

## UK Gluck Equine Research Foundation Names Three Inductees to Equine Research Hall of Fame

The Gluck Equine Research Foundation will induct three scientists into the University of Kentucky (UK) Equine Research Hall of Fame Sept. 23 at Keeneland Race Course.

George Allen, PhD, a post-humous inductee formerly of UK's Gluck Equine Research Center; Eugene Lyons, PhD, of UK's Gluck Equine Research Center; and Stephanie Valberg, DVM, PhD, of the University of Minnesota, were selected for their contributions to equine science and research. Nominated by their peers and colleagues, these three individuals were selected by past Hall of Fame inductees.

"On behalf of the Gluck Equine Research Foundation board, I would like to congratulate this year's inductees," said Walter Zent, DVM, chairman of the foundation's board of directors. "We were fortunate to have many excellent nominees who have dedicated their lives to equine research."

A Kentucky native, Allen joined the faculty in the Department of Veterinary Science at UK as an assistant professor in 1978 and was promoted to professor in 1987 until his death in 2008. Among Allen's most important accomplishments were the elucidation of equine herpesvirus-1 (EHV-1) pathogenesis, his findings about the importance of cytotoxic T cells in controlling EHV-1 infection, an equine model for neurologic diseases caused by EHV-1, and identifying risk

factors for the development of this severe clinical outcome.

"George Allen was a truly dedicated, highly creative, and accomplished scientist whose contributions to the field of equine herpes virology were unmatched throughout his highly productive career in equine research," said Peter Timoney, FRCVS, PhD, the Frederick Van Lennep Chair in Equine Veterinary Science at the Gluck Equine Research Center.

Lyons joined the faculty in UK's Department of Veterinary Science in 1963 and was promoted to professor in 1977. In his more than 45-year career Lyons work continues to provoke interest in equine parasitism. He was the first to demonstrate the transmission of helminth parasites in a dam's milk to her offspring, which has been extended to a number of host parasite relationships with all the significance to the epidemiology of infections this implies.

"This is a great, and I personally feel, undeserved honor for myself alone," Lyons said. "It is unfortunate that the other team members, Sharon Tolliver and Sandra Collins, cannot be included as co-awardees."

Valberg, director of the University of Minnesota's Equine Center, established the university's Neuromuscular Diagnostic Laboratory, which receives muscle biopsy submissions from horses around the world. Valberg has been a pioneer in unraveling the mystery of tying-up and other muscle disorders in horses. Her



George Allen



Eugene Lyons



Stephanie Valberg

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research helped discover previously unknown muscle disorders, identify their genetic basis, and develop nutritional strategies to minimize muscle pain. Her work in equine myopathies has revolutionized equine practice.

"I am honored to be among such distinguished scientists in the Hall of Fame," said Valberg. "My research has been fueled by a passion for horses, by the wisdom of colleagues such as Dr. Jim Mickelson, and the hard work of terrific graduate students."

## Hall of Fame Inductees

Equine Research Hall of Fame nominees can be living or deceased, active or retired in the field of equine research. Established in 1990, the Equine Research Hall of Fame honors international scientific community members biennially who have made equine research a key

part of their careers, recognizing their work, dedication, and achievements in equine research.

Past inductees include: W. R. Allen, Douglas F. Antczak, John T. Bryans, William W. Dimock, Elvis R. Doll, Jr., Harold Drudge, Phillip R. Edwards, Baltus J. Erasmus, Harold E. Garner, Oliver J. Ginther, Harold Hintz, Sir Frederick Hobday, Leo B. Jeffcott, Robert

M. Kenney, I.G. Joe Mayhew, Travis C. McGuire, Jr., C. Wayne McIlwraith, Alan J. Nixon, Peter D. Rosedale, Edward L. Squires, Clyde Stormont, Sir Arnold Theiler, and Peter J. Timoney.

For more information, visit [www.ca.uky.edu/gluck](http://www.ca.uky.edu/gluck). 

>Jenny Blandford is the Gluck Equine Research Foundation coordinator at the Gluck Center.

## Rotational Grazing: Time it Right for Optimal Pastures

You've seen it plenty of times: bare pasture grazed down to the nub. Who wouldn't rather look out of the stable to see happy horses grazing on healthy pastures? One solution lies in rotational grazing, a simple management technique that subdivides pasture areas, allowing forage plants an opportunity to regrow after they've been grazed. By fencing off part of a pasture, you can allow horses to consume grass to a certain height before moving them to another "rested" part of the pasture. The grazed portion then has the opportunity to grow. Rotational grazing does involve more management than allowing your horses unfettered access to pasture areas, but the payoffs are worth the effort.

"If we set up our plan in such a way that we give forage plants enough time to grow back, we have more forage for the horses to utilize, which can then translate into reduced feed costs," explained Bob Coleman, PhD, PAS, equine extension professor in the University of Kentucky's Department of Animal Sciences. "The biggest benefit is that we are going to extend our grazing season by taking



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Rotational grazing allows grasses to regrow after being grazed.

advantage of forage when it's growing and then giving it a chance to come back."

In addition, subdividing large pastures for rotation encourages more even grazing patterns, helping to reduce horses' spot-grazing tendencies in which they choose and ultimately overgraze their favorite, highly palatable forage plants. "You can encourage them to be better consumers of all that's there," noted Coleman. "By moving the horses, you let those highly-selected species come back." Horses also tend to overgraze pasture areas where they like to spend their time; rotating the horses off

these areas reduces compaction issues, which also weaken forage plants.

A weakened pasture results when plants are not given the opportunity to replenish root and plant reserves. "A weak pasture stand is prime for weeds to take over," Coleman remarked. "Grazing so hard you create bare ground is a wonderful opportunity for weeds to take over a pasture. They get sunlight and they don't have any competition."

The nuts and bolts of rotational grazing are simple. The easiest approach is to subdivide your grazing areas with portable electric fencing based on the number of hors-

es you have on your acreage. You should also plan your watering arrangement—this could involve either portable watering troughs or a permanent watering area around which the paddocks are subdivided. Coleman recommends creating a high-traffic pad around permanent water sources to eliminate mud and turf compaction (see "Creating Hardened Surfaces in High-Traffic Areas," [www.TheHorse.com/20244](http://www.TheHorse.com/20244)).

A pasture is ready for grazing when available forage plants have reached a height of at least six to eight inches. This pasture can be grazed down to about four inches, at which point owners should move horses to another area. The time it takes for horses to graze down to four inches depends on the number of horses and the size of the paddock, but five to seven days is reasonable. Regrowth occurs 21-28 days later for cool season grasses under reasonable growing conditions. Environmental factors play a role as to when or even if you'll move the horses onto a new pasture. For example, in spring when plant growth is active, horses can be rotated onto another section when grass is grazed to about six inches. This shorter grazing cycle will help you keep up with the growing pasture and hopefully reduce the amount of mowing needed to keep the pasture vegetative. On the other hand, when pastures are parched during hot, dry summer months or wet during rainy months, you

### Extension Resources

Don't overlook your county extension office's role in helping you achieve and maintain optimal pastures. From Ph testing and fertilization recommendations to dragging and aeration questions, an extension agent is familiar with your area and can help formulate a management plan tailored for your farm's needs.

## Rotational Grazing

should move the horses onto a 'sacrifice paddock' to protect pastures. At this point you must supplement the horses' diet with hay.

Just as there's not a set schedule as to when you rotate horses to another paddock, there is also not uniformity among pasture plants. "There will be areas of great selectivity, especially when there are mixed grass varieties," Coleman explained. This means that some plants will be below four inches, while others might be taller. In this case you should move the horses out of that pasture and mow the grass to an even four inches to maintain a vegetative state.

Paying attention to your grazing areas is key to successful rotational grazing. "Horse owners need to be prepared to walk through their pastures. It takes management to make it work," said Coleman. "Watch grazing patterns and pastures. Be observant." Ultimately, pasture becomes healthier and forage becomes more palatable, making the extra effort worthwhile. **UK**

>Natalie DeFee Mendik, MA, is freelance journalist and American Horse Publications award winner currently living in Pennsylvania.

## MASTHEAD

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## ELISA Test for EPM

Dan Howe, PhD, a molecular parasitologist at the University of Kentucky Gluck Equine Research Center, has developed a new assay to aid equine protozoal myeloencephalitis (EPM) diagnosis. This enzyme-linked immunosorbent assay, or ELISA, measures antibodies to the surface antigens (SAGs) SnSAG2, SnSAG3, and SnSAG4 of *Sarcocystis neurona*, the parasite that most commonly causes EPM.

These specific SAGs are proteins on the outer surface of the parasite that trigger the horse's immune system during an *S. neurona* infection. By measuring a colorimetric

change relative to the amount of antibodies in a horse's blood sample, the assay provides quantitative data expressed as a titer (a measurement of antibody levels in a blood sample). Most horses have varying levels of serum antibodies against *S. neurona*

**"Horses suspected to have EPM will benefit most by having CSF tested in conjunction with the serum."**

Dr. Dan Howe

due to a high natural exposure rate (seroprevalence) to the parasite.

"Although many horses have been exposed to *S. neurona* and have antibodies against the parasite, this doesn't necessarily correlate

with an ongoing active infection, and relatively few horses ever develop EPM disease," Howe said.

Because of this high seroprevalence rate but low disease incidence, simply detecting antibodies in a horse's serum provides modest

diagnostic information, said Howe. Instead, cerebrospinal fluid (CSF) obtained via spinal tap is the best method for diagnosing EPM.

"The new assay incorporates three unique antigens of *S. neurona* to measure the

antibody response to parasite infection in serum or CSF," he said.

The Western blot, developed at the Gluck Center in the early 1990s, was the first commercially available test to detect a pattern of *S. neurona* antibodies. Subsequent tests employed different formats for antibody detection, each with their own limitations of use and interpretation. Recent studies indicate that detection of antibodies against SAGs 2, 3, and 4 provide a reliable and accurate indication of EPM disease when both serum and CSF are tested.

For instance, UK conducted a field study on nearly 400 neurologic horses in collaboration with Rood & Riddle Equine Hospital, Lexington, Ky.; University of Pennsylvania New Bolton Center,

## ELISA test

Kennett Square, Pa.; University of Florida, Gainesville, Fla.; and the Marion duPont Scott Equine Medical Center, Leesburg, Va. The researchers' goals were to evaluate this ELISA test's clinical usefulness and diagnostic parameters and to reassess the value of obtaining CSF for accurate EPM diagnosis. Neurologic status was determined at case presentation, horses were grouped by diagnosis, and paired serum and CSF from each horse

were tested with the ELISA. While serum ELISA titers did not correlate well with an EPM diagnosis, higher CSF titers were more often associated with disease. However, researchers obtained the most diagnostically predictive ELISA result when the CSF titer was compared to the serum titer and expressed as a ratio, Howe said.

"Horses suspected to have EPM will therefore benefit most by having CSF tested in conjunction with the serum," he said.

According to Howe, the serum to CSF comparison provides more accurate

information and strongly supports whether there is active infection in the central nervous system. The information from the field study also reaffirmed that performing spinal taps to obtain CSF is an important diagnostic tool, he said.

The assay has been licensed exclusively to Equine Diagnostic Solutions LLC, a private reference laboratory in Lexington, co-owned by two University of Kentucky graduates. **UK**

>Shaila Sigsgaard is a contributing writer for the Bluegrass Equine Digest.

## STUDENT SPOTLIGHT

### ZHENGCHUN LU

**From:** Zhenjiang, Jiangsu, China

**Degrees and institute where received:**

**MD, Jiangsu University, Zhenjiang, China**

**MSc, Leiden University Medical Center, Leiden, The Netherlands**

**PhD, Department of Veterinary Science, University of Kentucky, USA**



Zhengchun Lu's MSc thesis work at the Leiden University Medical Center (LUMC) in the Netherlands focused on equine arteritis virus (EAV) replication complex. In 2005 Eric J. Snijder, PhD, Lu's mentor at LUMC, introduced her to Udeni Balasuriya, PhD, at the University of Kentucky Gluck Equine Research Center.

"My research interest is mainly focused on development and validation of molecular diagnostic assays for equine respiratory viruses and investigation of the role of EAV (equine arteritis virus) envelope proteins in virus attachment and entry," Lu said.

Part of Lu's doctoral dissertation research focused on development and validation of molecular diagnostic assays (real-time reverse transcription polymerase chain reaction [rRT-PCR]) for detecting several common equine viral pathogens: EAV, equine influenza virus, and equine rhinitis viruses A and B. To prevent infectious disease spread, there is an urgent need to detect viral respiratory pathogens, and it turns out that rRT-PCR provides fast and reliable viral nucleic acid detection in clinical specimens. Essentially, this applied research will benefit the equine industry in the long run, she said.

"We have developed molecular diagnostic methods to detect EAV, equine influenza virus, and equine rhinitis viruses A and B in clinical samples, and four manuscripts have been published from this project," Lu said.

According to Lu, the assays are highly specific and can distinguish between various equine respiratory viral pathogens.

"The assays developed will benefit the equine practitioners and equine industry in the control and prevention of equine viral respiratory diseases sharing similar signs and symptoms," she said.

According to Lu, these studies will help develop improved prophylactic (preventive) reagents to prevent EAV infection in horses. The protocols and reagents for detecting these viral agents have now been made available to several veterinary diagnostic laboratories.

The second part of Lu's dissertation research focused on EAV envelope proteins' role in virus attachment and entry using reverse genetics technology. This work was published recently in the *Journal of Virology*.

Lu graduated with a PhD in June from the University of Kentucky and moved to Oregon to join her husband. She plans to pursue her medical career as a pediatrician specializing in infectious diseases of children. **UK**

## 2012 Kentucky Equine Survey: Clearing up Misconceptions

It has come to the Kentucky Equine Survey team's attention that some Kentucky horse owners might have false information regarding the survey's purpose and the use of its resulting information. To clear up any misinformation, the University of Kentucky (UK) College of Agriculture Equine Programs aims to set the survey facts straight:

**Myth 1:** Providing this information will result in a change to my tax rate or other government scrutiny.

IN FACT, information provided to the National Agricultural Statistics Service (NASS) is kept absolutely confidential. NASS has been providing census and other survey services in many agricultural segments for more than 100 years and by law doesn't divulge any identifying information, even to the various entities that have hired its services (such as UK) or to other government agencies. It is even one of the only governmental agencies that falls outside of the purview of an open records request or legal subpoena. For more about confidentiality, security, and information protection by NASS, please see [www.nass.usda.gov/About\\_NASS/index.asp](http://www.nass.usda.gov/About_NASS/index.asp).

**Myth 2:** Specific information I provide about my operation will be shared or available to other government or business agencies or the general public.

Kentucky  
Equine  
Survey

>Shaila Sigsgaard is a contributing writer for the Bluegrass Equine Digest.

## 2012 Kentucky Equine Survey

IN FACT, the survey's purpose is not to determine information about specific people or businesses, but rather what breeds and uses of horses, with what economic impact and in what counties, occur in Kentucky. The same laws governing the confidentiality of your information apply here.

**Myth 3:** It won't matter whether I provide the information. They can get what they need from others.

IN FACT, every response matters. By not providing important information about horse breeds residing in Kentucky, the state's horse industry loses an accurate representation of that breed. The lack of participation by any one sector could lead to an overall underestimation of the industry's value (and hence less clout among our state's leaders) as well as an undercounting of a specific breed and its value compared to other breeds.

This will be considered the official count of horses in Kentucky for 2012. Make sure your horses and their economic impact on Kentucky are included!

And, if you feel compelled to contribute to the survey, thank you! We are closing in on our funding deadline, and we only need to secure \$20,000 in pledges or gifts by Aug. 31 in order to receive \$100,000 in matching funds from the Kentucky Agricultural Development Fund.

For more detailed information about the survey and a list of FAQs, please see [www2.ca.uky.edu/equine/kyequinesurvey](http://www2.ca.uky.edu/equine/kyequinesurvey). **UK**

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

## Post-Drought Fall Pasture Management

The recent drought has affected crop production severely, and many horse owners and farm managers have noticed that pastures have suffered as well. Here are some practical steps that can be taken on cool season grass pastures to help them recover for fall and spring grazing.

**Maintain fertility** Now is a great time to sample your pasture soil. Contact your local county extension agent to borrow a soil probe and learn how to soil sample. Apply phosphorus and potassium as recommended by the soil test laboratory. For more information, see [Soil Sampling and Nutrient Management in Horse Pastures](#).

**Fall Nitrogen** Applying nitrogen in the fall will help desirable cool season grasses produce new shoots and thicken your pastures come spring. Ideally, apply nitrogen twice in the fall: 30-40 pounds of actual nitrogen around mid-September and



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## WEED OF THE MONTH

**Common name:** Wild Carrot (Queen Anne's Lace)

**Scientific name:** *Daucus carota* L.

**Life Cycle:** Biennial

**Origin:** Asia and Mediterranean region

**Poisonous:** Slightly

Wild carrot, also known as Queen Anne's lace, is an erect biennial that can grow to about 4 feet in height. It is found in pastures, native areas, fields, and roadsides. Seeds usually germinate in the spring, and leaves develop a basal rosette (a circular arrangement of leaves arising from the base of the stem, similar to dandelion) the first year of growth. Leaves alternate up the stem as the plant develops during the second year of growth. The flowers develop at the top of the plant as an erect terminal umbel (a cluster of flowers arranged on a stem that are equal in length and spread from a common point, somewhat like umbrella ribs). Flowers are white except for central light purple flowers; however, from a distance all flowers appear white.



Wild carrot is sometimes confused with poison hemlock. Although these two species' leaves appear similar, there is one obvious distinguishing characteristic: Poison hemlock has dark purple spots on the stems while wild carrot does not.

Mild neurotoxicity to horses was reported in Europe but is not considered a serious threat in North America. However, to avoid any potential problems, remove wild carrot plants from pastures.

Controlling wild carrot in pastures is easy using timely mowing before flowering and herbicidal treatment. Consult your local [Cooperative Extension Service personnel](#) for a list of herbicidal controls in your area. **UK**

>William W. Witt, PhD, a researcher in the Department of Plant and Soil Sciences at the University of Kentucky, provided this information.

again around late October.

**Overseeding** If pastures are noticeably thin after a drought, consider overseeding to help fill in bare areas. Mow close before seeding, use a no-till drill, and seed in two directions. For more information, see [Establishing Horse Pastures](#).

**Herbicides** If weeds are an issue, fall is a great time to spray herbicides. Your local county extension agent can help you identify major weed species and select an herbicide proven to control those weeds. See [Managing Weeds in Grass Pasture, Hayfields and other Farm Sites](#)

for more information. Always follow label recommendations when using herbicides, and watch carryover restrictions before seeding recently sprayed fields.

Finally, remember that pastures are especially sensitive to overgrazing during and following drought. If needed, identify an area to "sacrifice" to avoid overgrazing the entire farm this winter. **UK**

Krista Cotten, assistant coordinator of UK's Horse Pasture Evaluation Program, and Ray Smith, PhD, professor and forage extension specialist at the University of Kentucky, provided this information.

## Watch for Fall Armyworms

Forage producers reseeding their drought-damaged pastures this fall will want to be on the lookout for fall armyworms as the new grass seedlings emerge, said Lee Townsend, PhD, extension entomologist with the University of Kentucky College of Agriculture.

“Fall armyworms feed at night and can destroy emerging grass and alfalfa stands in a very short period of time,” Townsend said.

Each year, fall armyworm moths migrate north to Kentucky and begin laying eggs. Larvae hatch within three to five days. Fall armyworms are active beginning in mid-summer until the first killing frost. They feed on newly established stands of grass and alfalfa as well as late-maturing soybeans when no forage is available (as might be the case in drought-stricken areas of Western Kentucky). This year, the worms have already damaged some bermudagrass pastures in southern Kentucky. Fall armyworm moth captures in the Integrated Pest Management (IPM) traps at the UK Research and Education Center in Princeton jumped from zero the week of Aug. 2 to 549 the week of Aug. 16. Thus far, Lexington IPM traps have captured no fall armyworm moths.

“Initially, infestations begin slowly,” Townsend said. “As emerging stands are becoming established, female moths will begin to lay masses of 200 or more eggs

on grass blades. The small worms will hatch in a few days and start to feed.”

Their feeding results in small, brown patches in pastures that might be first mistaken for rock or hardpan.

“As the worms feed and grow, the spots will increase in size and join with spots from nearby egg masses,” Townsend said.



Fall Armyworm

If brown spots become visible in pastures, producers should look for fall armyworms underneath field debris or in soil cracks.

Soybean producers should also scout their fields for fall armyworms. The worms usually feed on foliage but might feed on the pods too.

The pest varies in color from light tan to black with three yellow stripes down

its back. The middle stripe is usually darker and the ones on each side are wavy and yellow-red blotched. Fall armyworm has a dark head with a light-colored, inverted “Y” mark on front.

Townsend recommended producers spray fields with an insecticide if they find more than three worms within a square foot of their pasture. For soybean fields, treatment thresholds vary based on the amount of leaf feeding.

Insecticides provide the best control when the worms are 0.75 inches long or smaller. More information on insecticides for fall armyworm control is available at [UK Cooperative Extension Service's](#) local offices.

While fall armyworms are a pest of cattle and horse pastures, they should not affect horses and should not be confused with the Eastern tent caterpillar that causes mare reproductive loss syndrome. Fall armyworms appear in Kentucky only in late summer and fall. Eastern tent caterpillars appear in the spring. **UK**

>Katie Pratt is an agricultural communications specialist within UK's College of Agriculture

## Weaning Stress Horse Course

The latest Horse Course from the University's of Kentucky's Veterinary Diagnostic Laboratory and Gluck Equine Research Center (presented by Pfizer Animal Health) is [available for viewing](#) on TheHorse.com.

The presentation, “The Stress of Weaning,” was led by Amanda Adams, PhD, assistant research professor at the University of Kentucky's Gluck Equine Research Center. Adams gave an overview of why weaning is stressful for foals, current and upcoming research about the immune system's relationship to weaning, and how to help keep foals healthy during the transition.

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## Horse Course

"It's been noted in research papers that weaning really is one of the most stressful events in a horse's life," Adams said during her lecture. "We have to keep in mind that there are multiple stressors and multiple things going on in the life of a weanling. We have maternal separation, we have environmental changes, we move these weanlings into a completely different environment, and clearly there are dietary changes, going from mare's milk to concentrate feeds and hay."

She also noted that in domestic horses, many of these changes are made abruptly, rather than gradually as they are in the wild.

Watch the Horse Course on weaning stress and view other archived Horse Courses at [www.TheHorse.com/HorseCourses](http://www.TheHorse.com/HorseCourses). Recent additions to the Horse Course library include "Latest Technologies in Diagnosing Equine Lameness" with Kent Allen, DVM; "Laminitis" with Jim Belknap, DVM, PhD, Dipl. ACVS; and "Case Studies in Equine Toxicology" with Cynthia Gaskill, DVM, PhD, and Laura Kennedy, DVM, Dipl. ACVP. **UK**

>Erica Larson is the News Editor for *The Horse* and TheHorse.com.



Dr. Amanda Adams presented on weaning stress.

## Time to Reseed Pastures

As with many of the state's crops, Kentucky cool-season forages have taken a hit from the drought and high temperatures. According to the Kentucky Weekly Crop and Weather Report released Aug. 13, more than half the state's pastures were considered in poor or very poor condition.

August and September is the ideal time to reseed those pastures, said Ray Smith, PhD, extension forage specialist with the University of Kentucky (UK) College of Agriculture.

Before planting producers should test their soil and fertilize it according to the test results' recommendations.

"Annual fertilizer applications are important for hay and silage, because high levels of nutrients are removed during the harvest," Smith said. "Soil testing is important, especially with high fertilizer prices, to make sure you are not overapplying nutrients."

Producers can bring soil samples to any local UK Cooperative Extension Service office. For a minimal fee, extension personnel then send the samples to one of the UK soil testing labs.

When selecting a forage variety,

producers will want to choose one that performs well in their region. Plant alfalfa and alfalfa-orchardgrass mixes on deep, well-drained soils that are level to gently sloping. Plant cool-season grasses such as tall fescue or Kentucky bluegrass on steeper ground to minimize soil erosion. Horse owners should not seed KY-31 tall fescue on pastures where they plan to graze pregnant mares, but other tall fescue varieties are fine. Variety trials



August and September are ideal pasture reseeding months.

are available on the [UK Forage website](http://UKForage.com) or through the local UK Cooperative Extension Service office.

The exact time to reseed depends on the type of forage a producer selects. Producers planting alfalfa should do so as soon as possible. Those planting cool-season perennial grasses such as

orchardgrass or tall fescue should do so between the end of August and the middle of September.

Poor pasture conditions have caused some producers to tap into their hay supplies this summer, resulting in lower supplies for the winter. Those needing an immediate fall forage source should consider seeding fields with annuals such as small grains, annual ryegrass, and/or brassicas.

"Cereal rye will provide the quickest growth of any small grain and can be grazed as early as four weeks after emergence," Smith said. "It also provides the earliest spring growth and can often be grazed starting in late February in most areas of Kentucky."

While the drought has damaged many pastures, annual warm-season weeds have thrived. These weeds will die naturally in the fall when the temperatures cool. If producers are reseeding forages into a heavily weeded field, they might want to mow the weeds down to reduce weed seed production and to ensure the grass seed gets good soil contact, said J.D. Green, PhD, UK extension weeds specialist. In some fields, use of a foliar, nonresidual herbicide, such as glyphosate or paraquat, might be necessary before seeding to suppress existing vegetation growth.

"Producers should not spray other pasture herbicides before or soon after reseeding, as doing so will increase the risk of injury to new grasses," Green said.

When reseeding, it's important to use recommended seeding rates and depth. Tillage will improve seed-to-soil contact. However, no-till reseeding is encouraged on sloping pastures, Smith said.

As new stands of cool-season perennials emerge, producers should not immediately turn their animals out on them for grazing.

"Overgrazing newly seeded areas is one of the major causes of seeding failures when seeding cool-season perennials," Smith said. "One good option is to allow

the stand to grow to maturity and cut for hay before grazing or use light grazing. Newly seeded perennial stands often require 12 months to develop a fully established sod." **UK**

>Katie Pratt is an agricultural communications specialist within UK's College of Agriculture.

## UK to Host *Lawsonia* Symposium

The Gluck Equine Research Center and the Veterinary Diagnostic Laboratory—two University of Kentucky Ag Equine Programs—will host the *Lawsonia intracellularis* and equine proliferative enteropathy (EPE) symposium on Nov. 15 at the University of Kentucky Veterinary Diagnostic Laboratory.

This symposium will offer an in-depth look at the latest information on the *L. intracellularis* bacterium and the disease (EPE) it causes in horses. The event is targeted toward veterinarians and anyone else interested in learning more about *L. intracellularis* and equine proliferative enteropathy.

Four hours of Continuing Education for veterinarians and veterinary technicians have been applied for with the Kentucky Board of Veterinary Examiners. Attendees must sign CE sheets at the meeting to receive credit.

The symposium costs \$50. Those interested in attending should sign up early at [www.epesymposium.eventbrite.com](http://www.epesymposium.eventbrite.com) as space is limited.

1 p.m.	Welcome and Introductions	<b>Dr. David Horohov, PhD</b> , William Robert Mills Chair in Equine Immunology at the UK Gluck Equine Research Center <b>Dr. Ed Squires, PhD, Dipl. ACT (hon.)</b> , Director of UK Ag Equine Programs and Executive Director of the UK Gluck Equine Research Foundation
1:15-2 p.m.	Background and History of <i>L. intracellularis</i> , especially in pigs and horses, and available diagnostic tests	<b>Dr. Connie Gebhart, PhD</b> , Assistant Professor in the Department of Veterinary and Biomedical Sciences at the University of Minnesota
2-3 p.m.	Typical presentation, clinical signs, treatment, prevention, and case reports	<b>Dr. Nathan Slovis, DVM, Dipl. ACVIM, CHT</b> , Director of the McGee Center at Hagyard Equine Medical Institute
3-3:30 p.m.	BREAK	
3:30-4 p.m.	Immunology	<b>Dr. David Horohov, PhD</b> , William Robert Mills Chair in Equine Immunology at the UK Gluck Equine Research Center
4-4:30 p.m.	Pathology—typical necropsy findings and newly reported necrotizing EPE	<b>Dr. Alan Loynachan, DVM, PhD, Dipl. ACVP</b> , Assistant Professor at the UK Veterinary Diagnostic Laboratory
4:30-5:15 p.m.	Screening for <i>L. intracellularis</i> in horses	<b>Dr. Allen Page, DVM</b> , a PhD candidate at the UK Gluck Equine Research Center
5:15-5:30 p.m.	Group Discussion: Future research directions and imperatives	
5:30-7:30 p.m.	Cocktail reception with hors d'oeuvres	

>Jenny Blandford is the Gluck Equine Research Foundation Coordinator at the Gluck Center.

## Hats Off Day

Here, Bob Coleman, PhD, associate director of the University of Kentucky (UK) Ag Equine Programs and extension horse specialist, shows Hats Off Day attendees how to play a game based on the costs associated with horse ownership.

Hats Off to Kentucky's Horse Industry Day, a celebration of the horse and its impact on the state of Kentucky, hosted by Rood & Riddle Equine Hospital, was held Aug. 4 at the Kentucky Horse Park. The day offered fun family activities, including arts and crafts for children, pony rides, interactive educational booths, and equestrian competition. UK Ag Equine Programs has participated in the event for the past six years and is proud to serve as an educational partner.







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## West Nile not a Huge Problem for Kentucky to Date

West Nile virus is on the rise nationwide with more than 1,100 human cases reported as of Aug. 22, the highest at this point in the season since the virus was first detected in the United States in 1999. The U.S. Department of Agriculture's Animal and Plant Health Inspection Service National Animal Health Surveillance System reported fewer than 100 equine cases as of Aug. 18. In Kentucky the virus has been diagnosed in four horses since Aug. 2. One human case has been documented in Henry County and one in Clermont County, Ohio, just across the river from Campbell County.

"We are still in the high risk part of the season for West Nile infection," said Craig Carter, DVM, PhD, Dipl. ACVPM, director of the University of Kentucky Veterinary Diagnostic Lab (UKVDL). "The first case was diagnosed at the Breathitt Veterinary Center back on Aug. 2."

Carter said infected horses present with ataxia, which is a lack of voluntary coordination of muscle movements. Other clinical signs might include blindness, loss of motion in the hind limbs,

circling, falling, and anorexia.

"As a horse owner or veterinarian, good surveillance is the key," he said. "Watch for a horse with neurological signs. Vaccination is not perfect, but it can often prevent and/or mitigate the illness. The good news is there is no evidence of person-to-person or animal-to-person infection. People are infected by the bite of a mosquito. Of course, you must always keep rabies in the back of your mind when dealing with animals that present neurological signs."



The best way to avoid West Nile virus is to prevent mosquito bites.

Many states have experienced both horse and human fatalities with West Nile virus this year. The Centers for Disease Control (CDC) and Prevention describe West Nile as a potentially serious illness, established as a seasonal epidemic in the United States that flares up

in the summer and into the fall.

"Effective vaccines are widely available to aid in the prevention of WNV infection," said Robert Stout, DVM, Kentucky's state veterinarian. "I strongly advise horse owners to consult their veterinarians for implementation of a vaccination program. Virtually all cases seen in Kentucky have been in either nonvaccinated or undervaccinated horses."

Carter said the UKVDL and the Breathitt Veterinary Center can assist with diagnosis of West Nile virus in horses, and they can also perform necropsies on deceased animals. Contact either lab for more information on what samples are needed for diagnosis in potentially affected animals. Contact the VDL at 859/257-8283 or the Breathitt Veterinary Center in Hopkinsville at 270/886-3959.

The best way to avoid the virus in humans is to prevent mosquito bites. The CDC website states that approximately 80 percent of people who are infected with the West Nile virus never exhibit any clinical signs. More information about human infection is detailed on that website at [www.cdc.gov/ncidod/dvbid/westnile/wnv\\_factsheet.htm](http://www.cdc.gov/ncidod/dvbid/westnile/wnv_factsheet.htm).

Human case numbers were taken from <http://diseaseasmaps.usgs.gov/wnv-ky-human.html>.

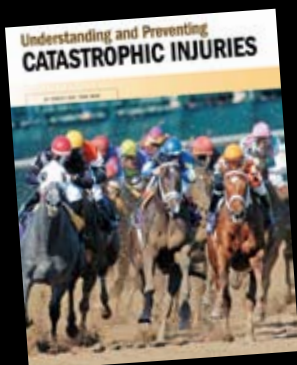
>Aimee Nielson is an agriculture communications specialist at UK.

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## Practitioners' Day at Equine Infectious Diseases Conference

A Practitioners' Day will be held in conjunction with the 9th International Conference on Equine Infectious Diseases (EID IX) on Sunday, Oct. 21, at the Hilton Lexington Downtown Hotel. The EID IX is hosted by the University of Kentucky Gluck Equine Research Center, a UK Ag Equine Program.

This special Sunday program caters to local equine veterinarians and will feature some of the most significant findings presented at the EID conference.

Seven hours of continuing education credit have been applied for with the Kentucky Board of Veterinary Examiners. Those interested in attending can register at <http://eidc2012.eventbrite.com> and select the Practitioners' Day Ticket. Cost is \$150.

>Jenny Blandford is the Gluck Equine Research Foundation Coordinator at the Gluck Center.

8:30 a.m.	REGISTRATION	
	Emerging Diseases and Epidemiology	Gastrointestinal Disease
9-9:50 a.m.	"Marketing equine infectious disease management" – Josie Traub-Dargatz	"Infectious disease, inflammation, and their effect on gut barrier function" – Anthony Blikslager
10-10:50 a.m.	"Responding to emergent threats using diagnostic tests in outbreak management" – Alan Guthrie	"Sustainable equine parasite control: dos and don'ts" – Martin Nielsen
10:50-11:10 a.m.	BREAK	
	Emerging Diseases and Epidemiology	Gastrointestinal Disease
11:10 a.m.-noon	"Surveillance of equine infectious disease" – Richard Newton	"Antimicrobial resistance of equine Salmonella isolates in the Northeastern United States (2001-2010)" – Gillian Perkins  "Equine coronavirus, a possible cause for adult horse enteric disease outbreaks" – Ron Vin
Noon-1:15 p.m.	LUNCH	
	Emerging Diseases and Epidemiology	Gastrointestinal Disease
1:15- 2 p.m.	"Overview of Havemeyer Workshop on streptococcal infections in horses" – John Timoney and Andrew Waller	"An update on EPM" – Dan Howe
2:15-3 p.m.	"Ultrasonographic screening for R. equi in foals. Are we overinterpreting our findings?" – Nathan Slovis and Keith Chaffin  "Thoracotomy in the refractory pleuropneumonia: how, when, and complications" – Keith Chaffin	"EHM: What's next?" – Lutz Goehring
3-3:20 p.m.	BREAK	
	Emerging Diseases and Epidemiology	Gastrointestinal Disease
3:20-4:10 p.m.	"Lower respiratory tract bacterial diseases of the adult horse" – Nicola Pusterla	"Managing infectious equine neurologic disease" – Maureen Long  "Review of histopathology of various neurologic disease" – Fabio del Piero
4:20-5:30 p.m.	Group Discussion: "What new diseases/syndromes should equine practitioners be aware of and new diagnostics"	
6 p.m.	Practitioners' Day attendees are invited to the Welcome Reception at the Hilton Lexington/Downtown for the International Conference on Equine Infectious Diseases (EID IX).	

## UPCOMING EVENTS

### Sept. 12-15

College of Agriculture Roundup

### Sept. 15

Draft Horse Field Day, Asbury College

### Sept. 20, 6 p.m.

Kentucky Equine Networking Association (KENA) Meeting, Networking 6 p.m., dinner 6:30 p.m., Equine Acupuncture, Clarion Hotel, Lexington, Ky.

### Sept. 22

Quicksand Field Day, Eastern Kentucky

### Sept. 23, 6:30 p.m.

UK Equine Research Hall of Fame, Cocktails 6:30 p.m., Dinner and Induction Ceremony 7:15 p.m., Keeneland Clubhouse, Lexington, Ky.

### Sept. 24, 9-11 a.m.

Mary Passenger Lecture presented by Hall of Fame Inductees, Gluck Center auditorium, Lexington, Ky.

### Sept. 25, 11:45 a.m.

UK Gluck Equine Research Center 25th anniversary celebration luncheon, tent outside Gluck Equine Research Center, Lexington, Ky.

### Sept. 27, 4 p.m.

Department of Veterinary Science Equine Diagnostic Research Seminar Series, Robert Mealey, DVM, PhD, Dipl. ACVIM, of Washington State University, Veterinary Diagnostic Laboratory, Lexington, Ky.

### Oct. 21, 8:30 a.m.-5:30 p.m.

Practitioners' Day in conjunction with the International Conference on Equine Infectious Diseases IX, Hilton Lexington/Downtown Hotel, Lexington, Ky. <http://eidc2012.eventbrite.com>

### Oct. 21-26

International Conference on Equine Infectious Diseases IX, Hilton Lexington/Downtown Hotel, Lexington, Ky. <http://eidc2012.eventbrite.com>