



Two-Year Frangible Pin Study Continues

Frangible devices, such as the red one below, must be able to sustain high-intensity hits and still activate under a specific weight and angle to reduce the risk of rotational falls.

TAYLOR PENCE PHOTOGRAPHY

around understanding how the horse's and rider's masses and inertia affect the outcome of a fall. Even with a strong base knowledge of the current practices in place, "we still don't understand what is going on between the horse and the fence, regardless of fence design," Smith said.

There are only four published papers that reference horse inertia, Smith said, and only seven horses are represented (six Dutch Warmbloods and one Thoroughbred) in those studies.

Due to the lack of knowledge on horse and rider orientation, the USEA and UK's College of Engineering launched a citizen survey to gather this information from owners and riders of event horses. So far, the survey has 74 responses, and researchers are continuing to process submissions from around the world.

The team is also studying the speed and force involved with contact between horses and jumps. Despite there being no data available on the contact forces that occur during a rotational fall, the team does have access to previous data from a British Eventing study measuring nonrotational fall contact on course.

Those results showed that horses made contact with fences almost 40% of the time, illustrating the complex job of the frangible pin. Frangible devices must be able to sustain high-intensity hits and still activate under the specific weight and angle requirements.

This past year, Smith and her team revisited the data and sorted it by front leg hits and rear leg hits and the

As 2016 came to a close, so did the first half of a two-year study being conducted by researchers in the University of Kentucky's (UK) College of Engineering in partnership with the United States Eventing Association (USEA) examining the physics behind rotational falls in the sport of eventing.

The study is led by Suzanne Weaver Smith, PhD, director of the Kentucky Space Grant Consortium and NASA EPSCoR and Donald and Gertrude Lester professor of mechanical engineering at UK, who is the dynamics and motion principal investigator. Smith's team includes Gregorio Robles Vega, a mechanical engineering graduate student at UK, Lange Ledbetter, a senior mechanical engineering student at UK, and Shannon Wood, an equestrian and engineering physics student at Murray State University.

The study builds on previous research Smith conducted and aims to fill in the missing information regarding what happens between the fence, horse, and rider during a rotational fall. This information can be further translated into recommendations and requirements for new designs of frangible (easily broken) and deformable

fences. Smith recently presented the first half of the study to the USEA Board of Governors to highlight the progress the team has made and discussed what is left moving forward with the data they've acquired.

The study is separated into three different areas of research aimed at answering three questions—how far, how fast, and in what direction frangible fences need to react in the case of a rotational fall. This is not an easy task considering there are many gaps in the existing data due to the rarity of rotational falls.

Smith said one in 536 starters had a rotational fall in 2015, based off data collected by the Fédération Equestre Internationale. If, on average, each rider jumps 30 cross-country obstacles per start, that translates into one rotational fall per 16,080 jump attempts.

A large part of the study revolves

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Frangible Pin Study

respective rail those hits struck, based on the type of jump. This gives them an idea of each specific case's force amplitudes and angles.

"The reason that this is relevant is because the original pins assumed that the force was straight down and that's what they were designed to activate, but what we've learned through this is sometimes the force is up," she said.

Using the videos that exist from the correct perspective, the team can better understand the contact speed of the horses upon impact and the duration and rate of angular rotation. They will also analyze the angles of the horses' trunk, neck, head, and rider.

As the team moves forward with the analysis it will utilize a Monte Carlo simulation, which performs risk analysis by building models of possible results. This process has been used in the past to solve complex problems that scientists have little information about. For instance, NASA used this method before the first moon landing

to evaluate the risks associated with overturning during a lunar landing.

"From the Monte Carlo simulations, we will have a better understanding of the physics," Smith said. "With that understanding, the builders and course designers will be able to come up with new solutions."

There are several other safety initiatives in place to promote rider safety, such as leading organizations ensuring that riders are riding at the appropriate level, she added. Risk is high in eventing, and even when the circumstances are just right, horses and riders can find themselves in trouble.

"This research is focused on what happens when a rider is in trouble and what can be done to mitigate the consequences," Smith said.

The team is still accepting survey submissions. Visit bit.ly/2jZGqWv to complete your survey. **UK**

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Masthead

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How Immunosenescence Impacts Senior Horse Care

You might not have heard the word "immunosenescence," but if you're caring for an older horse, you're dealing with it daily. It seems that aging isn't just a matter of time marching on for the horse as a whole; the immune system itself is also aging biologically via this process.

As horses age, their systemic immunity declines, which can contribute or lead to increased prevalence of cancer, autoimmune and chronic diseases, poor response to vaccination, and increased susceptibility to common infectious diseases.

Amanda A. Adams, PhD, a researcher at UK's Gluck Equine Research Center, in Lexington, spoke on the topic at the 2016 American Association of Equine Practitioners convention, held Dec. 3-7 in Orlando, Florida. She explained research findings regarding how aging horses respond to vaccinations, inflammation, and parasites.

Another term you might not have heard is "inflammaging," or chronic, low-grade inflammation that occurs with age. We normally



Provide senior horses with comprehensive preventive care, such as regular vaccinations and dewormings, to support their aging immune systems.

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Immunosenescence

think of inflammation as being acute, for instance, as with a swollen ankle. With treatment, that acute inflammation resolves in days, and the swelling subsides.

But in the aging horse, researchers have learned that something in the cells “turns on” the inflammatory process systemically, and it continues at a low level from that point on. This inflamm-aging process in humans contributes to arthritis, cancer, diabetes, osteoporosis, dementia, vascular disease, obesity, and metabolic syndrome. And it turns out, obesity might do the reverse, contributing also to the inflamm-aging process. Researchers in Adams’ lab are currently investigating the repercussions of inflamm-aging for the aged horse.

Researchers know that because of horses’ aging immune systems, these animals don’t respond to vaccinations as well as younger horses do. Similarly,

older horses have higher parasitic fecal egg counts compared to middle-aged adult horses, which could be in part due to the decreased immune response with age, thereby changing their resistance to parasites.

Add to those problems, 20% of horses over 20 years old have pituitary pars intermedia dysfunction, or PPID (historically referred to as equine Cushing’s disease). PPID is a progressive and debilitating endocrine disease, and, not surprisingly, Adams and colleagues are finding that affected horses could have a further reduced immune response to vaccination.

Adams has researched various ways of combating these problems, with emphasis on nutrition and supplementation that might have immune-modulating benefits. In fact, she found that good nutrition, along with prebiotics, reduced inflammation and improved immune responses to vaccination in older horses.

She emphasized the importance of keeping older horses up to date on

vaccines and even consider boosting with some of the risk-based vaccines every six months if the older horse is traveling or exposed, such as in the case of West Nile virus during a long mosquito season. This is important given previous research in which Adams found that when exposed to flu, unvaccinated older horses got sick, even though they might have had a flu vaccine years earlier. Vaccinated older horses did not get sick with flu.

Since we know older horses need improved immune support, a good wellness plan for seniors should include twice-yearly health exams and fecal egg counts, routine dental exams, body condition scoring, nutritional evaluations, endocrine screening for PPID and insulin resistance, and a regular vaccination schedule. **UK**

>Maureen Gallatin is a freelance writer for *The Horse*, founder of Horses on a Mission, and author of the inspirational devotional, *An Extra Flake*.

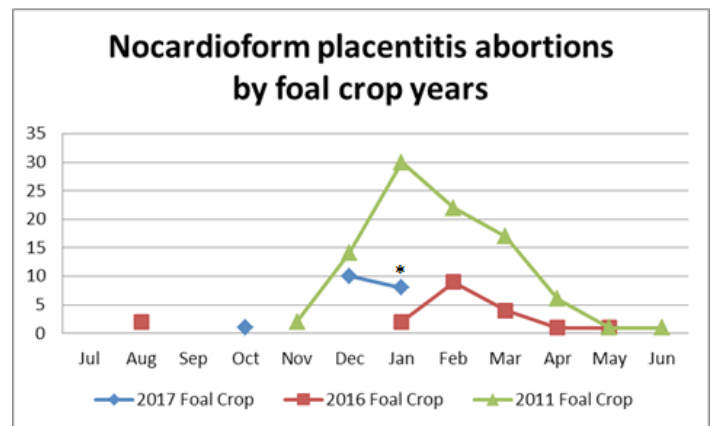
Nocardioform Placentitis Concerns for 2017 Kentucky Foal Crop

A surge in nocardioform placentitis—type of placental infection that results in late-term abortion or small, underdeveloped foals—cases in Central Kentucky’s 2011 foal crop caused concern among practitioners, farm owners and managers, the UK Veterinary Diagnostic Laboratory (UKVDL), and the horse industry media. Following that year, the number of confirmed cases dropped to levels typically seen in the state. The 2016 foal crop saw a small increase in cases in February 2016, but then case counts dropped quickly.

However, the UKVDL has seen an increase in confirmed nocardioform placentitis cases in the 2017 foal crop, starting with 10 abortions in December 2016 compared to zero abortions in December 2015. In the first two weeks of January 2017, the UKVDL

already had confirmed eight nocardioform placentitis abortions, with more test results pending.

Nocardioform placentitis was first identified in Central Kentucky in the mid-1980s. The term “nocardioform” was adopted due to the causative agents’ similarities to the nocardioform actinomycetes. Through sequence analysis of 16S rRNA genes, the most common organisms identified include *Crossiella equi sp nov*, *Amycolatopsis spp*, and *Streptomyces spp*.



The pathogenesis of nocardioform placentitis remains poorly understood. Its clinical ramifications range

from late-gestation abortions, stillbirths, prematurity, and the birth of live but nonviable foals, to foals that

For more information on nocardioform placentitis see:

- [An investigation of a recent outbreak of Nocardioform placentitis caused abortions in horses.](#) Erdal Erol, Stephen F. Sells, Neil M. Williams, Laura Kennedy, Stephen J. Locke, David P. Labeda, James M. Donahue, and Craig N. Carter. 2012. *Vet Microbiol.* 158(3-4): 425-430
- [Antibiotic susceptibility patterns of *Crossiella equi* and *Amycolatopsis* species causing nocardioform placentitis in horses.](#) Erdal Erol, Neil M. Williams, Stephen F. Sells, Laura Kennedy, Stephen J. Locke, James M. Donahue, and Craig N. Carter. 2012, *J Vet Diagn Invest.* 24(6) 1158-61.
- [Diagnostic epidemiology of nocardioform placentitis and abortion in Kentucky, 1991-2015.](#) Craig N. Carter, Erdal Erol, Noah D. Cohen, and Jacqueline L. Smith. 2016, *J Equine Vet Sci.* Vol 39, S59-S60.

Nocardioform placentitis

are small and weak but survive. Because even mild cases of nocardioform placentitis were submitted in 2011, a number of foals were healthy and vigorous at birth.

Gross and histologic lesions of nocardioform placentitis are distinctive. The placenta's cervical star region is spared and lesions—there can be single or multiple—most commonly occur at the bifurcation of the placental horns. The affected chorion (the outermost placental membrane) is covered by a thick, light brown, tenacious exudate overlying a rough, tan chorion with marked villous loss. Additionally, expansion of the allantoic stroma by nodular masses (adenomatous hyperplasia) is frequently observed. The characteristic histologic lesions include necrosis of trophoblasts,

Nocardioform placentitis testing is available at UKVDL.

Standard tests are:

- **Culture:** \$17 in-state, \$25.50 out of state
5-day, minimum, turnaround time
- **PCR:** \$35 in-state, \$52.50 out of state
24-48-hour turnaround time

Histopathology, included in mail-in necropsy, and necropsies are performed at the UKVDL.

marked villous loss, squamous metaplasia, chronic suppurative inflammation, adenomatous hyperplasia, and intralesional gram positive branching bacilli. The bacteria do not reach the fetus, and fetal lesions are limited to those of placental insufficiency.

Researchers have not yet identified nocardioform placentitis' means of transmission. Nocardioform organisms do not behave in a manner similar to either the models of ascending bacterial placentitis or septicemic bacterial placentitis. Because nocardioform placentitis cases tend to occur in waves, with some years having very large numbers of cases while other years have very few, scientists are investigating the role of environmental factors in disease incidence; thus far, it appears to follow hot, dry weather. [UK](#)

>This information was provided by Laura Kennedy, DVM, Dipl. ACVP; Jackie Smith, PhD, MSc, Dipl. AVES (Hon); and Craig Carter, DVM, PhD, Dipl. ACVPM, DSNAP, of the UKVDL.

GRAD STUDENT SPOTLIGHT

YATTA LINHARES BOAKARI

From: Teresina, Brazil
Degree and institutions where received: University of the Incarnate Word, BS in psychology; Federal University of Piaui, DVM; State University of Sao Paulo, MS in equine reproduction.

Yatta Boakari, DVM, MS, completed a three-month research internship at the University of Kentucky (UK) while completing her master's in Brazil. This led her to return to UK for her doctoral degree under the direction of Barry Ball, DVM, PhD, Dipl. ACT, Albert G. Clay Endowed Chair in Equine Reproduction at UK's Gluck Equine Research Center, and Alex Esteller Vico, PhD, DVM, assistant research professor at the Gluck Center.

"In this short period of time I learned so much and saw the type and quality of research they were doing and knew I wanted to complete my PhD at UK," Boakari said.

Boakari's research focuses on the influence of high levels of dietary crude protein on a mare's reproduction. Currently, there are no published reports about dietary crude protein's effects on horses' reproductive parameters. Her objective is to clarify protein's effects and mechanisms on parameters such as uterine pH, early pregnancy loss, and embryo quality.

When asked what her most valuable takeaway from the program has been so far, Boakari said, "I am learning about modern laboratory techniques, such as PCR, and next-generation techniques. In addition, I am learning to organize my time and choose priorities in a way I did not know before."

Boakari plans to graduate in 2019. After graduation, she is interested in becoming a professor. [UK](#)

>Alexandra Harper, MBA, is the operations and communications coordinator for the UK Ag Equine Programs.



Getting Through Winter Cold can be Stressful for Farm Animals

After a few weeks of above-average temperatures, Kentuckians will feel the chill with a cold snap.

Matt Dixon, an agricultural meteorologist at UK, explained that the combination of cold air and winds create dangerous and emergency-category periods of livestock cold stress.

Livestock producers should make sure animals have adequate shelter, water, dry bedding, and plenty of feed to make it through cold spells. Pet owners should bring pets indoors. Livestock specialists at UK say animals have higher energy requirements in the colder months, so producers should have high-quality grains and forages on hand to meet their needs.

"The average horse, with a lower activity level, should eat between 1.5 and 2% of its body weight in feed per day to maintain its weight," said Bob Coleman, PhD, PAS, equine extension specialist in the UK College of Agriculture, Food and Environment. "That feed requirement goes up in the winter as the horse uses more calories to keep warm."

He recommended providing extra hay and making sure horses have shelter to get out of windy, damp weather. It's important for horses and all livestock to

Winter Stress

have access to clean, unfrozen water.

Ambient temperatures can impact the amount of dry matter cattle eat, providing an opportunity to compensate for increased maintenance energy needs. Producers either need to increase animals' feed intake or increase the diet's energy density by feeding higher quality hay or adding more grain or fat to the grain mix, said UK beef specialist Jeff Lehmkuhler, MS, PhD.

Lehmkuhler recommended that producers continue to monitor cows during the winter and make sure they maintain a healthy body condition.

"Poor-quality hay may not provide adequate energy to maintain gestating cows that are entering the third trimester," he said. "Consider having hay tested to determine if you need to supplement during times of possible cold stress, especially for the enduring cold spells."

He said to consider separating younger and thinner cows that might not have the same internal insulation as conditioned older cows and supplementing them accordingly or offering them higher quality forage, if available. Horse owners can employ similar strategies and separate animals according to body condition score.

"Producers should move cows to fields with natural windbreaks or provide man-made windbreaks, which are not the same as a barn," Lehmkuhler suggested. "Poorly managed barns combined with poor ventilation may actually hamper efforts to improve the environmental conditions. Lastly, remember it is energy or calories that are really needed. If the protein level in the forage is adequate, do not make supplement decisions based on protein level; rather, purchase the most affordable calories."

The lower critical temperature (LCT) value for cattle is the lowest temperature or wind chill at which no additional energy is required to maintain core body temperature.

"As the temperature declines below this lower critical value, the maintenance energy value for the animal is increased to maintain core body temperature," Lehmkuhler said. "Animals maintain core body temperature by increasing their metabolism, resulting in greater heat production, as well as



Ensure horses have plenty of forage during periods of extreme cold.

other heat conservation strategies such as reducing blood flow to the extremities, shivering, and increased intake."

He said several things can influence lower critical temperature value.

"Both external and internal insulation influence the LCT," he said. "External insulation is basically the depth and thickness of the hair coat, condition of the hair coat, and thickness of the hide. Thin-hided breeds such as dairy breeds tend to have a lower insulating factor than thick-hided breeds like Herefords."

The hair coat acts as insulation similar to home attic insulation that traps air, enhancing the insulating value. If the hair is wet and full of mud, air is excluded, reducing the insulating value and increasing heat loss from the skin. Hair coat characteristics, such as density and moisture level, impact the temperatures at which cold stress is considered mild, moderate, or severe. As little as 0.1 inch of rain can immediately impact cold stress severity by matting the hair down, reducing its insulating ability. Acclimation time, hide thickness, fat cover, and other factors will also influence the degree of cold stress animals experience.

Producers should ensure dairy animals' teats are dry before turning them out when temperatures fall below 25°F.

Treat signs of frostbite immediately,

since damage to the teat ends can quickly lead to damage of the keratin seal. That can, in turn, allow bacteria that cause mastitis (infection of her mammary gland) to enter the udder.

"If you turn out an animal with a wet udder or teats, frostbite is almost a certainty," said Michelle Arnold, DVM, UK extension veterinarian.

Another key is to give animals a draft-free place to get out of the wind during extreme wind chill conditions.

"The challenge is to make that space available and still provide enough ventilation to allow fresh air to circulate," she said.

Dry bedding is also very important. Frostbite is a big risk if cows, goats, or sheep lie in wet bedding. Producers also need to ensure animals' hair coats are kept dry and as clean as possible.

"Perhaps the most important thing producers can do is to take care of themselves in extreme cold," Arnold said. "If you get into trouble, you can't be the caregiver to your livestock that you want to be."

Keep an extra set of clothes and a blanket in your truck. An extra pair of dry boots is a great plan as well. **UK**

>Aimee Nelson is an agriculture communications specialist for the UK College of Agriculture, Food and Environment.

Conference to Take a Fresh Approach to Alfalfa, Stored Forages

The Kentucky Forage and Grassland Council and UK will host the 36th annual Kentucky Alfalfa and Stored Forage Conference on Feb. 21. The daylong event will begin at 8:00 a.m. CST at the Cave City Convention Center, in Cave City.

“We are continuing the long tradition of the Kentucky Alfalfa Conference and are excited to expand the conference’s scope to include all stored forages,” said Ray Smith, PhD, forage extension specialist in the UK College of Agriculture, Food and Environment. “Our goal is to help Kentucky producers improve the efficiency and quality of all their hay, silage, and baleage production.”

Event participants will hear presentations from UK College of Agriculture,



Food and Environment specialists as well as forage specialists from the University of Georgia, the USDA

Agriculture Research Service, industry representatives, and some of the state’s top forage producers. Attendees can also participate in the conference’s annual silent auction.

Conference organizers have applied for continuing education units for Certified Crop Advisers.

Registration is \$25 per person before Feb. 15. After that date, it is \$30 per person. To register for the event, go to kyalfalfa.eventbrite.com.

More information on the conference and directions to the convention center are available on the UK Forage Extension website at uky.edu/Ag/Forage/. **UK**

>Katie Pratt is an agriculture communications specialist for the UK College of Agriculture, Food and Environment.

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UK Department of Veterinary Science Launches New Websites

The UK Department of Veterinary Science has launched three new websites to replace its former single website. The change is designed to enhance informational access and ease of use for visitors.

There are now individual websites for the Department of Veterinary Science (vetsci.ca.uky.edu) Gluck Equine Research Center (gluck.ca.uky.edu), and Genetic Testing at Gluck (formerly the Animal Genetics Testing and Research

New websites

Laboratory, getgluck.ca.uky.edu). The website for the UKVDL (vdl.uky.edu) remains the same.

The mission of the Department of Veterinary Science, a UK Ag Equine program in the College of Agriculture, Food and Environment, is to assure the health and viability of animal agriculture through teaching, discovery, research, and service.

The Gluck Center's mission is scientific discovery, education, and dissemination of knowledge for the benefit of the health and well-being of horses.

The mission of Genetic Testing at Gluck is to offer the highest quality DNA testing combined with personalized customer service while discovering the genetic basis for traits and diseases in the horse.

The UKVDL's mission is to develop and apply state-of-the-art diagnostic methodology to improve animal health and marketability, to protect the public health, and to assist in the preservation of the human-animal bond through the principles of One Health. **UK**

>Jenny Evans, MFA, is the interim executive director of the Gluck Equine Research Foundation, and senior marketing and promotion specialist for the UK Department of Veterinary Science.



The UK Department of Veterinary Sciences launched a trio of new websites.



Gluck Center Hosts First Tex Cauthen Memorial Seminar

More than 150 people attended the inaugural Tex Cauthen Memorial Seminar at the UK Gluck Equine Research Center on Jan. 22. Seminar speakers included Simon Curtis, Hall of Fame Farrier and immediate past master of the Worshipful Company of Farriers; Pedro De Pedro, DVM, MS, Dipl. ACVIM, assistant professor at the Ross University School of Veterinary Medicine;

and Michael Savoldi, PhD, professor emeritus and resident farrier at the W.K. Kellogg Arabian Horse Center and a professor of farrier science in California State Polytechnic University's Animal and Veterinary Science Department. A second seminar is planned for January 2018.



JENNY EVANS

Extension Agents Host 10th Annual Pastures Please!! Workshop



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The UK Cooperative Extension Service agents and the UK Ag Equine Programs will host Pastures Please!! 6 p.m. on Jan. 30 at the Fayette County Extension office, 1140 Red Mile Place, in Lexington.

The free annual event is particularly relevant for horse owners and farm managers interested in the latest information about pasture management.

"This event is well-attended by horse farms large and small," said Ray Smith, PhD, UK professor and forage extension specialist. "It serves as a great reminder to managers to begin planning for the upcoming grazing season. We have put together a strong lineup covering topics that are relevant to Central Kentucky."

This year's program, sponsored by McCauley Brothers Inc., will feature talks from UK researchers that include managing pastures to reduce tall fescue toxicosis, grazing novel tall fescues with confidence, the top 10 poisons for horses in Kentucky, and pasture weed control.

"Our pasture evaluation program has generated a tremendous dataset over the last 12 years," said Krista Lea, MS, coordinator of UK's Horse Pasture Evaluation Program. "For the first time we have compiled this data in an effort to explain pasture trends. We will be presenting some exciting results for the first time at the Pastures Please!! event."

A handful of Central Kentucky extension agents launched the annual educational program in 2007 to provide timely and practical information for area horse owners. It has since expanded and now includes participation from Bourbon, Clark, Fayette, Jessamine, Mercer, Scott, and Woodford counties. Each year a different county hosts the event.

Those interested in attending should RSVP to 859/257-2226 or equine@uky.edu. **UK**

>Holly Wiemers, MA, APR, is communications and managing director for UK Ag Equine Programs.

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^{*}Currently, there are no vaccines available with USDA-licensed label claims against equine abortions, uveitis or acute renal failure due to *L. pomona*.

¹ Data on file, Study Report No. B850R-US-12-011, Zoetis LLC.

² Data on file, Study Report No. B951R-US-13-043, Zoetis LLC.

³ Data on file, Study Report No. B951R-US-13-046, Zoetis LLC.

⁴ Data on file, Study Report No. B951R-US-15-092, Zoetis LLC.

Thoroughbred Worker Health and Safety Study Results in Free Bilingual Safety Materials

Using direct input from horse farm employees, managers, and owners, a group of researchers from the UK College of Public Health and the University of Maryland (UM), Baltimore, has put together a set of bilingual safety training materials designed to equip horse farm managers and workers with information needed to stay safe on the job.

The *Thoroughbred Worker Health and Safety Study* was a five-year research project aimed to improve the occupational safety and health of Thoroughbred farmworkers. The study was co-led by Jess Miller Clouser, MPH, of the UK College of Public Health, and Jennifer Swanberg, PhD, a professor of social work at UM. The project was funded by the National Institute for Occupational Safety and Health/Centers for Disease Control and Prevention as part of the UK Southeast Center for Agricultural Health and Injury Prevention.

The research consisted of three phases:

1. The researchers conducted 32 surveys and 26 in-depth interviews with farm owners, managers, and human resource personnel to gather information about the work environment and context of injuries and illnesses experienced by workers;
2. They conducted community-based surveys with 225 Latino Thoroughbred farm workers about their experiences in the work environment and occupational injury and illness; and
3. The researchers used an industry- and community-engaged process to create educational materials based on study data to provide to farms and workers.

The research team has now released the educational materials resulting from this research. These materials are available on the project's website at workersafetyandhealth.com/information-for-managers.

Safety on the Farm: A bilingual guide in images for the Thoroughbred worker

This series of 12 bilingual graphic safety illustrations can be used as a training booklet or as safety posters. It aims to help educate both English- and Spanish-speaking workers about safety procedures on Thoroughbred farms and provide a shared language of safety. To create the illustrations, the research team convened a working group of eight industry representatives including

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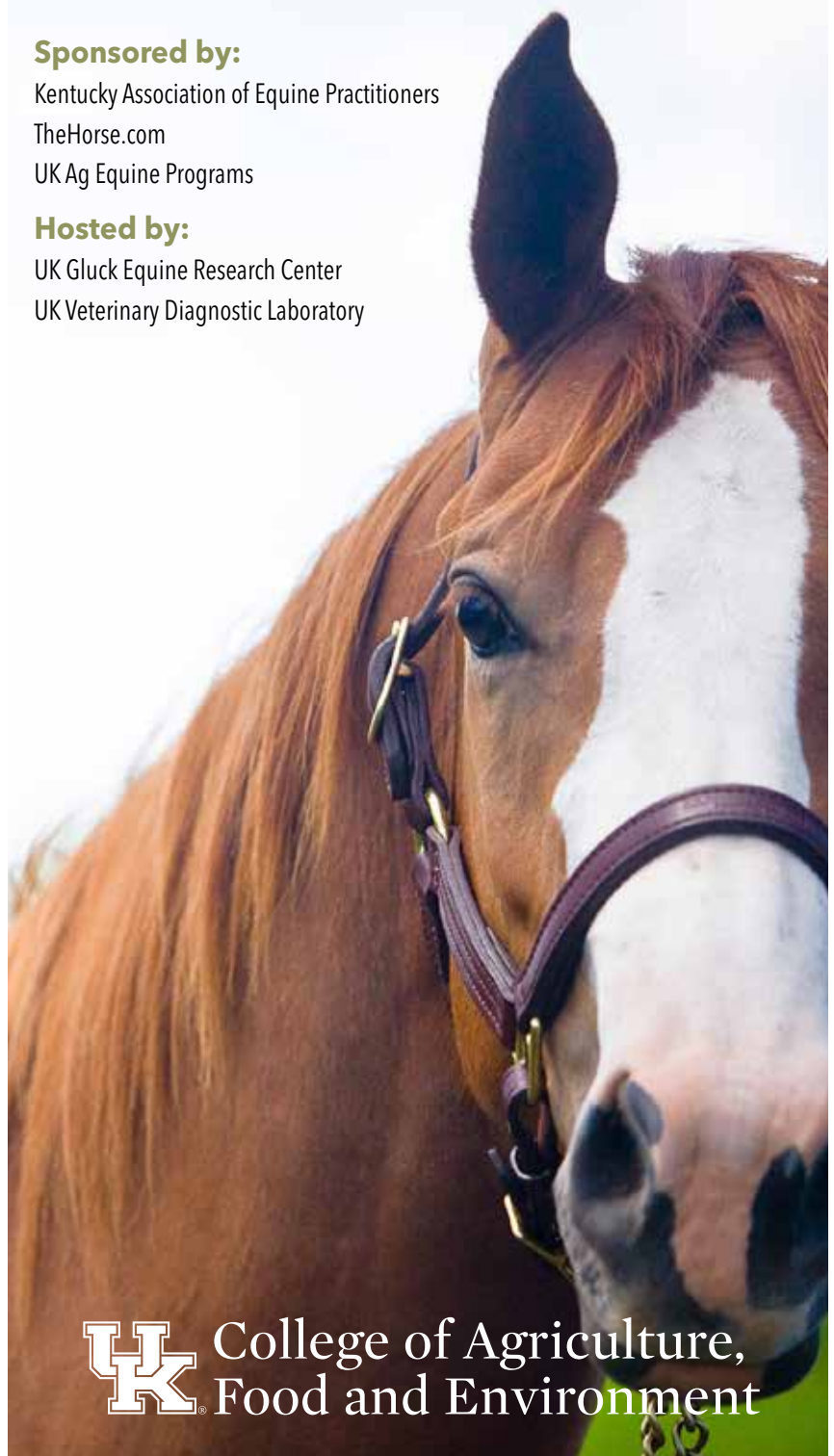
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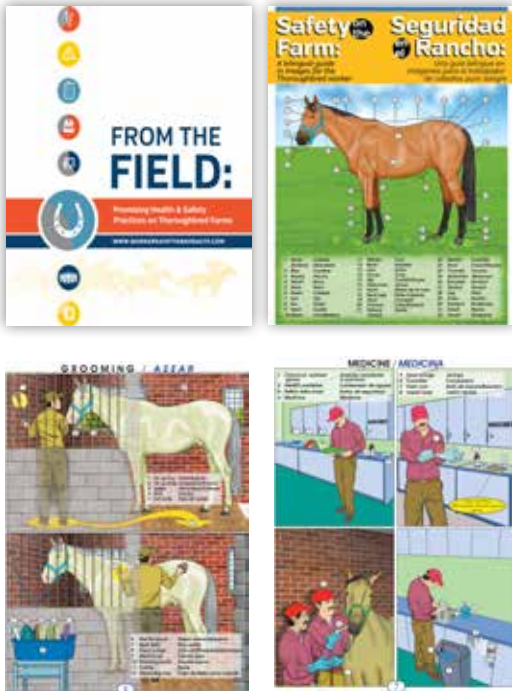
UK Gluck Equine Research Center

UK Veterinary Diagnostic Laboratory



 College of Agriculture,
Food and Environment

Bilingual safety materials



farm managers from small, medium, and large Thoroughbred farms; workers' compensation and insurance representatives; human resource personnel; and communications associates.

Randy Gilbert, the manager at Shawnee Farm, former president of the Kentucky Thoroughbred Farm Managers' Club, and a member of the project's Industry Advisory Council, participated in the working group that drafted the safety illustrations.

"At Shawnee Farm every year we have guys that come on visas to work with the horses, and maintenance and communication is key for safety," Gilbert said. "These safety posters will definitely help with communication."

Laurette Durick, human resources manager at Godolphin, also served on both the project's industry advisory council and working group for the safety illustrations.

"These safety posters and booklets are fantastic," she said. "This is a first of its kind, as I have never seen anything like this for horse handling and the equine industry."

Added Tom Evans, owner and manager of Trackside Farm and member of the safety illustration working group, "I would wager that my employees are 100 times more likely to study an illustration versus read text. I think the illustrations provoke thought and show our employees that somebody cares about their safety."

UK Department of Veterinary Science EQUINE DIAGNOSTIC AND RESEARCH

2017 Seminar Series

UK Veterinary Diagnostic Laboratory Auditorium
1490 Bull Lea Road, Lexington, KY

January 26 4 - 5 p.m.

Systemic Pain Therapy in the Horse—John Hubbell, Rood and Riddle Equine Hospital

February 23 3:30 - 5:30 p.m.

Insect Hypersensitivity and Pruritus: Strategies for Successful Management—Susan White, University of Georgia
Wound Management—Jim Schumacher, University of Tennessee

No seminars in March, April and May

June 29 4 - 5 p.m.

Evolution of Equine Infection Control Management—Josie Traub-Dargatz, Colorado State University

July 27 4 - 5 p.m.

Diagnosis of Upper Airway Abnormalities in the Equine Athlete—Brett Woodie, Rood and Riddle Equine Hospital

August 31 4 - 5 p.m.

Regenerative Medicine—Jamie MacLeod, UK Gluck Equine Research Center, and Speaker TBD

September 28* 1 - 6 p.m.

100th Equine Diagnostic and Research Seminar Series Symposium

*Free, but requires registration

Immunosenescence and How it Affects the Care of the Old Horse—Amanda Adams, UK Gluck Equine Research Center

How to Incorporate an Aging Horse Healthcare Program into your Practice—Speaker TBD

Endocrine Diseases of the Older Horse and How to Diagnose Them—Lisa Tadros, Michigan State University

Dental Care of the Geriatric Horse—Jack Easley, Easley Equine Dentistry

Feeding the Old Grey Mare—Sarah Ralston, The State University of New Jersey

Feeding the Older Horse with PPID and/or Insulin Resistance—Kristine Urschel, University of Kentucky

October 26 4 - 5 p.m.

Advances in Therapy of Ocular Disease in the Horse—Brian Gilger, North Carolina State University

November 16 4 - 5 p.m.

Equine Behavior—Sue McDonnell, University of Pennsylvania

For more information: 859-218-1089 or jenny.evans@uky.edu

Bilingual safety materials

From the Field: Health and safety practices on Thoroughbred farms

In the in-depth interviews conducted with Thoroughbred farm representatives, participants described promising practices they employed to help improve employee safety and well-being, especially among non-English speaking workers. The *From the Field* report details those practices as a vehicle for farms to learn from one another.

Research briefs that communicate study findings

Many participating farms wanted to learn about the study's findings. As such, the main findings have been summarized in a series of 10 research briefs organized by topic (e.g., injuries, respiratory symptoms, communication, musculoskeletal issues). Find the briefs at workersafetyandhealth.com/issue-briefs.

All materials can be accessed for free at workersafetyandhealth.com. As funding permits, printed copies of the materials could also become available. If you have questions or would like to put your name on a waitlist for printed materials, please contact Clouser at jess.clouser@uky.edu. **UK**

>Jess Miller Clouser, MPH, research associate within UK's College of Public Health, Department of Health, Behavior & Society, provided this information.

Upcoming Events

Jan. 30, 6:00 p.m.

Pastures Please!! Workshop

An educational pasture management event for horse owners
Fayette County Extension Office, Lexington, Kentucky, RSVP to 859/257-5582

Feb. 23, 3:30-5:30 p.m.

UK Department of Veterinary Science
Equine Diagnostic Research Seminar Series
Susan White, DVM, MS, Dipl. ACVIM, of the University of Georgia, will present "Insect Hypersensitivity and Pruritus: Strategies for Successful Management," and Jim Schumacher, DVM, MS, Dipl. ACVS, of the University of Tennessee, will present "Wound Management."
UKVDL, Lexington, Kentucky

Stay Socially Connected to UK Ag Equine Programs

The UK College of Agriculture, Food and Environment has several equine-related social media pages featuring the latest news and event information.

Follow us on Twitter:

UK Ag Equine Programs: @UKAgEquine

UK Maxwell H. Gluck Equine Research Center: @UKGluckCenter

NEW!! UK Veterinary Diagnostic Laboratory: @UKVDL



Prefer Facebook? Like these pages we administer:

UK Ag Equine Programs An overarching framework for all things equine at UK, including the undergraduate degree program, equine-related student organizations, equine research, and outreach activities.

UK Equine Alumni A community established for the alumni of UK's equine programs, including ESMA, graduate students, and club and team members.

UK Maxwell H. Gluck Equine Research Center The Gluck Center's mission is scientific discovery, education, and dissemination of knowledge for the benefit of the health and well-being of horses.

NEW!! UK Veterinary Diagnostic Laboratory The UKVDL's mission is to develop and apply state-of-the-art diagnostic methodology to improve animal health and marketability, to protect the public health, and to assist in the preservation of the human-animal bond through the principles of One Health.

UK Horse Pasture Evaluation Program A service program offered to Kentucky horse farms with the goal of overall improved pasture management.

Saddle Up SAFELY A rider safety awareness program sponsored by UK HealthCare; the UK College of Agriculture, Food and Environment; and community organizations. It aims to make a great sport safer through education about safe riding and horse handling practices. **UK**

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