NEWS UPDATE

EQUINE SCIENCE CENTER

"Better Horse Care Through Research and Education"

SPRING 2007

New Jersey Horse Industry Makes Substantial Impact On Economy And Open Space

142,000 Acres Directly Devoted to Horses Help Keep the 'Garden' in the Garden State

"The outside of a horse is good for the inside of a man." That's what Winston Churchill told us. But a new study led by the Equine Science Center tells us that the outside of a horse is pretty darned good for the economy, too.

The New Jersey equine industry – valued at nearly $4 billion – generates $1.1 billion annually in positive impact on the New Jersey economy, according to the study: "New Jersey Equine Industry, 2007."

Overall, the study presents a clear picture of the size and importance of the horse industry on the New Jersey economy, on traditional agriculture and on the preservation and maintenance of valuable working open space. Says Dr. Karyn Malinowski, director of the Equine Science Center, "The horse industry contributes positively and powerfully to the quality of life New Jersey residents have come to expect. It puts the eNJoy in NJ."

Of the total impact, $647 million is generated by horse and horse farm owners, including almost $477 million of direct expenditures on such items as feed, forage, services, supplies, fees, trucks, trailers, other equipment, maintenance and taxes, and an additional $170 million "ripple effect" that is produced by those expenditures. The $4 billion worth of the industry includes the value of the horses and the land and buildings on and in which they are housed, as well as the land and building assets of New Jersey's racetracks.

The economic impact of New Jersey's racing venues (The Meadowlands, Freehold Raceway, Monmouth Park Racetrack and Atlantic City Race Course), which were surveyed separately, is pegged at an additional $502 million annually. The value of racetrack land and buildings is estimated at $476 million.

There are 176,000 acres of agricultural land occupied by 7,200 equine operations in the state, of which 96,000 acres accomodate horses and equine activities. In comparison, estimates put the total "agricultural working landscape" (actively productive farms) in New Jersey at 790,000 acres, meaning that horses and other equine animals are housed on more than one-fifth of the farmland in the state. In addition, an estimated 46,000 acres are devoted to producing forage, straw and grain for horses.

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HORSES 2007 PHOTOS INSIDE! (Pages 2, 4 and 5)

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RUTGERS
New Jersey Agricultural Experiment Station

From the Clubhouse

Dr. Karyn Malinowski, Director

Photo by Nick Romanenko

The Equine Science Center recently enjoyed a number of winner's circle moments. At the end of March, we hosted the highly successful "Horses 2007," a weekend of intense educational opportunities for new and seasoned horse owners and professionals alike. This fabulous symposium helped accomplish our ongoing mission of "Better Horse Care through Research and Education." Top experts in their respective fields, along with our myriad partners and commercial sponsors, shared their wisdom on keeping horses happy and healthy.

On the same weekend, Rutgers Cooperative Extension Equine Specialist Carey Williams hosted a concurrent Farm and Land Management Short Course at the Ryders Lane Environmental Best Management Practices farm. Attendees had hands-on opportunities to witness the progress we have made in the areas of stormwater runoff, manure management, and pasture and forage for horses.

We also took the opportunity to honor one of the "first ladies" of New Jersey's horse industry by recognizing Lynn Mathews of the New Jersey Department of Agriculture for her outstanding service to the industry. Dean Robert Goodman and Secretary of Agriculture Charles Kuperus were both on hand to make the presentation.

My thanks go out to the Center's faculty and staff who worked tirelessly to produce the event; to the many invaluable, reliable student volunteers who took their jobs very seriously; to our partners Merial, Rick's Saddle Shop, Fort Dodge Animal Health, Kistler Buildings and Nutrena; the New Jersey Farm Bureau; and sponsors who made the event possible.

At "Horses 2007" we presented the top line findings of the Equine Economic Impact Study led by the Equine Science Center over the past year. This study is the first of its kind for New Jersey in that it takes into account the indirect as well as the direct impact of the industry on the state's economy. Equally important for this densely-populated state, it demonstrates horse farms as viable guardians of New Jersey's agricultural working landscape and the industry's impact on traditional agriculture and quality of life for every New Jersey resident.

The study shows that the equine industry is very much alive and well; however, it also suggests two very important points: the racing subset is an economic driver for the equine industry and – since it is no secret racing is facing tough competition from neighboring states that have added gaming operations to their racing venues – any further erosion of racing in New Jersey could have disastrous consequences for the state's economy and the rest of the equine industry.

On April 28 I had the pleasurable experience of visiting with former classmates and students at my thirty-sixth Ag Field Day. Under glorious weather conditions, thousands of visitors had the opportunity to visit Sarah Ralston's Young Horse Teaching and Research Program yearlings and the Equine Exercise Physiology Lab where Ken McKeever and our undergraduate and graduate students put Faxme, one of our research mares, through her paces on the high speed treadmill. If you missed these events, be sure to enjoy the photos below.

The following day's 8th Annual Young Horse Teaching and Research Program yearling auction was equally enjoyable. Congratulations to Dr. Ralston and her students on another successful event. The "babies," as they are affectionately known, were groomed to perfection, and all are going to excellent homes.

Lastly, I would like to applaud our newest member of the "Community of 50 for Equine Excellence," the New Jersey Farm Bureau, for their vision in recognizing that horses and horse owners are a crucial component of New Jersey's agricultural community.

Demonstrations of the Equine Science Center's high-speed treadmill are always crowd-pleasers.

Photos by Katherine Marks

Young Horse Teaching and Research student Jennifer Rienzo puts RU Fiona through her paces under Sarah Ralston's watchful eye.

Economic Impact (continued)

Looking at the 42,500 equine animals reported in the study, 30,000 (70 percent) are engaged in a variety of uses, including competitive showing, youth activities, driving, lessons and training, trail-riding and pleasure-riding, and other activities. Some 12,500 (30 percent) are in racing-related activities, including 8,200 Standardbreds and 4,300 Thoroughbreds that are either racing or are race horse breeding stock and current foals and yearlings.

"These numbers verify that the equine industry is very much alive and well," says Dr. Malinowski. "However, it also suggests two very important points: the racing subset is an economic driver for the equine industry and – since it is no secret racing is facing tough competition from neighboring states that have added gaming operations to their racing venues – any further erosion of racing in New Jersey could have disastrous consequences for the state's economy and the rest of the equine industry."

Other findings of the study are as follows:

- More than 70 percent of horse operations house seven or fewer equine animals; 11 percent more than 20.
- Thirty-one percent of equine operations are on five acres or fewer. Thirty percent are between five and 10 acres; 39 percent are over 10 acres.
- A remarkable number of today's horse farms previously were other types of agricultural operations. For example, 24 percent used to be cattle, dairy, poultry or other livestock facilities; 11 percent were in field crops, fruits or vegetables; and 18 percent were used for other traditional agricultural activities.
- An estimated 13,000 New Jersey jobs are directly and indirectly attributed to the horse industry.
- There are 5,700 direct jobs on all types of equine farms and operations.
- There are more than 2,000 direct jobs at New Jersey racetracks.
- There are more than 5,000 additional jobs generated in related industries.

"The economic impact of the equine industry," says Dr. Malinowski, "is comparable to such widely recognized sectors as golf courses, landscaping, marine fisheries and aquaculture, and many others."

The "New Jersey Equine Industry, 2007" study is based on an extensive survey of horse operations and horse owners conducted over the past year by the National Agricultural Statistics Service, a statistical agency of the U.S. Department of Agriculture, combined with analysis and reporting by statisticians, economists and staff affiliated with the Department of Agricultural, Food and Resource Economics, part of Rutgers' School of Biological and Environmental Sciences; the Food Policy Institute, a unit of Rutgers' New Jersey Agricultural Experiment Station; and the Equine Science Center.

The study was led by the Equine Science Center, also a unit of the New Jersey Agricultural Experiment Station, and funded in part by New Jersey Strategic Initiative grants. Numerous organizations and individuals supported and participated in the study, including the New Jersey Department of Agriculture's Equine Advisory Board and Sire Stakes Program; the New Jersey Sports and Exposition Authority, the Standardbred Breeders and Owners Association of New Jersey; and the Thoroughbred Breeders' Association of New Jersey.

The study commenced last year with a survey mailed to nearly 10,000 horse and horse farm owners. Some 3,400 surveys were returned, and more than 2,000 were included in the data analysis. In addition, the National Agricultural Statistics Service employed its time-honored technique of site visits to 103 square-mile parcels distributed throughout the state to verify survey responses and locate equine operations that possibly had not responded to the mailed survey. The site visit information is included in the analysis.

"The data analysis is just the beginning for this study," says Dr. Malinowski. "For starters, we hope to poll New Jersey residents to get a sense of their attitudes and feelings about horses, horse farms and the industry in general.

"And the Equine Science Center will be working with municipalities, counties, the legislature, horse groups and others to educate them about the importance of the equine industry to the New Jersey economy, the preservation of open space and the impact on traditional agriculture. That was our mission in initiating this study," she concluded.

In addition to Dr. Malinowski, Rutgers faculty and staff involved in the study include Dr. Paul Gottlieb, the Department of Agriculture, Food and Resource Economics and the New Jersey Agricultural Experiment Station (NJAES); Brian Schilling, Rutgers Food Policy Institute and NJAES; Kevin Sullivan, NJAES; and Diana Orban Brown, Equine Science Center and NJAES.

Technical advisors were Dr. Sarah Ralston, Department of Animal Sciences at the School of Environmental and Biological Sciences; and Dr. Carey Williams, Dr. Joseph Heckman, Donna Foulk, and Bob Mickel, all of Rutgers Cooperative Extension and the NJAES. The National Agricultural Statistics Service team was headed by Troy Joshua, director of the New Jersey Field Office.

The report – "New Jersey Equine Industry, 2007" – is posted for downloading on the Equine Science Center website: **www.esc.rutgers.edu**.

Horses 2007

Photos By Katherine Marks

Eight hundred delegates attended the Horses 2007 conference at the Cook Campus Center the weekend of March 31, 2007.

Rick Wills, proprietor of Rick's Saddle Shop in Cream Ridge, New Jersey, entertains the questions of an enthusiastic young attendee.

Tracy Wilson of Kistler Buildings displays the company's portfolio of structures.

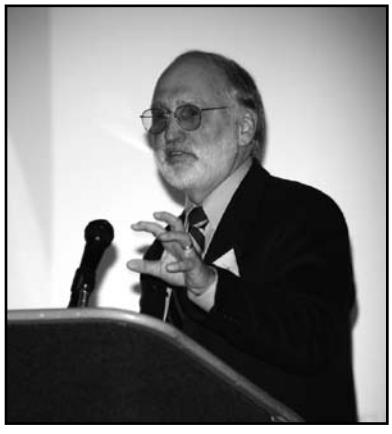
Plenty of young equestrians were in attendance at Horses 2007, broadening their knowledge and asking questions.

Jim Riley (right) of the New Jersey Farm Bureau explains the benefits of membership. The mission of the Bureau is to represent agricultural producers and enterprises at all levels of government - local, state, federal and international.

Lynn Mathews receives the Equine Science Center's Outstanding Service Award. From left to right: Robert M. Goodman, Executive Director, New Jersey Agricultural Experiment Station and Executive Dean, School of Environmental and Biological Sciences; Lynn Mathews, Equine Specialist for the New Jersey Department of Agriculture; Charles M. Kuperus, New Jersey Secretary of Agriculture; and Karyn Malinowski, Director, Equine Science Center.

Photo Gallery

Saturday's keynote speaker, equine veterinary surgeon Dr. Patty Hogan, enchanted the audience with her perspective on a lifetime of working with horses.



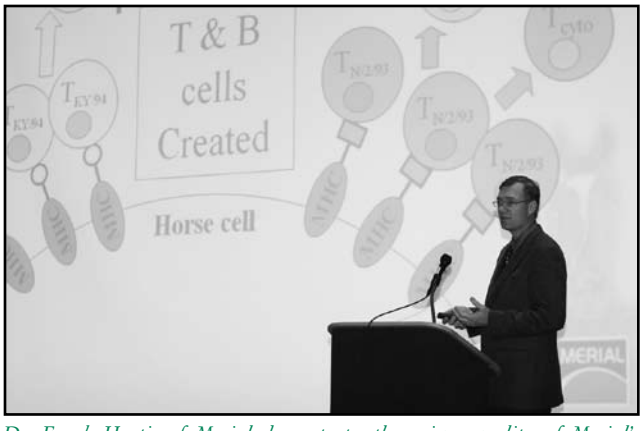
University of Delaware's Dr. David L. Marshall shared tips for keeping horses happy and healthy through adequate dental care.

John Ryan of Fort Dodge Animal Health chats with Karen Lesko Molnar (center) of Sly Fox Run Farm and Sandy Denarski (right) of the Center's "Community of 50."

Dr. Scott E. Palmer of the New Jersey Equine Clinic spoke about orthopedic injuries and led a panel on the latest modalities in diagnosis, treatment, and rehabilitation of equine injuries.

Panel participants included Dr. Rick Doran (left) of the Mid-Atlantic Equine Medical Center, who spoke on soft tissue injuries, and Dr. Brendan Furlong of B.W. Furlong and Associates who shared knowledge of current diagnostic tools.

Carey Williams underscores the importance of pasture to horses at the Farm and Land Management Short Course which ran concurrently with Horses 2007.



Dr. Frank Hurtig of Merial demonstrates the unique qualites of Merial's Recombinant Canarypox Flu Vaccines.

Nutrena's Mary Ann Johnson (left) was just one of many partners and sponsors on hand who assisted attendees in learning how to keep their equine companions in top condition.

Karyn Malinowski Receives Lifetime Achievement Award

Dr. Karyn Malinowski was honored with a Lifetime Achievement Award from the Graduate School—New Brunswick at Rutgers, the State University of New Jersey. The award was presented at the school's Distinguished Alumni Awards on March 2, and recognizes Malinowski's extensive accomplishments in the areas of research, education, service and leadership.

An accomplished equine scientist, Malinowski earned her bachelor's degree in animal science, master's degree in animal science, and doctorate in zoology at Rutgers. She went on to a position as equine extension specialist at Rutgers, making her the first woman in the United States to hold this position. Today, Malinowski is director of Rutgers Cooperative Extension as well as director of the Equine Science Center at the Rutgers New Jersey Agricultural Experiment Station.

Malinowski is the recipient of many awards, including the Outstanding Equine Educator Award from the Equine Nutrition and Physiology Society in 2001; the Marjorie Van Ness Award from the American Horse Council in 2001; the Research Excellence Impact Award from Cook College and New Jersey Agricultural Experiment Station in 2000; and the Woman of Distinction award from the Delaware-Raritan Girl Scout Council in 2000. In 1995, she became the second woman in fifty years to receive the New York Farmers Club Award for her contributions to agriculture.

She has been a faculty member at Rutgers University since 1978. Her research and extension programs concentrate on improving the well being and quality of life of the equine athlete while ensuring the vitality and viability of the equine industry, both statewide and nationally. She has taken a lead role in building the equine science program at the New Jersey Agricultural Experiment Station.

During her tenure at Rutgers, Malinowski has been devoted to educating young people through her involvement with the New Jersey 4-H Horse Program, the American Youth Horse Council, and through her interactions with both undergraduate and graduate students. She continually participates with national volunteer organizations such as the North American Riding for the Handicapped Association and served as president of the American Youth Horse Council. While she was president, Malinowski co-facilitated the production of the popular Horse Industry Handbook, which has sold over 50,000 copies, with proceeds going to youth education.

Carey Williams Named Outstanding Woman Educator

Dr. Carey A. Williams, Associate Director of Extension for the Equine Science Center, has earned the Office of Student Development and College Affairs' Rising Women of Rutgers - Outstanding Woman Educator award.

The award is given to "a professor who, through outstanding teaching skills, dedication to her field of study, and commitment to excellence, has contributed to the academic and personal growth of Rutgers University women."

Dr. Williams joined Rutgers Cooperative Extension in July 2003 as its new Equine Extension Specialist, taking an active role in teaching, conducting research and working with the equine and academic communities to ensure the viability of the horse industry in New Jersey.

A Wisconsin native, Dr. Williams earned her doctorate degree in animal and poultry sciences (with an emphasis on equine nutrition) in June 2003 from Virginia Polytechnic Institute and State University. She holds a master's degree in equine nutrition, also from Virginia Tech, and a bachelor's degree from Colorado State University. As a hobby she trains and competes with her Thoroughbred mare at various New Jersey dressage shows and horse trials.

Dr. Williams was one of 12 nominees for the Outstanding Women Educator award. What set Dr. Williams above the rest? "We looked at what her student nominator said in her letter," program leader Kristin Cothran said. "She described Carey as warm, approachable and knowledgeable and said 'I could learn anything from her.' These qualities seemed to embody the person we were looking for."

The Office of Student Development partners with students and faculty to provide programs that enrich the learning experiences of students on the New Brunswick and Piscataway campuses.

Student Voices: How A Summer Job Became A Lifetime Passion

by Thomas Caltabilota
Animal Science Major – Equine Option
School of Environmental and Biological Sciences Class of 2007

I first discovered horses by chance in the summer of 2000. An old employer who had hired me as a busboy in his restaurant some time ago was also a commissioner on the New Jersey Racing Commission. Aware of my displeasure with working for the restaurant's new owners, as well as with cleaning tables "for peanuts," he approached me with an alternative job offer.

The potential job was an odd one. On the upside, it was a state job and paid about ten dollars an hour — which is not bad money for a sixteen-year old. However, the downside was that I would be working with enormous, temperamental racehorses as a "pee catcher," which is how my friends described the job. The purpose of collecting the urine was so that it could be tested for illegal substances following a race. My official title would be "animal health inspector," the irony of which is hard to miss.

Having never more than observed grazing horses from a fence at a distance, I knew that this job was certainly over my head. Despite this, I took the job, risking my life with gargantuan creatures that wanted to eat me and kick me around the stall like a soccer ball as I whistled a melodious tune in an attempt to make them urinate. Fortunately, after a few months of working for the Racing Commission, I became much more comfortable around the horses. I actually enjoyed being in close proximity to the active cast members in New Jersey's rendition of "The Sport of Kings." I soon became enthralled with the thrills of horse racing.

Upon the conclusion of my first summer meet working at Monmouth Park, I found myself jobless and missing the track and the horses. Since I enjoyed working around horses, I thought about a possible future with them. I took a job cleaning stalls and maintaining three pregnant thoroughbred mares at a farm in Colts Neck. I worked there four to five days a week in exchange for free riding lessons. I soon realized how much I disliked riding horses. But I continued to work at the farm, minus the free lessons, to gain something I consider more valuable today: horsemanship. Truth was, the joy that I received just from being in the presence of these remarkable animals was more thrilling than riding.

The following summer I worked again at Monmouth, only now I was walking horses for a trainer, and soon I worked my way up the ladder. I became a groom and also an assistant, readying the horses on race days. For two Monmouth meets I groomed horses and improved my understanding of them. Now, in the Equine Science program at Rutgers University, I have never been happier.

I am captivated by working with horses and their diverse physiological markers of exercise and performance. For the past couple years I have been obtaining research credits by working with Dr. Ken McKeever, associate professor in the Department of Animal Sciences. This year I conducted a twelve-credit research project looking at a particular gastric ulcer medication and its potential to delay fatigue in equine athletes during exercise. In May 2007 I graduated with a bachelor's degree in Animal Science (Equine Option). I am interested in working towards a Ph.D. in the field of physiology using the horse as a research model.

Aside from working on my senior thesis, maintaining two jobs to support myself and my education, and continuing to complete coursework toward a degree, I also was collaborating with a fellow undergraduate, Justin Milizio, to better prepare myself for a future in equine science. Together with Dr. McKeever we worked on two additional papers to submit for review by the end of the academic year. One study detailed an analysis of diurnal blood lactate levels in the horse and another tested an electrolyte supplement for its effects on total carbon dioxide in plasma during intense exercise.

Needless to say, horses have become a large and wonderful part of my life. In January 2000, my brother Frank passed away in the Boland Residence Hall fire at Seton Hall University. Since then, no coping mechanism other than working with horses has brought me more peace, solace, and closure in the wake of his passing. The horse has been a particularly therapeutic part of my life. Its honesty and beauty have been my stairway to the clouds. My time spent with horses has been a great release from the stresses of my life. I have chosen to devote my life to understanding horses and helping to correct problems in them as they have helped me correct my own life.

Dr. Ken McKeever, left, and student Tom Caltabilota prepare Bella for an exercise trial on the treadmill. Photo by Nick Romanenko. Used with permission of Aresty Research Council.

News From Our Platinum and Diamond Partners

Merial reports that a recent study from the September 1st issue of the Journal of the American Veterinary Medical Association (JAVMA) indicates that simply transporting your horse to and from one horse show, feeding him twice a day, and giving him light exercise can cause ulcers. Why is this study so important? It shows just how easily horses develop stomach ulcers under recreational use conditions, eliminating the perception that stomach ulcers are primarily a disease of racing and other high-level performance horses. This study also raises the question about what can be done to prevent stomach ulcers in horses, since until recently, there was little one could do to effectively prevent them. But now, stomach ulcers can be effectively prevented by decreasing stomach acid production through a recently introduced product called ULCERGARD™ from Merial. Visit us.merial.com for information about the study and to learn more about ULCERGARD™.

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Rick's Saddle Shop is hosting its 15th Annual Customer Appreciation Day on Saturday, June 16th at their Cream Ridge, NJ Superstore. Come see "Rebel," a gentle giant at 19hh and 2300 lbs; enjoy free hot dogs, burgers and soda from 11 a.m. to 3 p.m. and a pig roast at 12:30 p.m. Early bird specials start at 8:30 a.m. with a free T-shirt given to the first 50 people. A trivia contest with prizes, apple bobbing, free pony rides and a hot dog contest are all part of the fun – and don't forget the great savings on all your equestrian needs. Visit www.saddlesource.com for details.

"Because it isn't headline news anymore and because it's been around for several years, many horse owners believe West Nile virus is no longer a threat to their horses," says Tom Lenz, DVM, Vice President of Professional Services at **Fort Dodge Animal Health**. "This is not true. More than 1,000 horses were diagnosed with the disease last year, with some states reporting more than 50 cases. It is still a serious equine health issue and all horses should be vaccinated." Horse owners should contact their veterinarian as soon as possible to evaluate threat levels in their area and determine their horse's current vaccination status, to ensure they will have maximum protection against the disease. For more than five years, West Nile-Innovator from Fort Dodge Animal Health has remained the No. 1 choice among veterinarians with more than 23 million doses of the vaccine administered nationwide. Nine out of 10 horses vaccinated against West Nile receive West Nile-Innovator. Learn more at www.fortdodgelivestock.com.

Kistler Buildings' Perma-Column is the latest innovation in the post-frame construction field. Perma-Columns are permanent concrete foundations for post-frame construction offered in addition to the industry's standard treated wood. Both designs feature a solid and proven solution for building support. Perma-Columns can provide customers with the first permanent column for the post-frame industry. Kistler Buildings offers both types of underground support in its post-frame construction process. For more information, visit www.kistlerbuildings.com.

Nutrena, a sponsor of Rutgers' Young Horse Teaching and Research program since 2000, is pleased to announce Smart Grain Technology™ - a powerful new capability in Vitality® textured horse feed that delivers superior performance and a welcome margin of safety. This revolutionary new breakthrough in grain-based nutrition uses the special nutrient characteristics of different cereal grains to the horse's greatest advantage, optimizing the utilization of starches and sugars in the small intestine while managing the risks of nutritionally-related problems. With Smart Grain Technology, each horse benefits from the optimum blend of cereal grains for its unique digestive system and specific energy requirements. It's all-new technology that helps minimize the risk of nutritionally-related problems while giving horses the glucose they need to replenish glycogen stores for training, exercise and competition. More information is available at www.nutrenaworld.com.

Upcoming Events

★ Extra! Extra! ★ Save the Date! ★

Farm and Land Management Short Course
Friday, October 5 and Saturday, October 6, 2007
Cook Campus, New Brunswick, NJ

Breeders' Cup
Friday, October 26, and Saturday, October 27, 2007
Monmouth Park
Oceanport, NJ

Equine Science Update
Tuesday, December 11, 2007
New Jersey Museum of Agriculture
New Brunswick, NJ

"Better Horse Care Through Research and Education"

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Director

Diana Orban Brown
Director of Communications

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