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    Other Activities ....................................................... 19
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2013–2015
Equine Science Society

Officers and Board Members

Jason E. Bruemmer, President
Lori K. Warren, Vice President
Kenneth H. McKeever, Secretary–Treasurer
Brian D. Nielsen, Past President
W. Burton Staniar, Director (2015)
Jason L. Turner, Director (2015)

Karin D. Bump, Director (2017)
Patricia Harris, Director (2017)
Shannon Pratt-Phillips, Director (2019)
Karyn Malinowski, Director (2019)
Brittany Harlow, Graduate Student Director (2015)
Robert J. Coleman, Executive Secretary

Standing Committees

Program Chair
Lori K. Warren

Host Committee
Lori K. Warren (Chair)
Samantha Brooks
Judy Downer
Christopher Mortensen
Saundra TenBroeck
Kelly Vineyard
Carissa Wickens

Exercise Physiology
Tanja Hess (Chair)
Kris Hiney
Carey Williams

Nutrition
Amy Burk (Chair)
Shannon Pratt-Phillips
Josie Coverdale
Holly Spooner
Patty Graham-Thiers

Genetics
Rebecca Splan (Chair)
Samantha Brooks
Rebecca Bellone
Jessica Petersen

Reproductive Physiology
Heidi Brady (Chair)
Rebecca Bott
Clay Cavinder
Gary Webb

Teaching and Extension
Mike Yoder (Chair)
Karen Waite
David Denniston
Dean Jousan

Finance and Fundraising
Bob Coleman (Chair)
Lori K. Warren
Stephen Duren
Bill Day

Student Competition
Teresa Douthit (Chair)
Karen Wimbush
C. A. Shea Porr

Society Awards
William Schurg (Chair)
Don Thompson
Betsy Wagner

Membership
Amy Burk (Chair)
Steve Cooper
Kari Turner

Nominating Committee
Ed Squires (Chair)
Laurie Lawrence
Ann Swinker
Mary Beth Gordon
Presentation Information

Oral Presentations
The scheduled time for oral presentation of each abstract is 12 minutes, followed by 3 minutes for questions, discussion, and speaker transition.

Presentations should be prepared in Microsoft PowerPoint (version 2007 or later) and be PC compatible. Presentations should be saved on a USB jump drive for on-site uploading to a conference computer.

Each session room will be equipped with a laptop computer (PC), LCD projector, and podium. Most rooms will also have fixed microphones. With the exception of invited speakers, the use of personal computers is not permitted in session rooms.

On-Site Upload
Presentation files must be uploaded to a conference computer at least one day prior to the scheduled presentation. Please note that presentations will not be accepted, nor can they be modified, in the session rooms. Additionally, no presentations will be loaded while the session is in progress, between presentations, or during breaks.

Presentation Upload Details:
- Tuesday, May 26 ..................... 2:00 pm–7:00 pm ................... Jacaranda Hall Foyer
- Wednesday, May 27 ............... 8:00 am–5:00 pm .................... Convention Office (Grand Palm Colonnade)
- Thursday, May 28 ................... 8:00 am–12:00 pm ................. Convention Office (Grand Palm Colonnade)

Poster Presentations
Posters will be displayed in the Banyan Breezeway. Each poster will have an assigned board; please look for the poster number (same as the abstract number) as noted in this program to locate your board. Push pins for attaching posters to boards will be provided.

Posters should be displayed by 10:00 am on Wednesday, May 27, and remain on display for the entire meeting. Posters should be removed by 6:00 pm on Friday, May 29 (any left behind will be discarded).

At the 2015 symposium, there will be two poster sessions divided by section:
- Poster Session 1: Thursday, May 28, 9:00–10:30 am—Genetics, Exercise Physiology, Nutrition, Reproduction
- Poster Session 2: Friday, May 29, 3:30–5:00 pm—Production and Management, Teaching and Extension

Refer to the program listing to confirm which session your poster was assigned to. An author must be present at the poster during the assigned session. Posters will also be viewable during all refreshment breaks; although not required, authors may wish to check in periodically at their poster during breaks.
**Event Schedule**

**Tuesday, May 26**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>2:00–4:00 pm</td>
<td>ESS Board of Directors meeting</td>
<td>Spotted Curlew</td>
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<tr>
<td>2:00–8:00 pm</td>
<td>Conference registration</td>
<td>Convention Office (Grand Palm Colonnade)</td>
</tr>
<tr>
<td>2:00–7:00 pm</td>
<td>Put up posters (must be up by Wednesday at 10:00 am)</td>
<td>Banyan Breezeway</td>
</tr>
<tr>
<td>2:00–7:00 pm</td>
<td>Presentation upload (Wednesday or Friday presentations)</td>
<td>Jacaranda Hall Foyer</td>
</tr>
<tr>
<td>2:00–7:00 pm</td>
<td>Presenter practice room</td>
<td>Glades (Jacaranda Hall)</td>
</tr>
<tr>
<td>5:00–7:00 pm</td>
<td>Opening reception</td>
<td>Breck Deck North (outdoors)</td>
</tr>
<tr>
<td>7:00 pm</td>
<td>Welcome</td>
<td>Tarpon/Sawyer/Long Key</td>
</tr>
<tr>
<td>7:15–8:30 pm</td>
<td>Squire’s Lecture—Equine Reproduction</td>
<td>Tarpon/Sawyer/Long Key</td>
</tr>
<tr>
<td></td>
<td>Donald L. Thompson Jr.—Prolactin in the horse: Historical perspective, actions and reactions, and its role in reproduction</td>
<td>Tarpon/Sawyer/Long Key</td>
</tr>
</tbody>
</table>

**Wednesday, May 27**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00–7:00 am</td>
<td>“Society Stakes” 25-Furlong Fun/Run/Walk</td>
<td>Cabana Hut (on the beach)</td>
</tr>
<tr>
<td>7:00 am–7:00 pm</td>
<td>Conference registration</td>
<td>Convention Office (Grand Palm Colonnade)</td>
</tr>
<tr>
<td>8:00 am–5:00 pm</td>
<td>Presentation upload (Friday presentations only)</td>
<td>Convention Office (Grand Palm Colonnade)</td>
</tr>
<tr>
<td>8:00–9:00 am</td>
<td>Invited Speaker—Exercise Physiology</td>
<td>Tarpon/Sawyer/Long Key</td>
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<tr>
<td></td>
<td>David Marlin—Has the golden age of equine exercise physiology passed, and if so, have we answered all the big questions?</td>
<td>Tarpon/Sawyer/Long Key</td>
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<tr>
<td></td>
<td>Exercise physiology: Graduate student competition</td>
<td>Glades (Jacaranda Hall)</td>
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<tr>
<td></td>
<td>Nutrition: Graduate student competition (1)</td>
<td>Sabal (Jacaranda Hall)</td>
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<tr>
<td></td>
<td>Production and management:</td>
<td>Jasmine (Jacaranda Hall)</td>
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<tr>
<td></td>
<td>Undergraduate student competition (1)</td>
<td>Citrus (Jacaranda Hall)</td>
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<tr>
<td>10:30–11:00 am</td>
<td>Refreshment break</td>
<td>Banyan Breezeway</td>
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<tr>
<td>11:00 am–12:00 pm</td>
<td>Genetics: Graduate student competition</td>
<td>Glades (Jacaranda Hall)</td>
</tr>
<tr>
<td>11:00 am–12:00 pm</td>
<td>Nutrition: Graduate student competition (2)</td>
<td>Sabal (Jacaranda Hall)</td>
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<tr>
<td>11:00 am–12:00 pm</td>
<td>Production and management:</td>
<td>Jasmine (Jacaranda Hall)</td>
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<tr>
<td>11:00 am–12:00 pm</td>
<td>Undergraduate student competition (3)</td>
<td>Citrus (Jacaranda Hall)</td>
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<tr>
<td>12:00–1:30 pm</td>
<td>Invited Speaker Luncheon—Nutrition</td>
<td>Tarpon/Sawyer/Long Key</td>
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<tr>
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<td>Eduardo Valdes—Feeding wild animals, including the horse’s exotic relatives</td>
<td>Tarpon/Sawyer/Long Key</td>
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<tr>
<td></td>
<td>(Island Ballroom)</td>
<td>(Island Ballroom)</td>
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<tr>
<td>1:45–3:30 pm</td>
<td>Reproductive physiology:</td>
<td>Glades (Jacaranda Hall)</td>
</tr>
<tr>
<td>1:45–3:30 pm</td>
<td>Nutrition: Graduate student competition (1)</td>
<td>Sabal (Jacaranda Hall)</td>
</tr>
</tbody>
</table>
1:45–3:30 pm  Production and management:
   Graduate student competition (3) ........................ Jasmine (Jacaranda Hall)
   Undergraduate student competition (3) ........................ Citrus (Jacaranda Hall)
3:30–4:00 pm  Refreshment break  ........................................ Banyan Breezeway
4:00–5:00 pm  Reproductive physiology:
   Graduate student competition (2) ........................ Glades (Jacaranda Hall)
   Teaching and extension: Graduate student competition ........... Sabal (Jacaranda Hall)
   Production and management:
   Graduate student competition (4) ........................ Jasmine (Jacaranda Hall)
   Undergraduate student competition (4) ........................ Citrus (Jacaranda Hall)
5:15–6:45 pm  Workshop
   The internet of things: Using innovation to enhance
teaching and extension  ........................................ Tarpon/Sawyer/Long Key (Island Ballroom)
7:00–9:00 pm  Gator Growl Dinner
   (with Florida horse-industry guests) ........................ Garden Courtyard (outdoors)

Thursday, May 28
6:30–8:00 am  ARPAS exam  ........................................ Blue Heron
8:00 am–12:00 pm  Presentation upload  ................................ Convention Office (Grand Palm Colonnade)
8:00 am–5:00 pm  Presenter practice room  ................................ Glades (Jacaranda Hall)
8:00–9:00 pm  Invited Speaker—Genetics
   Ernie Bailey—Genetics After TWILIGHT  .................... Tarpon/Sawyer/Long Key (Island Ballroom)
9:00–9:30 pm  Refreshment break  ........................................ Banyan Breezeway
9:00–10:30 pm  Poster Session 1
   Exercise physiology
   Genetics
   Nutrition
   Reproductive physiology  ........................................ Banyan Breezeway
11:00 am–12:30 pm  Workshop
   Undergraduate program assessment and
   accreditation—Building a collaborative
   peer-based model.  ........................................ Sabal (Jacaranda Hall)
11:00 am–12:30 pm  Workshop
   Determining equine digestibility coefficients—Can we
define criteria for a standardized research protocol?  .......... Jasmine (Jacaranda Hall)
12:30–2:00 pm  Lunch on your own
2:00–3:30 pm  Workshop
   Equitation science and learning theory—A strategic approach
to enhancing equine behavior and welfare curriculum.  ...... Sabal (Jacaranda Hall)
2:00–3:30 pm  Workshop
   Tips for reappointment, promotion, and tenure  ............ Jasmine (Jacaranda Hall)
Friday, May 29

8:00–9:00 am
Invited Speaker—Teaching and Extension
Alex Thiemann—Donkeys are different .................. Tarpon/Sawyer/Long Key
(Island Ballroom)

9:15–10:30 am
Nutrition: General session (1) .................. Sabal (Jacaranda Hall)
Reproductive physiology: General session ....... Jasmine (Jacaranda Hall)
Teaching and extension: General session (1) ........ Glades (Jacaranda Hall)

10:30–11:00 am
Refreshment break ...................................... Banyan Breezeway

11:00 am–12:30 pm
Nutrition: General session (2) .................. Sabal (Jacaranda Hall)
Production and management: General session (1) .......... Jasmine (Jacaranda Hall)
Teaching and extension: General session (2) ........ Glades (Jacaranda Hall)

12:30–2:00 pm
Invited Speaker Luncheon—Production and Management
Molly McCue—Equine Metabolic Syndrome: A complex
disease influenced by genetics and the environment .... Tarpon/Sawyer/Long Key
(Island Ballroom)

2:15–3:30 pm
Exercise physiology: General session .................. Sabal (Jacaranda Hall)
Production and management: General session (2) .......... Jasmine (Jacaranda Hall)
Teaching and extension: General session (3) ........ Glades (Jacaranda Hall)

3:30–4:00 pm
Refreshment break ...................................... Banyan Breezeway

3:30–5:00 pm
Poster Session 2
Production and management
Teaching and extension ................................. Banyan Breezeway

5:00–6:00 pm
ESS General Business Meeting .................. Tarpon Key (Island Ballroom)

6:30–9:00 pm
ESS Awards Banquet
cocktails (6:30 pm); dinner (7:00 pm) ................... Garden Courtyard (outdoors)
Maps

Meeting Rooms

Banyan Breezeway
50x173

Horizons West
Horizons East
Horizons Portico

IN THE BRECKENRIDGE BUILDING

THE PAVILION

Banquet Kitchen

Royal Tern
Snowy Egret
Blue Heron

ISLAND BALLROOM
Tarpon Key
Sawyer Key
Long Key
Indian Key
Bird Key

Grand Palm Colonnade
CONFERENCE CENTER

Awakenings Lobby Bar

Villa Sales Deli Conf Office & 182
Chart Room Spotted Curr
Compas Room Board Room

Business Center

LOBBY

Banyan
Citrus
Glades
Jasmine
Palm
Sabal
Sawgrass
**Tuesday, May 26**

**Opening Reception**
Sponsored by Zinpro Performance Minerals  
5:00–7:00 pm  
Breck Deck North (outdoors)

**Squire’s Lecture—Reproductive Physiology**
Sponsored by Tribute Equine Nutrition  
Moderator: Heidi Brady, Texas Tech University  
Island Ballroom (Tarpon/Sawyer/Long Key)

7:00 pm  
Welcome  
Geoff Dahl, Chair, Department of Animal Sciences, University of Florida  
Adam Putnum, Commissioner of Agriculture, Florida Department of Agriculture and Consumer Services  
Jason Bruemmer, ESS President

7:15–8:15 pm  
Prolactin in the horse: Historical perspective, actions and reactions, and its role in reproduction  
Donald L. Thompson Jr., Louisiana State University Agricultural Center, Baton Rouge, LA, USA

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**Wednesday, May 27**

“Society Stakes” 25-Furlong Fun Run/Walk  
Sponsored by Zinpro Performance Minerals  
6:00–7:00 am  
Meet at Cabana Hut on the beach

**ORAL PRESENTATIONS AND PLENARY SESSIONS**

**Invited Speaker—Exercise Physiology**
Sponsored by Probiotech International Inc.  
Moderator: Tanja Hess, Colorado State University  
Island Ballroom (Tarpon/Sawyer/Long Key)

8:00–9:00 am  
Has the golden age of equine exercise physiology passed, and if so, have we answered all the big questions?  
David Marlin, David Marlin Consulting Ltd., Bury St. Edmunds, Suffolk, United Kingdom

**Exercise Physiology: Graduate Student Competition**
Moderator: Carey Williams, Rutgers University  
Glades (Jacaranda Hall)

9:15 am  
Rider energy expenditure during high-intensity horseback activity  
C. L. O’Reilly*, D. H. Sigler, J. D. Fluckey, M. M. Vogelsang, J. E. Sawyer, Texas A&M University, College Station, TX, USA
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 9:30 am  | The effects of conjugated linoleic acid supplementation on lipopolysaccharide-stimulated fibroblastic synoviocytes: A preliminary study  
A. A. Millican*, 1, K. L. Vernon1, H. Walker-Dunn1, J. A. Coverdale2, W. C. Bridges1, 1Clemson University, Clemson, SC, USA, 2Texas A&M University, College Station, TX, USA |
| 9:45 am  | Influence of whole-body vibration on bone density in the stalled horse  
E. S. Hulak*, H. S. Spooner, J. C. Haffner, Middle Tennessee State University, Murfreesboro, TN, USA |
| 10:00 am | The effect of chiropractic treatment on performance and behavior of lesson horses  
J. A. Schultz1, J. C. Haffner1, M. S. Wooten2, R. M. Hoffman1, H. S. Spooner1, Middle Tennessee State University, Murfreesboro, TN, USA, Equine Performax Veterinary, Thompson’s Station, TN, USA |
| 10:15 am | The thermal effects of protective sports boots on the forelimb of Thoroughbred and Argentinian polo ponies  
B. C. Snively*, J. E. Bowser, B. Nabors, R. L. Linford, Equine Performax Veterinary, Thompson’s Station, TN, USA |
| 10:30 am | Refreshment Break (Banyan Breezeway) |

### Nutrition: Graduate Student Competition (1)
Moderator: Amy Burk, University of Maryland
Sabal (Jacaranda Hall)

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<th>Time</th>
<th>Session</th>
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| 9:15 am  | Exogenous lactobacilli mitigate microbial changes associated with grain fermentation in vitro  
B. E. Harlow*, 1, L. M. Lawrence1, A. Kagan1, 3, P. A. Harris1, M. D. Flythe1, 2, University of Kentucky, Lexington, KY, USA, USDA, Agricultural Research Service, Forage-Animal Production Research Unit, Lexington, KY, USA, 2Waltham Centre for Pet Nutrition, Melton Mowbray, Leicestershire, UK |
| 9:30 am  | Foregut survivability of Megasphaera elsdenii in equine  
T. K. Dove*, C. A. Aperce, W. L. Beard, J. M. Kouba, C. I. Vahl, J. S. Drouillard, Kansas State University, Manhattan, KS, USA |
| 9:45 am  | Colonic bacterial composition and blood cells in horses undergoing a change of diet  
P. Grimm*, C. Philippineu, V. Julliand, Agrosup Dijon, Dijon, Bourgogne, France |
| 10:00 am | Magnesium aspartate supplementation and reaction speed response in horses  
J. A. Dodd1, 2, G. Doran1, P. Harris2, G. K. Noble3, Charles Sturt University, Wagga Wagga, NSW, Australia, 2Waltham Centre for Pet Nutrition, Leicestershire, United Kingdom |
| 10:15 am | Comparison of inflammation, nutritional status, muscle mass, pituitary function, and age in geriatric horses  
M. H. Siard*, A. Betancourt1, P. A. Harris4, A. D. Moffett5, K. E. McMurry1, S. E. Reedy1, A. A. Adams1, University of Kentucky, Lexington, KY, USA, WALTHAM Centre for Pet Nutrition, Waltham on the Wolds, Leicestershire, United Kingdom, MARS Horsecare US Inc., Dalton, OH, USA |
| 10:30 am | Refreshment Break (Banyan Breezeway) |

### Production and Management: Graduate Student Competition (1)
Moderator: Janice Holland, Midway College
Jasmine (Jacaranda Hall)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 9:15 am  | Dopaminergic (cabergoline) and antidopaminergic (sulpiride) effects on indices of insulin sensitivity in horses  
N. A. Valencia*, D. L. Thompson, Louisiana State University Agricultural Center, Baton Rouge, LA, USA |
| 9:30 am  | The effects of a prostaglandin transport inhibitor (DIDS) on delaying diestrus in non-pregnant mares  
K. M. Klononatz*, L. C. Nulton, G. J. Bouma, J. E. Bruemmer, Colorado State University, Fort Collins, CO, USA |
| 9:45 am  | Effects of prolonged dexamethasone treatment on signaling pathways associated with muscle protein degradation in mature horses  
C. M. M. Loos*, T. Barnes1, K. M. Brennan2, K. L. Urschel1, University of Kentucky, Lexington, KY, USA, Alltech Inc., Nicholasville, KY, USA |
| 10:00 am | Maternal fatty acid supplementation influences memory and learning ability in yearling and 2-year-old horses  
A. M. Adkin*, A. V. Muniz, University of Florida, Gainesville, FL, USA |
| 10:15 am | Yield, forage nutritive value, and preference of annual grasses under horse grazing  
A. M. Green*, C. C. Sheaffer, D. N. Catalano, L. L. Shultz, K. L. Martinson, University of Minnesota, St. Paul, MN, USA |
| 10:30 am | Refreshment Break (Banyan Breezeway) |
Undergraduate Student Competition (1)
Moderator: Jessica Petersen, University of Nebraska–Lincoln
Citrus (Jacaranda Hall)

9:15 am 1 The “pasture heaves” restricted lung transcriptome: A tool to decipher the pathophysiology of airway hyper-responsive diseases in the horse
S. Mack*, L. A. Bright1, C. L. Hunter1, M. A. Arrick1, S. Kumar1, A. Perkins1, A. Eddy1, A. Claude1, N. Mujahid1, M. Brashier1, B. Nanduri1, S. C. Burgess2, C. E. Swiderski1, *Mississippi State University, Mississippi State, MS, USA, 1University of Arizona, Tucson, AZ, USA

9:30 am 2 “A sorrel is hot…” A genetic investigation of the horseman’s myth
L. N. Jacobs*, E. A. Staiger1, J. D. Albright1, S. A. Brooks1, 1Cornell University, Ithaca, NY, USA, 2University of Tennessee, Knoxville, TN, USA, 3University of Florida, Gainesville, FL, USA

9:45 am 3 Genetic investigation of limbal squamous cell carcinoma in Haflinger horses
J. Liu*, M. Lassaline1, S. Romero de Mello Sa2, M. Huynh2, R. Seferian1, R. Bellone1, 1University of California–Davis, Davis, CA, USA, 1University of Tampa, Tampa, FL, USA

10:00 am 120 Influence of time of day of vaccination on immune response in mature Quarter Horse mares
D. Seeloff, J. M. Reddish, K. Cole*, The Ohio State University, Columbus, OH, USA

10:15 am 5 Seasonal effects on pasture and a group of mares with metabolic syndrome
S. Lapinskas*, J. Rayner1, R. Jacobs1, C. Woolley1, R. Splan1, T. M. Hess1, 1Colorado State University, Fort Collins, CO, USA, 1Virginia Tech Middleburg Agricultural Research and Extension Center, Virginia Tech, Middleburg, VA, USA, 1University of Edinburgh, Edinburgh, Scotland, 1Harper Adams University, Nantwich, England

10:30 am Refreshment Break (Banyan Breezeway)

Genetics: Graduate Student Competition
Moderator: Rebecca Bellone, University of California–Davis
Glades (Jacaranda Hall)

11:00 am 34 Differential circulating microRNA profile in insulin-sensitive vs. insulin-resistant mares
H. F. da Costa Santos*, T. Mask1, R. K. Splan2, T. M. Hess1, J. E. Bruemmer1, 1Colorado State University, Fort Collins, CO, USA, 1Virginia Tech Middleburg Agricultural Research and Extension Center, Virginia Tech, Middleburg, VA, USA

11:15 am 35 Preliminary investigation of phenotyping methods for response to a sudden novel stimulus in the horse
A. J. Dinerman*, C. L. Wickens, J. Callaham, S. A. Brooks, University of Florida, Gainesville, FL, USA

11:30 am 36 The DMRT3 “Gait keeper” mutation affects harness racing performance and riding traits in Finnhorses
K. Jäderkvist1, L. Johansson1, A. Mykkänen1, M. Mäenpää1, L. S. Andersson1, L. Andersson1, T. Arnason1, G. Lindgren1, 1Swedish University of Agricultural Sciences, Uppsala, Sweden, 2University of Helsinki, Helsinki, Finland, 3Suomen Hippos ry, Espoo, Finland, 4Uppsala University, Uppsala, Sweden, 5IHBC AB, Knubbo, Morigonavá, Sweden

Nutrition: Graduate Student Competition (2)
Moderator: Amy Burk, University of Maryland
Sabal (Jacaranda Hall)

11:00 am 43 Influence of oat β-glucan on neutrophil function and lymphocyte subsets in response to stress

11:15 am 44 Evaluation of conjugated linoleic acid supplementation on markers of joint inflammation and cartilage metabolism in young horses challenged with lipopolysaccharide (LPS)
A. N. Bradbery1, J. A. Coverdale1, K. L. Vernon1, J. L. Leatherwood1, C. E. Arnold1, R. A. Dabareiner1, M. K. Kahn1, A. A. Millican1, T. H. Welsh1, S. B. Smith1, 1Texas A&M University, College Station, TX, USA, 2Clemson University, Clemson, SC, USA, 3Sam Houston State University, Huntsville, TX, USA

11:30 am 45 Using the indicator amino acid oxidation technique to study threonine requirements in horses
C. H. Mok*, T. Brewster-Barnes, K. L. Urschel, University of Kentucky, Lexington, KY, USA
11:45 am 46  Postprandial changes in plasma urea nitrogen concentrations in response to amino acid supplementation in horses
C. M. Latham*, T. Brewster-Barnes, K. L. Urschel, A. L. Wagner, University of Kentucky, Lexington, KY, USA, Cooperative Research Farms, Richmond, VA, USA

12:00 pm  Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)

Production and Management: Graduate Student Competition (2)
Moderator: Marcia Hathaway, University of Minnesota
Jasmine (Jacaranda Hall)

11:00 am  85  Effects of rotational versus continuous grazing on horse condition and plant performance
L. B. Kenny*, A. O. Burk, C. A. Williams, Rutgers, the State University of New Jersey, New Brunswick, NJ, USA, University of Maryland, College Park, MD, USA

11:15 am  86  Forage nutritive value, yield, and preference of warm season grasses grazed by horses in the upper Midwest
M. L. Schultz*, C. C. Sheaffer, D. N. Catalano, A. M. Grev, K. L. Martinson, University of Minnesota, St. Paul, MN, USA

11:30 am  87  Influence of forage type on rate of intake, mastication and saliva production
E. Lee*, T. Fraguela, L. K. Warren, University of Florida, Gainesville, FL, USA

11:45 am  88  Supplement use and perceptions: A survey of US horse owners
N. K. Swirsley*, H. S. Spooner, R. M. Hoffman, Middle Tennessee State University, Murfreesboro, TN, USA

12:00 pm  Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)

Undergraduate Student Competition (2)
Moderator: Kristine Vernon, Clemson University
Citrus (Jacaranda Hall)

11:00 am  6  The effect of fat supplementation on behavior and glycemic response in horses
K. E. Martin*, R. M. Hoffman, H. S. Spooner, Middle Tennessee State University, Murfreesboro, TN, USA

11:15 am  7  Effects of rotational grazing on water-soluble carbohydrate and energy content of horse pastures
A. D. Daniel*, B. J. McIntosh, J. D. Plunk, M. Webb, D. McIntosh, University of Tennessee, Knoxville, TN, USA, Virginia Tech, Blacksburg, VA, USA

11:30 am  8  The effects of rotational grazing on forage biomass yield and botanical composition of horse pastures
A. M. Virostek*, B. McIntosh, A. Daniel, M. Webb, J. D. Plunk, University of Tennessee, Knoxville, TN, USA, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA

11:45 am  9  An investigation into miRNAs in the equine epididymis as a potential regulators of spermatozoal maturation
A. D. Belk*, K. M. Klohonatz, G. J. Bouma, J. E. Bruemmer, Colorado State University, Fort Collins, CO, USA

12:00 pm  Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)

Invited Speaker Luncheon—Nutrition
Sponsored by McCauley Brothers Inc.
Moderator: Shannon Pratt-Phillips, North Carolina State University
Island Ballroom (Tarpon/Sawyer/Long Key)

12:00 pm  Buffet lunch service begins
12:30–1:30 pm  Feeding wild animals, including the horse’s exotic relatives
Eduardo Valdes, Disney’s Animal Kingdom, Animal Nutrition Center, Lake Buena Vista, FL, USA
### Nutrition: Graduate Student Competition (3)
**Moderator: Carey Williams, Rutgers University**
Sabal (Jacaranda Hall)

<table>
<thead>
<tr>
<th>Time</th>
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<th>Authors/Institutions</th>
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<tbody>
<tr>
<td>1:45 pm</td>
<td>Effects of transitioning from a fescue hay diet to a spring fescue pasture diet on plasma fructosamine, body weights, and body condition scores of stock horse mares</td>
<td>P. A. Montgomery*, C. E. Anderson, E. Grey, L. Brown, Western Kentucky University, Bowling Green, KY, USA</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Effect of dietary chromium propionate on plasma C-peptide concentrations of Quarter Horse geldings</td>
<td>E. W. Goertzen*, K. E. Lloyd, J. W. Spears, P. M. Siciliano, S. E. Pratt-Phillips, North Carolina State University, Raleigh, NC, USA</td>
</tr>
<tr>
<td>2:15 pm</td>
<td>Influence of oat β-glucan on postprandial glycemic and insulinemic responses to a meal or oral sugar</td>
<td>J. Weir*, V. Robbins, J. M. Bobel, L. A. Skurupey, L. K. Warren, University of Florida, Gainesville, FL, USA</td>
</tr>
<tr>
<td>2:30 pm</td>
<td>Comparative digestibility of dry matter, protein, and fiber between the horse and black rhinoceros</td>
<td>K. E. Sullivan*¹,², S. R. Lavin¹,², S. E. Livingston¹, M. Knutson¹, E. V. Valdes¹,², L. K. Warren¹, Disney's Animal Kingdom, Lake Buena Vista, FL, USA, University of Florida, Gainesville, FL, USA</td>
</tr>
<tr>
<td>2:45 pm</td>
<td>Accounting for variation in phosphorus digestibility estimates</td>
<td>A. L. Fowler*, B. E. Harlow, M. B. Pyles, S. H. Hayes, A. D. Crum, L. M. Lawrence, University of Kentucky, Lexington, KY, USA</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Digestible energy intakes of thirty-five horses over a 42-d period</td>
<td>J. C. Gill*, K. E. Lloyd, M. A. Hastings, P. D. Siciliano, S. E. Pratt-Phillips, North Carolina State University, Raleigh, NC, USA</td>
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<tr>
<td>3:30 pm</td>
<td>Refreshment Break (Banyan Breezeway)</td>
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### Production and Management: Graduate Student Competition (3)
**Moderator: Bridgett McIntosh, Virginia Tech**
Jasmine (Jacaranda Hall)

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<tbody>
<tr>
<td>1:45 pm</td>
<td>A survey of anthelmintic methods for horses used in trail riding or ranch horse competitions</td>
<td>C. O’Hara*, G. W. Webb, H. L. Brady, E. L. Walker, S. Sacra, Missouri State University, Springfield, MO, USA, Texas Tech University, Lubbock, TX, USA</td>
</tr>
<tr>
<td>2:00 pm</td>
<td>Exhibitors’ perception of management, training, and competition practices effects on horse welfare</td>
<td>M. Voigt*, K. Waite, A. Borron, K. Hiney, C. Brady, Purdue University, West Lafayette, IN, USA, Michigan State University, East Lansing, MI, USA, University of Georgia, Athens, GA, USA, Oklahoma State University, Stillwater, OK, USA</td>
</tr>
<tr>
<td>2:15 pm</td>
<td>Effects of GastroTech on equine gastric ulcer syndrome (EGUS)</td>
<td>A. L. Conover*, A. M. Shultz, A. L. Wagner, P. M. Graham-Thiers, C. A. Shea Porr, Murray State University, Murray, KY, USA, Cooperative Research Farms, Richmond, VA, USA, Emory and Henry College, Emory, VA, USA</td>
</tr>
<tr>
<td>2:30 pm</td>
<td>A preliminary study examining the digital cushion in horses</td>
<td>M. A. Gunkelman*, C. J. Hammer, North Dakota State University, Fargo, ND, USA</td>
</tr>
<tr>
<td>2:45 pm</td>
<td>Relationship of ocular and rectal temperatures as indicators of health status in horses</td>
<td>H. C. Collins*, J. L. Leatherwood, M. J. Anderson, M. M. Beverly, F. X. Yildiz, N. L. Walker, K. B. Pritchett, Sam Houston State University, Huntsville, TX, USA, Louisiana State University, Baton Rouge, LA, USA</td>
</tr>
<tr>
<td>3:00 pm</td>
<td>Estimation of actual and ideal bodyweight for adult draft and warmblood horse breeds using morphometric measurements</td>
<td>D. N. Catalano*, R. J. Coleman, M. R. Hathaway, M. E. McCue, A. K. Rendahl, A. M. Hansen, K. L. Martinson, University of Minnesota, St. Paul, MN, USA, University of Kentucky, Lexington, KY, USA</td>
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<tr>
<td>3:15 pm</td>
<td>Estimation of forces generated by a jockey using the padded whip in a routine jump out</td>
<td>J. A. Dodd*, G. K. Noble, P. K. Knight, Charles Sturt University, Wagga Wagga, NSW, Australia, University of Sydney, Sydney, NSW, Australia</td>
</tr>
<tr>
<td>3:30 pm</td>
<td>Refreshment Break (Banyan Breezeway)</td>
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Reproductive Physiology: Graduate Student Competition (1)
Moderator: Rebecca Bott, South Dakota State University
Glades (Jacaranda Hall)

1:45 pm  126  The presence of focal adhesion molecules in equine endometrium during maternal recognition of pregnancy
K. M. Klohonatz*, G. J. Bouma, J. E. Bruemmer, Colorado State University, Fort Collins, CO, USA

2:00 pm  127  Use of intravaginal triptorelin gel for ovulation induction in mares
C. D. Sinclair*, J. M. Kouba, L. W. Murray, T. L. Douthit, D. M. Grieger, S. K. Webel, Kansas State University, Manhattan, KS, USA, JBS United, Sheridan, IN, USA

2:15 pm  128  Comparison of prolactin responses to repetitive cabergoline treatments in two consecutive years in mares
E. L. Oberhaus*, D. L. Thompson, N. A. Valencia, R. M. Gilley, Louisiana State University Agricultural Center, Baton Rouge, LA, USA, BioRelease Technologies LLC, Birmingham, AL, USA

2:30 pm  129  Effects of feeding a yeast-based supplement containing selenized yeast, vitamin E and a DHA-rich microalgal on sperm motion characteristics

2:45 pm  130  Effect of dietary omega-3 supplementation on equine endometrial and embryonic gene expression
R. D. Jacobs*, A. D. Ealy, P. M. Pennington, B. Pukazhenthii, L. K. Warren, A. L. Wagner, A. K. Johnson, T. M. Hess, R. K. Splan, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA, Smithsonian Conservation Biology Institute, Front Royal, VA, USA, George Mason University, Fairfax, VA, USA, University of Florida, Gainesville, FL, USA, Cooperative Research Farms, Richmond, VA, USA, Auburn University, Auburn, AL, USA, Colorado State University, Fort Collins, CO, USA, Virginia Tech MARE Center, Middleburg, VA, USA

3:00 pm  131  Effect of docosahexaenoic acid supplementation on corpus luteum perfusion at day seven post-ovulation

3:15 pm  132  Identification of GnRH isoforms and their cognate receptors in the equine testis
C. J. Douthit*, R. A. Cederberg, A. T. Desaulniers, J. M. Kouba, T. L. Douthit, D. M. Grieger, B. R. White, Kansas State University, Manhattan, KS, USA, University of Nebraska, Lincoln, NE, USA

3:30 pm  Refreshment Break (Banyan Breezeway)

Undergraduate Student Competition (3)
Moderator: Kris Hiney, Oklahoma State University
Citrus (Jacaranda Hall)

1:45 pm  10  Oat β-glucan does not mitigate changes to leukocyte populations in response to stress

2:00 pm  11  Intestinal absorption of different vitamin K compounds in the horse

2:15 pm  12  Effects of horse age and feeding status on AMPK activation in horses
S. E. Sivinski*, A. L. Wagner, S. L. Tanner, T. Brewster-Barnes, K. L. Urschel, University of Kentucky, Lexington, KY, USA

2:30 pm  13  Tumor necrosis factor-α gene expression before and after exercise in middle-aged and older horses
M. M. Darby*, S. R. Malone, D. W. Horohov, D. E. Chappell, Morehead State University, Morehead, KY, USA, University of Kentucky, Lexington, KY, USA

2:45 pm  14  Weight load does not affect equine stress as measured by heart rate, salivary cortisol, and behavior
M. M. Ernst*, L. R. Hamm, M. L. Santiago, C. A. Shea Porr, Murray State University, Murray, KY, USA

3:00 pm  15  The effects of interval versus continuous conditioning on physiological and kinematic parameters of equine fitness
L. M. Taylor*, K. J. Duberstein, K. K. Turner, University of Georgia, Athens, GA, USA
3:15 pm 16  Wearable biometric sensors for horses and rider-centered interface  
R. E. LeRoy*, Z. Cochran, A. G. Foster, J. A. Wilson, *Berry College, Mount Berry, GA, USA, 1Georgia Institute of Technology, Atlanta, GA, USA

3:30 pm  Refreshment Break (Banyan Breezeway)

Production and Management: Graduate Student Competition (4)  
Moderator: Peggy Miller, Iowa State University  
Jasmine (Jacaranda Hall)

4:00 pm 96  Effects of dietary calcium level and source on environmentally relevant phosphorus excretion in horses  
L. A. Skurupey*, C. M. Latham, P. A. Harris, L. K. Warren, 1University of Florida, Gainesville, FL, USA, 2WALTHAM Centre for Pet Nutrition, Melton Mowbray, Leicestershire, UK

4:15 pm 97  Effect of inulin chain length on fermentation by equine fecal bacteria and Streptococcus bovis in vitro  
B. E. Harlow*, L. M. Lawrence, I. A. Kagan, M. D. Flythe, 1University of Kentucky, Lexington, KY, USA, 2USDA, Agricultural Research Service, Forage-Animal Production Research Unit, Lexington, KY, USA

4:30 pm 98  The effect of dry versus soaked hay on glycemic response in horses  
J. L. Collins*, R. M. Hoffman, H. S. Spooner, Middle Tennessee State University, Murfreesboro, TN, USA

4:45 pm 99  Characterization of lipid and inflammatory profiles in horses with equine metabolic syndrome  
S. E. Elzinga*, P. L. Wood, A. A. Adams, 1University of Kentucky, Lexington, KY, USA, 2Lincoln Memorial University, Harrogate, TN, USA

Reproductive Physiology: Graduate Student Competition (2)  
Moderator: Clay Cavinder, Mississippi State University  
Glades (Jacaranda Hall)

4:00 pm 133  Differential miRNA expression from sperm obtained in the different regions of the stallion epididymis  
H. M. Twenter*, K. M. Klohonatz, A. D. Belk, L. D. Bass, G. J. Bouma, J. E. Bruemmer, Colorado State University, Fort Collins, CO, USA

4:15 pm 134  L-Carnitine and pyruvate inclusion in diluents for cold-stored stallion spermatozoa  
D. S. Potter*, G. W. Webb, B. Onyango, T. Northcutt, Missouri State University, Springfield, MO, USA

4:30 pm 135  Effect of hydrogen peroxide and heat stress on stallion sperm function  

Teaching and Extension: Graduate Student Competition  
Moderator: Mike Yoder, North Carolina State University  
Sabal (Jacaranda Hall)

4:00 pm 146  Differing levels of experience and education affect learners’ changes in knowledge and skills  
M. L. Bedron*, M. L. Santiago, C. A. Shea Port, Murray State University, Murray, KY, USA

4:15 pm 147  Assessing the effect of an equine training course on the knowledge and practical skill acquisition of incoming freshman  
T. K. Taylor*, S. R. Cooper, K. M. Hiney, Oklahoma State University, Stillwater, OK, USA

4:30 pm 148  Information-seeking behavior of the horse competition industry: A demographic study  
E. A. Lofgren*, M. A. Voigt, C. M. Brady, Purdue University, West Lafayette, IN, USA

4:45 pm 149  Effectiveness of eXtension online webinars as educational tools for current horse industry issues  
K. E. Pulec*, K. P. Anderson, C. Skelly, C. M. Brady, B. J. McIntosh, G. A. Shelle, A. Griffin, E. A. Greene, 1University of Nebraska, Lincoln, NE, USA, 2Michigan State University, East Lansing, MI, USA, 3Purdue University, West Lafayette, IN, USA, 4eXtension, Lexington, KY, USA, 5University of Vermont, Burlington, VT, USA, 6Virginia Tech, Middleburg, VA, USA
Undergraduate Student Competition (4)
Moderator: Janice Holland, Midway College
Citrus (Jacaranda Hall)

4:00 pm 17 Demographics, body condition scores, and owner bodyweight estimations of adult draft and warmblood horse breeds
A. M. Hansen*, D. N. Catalano1, R. J. Coleman1, M. R. Hathaway1, M. E. McCue1, A. K. Rendahl1, K. L. Martinson1, 1University of Minnesota, St. Paul, MN, USA, 2University of Kentucky, Lexington, KY, USA

4:15 pm 18 Effect of different blanket weights on surface temperature of horses in cold environments
C. S. Slabough* and C. J. Hammer, North Dakota State University, Fargo, ND, USA

4:30 pm 19 Effects of ivermectin and moxidectin on equine parasites in horses in western Kentucky
L. R. Hamm*, M. M. Ernst, M. L. Santiago, C. A. Shea Porr, Murray State University, Murray, KY, USA

4:45 pm 20 Efficacy of Carica papaya seeds for reducing equine strongyle fecal egg counts
S. Samuels*, N. Heskett, S. Burk, Otterbein University, Westerville, OH, USA

WORKSHOP

5:15–6:45 pm The internet of things: Using innovation to enhance teaching and extension
Leaders: Karen L. Waite, Colleen Brady, Kathy Anderson, and Craig Wood
Island Ballroom (Tarpon/Sawyer/Long Key)

OTHER ACTIVITIES

Gator Growl Dinner
7:00–9:00 pm
Garden Courtyard (outdoors)

Special guests
Lynn Palm, Palm Partnership Training
Randy and Patty Barthle, Barthle Brothers Ranch
Lisa Conti, Florida Deputy Commissioner of Agriculture
David and Karen O’Conner, O’Connor Equestrian
Lonny Powell and Patrick Vinzant, Florida Thoroughbred Breeders and Owners Association
Bryan and Holley Rice, Woodside Ranch
Eduardo Valdes, Disney’s Animal Kingdom

Sponsored by
Seminole Feeds
Department of Animal Sciences
University of Florida
Florida Thoroughbred Breeders and Owners Association
Etalon Diagnostics
Ocala Breeder’s Feed and Supply
Thursday, May 28

Invited Speaker—Genetics
Sponsored by Populous Group
Moderator: Samantha Brooks, University of Florida
Island Ballroom (Tarpon/Sawyer/Long Key)

8:00–9:00 am  Genetics After TWILIGHT
Ernie Bailey, Gluck Equine Research Center, University of Kentucky, Lexington, KY, USA

POSTER PRESENTATIONS

9:00–9:30 am  Refreshment Break (Banyan Breezeway)
9:00–10:30 am  Poster Session 1—Exercise Physiology, Genetics, Nutrition, and Reproductive Physiology

Exercise Physiology: Posters
Chair: Tanja Hess, Colorado State University
Banyan Breezeway

29  Attitude and behavior of veterinarians surrounding the use of complementary and alternative veterinary medicine (CAVM) in the treatment of equine musculoskeletal pain
A. E. Bergenstrahle*, B. D. Nielsen1, University of Edinburgh, Edinburgh, Scotland, 2Michigan State University, East Lansing, MI, USA

30  Post-exercise dietary supplementation leads to improved muscle recovery in fatigued horses
R. D. Jacobs*, R. K. Splan1, K. L. Urschel1, S. Mastellar4, A. L. Wagner5, Virginia Tech, Blacksburg, VA, USA, 2Virginia Tech Middleburg Agricultural Research and Extension Center, Middleburg, VA, USA, 3University of Kentucky, Lexington, KY, USA, 4South Dakota State University, Brookings, SD, USA, 5Cooperative Research Farms, Richmond, VA, USA

31  Double suspension gallop in the Thoroughbred race horse—A pilot study
A. Owens, S. N. Timberlake, A. Youmans, J. V. Downer*, College of Central Florida, Ocala, FL, USA

32  An assessment of gait symmetry at the trot in non-loaded horses compared with symmetrical and asymmetrical load distribution
K. J. Duberstein*, S. Lalvani, L. Cobb, H. Newman, University of Georgia, Athens, GA, USA

33  Stride variables of the intermediate stepping gaits of the Choctaw horse
M. Nicodemus*, J. Beranger2, 1Mississippi State University, Mississippi State, MS, USA, 2Livestock Conservancy, Pittsboro, NC, USA

Nutrition: Posters
Chair: Amy Burk, University of Maryland
Banyan Breezeway

65  Effect of storage time and temperature of equine feces on the subsequent enumeration of lactobacilli and cellulolytic bacteria
B. E. Harlow*, L. M. Lawrence1, M. D. Flythe5, 1University of Kentucky, Lexington, KY, USA, 2USDA, Agricultural Research Service, Forage-Animal Production Research Unit, Lexington, KY, USA

66  Changes in fecal lactobacilli after a concentrate meal
M. B. Pyles*, L. M. Lawrence1, M. D. Flythe5, 1University of Kentucky, Lexington, KY, USA, 2United States Department of Agriculture, ARS-FAPRU, Lexington, KY, USA
Influence of maternal dietary yeast supplementation on the diversity of hindgut microbial populations of Quarter Horse mares and their offspring
E. R. Share, K. Barnhart, J. M. Reddish, K. Cole*, The Ohio State University, Columbus, OH, USA

Supplementation with Lactobacillus acidophilus influences microbial diversity in the gastrointestinal tracts of healthy horses
K. Barnhart, J. M. Reddish, K. Cole*, The Ohio State University, Columbus, OH, USA

Influence of probiotic supplementation on microbial diversity in the gastrointestinal tract of Miniature Horses
K. Barnhart, J. M. Reddish, K. Cole*, The Ohio State University, Columbus, OH, USA

Dietary energy influences on water intake and fecal and urine outputs in mature horses
M. J. Williams*, E. R. Share, K. L. Barnhart, K. Cole, The Ohio State University, Columbus, OH, USA

Effects of the novel feed additive Phytozen on immune and endocrine function in senior horses
M. H. Siard*, A. L. Wagner², B. Medina³, I. D. Girard⁴, A. A. Adams⁵, ¹University of Kentucky, Lexington, KY, USA, ²Cooperative Research Farms, Richmond, VA, USA, ³Laboratoires Phodé, Albi, France, ⁴Probiotech International, Inc., Saint-Hyacinthe, Quebec, Canada

Immunoglobulin subclasses in colostrum and plasma of Quarter Horse mares and foals fed diets with or without added probiotics
A. Sutton¹, A. Moffett², W. B. Staniar*³, P. Harris³, The Pennsylvania State University, University Park, PA, USA, ²MARS Horsecare US Inc, Dalton, OH, USA, ³WALTHAM Centre for Pet Nutrition, Waltham on the Wolds, Leicestershire, UK

Fecal fatty acids in yearlings fed diets differing in carbohydrate fractions
P. Ochonski*, D. Oliver, K. Norris, M. Baldin, K. Harvatine, W. B. Staniar, The Pennsylvania State University, University Park, PA, USA

Crude protein from forage correlates with nitrogen retention and nitrogen status in adult horses
P. M. Graham-Thiers*, L. K. Bowen, Emory and Henry College, Emory, VA, USA

Novel method for determining the ideal amino acid profile for a growing horse’s ration
M. Schultz*, K. Martinson, C. Ward, M. Pampusch, M. Hathaway, University of Minnesota, St. Paul, MN, USA

A technique for collecting ileal digesta through cecal cannulas in the equine
T. K. Dove*, J. M. Lattimer, W. L. Beard, E. A. Taylor, T. L. Douthit, Kansas State University, Manhattan, KS, USA

Validation of a human double-antibody radioimmunoassay kit for measuring equine C-peptide
E. W. Goertzen*, K. E. Lloyd, J. W. Spears, P. M. Siciliano, S. E. Pratt-Phillips, North Carolina State University, Raleigh, NC, USA

Influence of bioactive proteins in varying doses on gait kinematics in mature horses
J. A. Coverdale*, J. M. Campbell, Texas A&M University, College Station, TX, USA, ²APC Inc., Ankeny, IA, USA

Influence of omega-3 polyunsaturated fatty acid supplementation on plasma prostaglandin E2 production in young exercising horses

Feeding free-choice hay to starving horses
T. M. Hess*, C. Wilkins, H. F. Santos, Colorado State University, Fort Collins, CO, USA

Genetics: Posters
Chair: Rebecca Splan, Virginia Tech
Banyan Breezeway

Genome-wide association study of Shivers
J. L. Petersen*, C. J. Finno², S. J. Valberg³, ¹University of Nebraska, Lincoln, NE, USA, ²University of California, Davis, CA, USA, ³University of Minnesota, St. Paul, MN, USA
Reproductive Physiology: Posters
Chair: Heidi Brady, Texas Tech University
Banyan Breezeway

140 Effects of resveratrol on post-thaw quality of stallion sperm
K. Matheny, R. Hopper, H. King, E. Memili, M. Nicodemus*, Mississippi State University, Mississippi State, MS, USA

141 Prolactin secretion in estrogen-primed geldings: Effect of dose and site of injection of sulpiride in a vegetable shortening vehicle
D. L. Thompson*, E. L. Oberhaus1, J. C. Ferreira1,2, N. A. Valencia1, Louisiana State University Agricultural Center, Baton Rouge, LA, USA, 1School of Veterinary Medicine and Animal Science, UNESP, Botucatu, SP, Brazil

142 Factors affecting basal and post-exercise prolactin secretion in horses

143 Influence of dietary oil source on reproductive parameters in mares
C. M. Crain*, J. C. Haffner2, R. M. Hoffman1, H. S. Spooner1, Middle Tennessee State University, Murfreesboro, TN, USA, 2Fort Scott Community College, Fort Scott, KS, USA

144 Transvaginal ultrasound-guided biopsy as a tool for evaluation of corpora lutea in mares
J. C. Ferreira*, D. L. Thompson2, Y. L. Boakari1, P. F. Lima1, R. Schmith1, C. Meira1, 1School of Veterinary Medicine and Animal Science, UNESP, Botucatu, São Paulo, Brazil, 2Louisiana State University Agricultural Center, Baton Rouge, LA, USA, 3Biosciences Institute, UNESP, Botucatu, São Paulo, Brazil

145 Progesterone-releasing intravaginal device in conjunction with estradiol benzoate induces follicular regression in mares
J. C. Ferreira*, D. L. Thompson2, A. Bollo1, School of Veterinary Medicine and Animal Science, UNESP, Botucatu, SP, Brazil, 1Louisiana State University Agricultural Center, Baton Rouge, LA, USA, 2Águas JM Horse Farm, Tijucas do Sul, PR, Brazil

WORKSHOPS

11:00 am–12:30 pm Undergraduate program assessment and accreditation—Building a collaborative peer based model
Leaders: Karin Bump, Laurie Lawrence, Michael Fugaro, and Bob Coleman
Sabal (Jacaranda Hall)

11:00 am–12:30 pm Determining equine digestibility coefficients—Can we define criteria for a standardized research protocol?
Leaders: David van Doorn and Femke Schaafstra
Jasmine (Jacaranda Hall)

12:30–2:00 pm Lunch on your own

2:00–3:30 pm Equitation science and learning theory—A strategic approach to enhancing equine behavior and welfare curriculum
Leaders: Camie Heleski, Colleen Brady, Betsy Greene, Katrina Merkies, Karen Waite, and Carissa Wickens
Sabal (Jacaranda Hall)

2:00–3:30 pm Tips for reappointment, promotion, and tenure
Leaders: Amy Burk, Laurie Lawrence, and Karin Bump
Jasmine (Jacaranda Hall)

OTHER ACTIVITIES

Student Social
Sponsored by Farnam: A Division of Central Garden and Pet
Chair: Brittany Harlow, University of Kentucky
7:00–9:00 pm
Breck Beach (outdoors, in front of Breck Deck North)
Friday, May 29

ORAL PRESENTATIONS AND PLENARY SESSIONS

Invited Speaker—Teaching and Extension
Sponsored by The Donkey Sanctuary
Moderator: Patricia Harris, Waltham Centre for Pet Nutrition
Island Ballroom (Tarpon/Sawyer/Long Key)

8:00–9:00 am

Donkeys are Different
Alex Thiemann, The Donkey Sanctuary, Sidmouth, Devon, United Kingdom

Nutrition: General Session (1)
Moderator: W. Burton Stanian, The Pennsylvania State University
Sabal (Jacaranda Hall)

9:15 am 54
Preliminary study on the effect of DHA-yeast enriched product supplementation
P. Grimm*, V. Julliard, Agro sup Dijon, Dijon, Bourgogne, France

9:30 am 55
The effect of n-3 polyunsaturated fatty acids (DHA) and prebiotic supplementation on inflammatory
cytokine production and immune responses to vaccination in old horses
A. A. Adams†, K. R. Vineyard, M. E. Gordon, S. Reedy, M. H. Siard, D. W. Horohov; †University of
Kentucky, Lexington, KY, USA, †Purina Animal Nutrition, Gray Summit, MO, USA

9:45 am 56
Effect of pituitary pars intermedia dysfunction in horses on glucose and glutamine transport in jejunal
brush border membrane vesicles
J. L. De Vries, H. C. Schott, C. Diard, D. P. Chamberlin, N. L. Trottier; †Michigan State University,
East Lansing, MI, USA, †Institut National Supérieur des Sciences Agronomiques de l’Alimentation et de
de l’Environnement, Dijon, France

10:00 am 57
Evaluation of apparent total-tract digestibility and glycemic responses to processed corn in non-exercised
Thoroughbred horses
C. Whitehouse*, J. D. Pagan, R. J. Coleman, B. Waldridge, O. L. Yates, S. W. Garling; †University of
Kentucky, Lexington, KY, USA, †Purina Animal Nutrition, Gray Summit, MO, USA

10:15 am 58
Effect of non-structural carbohydrate intake on glycogen repletion following intense exercise
J. D. Pagan*, V. S. Mesquita, S. J. Valberg, B. Waldridge, C. Whitehouse; †Kentucky Equine Research,
Versailles, KY, USA, †Universidade Estadual Paulista, Brazil, †University of Minnesota, St. Paul, MN, USA

10:30 am
Refreshment Break (Banyan Breezeway)

Reproductive Physiology: General Session
Moderator: Gary Webb, Missouri State University
Jasmine (Jacaranda Hall)

9:15 am 136
Peripartum maternal DHA/EPA supplementation and the effect on mare reproductive parameters and
foal bone metabolism
S. E. Buist†, J. M. Kouba, D. G. Grieger, J. Stevenson, S. Webel; †The
Pennsylvania State University, University Park, PA, USA, †Kansas State University, Manhattan, KS, USA, †JBS
United, Sheridan, IN, USA

9:30 am 137
Determination of peripheral progestin concentrations in the late pregnant mare based upon
immunoassays and liquid chromatography-tandem mass spectrometry
Troedsson, B. A. Ball; ‡University of Kentucky, Lexington, KY, USA, ‡University of California–Davis, Davis, CA, USA
9:45 am 138 Characterization of partial luteolysis in mares  
J. C. Ferreira*,1,2, D. L. Thompson1, Y. L. Boakari2, H. S. Canesin2, L. F. Novaes Filho2, C. Meira1, 1School of Veterinary Medicine and Animal Science, UNESP, Botucatu, SP, Brazil, 2Louisiana State University Agricultural Center, Baton Rouge, LA, USA

10:00 am 139 Non-targeted lipidomics of stallion spermatozoa: Effect of dietary docosaheaxenoic acid (DHA)  
P. L. Wood1, K. E. Scoggin1, B. A. Ball1, L. M. Lawrence1, M. H. Troedsson1, L. D. Goedde2, K. M. Brennan1, E. L. Squires2, *1Lincoln Memorial University, Harrogate, TN, USA, 2University of Kentucky, Lexington, KY, USA, 3Center for Animal Nutrigenomics and Applied Animal Nutrition, Alltech Inc., Nicholasville, KY, USA

Teaching and Extension: General Session (1)  
Moderator: Dean Jousan, Mississippi State University  
Glades (Jacaranda Hall)

9:15 am 150 Effectiveness of extension training for law enforcement officials responding to equine calls  
K. P. Anderson*,1, G. Stauffer1, M. Stauffer1, D. Anderson1, K. Biodrowski2, 1University of Nebraska, Lincoln, NE, USA, 2Nebraska Humane Society, Omaha, NE, USA

9:30 am 151 State-level industry study to determine equine policy and program priorities  
K. D. Bump*,1, T. S. Williams1,2, 1Cazenovia College, Cazenovia, NY, USA, 2CJC Adventures, Cazenovia, NY, USA

9:45 am 152 Prevention of horse-related injuries: Where education efforts should be focused  
F. C. Camargo*,1, W. R. Gombeski1, P. Barger1, C. Jehlick2, H. Wiemers1, J. Mead1, K. A. Lawyer1, 1University of Kentucky, Lexington, KY, USA, 2United States Pony Clubs, Lexington, KY, USA, 3Certified Horsemanship Association, Lexington, KY, USA

10:00 am 153 Creating and validating a survey to assess sportsmanship among horse show participants  
K. L. Waite*, C. Heleski, M. Ewing, Michigan State University, East Lansing, MI, USA

10:15 am 154 Using 4-H Common Measures to assess youth outcomes at the 2014 Eastern National 4-H Horse Round Up  
C. M. Brady*,1, A. E. Harris1, D. J. Hagstrom2, 1Purdue University, West Lafayette, IN, USA, 2University of Illinois, Urbana, IL, USA

10:30 am Refreshment Break (Banyan Breezeway)

Nutrition: General Session (2)  
Moderator: Josie Coverdale, Texas A&M University  
Sabal (Jacaranda Hall)

11:00 am 59 Extent of vitamin K absorption from the equine hindgut  
J. E. Skinner*,1, A. J. Cawdell-Smith1, H. L. Regtop1, A. M. Talbot1, J. R. Biffin2, W. L. Bryden1, 1Equine Research Unit, The University of Queensland, Gatton, Queensland, Australia, 2Agricure Pty. Ltd., Braemar, New South Wales, Australia

11:15 am 60 Oral magnesium supplementation alters blood and urine electrolyte concentrations in horses  
J. A. Dodd*,1, G. Doran1, P. Harris1, G. K. Noble1, 1Charles Sturt University, Wagga Wagga, NSW, Australia, 2WALTHAM Centre for Pet Nutrition, Leicestershire, United Kingdom

11:30 am 61 Effects of exercise and selenium on antioxidant status and mitochondrial function in young, pleasure-trained horses  

11:45 am 62 Feeding practices and nutrient intakes among elite show jumpers  
S. E. Pratt-Phillips*, North Carolina State University, Raleigh, NC, USA

12:00 pm 63 Derivation of a new body condition index to estimate body fat percentage from morphometric measurements: Comparison with body condition score  
S. J. Potter1, P. A. Harris2, S. R. Bailey*, 1University of Melbourne, Melbourne, Victoria, Australia, 2Waltham Centre for Pet Nutrition, Melton Mowbray, Leicestershire, UK

12:15 pm 64 Observations on the effects of selenium and molybdenum in mare diets on developmental orthopedic disease in Trakehner foals—A case study  
L. H. Breuer*,1, D. Langer2, 1LH Breuer and Associates, Alhambra, IL, USA, 2Wisconsin Equine Clinic and Hospital, Oconomowoc, WI, USA

12:30 pm Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)
Production and Management: General Session (1)
Moderator: Rebecca Splan, Virginia Tech
Jasmine (Jacaranda Hall)

11:00 am 100  Distal forelimb asymmetries in the domestic horse
S. R. Malone*1, H. M. S. Davies2, 1Morehead State University, Morehead, KY, USA, 2The University of Melbourne, Parkville, VIC, Australia

11:15 am 101  Measuring conformation in mules, hinnies, and donkeys (Equus asinus) from Spanish and Portuguese populations
A. K. McLean*1, W. Wang1,2, A. Heartfield1,4, J. B. Rodrigues1,4, 1North Carolina State University, Raleigh, NC, USA, 2Palo Alto Medical Foundation Research Institute, Palo Alto, CA, USA, 3Texas A&M University, College Station, TX, USA, 4University Lusófona de Humanidades e Tecnologias, Lisbon, Portugal

11:30 am 102  Comparative efficacy of meloxicam oral suspension and phenylbutazone in horses with chronic musculoskeletal disease
M. E. Olson1, L. D. Burwash*2, B. J. Ralston2, D. M. Nagel3, S. L. Custead4, K. A. Penttila4, 1Bow Valley Research, Calgary, Alberta, Canada, 2Alberta Agriculture and Rural Development, Airdrie, Alberta, Canada, 3Nagel and Co. Veterinary Services Ltd., Crossfield, Alberta, Canada, 4Burrwash Equine Services, Calgary Alberta, Canada

11:45 am 103  Efficacy of meloxicam oral suspension in controlling pain and inflammation following castration in horses
M. E. Olson1, E. E. Fierheller1, L. D. Burwash*2, B. J. Ralston2, C. P. Schatz1, H. R. Matheson-Bird1, 1Bow Valley Research, Calgary, Alberta, Canada, 2University of Calgary, Calgary, Alberta, Canada, 3Alberta Agriculture and Rural Development, Airdrie, Alberta, Canada

12:00 pm 104  Shade use in dry lots by captive wild horses
K. E. Holcomb*, C. L. Stull, Population Health and Reproduction, Cooperative Extension, School of Veterinary Medicine, University of California–Davis, Davis, CA, USA

12:15 pm 105  Association between whorls and personality in horses
N. H. Sereda, T. Kellogg, T. Hoagland, J. Nadeau*, University of Connecticut, Storrs, CT, USA

12:30 pm  Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)

Teaching and Extension: General Session (2)
Moderator: David Denniston, Colorado State University
Glades (Jacaranda Hall)

11:00 am 155  Behavioral changes associated with participation in 4-H horse programs
L. M. Cottle*, L. Karr-Lilienthal, University of Nebraska–Lincoln, Lincoln, NE, USA

11:15 am 156  Use of Soft Chalk technology in equine science classes to provide an interactive study tool
L. M. Cottle*, K. P. Anderson, L. Karr-Lilienthal, K. Pulec, University of Nebraska-Lincoln, Lincoln, NE, USA

11:30 am 157  Delivering an online introductory horse course to a varied audience
C. D. Skelly*, K. L. Waite, G. A. Shelle, Michigan State University, East Lansing, MI, USA

11:45 am 158  Teaching to the masses: Experiences in offering an equine-oriented massive open online course
C. J. Mortensen*, A. M. Nicholson, University of Florida, Gainesville, FL, USA

12:00 pm 159  Teaching equine courses in the flipped format is proving to be a modern approach to today’s classrooms
C. J. Mortensen*, A. M. Nicholson, University of Florida, Gainesville, FL, USA

12:15 pm 160  A comparison of traditional versus flip-class teaching methods on student satisfaction and assessment
T. N. Jones*, Tarleton State University, Stephenville, TX, USA

12:30 pm  Invited Speaker Luncheon (Island Ballroom—Tarpon/Sawyer/Long Key)

Invited Speaker Luncheon—Production and Management
Sponsored by Buckeye Nutrition
Moderator: Janice Holland, Midway College
Island Ballroom (Tarpon/Sawyer/Long Key)

12:30 pm  Buffet lunch service begins
1:00–2:00 pm  Equine Metabolic Syndrome: A complex disease influenced by genetics and the environment
Molly McCue, University of Minnesota, St. Paul, MN, USA
Exercise Physiology: General Session
Moderator: Tanja Hess, Colorado State University
Sabal (Jacaranda Hall)

2:15 pm 26 Yearling radiographic forelimb asymmetries and performance in Thoroughbred racehorses
S. R. Malone*, L. B. Davies†, H. M. S. Davies‡, †Morehead State University, Morehead, KY, USA, ‡The University of Melbourne, Parkville, VIC, Australia

2:30 pm 27 An online survey of feed management and electrolyte use in endurance horses in the United Kingdom
D. J. Marlin*, S. Sadler, Oklahoma State University, Stillwater, OK, USA

2:45 pm 28 Mitochondrial adaptations to submaximal exercise training in the gluteus medius and triceps brachii of young equine athletes
S. H. White*, L. K. Warren, C. Li, S. Wohlgemuth, University of Florida, Gainesville, FL, USA

Production and Management: General Session (2)
Moderator: Krishona Martinson, University of Minnesota
Jasmine (Jacaranda Hall)

2:15 pm 106 Hydration, feed intake, and fecal output in horses fed hay biscuits, blocks, and long-stem hay
C. A. Williams*, L. B. Kenny, Rutgers, the State University of New Jersey, New Brunswick, NJ, USA, †Square Meal Feeds LLC, Cokato, MN, USA

2:30 pm 107 The effects of feeding order, time of day, and treatment adaptation on rates of hay and concentrate intake
M. E. Gordon*, K. E. Davison, M. L. Jerina, Purina Animal Nutrition LLC, Gray Summit, MO, USA

2:45 pm 108 Effect of pasture sward height on blood glucose and insulin profiles in grazing horses
R. D. Siciliano*, J. C. Gill, North Carolina State University, Raleigh, NC, USA

3:00 pm 109 The effect of wearing grazing muzzles for 10 hours daily on bodyweight of ponies pastured for 24 hours per day
A. C. Longland*, C. Barfoot†, P. A. Harris†, †ELNS, Tregaron, Ceredigion, Wales, UK, †Mars Horse Care UK Ltd., Old Wolverton, Buckinghamshire, UK, †Waltham Centre for Pet Nutrition, Waltham-on-the-Wolds, Leicestershire, UK

Teaching and Extension: General Session (3)
Moderator: Karen Waite, Michigan State University
Glades (Jacaranda Hall)

2:15 pm 161 Gagné and equine anatomy: A pedagogical opportunity
E. L. Wagner*, Auburn University, Auburn, AL, USA

2:30 pm 162 Student-oriented learning outlines positively affect student outcomes
K. S. Jogan*, J. O. Hammons, University of Arkansas, Fayetteville, AR, USA

2:45 pm 163 College curricula valued by equine-assisted activity and therapy centers
S. V. Burk*, C. E. Gramlich†, †Otterbein University, Westerville, OH, USA, †Slippery Rock University, Slippery Rock, PA, USA

3:00 pm 164 Factors associated with persistence in the animal and food sciences degree program at the University of Kentucky: From Animal Science 101 to the capstone class
M. G. Rossano*, S. V. Burk†, A. M. Lead‡, W. J. Silvia‡, A. J. Pescatore‡, E. S. Vanzant‡, †University of Kentucky, Lexington, KY, USA, ‡Otterbein University, Westerville, OH, USA

3:15 pm 165 National American Collegiate Horsemen’s Association Convention: An effective equine educational venue
N. Walker*, J. Leatherwood†, R. Brooks‡, C. Smith‡, S. TenBroeck‡, K. Vernon‡, K. Waite‡, M. Volgesang§, B. Egan§, E. Berg§, J. Miller§, †Louisiana State University Agricultural Center, Baton Rouge, LA, USA, ‡Sam Houston State University, Huntsville, TX, USA, §Colorado State University, Fort Collins, CO, USA, †West Virginia University, Morgantown, WV, USA, †University of Florida, Gainesville, FL, USA, †Clemson University, Clemson, SC, USA, †Michigan State University, East Lansing, MI, USA, †Texas A&M University, College Station, TX, USA, †Pennsylvania State University, University Park, PA, USA, †North Dakota State University, Fargo, ND, USA, †Potomac State College, Keyser, WV, USA

3:30 pm Refreshment Break (Banyan Breezeway)
### POSTER PRESENTATIONS

3:30–4:00 pm  Refreshment Break (Banyan Breezeway)

3:30–5:00 pm  Poster Session 2—Production and Management, and Teaching and Extension

**Production and Management: Posters**
**Chair: Janice Holland, Midway College**
**Banyan Breezeway**

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<td>Fecal egg count survey of feral horses on the Pryor Mountain Wild Horse Range</td>
<td>A. N. Neuman*, Rocky Mountain College, Billings, MT, USA</td>
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<td>Prevalence of strongyle infection in working equids of Egypt and comparison of 3 deworming strategies</td>
<td>A. B. A. Ali1,3, M. A. El Sayed2, M. Y. Mattock2, M. A. Fouad1, C. R. Heleski*1, 1Michigan State University, East Lansing, MI, USA, 2The Brooke Hospital for Animals, Cairo, Egypt, 3Cairo University, Giza, Egypt</td>
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<td>113</td>
<td>Effects of collection method and season on fecal egg counts in feral horses</td>
<td>K. Demme, S. Lapinskas*, M. Webster, D. Baker, J. E. Bruemmer, T. M. Hess, Colorado State University, Fort Collins, CO, USA</td>
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<td>A. N. Bradbery**1, J. A. Coverdale1, L. M. Lucia2, G. R. Acuff2, C. J. Hartz1, 1Texas A&amp;M University, College Station, TX, USA, 2Texas A&amp;M Center for Food Safety, College Station, TX, USA</td>
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<td>Turkey grit is a stable, mud-preventing footing for horse turnouts during wet seasons in the Pacific Northwest</td>
<td>D. M. Sherwood*, B. L. Camozzi, G. Bobe, Oregon State University, Corvallis, OR, USA</td>
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<td>D. M. Sherwood*, L. T. Comerford, G. Bobe, Oregon State University, Corvallis, OR, USA</td>
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<td>Evaluating the relationship between wild stallion social behavior and reaction to sedation</td>
<td>D. M. Sherwood*, M. A. R. Udell, Oregon State University, Corvallis, OR, USA</td>
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<td>Frequency of stress-related behaviors among therapy horses</td>
<td>E. L. Berg*, K. A. LaFond, North Dakota State University, Fargo, ND, USA</td>
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<td>Influence of dietary yeast supplementation on immunoglobulin concentrations in response to vaccination in Quarter Horse mares</td>
<td>K. Koke, J. M. Reddish, K. Cole*, The Ohio State University, Columbus, OH, USA</td>
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<td>Relationship between bodyweight, body condition score, seasonality, and purpose in equines</td>
<td>J. Crespo, T. A. Hoagland, J. A. Nadeau*, University of Connecticut, Storrs, CT, USA</td>
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<td>Forage nutritive value, yield, and preference of legumes under horse grazing</td>
<td>D. N. Catalano*, C. C. Sheaffer, A. M. Grev, M. L. Schultz, K. L. Martinson, University of Minnesota, St. Paul, MN, USA</td>
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<td>Effect of sward height on grazing preference and pasture NSC concentration</td>
<td>P. D. Siciliano*, North Carolina State University, Raleigh, NC, USA</td>
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<td>Determining water-soluble phosphorus in equine manure through sequential water extractions</td>
<td>L. A. Skurupey*, L. K. Warren, University of Florida, Gainesville, FL, USA</td>
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<td>Long-term administration of dopamine antagonist alters prolactin and ACTH concentrations but has no effect on insulin sensitivity in geldings</td>
<td>N. Arana-Valencia*, D. L. Thompson, E. L. Oberhaus, Louisiana State University Agricultural Center, Baton Rouge, LA, USA</td>
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Developing and operating an equine hay bank
K. L. Martinson*1, C. M. McKenzie1, B. C. Colombo1, S. L. Bettison1, 1University of Minnesota, St. Paul, MN, USA, 2Sundown Horse Farm and Shelter, Hugo, MN, USA, 3Hamline University School of Law, St. Paul, MN, USA, 4Bettison Consulting LLC, Minnetonka, MN, USA

Horse health perceptions and related costs in North Dakota
M. A. Gunkelman*, C. J. Hammer, North Dakota State University, Fargo, ND, USA

Evaluating the needs of extension agents in regards to Florida’s adult equine program
C. L. Wickens*, S. M. Hew, University of Florida, Gainesville, FL, USA

Evaluating knowledge gained through quizzes in an online employer training program for horse industry professionals
P. M. Auwerda*1, C. Skelly2, G. Shelle2, K. Anderson1, K. Waite1, K. Martinson1, 1Iowa State University, Ames, IA, USA, 2Michigan State University, East Lansing, MI, USA, 3University of Nebraska, Lincoln, NE, USA, 4University of Minnesota, St. Paul, MN, USA

Novel approach to measuring and developing energy expenditure calculations for horseback riding
C. L. O’Reilly*, D. H. Sigler, J. D. Fluckey, M. M. Vogelsang, J. E. Sawyer, Texas A&M University, College Station, TX, USA

Supplementation trial exposes undergraduates to research
J. K. Clark*1,2, S. A. Wilson1, S. L. Tisdale2, K. K. Gossman2, T. S. Crook2, K. P. Coffey2, K. S. Jogan2, N. E. Jack2, B. C. Shanks1, 1Lincoln University, Jefferson City, MO, USA, 2University of Arkansas, Fayetteville, AR, USA

Sport horse handling skills gained through research participation in an equine exercise physiology course
M. Nicodemus*, L. Hodge, T. Bova, Mississippi State University, Mississippi State, MS, USA

Recruiting undergraduate equine volunteers
K. S. Jogan*1, M. K. Jogan2, 1University of Arkansas, Fayetteville, AR, USA, 2Albright College, Reading, PA, USA

Engaging students through scavenger hunt orientation
K. S. Jogan*1, M. K. Jogan2, 1University of Arkansas, Fayetteville, AR, USA, 2Albright College, Reading, PA, USA

Use of a semester-long assignment to influence student learning of equine body condition scoring
J. K. Suagee*, K. Bennet-Wimbush, Agricultural Technical Institute, The Ohio State University, Wooster, OH, USA

Use of protracted “think-pair-share” activity on American Horse Council Welfare Code of Practice
S. L. Mastellar*, H. K. Carroll, and R. C. Bott, South Dakota State University, Brookings, SD, USA

Incorporating experiential learning for equine-assisted activities and therapies with an in-house equine therapy program for veterans
S. A. Newton-Cromwell*1, B. D. McSpadden2, R. Johnson2, 1Middle Tennessee State University, Murfreesboro, TN, USA, 2United States Department of Veterans Affairs, Murfreesboro, TN, USA
OTHER ACTIVITIES

ESS General Business Meeting
5:00–6:00 pm
Tarpon Key (Island Ballroom)

ESS Awards Banquet
6:30 pm Cocktails/Cash Bar
7:00 pm Dinner and Awards
Garden Courtyard (outdoors)

Graduate Student Awards sponsored by
North American Equine Ranching Information Council

Undergraduate Student Awards sponsored by
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AFIA Equine Nutrition Research Award sponsored by
American Feed Industry Association

Complimentary Student Registration sponsored by
Florida 4-H Horse Program
Institute of Food and Agricultural Sciences, University of Florida
Office of Research, University of Florida
Awards

**Outstanding Educator Award**
This award recognizes an individual who has demonstrated excellence in the area of equine education, either to students or persons in the horse industry.

2015 Recipient: Colleen Brady

**Outstanding Young Professional Award**
This award recognizes an individual under the age of 40 with less than 10 years of service in academia or industry, who has made meritorious contributions to equine science, in teaching, research, public service, or industry.

2015 Recipient: Bridgett McIntosh

**American Feed Industry Association (AFIA) Award in Equine Nutrition Research**
This award is designed to stimulate research excellence in equine nutrition.

2015 Recipient: Laurie M. Lawrence

**Equine Science Society and American Society of Animal Science Equine Science Award**
This award recognizes outstanding achievement in the areas of extension, research, teaching, or agribusiness in the equine industry.

2014 Recipient: Kathleen P. Anderson
2015 Recipient: Carey A. Williams

**Distinguished Service in Equine Science Award**
This award recognizes outstanding contributions to the field of equine science. The award is the most prestigious honor that the Equine Science Society can bestow upon one of its members.

2015 Recipient: Martha Vogelsang

**Fellows of the Equine Science Society**
The Fellow Award recognizes distinguished service to the horse industry and to the Equine Science Society over an extended period of time.

2015 Recipients:
- Steve Jackson
- Gary D. Potter
- Ginger Rich
- Craig Wood
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- **OATS: The Horse Healthy Grain**, Saskatoon, SK Canada
- **Ocala Breeders Feed and Supply**, Ocala, FL
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- **Southern States Cooperative**, Richmond, VA
- **Standlee Premium Western Forage**, Kimberly, ID
- **Triple Crown Nutrition**, Wayzata, MN
- **Tribute Equine Nutrition**, Upper Sandusky, OH
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