

BROUGHT TO YOU BY THE UK EQUINE INITIATIVE AND GLUCK EQUINE RESEARCH CENTER

UK and UofL Equine Programs Collaborate

Equine industry and equine higher education programs have much in common: Just as the industry is at its best when different disciplines and niches work together, higher education is also strongest when complementary programs unite. The University of Louisville's (UofL) Equine Industry program and the University of Kentucky's (UK) Equine Science and Management undergraduate degree program have collaborated this year through teaching, industry activities, and undergraduate research to enhance students' educational opportunities. This partnership has benefited students, challenged and enhanced faculty, and opened doors for future joint efforts.

At the heart of both programs is education, but each has different strengths. UofL focuses on the business side of the industry while UK emphasizes the science behind equine management. Offering core classes to equine program students at each institution provides access to the best of both worlds.

For instance, over the last two semesters Bob

Coleman, PhD, PAS, UK's associate director for undergraduate education in equine science and management and extension horse specialist, has taught an introduction to equine science class at UofL. And UofL's Tim Capps, PhD, participated as a mock interviewer in UK's equine career prep class and offered his business background and insight into career opportunities. Plans for him to teach an equine business class at UK next year are under way.

While this is a great start, more is possible as the programs move forward, including an increase in joint classes. Ideally, faculty will guest lecture with each other more in module-type settings, and students could be invited to visit both schools at times throughout the year.

But the classroom is not the only place that collaboration occurs. Because UK and UofL are located only about 75 miles apart, there are also many opportunities for shared activities outside the classroom. Both programs send students to intern at the same sites, and graduate job placements often overlap. Both schools

organized and supported the Kentucky International Equine Summit in 2008 and again in 2010. Furthermore, students and faculty from

ARTICLES OF INTEREST

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(UK, UoFL EQUINE PROGRAMS ...)

both programs traveled abroad together in 2009 when they toured England's equine industry.

In the future, the schools could enhance shared industry activities by offering opportunities for their students to socialize and build personal relationships. The ultimate goal of the UK/UoFL collaboration is for students to learn together and from each other as well as establish relationships that will help unite the next generation of horse professionals.

Working together to solve industry issues is another avenue of collaboration between the two schools. For example, UoFL students can participate in undergraduate research studying optimal broodmare band sizes, evaluating macroeconomic influences on the equine breeding industry, and comparing the positive and negative aspects of artificial insemination. Students at UK, on the other hand, have opportunities to work on genetics and disease diagnostics in Gluck Equine Research Center laboratories or help care for horses and collect data for research projects related to equine nutrition, pasture management, reproduction, and parasitology at Maine Chance Farm.

Both programs' current undergraduate research opportunities are strong, and collaboration in this area would only strengthen them. In the future, students from both programs could work together in partnerships or teams to investigate the business and science sides of important industry issues such as the unwanted horse or race track surface comparisons. Students would get to learn about the different sides of these is-

ues. They would also learn the benefits of an integrated approach to solving industry problems, and most importantly, they would learn the value of collaboration early in their careers.

Building the bridge between UK and UoFL has only just begun, and many opportunities to improve both programs lie ahead. While cooperation between two schools that are rivals on various fields of play can sometimes seem daunting, the efforts to accomplish this have led to more faculty interaction. This increased interaction has helped ease the administrative barriers that often exist between universities, and it is also facilitat-

ing more student interaction, which furthers the schools' respective goals to help students gain a broader knowledge and more sophisticated understanding of the horse industry worldwide. As the faculties become better acquainted and work together in the classroom and on research projects, students will follow. **UK**

Elizabeth LaBonty, MS, is a lecturer and internship coordinator at the University of Kentucky. Tim Capps, PhD, is an executive-in-residence at the University of Louisville.

UKVDL Investigating Reports of Oral Lesions

Since early February the University of Kentucky Veterinary Diagnostic Laboratory (UKVDL) has been receiving reports from veterinarians who have seen large numbers of horses (mostly Saddlebreds) with oral lesions. The lesions have sometimes been described as nodules, vesicles, ulcers, and erosions on lips, gingival tongue, and buccal mucosa (the inner lining of the cheeks and lips). In some barns all animals are reportedly affected.

In one case the veterinarian stated that within 36 hours, the condition had spread to 18 horses in one barn. Another case report stated that none of the horses had lesions on the tongue, but all had gingival mucosa and gum-line lesions. Veterinarians have reported no fever or lethargy in affected horses. All animals apparently fully recover within a week or so.

On March 18 UKVDL received a similar report by a veterinarian who stated he saw these lesions (including lesions on the tongue) in horses on about four farms. He also said he had heard reports of similar cases this year across the United States.

Diagnostic Testing to Date

To date, testing for vesicular stomatitis (a sporadically occurring virus that causes blisterlike lesions in the mouth and on the dental pad, tongue, lips, nostrils, hooves, prepuce, and teats of livestock) has been conducted on some animals, all with negative results. One biopsy of an oral lesion was submitted to

(UKVDL ...)

UKVDL but was too small for researchers to perform a meaningful histopathological exam. They attempted virus isolation more than once with no viruses isolated. Unfortunately, the lesions sampled were chronic in nature, which minimizes researchers' ability to pull out viruses. Samples of hay being fed also was examined for grass types; researchers identified dallisgrass, crabgrass, purpletop, Johnsongrass, and yellow foxtail.

Differential Diagnoses

1. Unknown infectious agent
2. Trauma by plant awns/foreign bodies in hay
3. Chemicals or other irritants in feed/hay/tack/buckets/water/other fluids in the environment
4. Vesicular stomatitis

Request from UKVDL

If you see any cases similar to what is described here in any species (regardless of whether you will be sending specimens to the lab), please report them to Deb Williams, Section Chief, Diagnostic Services, UKVDL, at 859/257-7112 or dwillia@uky.edu, or Jackie Smith, Section Chief, Epidemiology, Jacqueline.Smith2@uky.edu.

The UKVDL recommends veterinarians working up an equine oral lesion case for a client follow this procedure to help the lab do its job:

- Take digital pictures of the lesions and send them to dwillia@uky.edu.
- If there are intact vesicles, aspirate fluid from at least three and place in a Red Top tube.

WEED OF THE MONTH

Common name: Chicory

Scientific name: *Cichorium intybus L.*

Life Cycle: Perennial

Origin: Mediterranean region

Poisonous: No toxicity reported



Chicory

Chicory is a commonly occurring plant in all types of pastures and rough turfs across North America. This erect, branched simple perennial weed grows two to four feet in height at maturity and has milky sap. Chicory flowers a distinctive bright blue petal from mid-June through October. It develops from a basal rosette (a circular arrangement of leaves arising from the base of a stem, similar to dandelion), has a deep, fleshy taproot, and reproduces from buds on the root. Chicory is spread primarily by seeds. This plant is not as common as many weeds in horse pastures but occurs in more abundance in pastures that are not mowed.

Chicory is relatively easy to control with several herbicides. Mowing in pastures might reduce flower formation but is generally ineffective in killing the plant. Hoeing or digging the tap root is successful and should be done before the seed heads form. Many people consider chicory to be less “weedy” and want it to grow in pastures, while others desire it to be removed. Consult your local Cooperative Extension Service personnel (www.csrees.usda.gov/Extension) for herbicidal control 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.

- Take at least three punch biopsies 4-6 mm in diameter (about ¼ inch) of the most acute-looking oral lesions. If a biopsy is not possible, swab the lesions and place the swab in viral transport media or use a swab that has a breakable fluid contained receptacle or break the tip of the swab off into a Red Top tube with 1-2 mL normal saline to keep the swab moist.
- Draw blood and place 5 mL in an EDTA tube and 5 mL in a Red Top tube.
- Send batches of hay being fed (minimum 2 lb per sample) and samples of supplemental feed (1 lb each) in plastic garbage bags or other suitable containers.
The more acute the lesions/fluids, the better the lab's chances of generating useful information. **UK**

GRADUATE SPOTLIGHT

To highlight equine research projects by graduate and doctorate students in the University of Kentucky College of Agriculture, the *Bluegrass Equine Digest* newsletter features a different student's work in each issue.

Rebekah Cosden



From: Westminster, Md.

Degrees: BS – Animal Science: Equine Studies, University of Maryland

MS – Animal Science, Virginia Tech

PhD – Veterinary Science, University of Kentucky

Rebekah Cosden successfully completed her PhD defense examination in the Department of Veterinary Science at the University of Kentucky on April 7 and is anticipated to graduate in May.

A Maryland native and lifelong horse enthusiast, Cosden's research focus at the Gluck Equine Research Center has been on equine musculoskeletal science. She completed her research in the laboratory of James MacLeod, VMD, PhD, John S. and Elizabeth A. Knight chair and professor of veterinary science at the Gluck Center. Cosden said she met MacLeod when she was seeking help while working with equine cartilage samples collected at Virginia Tech.

"I visited the Gluck Center several times in 2006 and 2007 to learn some research techniques, and I was very impressed with Dr. MacLeod's laboratory," Cosden said. "Fortunately, I was able to begin a PhD program in the lab after completion of my MS degree at Virginia Tech."

Joint diseases such as osteoarthritis and osteochondrosis are major problems in the horse. Cosden's dissertation research focused on a different approach to investigate articular cartilage, which has a limited natural repair capacity.

"Despite clinical advances that have occurred over the past few decades, we still don't really have a way to completely repair articular cartilage," she said. "With this in mind, we took a bit of a unique approach and searched for other vertebrates that are able to intrinsically repair articular cartilage."

She investigated articular cartilage repair in the axolotl salamander, a well-established model for limb regeneration. Studying the salamander led Cosden to investigate similarities between developing mammalian and mature axolotl diarthrodial joints (freely moveable joints held together by a joint capsule, such as the knee and shoulder).

"This work has established the axolotl as a new model for articular cartilage development and repair and hopefully will eventually lead us to a better understanding of how nature prefers to heal articular cartilage in all animals," Cosden said.

Cosden plans to continue studying joint development through a postdoctoral fellowship at the University of Pennsylvania in the Children's Hospital of Philadelphia starting this summer.

"Although I'll be switching to a different model system, I am very excited about being able to continue working on understanding mechanisms of synovial joint development," she said. "I am confident that the knowledge gained will eventually contribute to improved therapeutic options for articular cartilage injuries and developmental cartilage defects in all mammals, including horses and humans." [UK](#)

Jenny Blandford is the Gluck Equine Research Foundation assistant at the Gluck Center.

Time to Assess Eastern Tent Caterpillar Populations

This is an update to a March 21 University of Kentucky College of Agriculture news release on Eastern tent caterpillars, available at www.ca.uky.edu/news/?c=n&d=813.

Eastern tent caterpillars (ETC) were identified as the cause of foal loss during the mare reproductive loss syndrome (MRLS) outbreak in 1999-2001. Over the last three years, ETC populations in Central Kentucky have been increasing gradually, but there are still wide differences in numbers from one area to another. This is normal for the caterpillar's dynamics.

ETC larvae should be approximately 0.5 to 0.75 inches in size in Central Kentucky. This time of year the caterpillars are beginning to move from 2- to 3-inch-long tents near their egg mass to larger masses at major branch forks.

Most tents should be baseball- to softball-size, making them easy to see in trees, particularly on sunny days. If pregnant mares are present in pastures, now is the time to check for tents along pasture and paddock tree lines that contain wild cherry trees. Any management of the caterpillars should be done while they are together in tents. It is difficult to provide effective control once the ETCs are fully grown and have dispersed from host trees.

One management option is to move pregnant mares away from identifiable ETC concentrations. If this is not practical, then physical removal of tents or spot treatment with insecticides is an alternative approach. **UK**

Lee Townsend, PhD, a University of Kentucky College of Agriculture entomologist, provided this information.



ETC tent with massed caterpillars

GLUCK EQUINE RESEARCH FOUNDATION RELEASES SECOND RESEARCH REPORT

The University of Kentucky Gluck Equine Research Foundation published its Research Report 2010 in late March of this year.

The Research Report 2010 focuses on the University of Kentucky Maxwell H. Gluck Equine Research Center faculty's research accomplishments and scientific publications during the 2010 calendar year.

The Research Report is divided into six sections (genetics and genomics, infectious diseases and immunology, musculoskeletal science, parasitology, pharmacology/toxicology, and reproductive health) and includes faculty members' educational backgrounds, interests, projects, and graduate students. It also lists research technicians/assistants and visiting scientists in 2010.

The Research Report covers information such as Gluck Equine Research Center grants, faculty awards, and scientific publications including books/book chapters, refereed journal articles, non-refereed journal articles, seminars, and papers presented. The report also recognizes



(GLUCK RESEARCH REPORT ...)

individuals and organizations that donated to the Gluck Foundation in 2010.

The Research Report is available online at www.ca.uky.edu/gluck or www.ca.uky.edu/equine. For more information contact Jenny Blandford at jenny.blandford@uky.edu or 859/218-1089.

Jenny Blandford is the Gluck Equine Research Foundation assistant at the Gluck Center. UK

KENTUCKY LAW JOURNAL RANKED IN TOP 100

The University of Kentucky College of Law journal *Kentucky Journal of Equine, Agricultural, and Natural Resources Law (KJEANRL)* was recently ranked one of the top 100 law journals of 2010 by the Washington and Lee University School of Law. This is a prestigious accomplishment, considering the list consists of 1,665 law journals. The journal ranked 94th on the list, as well as 34th on the list of specialized journals.

“This is the second consecutive year the journal has been listed, and we are only three years old, so it’s a pretty good start,” said Kyle Hermanson, third-year law student and journal editor. “It is important for us to get some national recognition and help us become the premier journal for natural resources law and agricultural law in the nation.”

The *KJEANRL* is a multidisciplinary journal of law, science, and policy that is published twice annually by the UK College of Law. The journal includes articles by practitioners, academicians,

policy-makers, and other professionals throughout the United States and abroad. It also includes original manuscripts focusing on legal, policy, and ethical issues related to the environment, natural resources, land use, and energy. College of Law students are responsible for editing the entire journal, as well as adding notes and case comments to each issue.

“We would like to cast a wider net as we

attempt to solicit articles from professionals nationwide,” Hermanson said about his hopes for the journal’s future. “We want to get a few more people outside of our region, and hopefully that will continue to increase the quality of the pieces we receive.” UK

KJEANRL subscriptions are available for \$20 per year. For more information, go to the journal’s website at www.kjeanrl.com.

Spring Poison Hemlock Control

Controlling poison hemlock growth in early spring could help keep pastures and livestock healthy, according to J.D. Green, PhD, extension weeds specialist with the University of Kentucky College of Agriculture.

“Poison hemlock is potentially poisonous to livestock, particularly when animals graze poison hemlock plants when other forages are limited, or if large quantities of hay containing poison hemlock are consumed by animals,” Green says. “In addition, poison hemlock can crowd out desirable plants in areas where it becomes established.”

Introduced into the United States as an ornamental in the 1800s, poison hemlock is widespread throughout much of North America. In the past it was typically found along roadways, abandoned lots, fencerows, and other noncropland sites. But in recent years its population has exploded across Kentucky, and it now grows in many pastures and hayfields.

Poison hemlock can be toxic if ingested by livestock or humans. Cattle, goats, and horses are considered to be the most susceptible animals but others can also be affected. If ingested, clinical signs of poisoning appear within 30 minutes to two hours, depending on factors such as animal species and quantity consumed. These signs include nervousness, trembling, muscle weakness, loss of coordination, pupil dilation, coma, and eventually death from respiratory failure. If ingested by a pregnant animal it can cause fetal deformities.



Mature poison hemlock and its distinctive spotted stem (inset)

(POISON HEMLOCK ...)

The best time of the year to effectively control poison hemlock using herbicides is in early spring when plants are smaller and in the rosette growth stage. However, poison hemlock can be more difficult to locate while in its rosette growth stage, since it grows close to the ground during this period. It can be recognized in fields due to its parsleylike leaves, which are shiny, green, and triangular. When trying to locate poison hemlock, search field areas where the plant was present the previous year; larger plants might be 12-18 inches tall at this point. When full grown, this invasive, noxious weed can reach six to eight feet tall. video.ca.uky.edu/videos/video/136/

Poison hemlock is often confused with the non-toxic weed Queen Anne's lace (also called wild carrot). Both plants produce similar leaves and clusters of small white flowers. However, poison hemlock has smooth stems with purple spots throughout while Queen Anne's lace has hair along its stem and leaf bases. During poison hemlock's peak bloom period in late May and early June, Queen Anne's lace is just beginning active growth for the season.

If farm managers find poison hemlock growing later in the season, they should mow before the plant flowers to prevent further seed production. If it is discovered while making hay, Green recommends mowing around the plant to keep it out of the animals' food supply.

For additional information, see March's "Weed of the Month" feature on poison hemlock at www.TheHorse.com/14522. [UK](#)

Katie Pratt is an agriculture communications specialist.



DISTINGUISHED INDUSTRY LECTURE SERIES

Keeneland's Ted Bassett spoke at the University of Kentucky Equine Initiative Distinguished Industry Lecture Series March 31. More than 140 people attended the lecture sponsored by Hagyard Equine Medical Institute at the Maxwell H. Gluck Equine Research Center.

Dan Liebman, former *The Blood-Horse* magazine editor, interviewed Bassett, who spoke about the history of Keeneland, his life experiences, and what he believes is the future of Thoroughbred racing.

The Distinguished Industry Lecture Series is designed to showcase distinguished industry practitioners from the broad equine industry and is targeted toward students and a variety of UK stakeholders. The inaugural lecture was held in November 2009.

For more information about the event, visit www.ca.uky.edu/equine, and to view the video, see <http://video.ca.uky.edu/videos/video/136>.

UK RESEARCHERS TO SPEAK AT ALLTECH SYMPOSIUM IN MAY

Two University of Kentucky College of Agriculture equine researchers and an adjunct professor will be speaking at the upcoming 2011 Alltech International Animal Health and Nutrition Symposium, to be held May 22-25 at the Lexington Convention Center.

Amanda Adams, PhD, a postdoctoral scholar at the Gluck Equine Research Center, and Kristine Urshel, PhD, an assistant professor in Animal and Food Sciences for the UK College of Agriculture, will speak during the symposium's equine session.

Adams' presentation on Monday, May 23, is entitled "Getting the right start—the overlooked art of nutritional influences on weaning stress." Urshel will present Tuesday, May 24, about "Lessons from human nutrition: how the isotope method is helping to define protein requirements."

Additionally, Matthew Binns, PhD, of The Genetic Edge in Midway, Ky., and an adjunct professor in the UK Department of Veterinary Science, will present "The genetic edge—new DNA analysis tools for Thoroughbred selection and breeding" on Tuesday, May 24.

For more information about the symposium, visit www.alltech.com/symposium. UK

Jenny Blandford is the Gluck Equine Research Foundation assistant at the Gluck Center.

When In France ... A Perspective From Abroad

Bob Coleman, PhD, PAS, associate director for undergraduate education in equine science and management and extension horse specialist, gives his perspective on a recent trip to France.

It goes without saying that the horse industry is very diverse. When looking at the scope of the industry in Kentucky with all its different breeds, you might think you have seen it all. Can you imagine what you might see if you stepped outside Kentucky or even outside the United States?

Recently, I had the opportunity to travel to France. My primary reason for the trip was to teach in the Master's of Equine Science and Business at AgroSup in Dijon. The time spent with students was great, and despite language challenges (I do not speak French), the language of the horse provided comfort and commonality.

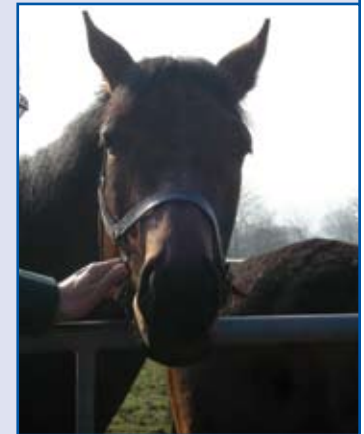
Fortunately, my time was not spent only in the classroom. I also had the opportunity to visit horse operations across the country.

In Burgundy I visited a Selle Francais breeding farm for show jumpers. In Normandy I visited the Deauville racecourse and had an interesting discussion on the use of an all-weather surface to allow for extended race dates. We continued our tour to both Thoroughbred and Warmblood operations, which included a number of the state studs where a number of stallions of different breeds stand. At the State Riding School I had an opportunity to meet with one of the Cadre Noir. This school focuses on teaching future riding instructors for all of France. The discussion focused on good horsemanship and the doctrine of the French riding school.

The highlight of my tour was seeing European Horse of the Year and Eclipse Award-winning champion turf female Goldikova. Yes, like any race fan, I had to get a picture of this outstanding horse.

When I told someone of my trip and seeing Goldikova, they commented on how exciting it must have been and, yes, it was. But seeing all segments of the horse industry was what was great. I had the opportunity to meet great horsemen and see wonderful horses of many breeds.

The take-home message when I looked closely—there are some differences between our industries, yes, but oh so many similarities because it is about the horse. UK



European Horse of the Year, Goldikova

Ky Nonprofit Network Holds Town Hall Meetings

The Kentucky Nonprofit Network will hold a series of town hall meetings to gain feedback on its new program, “Principles and Practices for Nonprofit Excellence in Kentucky.” At the meetings, nonprofit leaders—such as those associated with equine organizations—can learn more about the program including how to use its tools to keep an organization healthy and stable, improve effectiveness, and provide transparency and accountability to donors.

The program is designed to strengthen the capacity of nonprofit organizations by promoting best practices for transparent and effective management.

“These town hall meetings will provide a forum for nonprofits in different regions of Kentucky to learn more about how the ‘Principles and Practices’ program can be used to strengthen their organizations,” said Danielle Clore, director of the Kentucky Nonprofit Network, also known as the University of Kentucky Nonprofit Leadership Initiative. “We look forward to hearing from these community partners about how they plan to use the program and providing them with a valuable networking opportunity.”

Nonprofit leaders are encouraged to attend the town hall meetings and can visit www.kynonprofits.org for times and registration



Remaining Meetings are as Follows:

May 11, London, Ky.

May 18, Hazard, Ky. (hosted in partnership with the Community Foundation of Hazard & Perry County)

May 19, Lexington, Ky.

May 19, Louisville, Ky. (hosted in partnership with the Center for Nonprofit Excellence)

information. Participation is free, but advance registration is required.

In 2010 the U.S. Department of Health and Human Services awarded \$46 million to grantees through the

Strengthening Communities Fund, which was created by the American Recovery and Reinvestment Act. The Kentucky Nonprofit Network, one of the 84 grantees, uses these funds to support nonprofit organizations in addressing broad economic recovery issues present in their communities. “Principles and Practices for Nonprofit Excellence in Kentucky” is one of the programs developed with these grant funds.

The Kentucky Nonprofit Network is the statewide association of nonprofits and is housed at the University of Kentucky College of Agriculture, Department of Community and Leadership Development. [UK](http://www.uk.edu)

Karin Pekarchik is an editorial officer in Agricultural Communications Services.

EVALUATING YOUR HORSE’S BODY CONDITION

Body condition scoring (BCS), an impartial way to evaluate a horse’s weight and welfare, is a valuable tool that helps horse owners understand their horses’ well-being. It is an important aid that can be used to make sound decisions regarding general management, including feed and exercise levels.

Horses normally lose weight in the winter and gain in spring, summer, and fall. “We manipulate their weight with feed, blanketing, exercise, and management,” Fernanda Camargo, DVM, PhD, assistant professor and equine extension specialist at the University of Kentucky, reminded her audience at a recent seminar held by UK. “That is



Dr. Carmargo leads a workshop about evaluating a horse’s BCS.

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why fat horses don't lose weight in the winter."

The Henneke body condition scoring system widely used today was developed about 30 years ago by Don Henneke, PhD, while he was a graduate student at Texas A&M University.

"It is an impartial numerical system that evaluates a horse's condition. The size of the belly is not important," Camargo said. "As you evaluate the BCS of a horse, develop a system and follow it each time."

A horse receiving a score of 1 is emaciated. A horse that scores a 9 is grossly overweight. A horse in optimal condition should receive a 5 or 6. In certain disciplines, such as racing or endurance, horses are kept leaner, closer to a 4, like marathon runners. A 50-pound weight gain or loss is roughly the change from one number on the chart to the next.

All horses can be body scored, even late-pregnancy mares, and it is a myth that broodmares need to be fattened up. Camargo drew a laugh from the crowd as she compared mares to women, pointing out similar pregnancy issues: joint pain and pressure and fluid retention.

"Pregnant mares should gain weight but should be kept at an optimum BCS of 5 or 6," she said.

Adjusting Feed Levels for Overweight Horses

For overweight horses scoring 7, 8, or 9, Camargo recommended feeding changes, but cautioned owners not to eliminate all food. Horses still need to eat to lose weight—they need feed

Procedure for Body Condition Scoring

- 1) Ribs.** Visually assess the rib area, then touch it with your hands. You want to be able to feel individual ribs. Make allowances for long winter hair, which can obscure the ribs.
- 2) Shoulder.** The area behind the shoulder should be flush, flat, and even. A bumpy fat pad equals a fat horse; a hollow indicates a skinny one.
- 3) Withers.** Consider the breed of horse. Thoroughbreds, for example, have prominent withers. Feel for fat deposits along the withers, which indicate obesity.
- 4) Loin.** Examine the area between the thoracic vertebrae and the croup (where your saddle pad would end). Fat horses have a positive crease (which looks like a valley: two bulges of fat with the spine running between them). A negative crease, or ridge, is indicative of a horse with a low score of 2, 3, or 4. A level loin would receive a 5 or 6. Check to see if you can feel vertebrae at the top of the back/hip area.
- 5) Tailhead.** This is where the tail inserts into the buttocks. A fat horse will have fat deposits around its tailhead. A skinny horse will have a bony, prominent tailhead.
- 6) Neck.** The fat on the neck is a harder fat than fat on the rest of the body. A fat or very fat horse will have a cresty neck, whereas a very skinny horse might appear to have a disproportionately large head and body compared to his neck.

intake for their metabolism to work properly. A horse in this category does not need grain but, rather, a forage diet.

She asked if anyone in the audience had a fat horse, and then, as several hands went up, she asked if any fed grain. The hands stayed up.

"Grain is a human need, not an equine need," she explained.

Horses need to be fed approximately 2% of their body weight per day. For example, feed 20 pounds of feed (hay and grain combined) if a horse weighs approximately 1,000 pounds. However, a fat horse most likely will not need

grain. Therefore, feed about 20 lbs of hay only, and provide a vitamin and mineral supplement.

Other equine weight loss steps Carmargo recommended include:

- Change to a lesser-quality (but not moldy or dusty) hay. Lesser-quality hay has been harvested at a later stage than shorter, high-nutrient hay but it will still be sufficient to keep your horse's digestive tract working.
- Limit access to pasture, which has a lot of sugar and calories. Use a grazing muzzle if your horse will accept one. Keep in mind that horses need to be muzzled most of the day, not just a few

(BODY CONDITION ...)

hours, for this practice to be effective.

- Turn out in a drylot and feed only hay.
- Exercise. If your horse is being ridden he will burn calories. Start with incremental exercise to build muscle and reduce the possibility of soft tissue injury. For example, you might longe at a trot for 20 minutes for one week. In week two longe for 20 minutes at both a trot and canter. Continue to build upon this schedule until you can start riding your horse. Remember to increase the time or the level of exercise, but not both at the same time.

Increasing Feed Levels for Underweight Horses (Below 4)

- Change to a good-quality hay. Good-quality hay has been harvested at a young stage and will appear leafy and green. Clover hay is the exception; it is brown but still high quality. Alfalfa is a good choice because of its high protein and calorie content. A legume hay (for example, clover or alfalfa) has more calories than a grass hay.
- Increase the amount of hay. At least 1% of a horse's intake needs to come from forage.
- Increase water. Horses need access to water at all times, but they will need even more if fed a high-protein diet.
- Feed grain. Buy good-quality grain from a reputable source. (Caution: If you buy from a small feed mill, ensure they are not milling cow supplements concurrently, because small amounts that end up in horse feed could be fatal.)
- Decrease exercise. A thin horse needs to expend

less energy/calories than he brings in via feed.

- Add oil (vegetable, canola, soy, rice, bran, corn), which is high in calories and can easily be added to grain.
- Check your horse's teeth to ensure they are in good condition, and have them floated if necessary.

Feeding Severely Underweight or Starved Horses

- Introduce feed slowly. The digestive tract needs time to acclimate and start working again.
- Feed small amounts often. Start with one flake of a grass-hay mix five to six times a day.
- Check manure for telling signs of problems. Of concern is manure that is hard and dry or manure that is loose like a cow pie.
- Have patience. Saving a starved horse can take months, during which it may only slowly regain condition. **UK**

Karin Pekarchik is an editorial officer in Agricultural Communications Services.

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theHORSE.com
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UPCOMING EVENTS

April 25, 6 p.m.

Horse Racing Club's Trainers Panel, "The Derby Experience," Student Center Grand Ballroom

April 28, 4 p.m.

Department of Veterinary Science Equine Diagnostic Research Seminar Series, Gluck Equine Research Center auditorium. Hilary Clayton, PhD, BVMS, from Michigan State University, will speak on biomechanics.

April 28-May 1

Rolex Three-Day Event, Kentucky Horse Park

May 4-5

26th Annual National Conference on Equine Law, Embassy Suites, Lexington

May 5-8

Intercollegiate Horse Show Association National Championships, Kentucky Horse Park

May 19, 6 p.m.

Kentucky Equine Networking Association (KENA) Meeting. Clarion Lexington-North, Lexington

May 22

High Hope Steeplechase, Kentucky Horse Park

June 7, 3:30-8 p.m.

UK Equine Farm & Facilities Expo, Shawhan Place, Paris, Ky.

University of Kentucky Equine Initiative presents:



Equine Farm & Facilities Expo

Selecting the right equipment for the job

Tuesday, **June 7, 2011**

3:30 to 8 p.m. MEAL PROVIDED

Highlighting a display of equine equipment and supplies from Central Bluegrass companies,
4 - 8 p.m.

Featuring— demonstrations on the practical use of equipment suited for farms of all sizes, **6 - 8 p.m.**

- Facility design, Dr. Bob Coleman, equine extension specialist joined by guest speaker Gus Koch, Shawhan Place
- How to successfully establish and oversee horse pastures, Dr. Ray Smith, forage extension specialist
- Weed control basics: what weeds need to be controlled, Dr. Bill Witt, weed scientist
- Rethinking parasite control: strategic deworming, Dr. Mary Rossano, equine parasitologist



Location—



205 Larue Road, Paris, Kentucky

Shawhan Place is a premier Thoroughbred farm offering foaling, breeding, sales prep and consignment, breaking, lay-ups, and pre-training services. Owned and operated by Theodore Kuster, Charles Koch, and Matthew Koch.

DIRECTIONS from Paris/Bourbon Co. High School:

- Take U.S. 27 North/U.S. 68 East
- Go 2 miles and turn left onto U.S. 27 North
- Go 3.8 miles, turn right onto Peacock Rd.
- Go 1 mile and turn left onto Larue Rd.
- Go 0.3 miles to Shawhan Place on the left
- Follow the field day signs

Contact Your county Extension agent or
UK Equine Initiative, (859) 257-2226 or
equineinitiative@uky.edu
More information at www.ca.uky.edu/equine

RSVP appreciated
to UK Equine Initiative
(859) 257-2226 or
equineinitiative@uky.edu

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DISCOVER YOUR HORSE'S TRUE ID.

There are many things that make up your horse's identity. Parasites shouldn't be one of them. With the help of your veterinarian, you can analyze your horse's unique parasite risk profile to create an individualized deworming (ID) plan that fits their life. The Pfizer Animal Health complete portfolio of dewormers provides every tool you need to maximize your horse's potential and discover its true ID.

VISIT IDMYHORSE.COM OR TALK TO YOUR VETERINARIAN TO LEARN MORE ABOUT FINDING YOUR HORSE'S ID.



Do not use QUEST GEL or QUEST PLUS in foals <6 months of age or in sick, debilitated and underweight horses. These products should not be used in other animal species, as severe adverse reactions, including fatalities in dogs, may result.