of equine-assisted therapy and learning as an elective module within an Irish equine curriculum.** B. A. Murphy\*, *University College Dublin, Belfield, Dublin, Ireland.*
- 11:15 AM    147 **Training first responders on equine handling and technical rescue.** C. A. S. Porr\* and R. K. Splan, *Virginia Tech, Blacksburg.*
- 11:30 AM    148 **Castration of wild horses: A unique classroom setting.** D. Sherwood\*, *Oregon State University, Corvallis.*
- 11:45 AM    149 **Academic assessment of equine welfare during the gather process of the Bureau of Land Management's Wild Horse and Burro Program.** E. A. Greene\*<sup>1</sup>, C. R. Heleski<sup>2</sup>, S. L. Ralston<sup>3</sup>, and C. L. Stull<sup>4</sup>, <sup>1</sup>*University of Vermont, Burlington,* <sup>2</sup>*Michigan State University, East Lansing,* <sup>3</sup>*Rutgers, the State University of New Jersey, New Brunswick,* <sup>4</sup>*University of California, Davis.*
- 12:00 PM      **Lunch**
- 1:30 PM      150 **Mentoring underrepresented students through sustainable agricultural and biological research.** J. Pendergraft\*<sup>1</sup>, R. Legere<sup>1</sup>, and A. Rodriguez<sup>2</sup>, <sup>1</sup>*Sul Ross State University, Alpine, TX,* <sup>2</sup>*University of Puerto Rico, Mayaguez, PR.*
- 1:45 PM      151 **Change in knowledge and beliefs of youth as a result of participation in creating a youth-friendly environmental brochure.** M. Philbrick and J. Nadeau\*, *University of Connecticut, Storrs.*
- 2:00 PM      152 **Using action research to develop an online horseless horse learning lesson.** J. M. Bauman\* and K. P. Anderson, *University of Nebraska, Lincoln.*
- 2:15 PM      153 **Equine nutrition laboratory manual: A collaborative effort.** C. Buckhout\*, *Cazenovia College, Cazenovia, NY.*

## **Reproductive Physiology Oral Presentations**

Chair: **Sheryl King,**  
**Southern Illinois University**  
Moderator: **William Day**  
**Mirabella C**

- 10:45 AM    107 **Gestation length, duration of labor, and foal survival.** R. A. Ferris\* and P. M. McCue, *Equine Reproduction Laboratory, Colorado State University, Fort Collins.*

## Genetics Oral Presentations

Chair: **Samantha Brooks, Cornell University**  
Moderators: **Rebecca Splan and Samantha Brooks**  
**Mirabella C**

- 11:00 AM 18 **Genetic parameters for conformation and movement traits in North American sporthorse foals.** A. S. Bhatnagar\*<sup>1</sup>, R. M. Lewis<sup>1</sup>, D. R. Notter<sup>1</sup>, C. Schacht<sup>2</sup>, and R. K. Splan<sup>1</sup>, <sup>1</sup>*Virginia Polytechnic Institute and State University, Blacksburg*, <sup>2</sup>*International Sporthorse Registry Inc., Sycamore, IL.*
- 11:15 AM 19 **Genome-wide association study for susceptibility of horses for *in vitro* infection with equine arteritis virus.** Y. Y. Go, U. Balasuriya, and E. Bailey\*, *University of Kentucky, Lexington.*
- 11:30 AM 20 **The influence of exercise on entrainment of skeletal muscle transcription in the horse.** O. F. McGlynn, J. A. Browne, C. M. Blake, and B. A. Murphy\*, *University College Dublin, Belfield, Dublin, Ireland.*
- 11:45 AM 21 **Smooth muscle proliferation is a histologic feature of airway remodeling in summer-pasture-associated recurrent airway obstruction.** N. Mujahid\*<sup>1</sup>, C. Bowers<sup>1</sup>, L. R. Costa<sup>2</sup>, C. Ferrari<sup>1</sup>, J. Cooley<sup>1</sup>, S. C. Burgess<sup>1</sup>, S. Mays<sup>1</sup>, and C. E. Swiderski<sup>1</sup>, <sup>1</sup>*Mississippi State University, Mississippi State*, <sup>2</sup>*Tufts University, North Grafton, MA.*

## Invited Speaker Luncheon

### Production and Management Invited Speaker

Chair and Moderator: **Randy Robbins**  
**Mirabella E**

- 12:00 PM **Fancy: An equine nutrition and management model.** T. Tylutki, *Agricultural Modeling and Training Systems.*

## SYMPOSIA AND ORAL SESSIONS

### Exercise Physiology Oral Presentations

Chair: **Carey Williams, Rutgers University**  
Moderator: **Tanja Hess**  
**Mirabella A**

- 1:30 PM 9 **The effect of calcium and magnesium proteinates on bone density in exercised 2- and 3-year-old geldings.** C. Douglas-Fuller\*<sup>1</sup>, L. Baker<sup>1</sup>, J. Pipkin<sup>1</sup>, and G. Veneklasen<sup>2</sup>, <sup>1</sup>*West Texas A&M University, Canyon*, <sup>2</sup>*Timbercreek Veterinary Hospital, Canyon, TX.*
- 1:45 PM 10 **The effect of exercise training on insulin sensitivity and fat and muscle tissue cytokine profiles of old and young Standardbred mares.** N. R. Liburt\*<sup>1</sup>, M. N. Fugaro<sup>2</sup>, E. K. Wunderlich<sup>1</sup>, J. L. Zambito<sup>1</sup>, D. W. Horohov<sup>3</sup>, A. Betancourt<sup>3</sup>, R. C. Boston<sup>4</sup>, K. H. McKeever<sup>1</sup>, and R. J. Geor<sup>5</sup>, <sup>1</sup>*Rutgers, the State University of New Jersey*,

*New Brunswick, <sup>2</sup>Centenary College, Hackettstown, NJ, <sup>3</sup>University of Kentucky, Lexington, <sup>4</sup>University of Pennsylvania, Kennett Square, <sup>5</sup>Michigan State University, East Lansing.*

- 2:00 PM 11 **Effect of conditioning horses 1, 2, or 3 times a week with 2 runs of 100 meters at near maximal speed on v4.** A. Lindner\*<sup>1</sup>, R. Signorini<sup>2</sup>, L. Brero<sup>2</sup>, E. Arn<sup>3</sup>, R. Mancini<sup>2</sup>, and A. Enrique<sup>2</sup>, <sup>1</sup>*Arbeitsgruppe Pferd, Juelich, Germany, <sup>2</sup>Universidad del Litoral, Esperanza, Argentina, <sup>3</sup>Ejercito Argentino, Esperanza, Argentina.*
- 2:15 PM 12 **Long-term use of global positioning satellite to determine factors affecting spontaneous activity in young horses.** K. K. Williamson\*, M. E. Gordon, M. L. Jerina, M. A. Rao, and R. H. Raub, *Land O'Lakes Purina Feeds, Gray Summit, MO.*

## OTHER EVENTS

- 3:30 ESS General business meeting, Oakleigh AB
- 6:30 ESS Awards Banquet  
Graduate Student Competition Awards sponsored by NAERIC  
Society Awards sponsored by Kentucky Equine Research  
of time.