Walter Cooper stands in an enclosed dirt horse arena with Titan, a thousand-pound cross-bred pony that almost overshadows him.

A Vietnam U.S. Army Veteran from the 25th Infantry (1969 - 1970), Cooper can appear to be quite an imposing man himself, but next to a horse almost anyone seems small.

Cooper was just one of seven veterans who took part in a trial to study the effect of Equine Assisted Activities and Therapies (EAAT) on the well-being of veterans and horses.

While it is commonly thought that human and animal interactions (such as those seen with therapy animals) have a positive impact on both the human and animal, previous studies
We had two busy weekends in February. On February 11th we helped Dr. Williams and Rutgers Cooperative Extension host the annual Horse Management Seminar. The theme of this year’s conference was “Gastrointestinal Health.” All of the speakers were outstanding, including Dr. Burt Staniar from Penn State who wowed us with his blender “smoothie” demo that showed the importance of fiber in the horse’s diet. He was so popular that he will make a return appearance as our keynote speaker at the 2018 Evening of Science & Celebration in the fall. See photos from the event on Page 16.

On February 24, Rutgers hosted the American Society of Animal Sciences Northeast Student Affiliates (NESA) competition. I truly enjoyed serving as a judge for the student presentations. Forty-two teams from eight universities throughout the Northeast competed. Because Rutgers hosted the event, Rutgers students could not participate, but instead they showed off their leadership skills in organizing and executing the event under the guidance of Drs. Williams and Jesse. Another phenomenal addition to the team, Ph.D. student Jennifer Weinert, was acting as the undergraduate student coordinator. See photo gallery on Page 12.

The deadline for applications for the Doris C. Murphy Endowed Scholarship is quickly approaching! Female students, majoring in Animal Science with a concentration in Equine Science, who are New Jersey residents, and have a financial need are encouraged to apply. Applications are due on May 1. More information about the scholarship, as well as a link to the application, can be found on Page 17.

I look forward to seeing many of you on Ag Field Day at Rutgers Day on Saturday, April 28. Stop by and see us at the Red Barn on College Farm Road between 10:00 AM and 4:00 PM for a tour of the lab, Treadmill Demos at 1:00PM or 2:00 PM (just be sure to get there early), and get some give-a-ways from our Equine Science 4 Kids program. See you there!

All the Best,
karyn
New Jersey Farm Bureau’s primary purpose is to represent the overall interests and improve the financial well-being of farmers and our $800 million industry. NJFB activities are supported through voluntary membership and annual dues. Members have access to:

- Staff assistance on farming issues and regulatory problems.
- Educational workshops on topical issues such as farm labor, wildlife damage, and zoning.
- Weekly updates on legislation news and regulations affecting all aspects of farming.

It pays to be a NJ Farm Bureau member! For a full list of membership levels and benefits, or to sign up, visit: www.njfb.org.

UMH Properties, Inc., is a real estate investment trust that owns and operates manufactured home communities in seven states throughout the north-east.

UMH has been in business since 1968, operating as a public company since 1985. Owning a portfolio of over 90 manufactured home communities, housing approximately 15,700 home sites.

In addition, owning over 810 acres of land for the development of new sites. It is our mission as a company to provide the best quality affordable home for the hard working residents of Pennsylvania.

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The New Jersey Department of Agriculture (NJDA) is an agency which oversees programs that serve virtually all New Jersey citizens. One of the Department’s major priorities is to promote, protect and serve the Garden State’s diverse agriculture and agribusiness industries.

In addition to the programs we offer to support production agriculture, NJDA also manages programs that feed schoolchildren, distribute surplus federal foods to soup kitchens and pantries that serve our needy citizens, conserve precious soil and water resources, protect farmland from development and preserve it for future agricultural use, expand export markets for fresh and processed agricultural products, and promote our commercial fishing industry, and administer the complete program of agriculture, food and natural resource education, which includes the State FFA Association.

For more information about NJDA, please visit: www.nj.gov/agriculture

UPCOMING 2018 EVENTS

Ag Field Day
Part of Rutgers Day
Saturday, April 28, 2018
Red Barn - Cook Farm
Rutgers, The State University of New Jersey
New Brunswick, NJ 08901
esc@njaes.rutgers.edu

Equine Science Center’s Summer Showcase
Wednesday, July 11, 2018
Red Barn - Cook Farm
Rutgers, The State University of New Jersey
New Brunswick, NJ 08901
esc@njaes.rutgers.edu

2018 Hambletonian Continuing Education Seminar
Friday, August 3, 2018
Hilton Meadowlands Hotel
2 Meadowlands Plaza
East Rutherford, NJ 07073
Gordon@firstchoicemarketing.us

Evening of Science & Celebration
Thursday, November 8, 2018
Cook Student Center
Rutgers, The State University of NJ
New Brunswick, NJ
kylehart@njaes.rutgers.edu

For more events, visit our website @ esc.rutgers.edu
Ever since a young age, Jaclyn Bird has always been outside riding horses. Growing up in West Deptford, New Jersey, she followed in her older sister’s footsteps and began riding when she was eight years old.

Although it was an activity for fun when she first started, Jaclyn has become more serious about horseback riding. She started competing at schooling shows and smaller competitions when she was 12 years old. She has continued to compete in dressage and jumping through the Intercollegiate Horse Show Association (IHSA) at Rutgers University.

Always wanting to be close to home and near her family, Jaclyn decided to attend Rutgers University for her undergraduate education. She became involved in on-campus activities like the Equestrian team and the Seeing Eye Puppy Raising Club.

During the second semester of freshman year, she joined the Rutgers University Mounted Patrol. The Rutgers Mounted Patrol is the only student-run mounted patrol service in the entire nation, and it is an incredible opportunity of which Jaclyn has enjoyed being a part. She always liked the premise of being a community service officer in order to help and impact the Rutgers community on a daily basis.

Jaclyn explained that the process of becoming a Mounted Patrol Officer was a rigorous and challenging journey. First, if accepted to the Community Service Officer program, there is a written test based on general horse knowledge and related situations. After passing the written exam, there is an interview with the supervisors of the Mounted Patrol, followed by an intense riding exam to ensure the new service officers are competent in their riding and horse management skills.

Once she was qualified, Jaclyn had to attend training, alongside other police and security officers, to officially become a Community Service Officer.
Jaclyn explained that there are three horses that are a part of the mounted patrol unit: Norman, Austin, and Niko, all from the Standardbred Retirement Foundation. The horses are cared for and ridden by the fourteen members of the Mounted Patrol Unit.

Two officers and two horses go out daily and patrol around the Cook/Douglass campus. Jaclyn describes how she helps up to 30 people a day - ranging from giving directions, allowing someone to pet a horse for the first time. She loves being a part of such a light-hearted experience, and believes in the importance of having this positive association with law enforcement and horses!

Now the Company Supervisor of the Mounted Patrol, sharing this responsibility with junior Victoria Perez, Jaclyn excels in her position.

Currently a senior, majoring in Animal Science with a concentration in Pre-Veterinary Medicine and Research, she is getting ready to apply to vet school this summer. She also is raising her own puppy, an 8-month-old German Shepard named Henry, for the Seeing Eye Puppy Raising Club.

She was selected this past year to be an executive aide, and spends time driving President Barchi, Chancellor Dutta, and all the other chancellors around campus and other locations. “Some of my favorite memories are going to President Barchi’s house with the Mounted Patrol horses for breakfast before every homecoming!” she exclaimed.

When she first came to Rutgers, she was not confident it was the right decision. However, four years later, she absolutely loves Rutgers and has fond memories of her amazing experiences. She stated, “I am glad that I attended Rutgers University because it provided me many opportunities, most of which were unique, including being a member of the Mound Patrol.”

Excited to move on to something new and exciting, she knows she will always come back to visit the horses, and the events like Ag Field Day at Rutgers Day. Thank you for your service Officer Jaclyn Bird, we are ready to see you move on to your next chapter!

To learn more visit their Facebook page at:
https://www.facebook.com/pg/rumounted
have only focused on the impact that EAAT has on people (either a change in demeanor, heart rate, or blood pressure).

This study was one of the first trials conducted that focused on not only the human side of this type of therapy, but also how EAAT affects the horse.

Used for the first time since its creation, the Rutgers University Equine Science Center’s Gwendolin E. Stableford Endowed Equine Research Fund covered the costs of not only the five days of the experiment (and an additional day used as a standing control), but also all costs associated with analyzing the various samples and measurements that were collected.

In what might be potentially groundbreaking research for those interested in EAAT as a way to help veterans with Post-Traumatic Stress Disorder (PTSD), the fund allowed this pilot study to provide the needed data to show the feasibility of a larger research project.

Dr. Karyn Malinowski, Director of the Equine Science Center at Rutgers University, and Jennifer Tevlin, who holds a Master of Science degree in Animal Science (with a specialization in Equine Science) and a Master of Science in Mental Health Counseling, envisioned this trial as a way to bring together the science from both sides of EAAT. In order to have a comprehensive trial, they needed to create a team with knowledge of all aspects of the activities the veterans participated in.

The team consisted of specialists throughout New Jersey and the northeast, including consultants from Sports Medicine and Imaging in Delaware, Drs. Eric Birks and Mary Durando. They took heart rate (HR) and heart rate variability (HRV) measurements from the horses using electrocardiogram (ECG) monitors.

The instructors for the sessions, all certified as Equine Specialists in Mental Health and Learning, guided the interactions between the horses and veterans for 60-minute sessions.

These volunteers came from Special People United to Ride (SPUR), a group that was established in 1981 and has since funded the construction of the equestrian center in Lincroft, acquisition of therapy horses, and training of instructors. Rounding out the team were two volunteer nurses who took HR and blood pressure measurements of the veterans.

The team, now assembled, needed a group of participants that could commit to coming every day. It would be important, so as not to skew the results, that each participant could commit to the same days and times for a one-week period.

A group of seven veterans from Lakewood Veterans Affairs ended up making this commitment,
each making their way to the Monmouth County Park System’s Sunnyside Equestrian Center in Lincroft, New Jersey, for five consecutive days in April of 2016.

Sitting on part of the 135-acre site and preserved as open space by the Monmouth County Board of Chosen Freeholders, the Sunnyside Equestrian Center works closely with the community to provide therapeutic riding and activities to people of all abilities.

The Co-Manager of the facility and Program Director for SPUR, Jackie West, provided access to the facility and horses, as well as nurses who were from SPUR’s volunteer base.

Each day started with a group meeting between Tevlin and the veterans, who filled out a self-assessment on the first day of the study before any interaction with the horses, while Malinowski and her team from Rutgers (including undergraduate students from the Department of Animal Sciences) prepared to take blood samples from the horses.

The samples were used to look at specific markers in the blood, such as the hormone oxytocin, which is frequently described as the love or happiness hormone.

“To our knowledge, this is the first report of the measurement of oxytocin in horses used in EAAT programs,” stated Malinowski. “If the concentration of this hormone increased during the trial, we would be able to suggest a positive correlation between EAAT and the overall ‘happiness’ of the horses.”

The other hormone that was analyzed was cortisol, or the “stress hormone.” An increase in the concentration of this hormone could indicate that the horses were becoming stressed by their interactions with the veterans.

After the Rutgers team met, Drs. Birks and Durando showed the students the proper method of attaching and securing the ECG monitors to the horses so that measurements could be taken throughout the session.
Dr. Mary Durando shows Rutgers students how to attach the ECG leads.

The readings from these devices allowed the team to look at HRV, or the natural variation in time between consecutive heart beats. In this case, more variation between heart beats indicates a more relaxed state. Conversely, a decrease in variation between heart beats would be an indicator of potential stress.

The devices were powered on 10 minutes prior
to the EAAT session, stayed on during the hour-long session, and continued to remain on for 60 minutes after the end of the session. This was repeated three times during the study (on the first day of the trial, the last day of the trial, and on the standing control day) and then analyzed by Drs. Birks and Durando who specialize in equine exercise physiology and cardiology.

Once the ECG monitors were on, and the second blood draw was completed, Tevlin, as well as the instructors from SPUR, took the horses into the indoor arena where the veterans were waiting. She guided the veterans through various interactions with the horses, which included petting, grooming, and walking, among various other interactions.

During this time the veterans had their pulses and blood pressures taken by the nurses, and on the last day they filled out a self-assessment to identify any psychological changes since the original assessment completed on day one.

On top of the five days of sessions with the veterans, an addition standing control day (the day where HRV measurements and blood were taken from the horses, but the horses did not interact with the veterans) was used to measure the normal physiological concentrations of oxytocin and cortisol in the horses’ systems, as well a control measurement for HRV.

In the weeks that followed, samples were analyzed, results complied, and statistical analyses performed. This work was accomplished with colleagues from Indiana University, Monmouth University, and the consultants from Sports Medicine and Imaging. Finally, almost a year later, Malinowski is able to report her findings.

Our study demonstrated that “EAAT resulted in a reduction in HR in horses on both session days, suggesting that EAAT resulted in reduced sympathoadrenal activity in these horses and that the therapy sessions were not perceived as being stressful to the horses,” stated Malinowski. “Coupled with the fact that there were no changes in plasma cortisol, these findings imply that in horses experienced with EAAT, the interaction with PTSD veterans did not result in a stress response.”

The paper, The Effects of Equine Assisted Therapy on Plasma Cortisol and Oxytocin Concentrations and Heart Rate Variability in Horses and Measures of Symptoms of Post-Traumatic Stress Disorder in Veterans, goes on to state “participants also reported a significant decrease in symptoms of anxiety and depression along with other symptoms of psychological distress and PTSD.”

Because this was a pilot study, Malinowski recommends that further research be conducted with a larger number of horses, and a potentially longer time frame, to study the long-term impact of EAAT on horses used in these types of activities. She would also like to add HRV measurements and blood sampling to the human side of any additional research as a way to better evaluate the interactions between horses and humans.

The study has been published as an open access paper, accessible for free here: http://bit.ly/EAT-Study
All horses displayed normal physiological concentrations of cortisol throughout the experiment, and the one-hour session of EAAT resulted in no change from baseline concentrations or from standing controls.

Both the reduction in heart rate, and no change in HRV variables, demonstrated that the therapy sessions were not perceived as being stressful to the horses.
With the increase in the number of horses being used in Equine Assisted Activities and Therapies (EAAT) programs, and the increasing concern for animal welfare, it is important to understand the impact of such interventions on the stress level and quality of life for the horses involved.

The purpose of this pilot study in Malinowski’s lab was to test the hypothesis that participation in EAAT would acutely alter physiological markers of stress and well-being, including plasma cortisol, plasma oxytocin, and heart rate variability in horses. It was also hypothesized that symptoms of Post-Traumatic Stress Disorder (PTSD) would be reduced after five sessions of EAAT in veterans who had previously been diagnosed with PTSD.

The research trial was conducted at the Sunnyside Equestrian Center in Lincroft, New Jersey – home to Special People United to Ride (SPUR). The veterans, including six men and one woman, were from Lakewood Veterans Affairs. Nine healthy geldings of various breeds aged 10-23, that were conditioned and experienced as therapeutic riding horses, were selected to participate in the study.

Of these, 7 were selected at random to wear ECG units and all 9 were used for blood sampling to measure plasma cortisol and oxytocin. Each horse was randomly assigned to partner with a veteran for 5 EAAT sessions, which was 1 hour in duration.

A standing control was conducted on a later date in which the horses did not participate in EAAT. The veterans took a self-assessment immediately after the end of the last session of EAAT on day five using the Brief Symptom Inventory and the PCL-5 (The PTSD Checklist for the DSM-5, the standard classification of mental disorders used by mental health professionals in the U.S.).

There was no significant day by time interactions for plasma cortisol or oxytocin. There was a significant day by time interaction for heart rate; where on day 1 HR (bpm) was significantly lower during the interaction with the veterans. There were no significant differences in heart rate variability variables. Post-therapy measures in PTSD symptoms in veterans were significantly reduced except for Interpersonal Sensitivity and Phobic Anxiety.

There was an effect of EAAT on heart rate in the veterans which was significantly reduced on day 2 during the actual EAAT session. Stress levels, as demonstrated by plasma cortisol concentrations and heart rate variability, did not change in horses involved in EAAT sessions with veterans.

Furthermore, the horses used in this study did not demonstrate increased levels of well-being as demonstrated by the lack of change in plasma oxytocin concentrations after EAAT sessions. Symptoms of PTSD did change significantly in the veterans who participated in this study.

Participants reported a significant decrease in symptoms of anxiety and depression, along with other symptoms of psychological distress and PTSD, after EAAT sessions for 5 consecutive days.

There was no change in plasma cortisol suggesting that in horses experienced with EAAT, the interaction with PTSD veterans did not result in a stress response.
This year Rutgers hosted the annual Northeast Student Affiliate (NESA) competition, which is an event that brings student competitors from land grant universities in the northeast to compete in animal science quizbowl, livestock judging, and paper presentations. The competition was made possible by members of the Rutgers University Society of Animal Science (SAS), under supervision of club advisors Drs. Carey Williams and Barry Jesse, as well as student coordinator and Ph.D. student Jennifer Weinert.

After their hard work and dedication of organizing and preparing the daylong event for over 100 competitors from 8 universities, the executive board of SAS was nominated and awarded the “Spirit of Rutgers Award.” This Chancellor Excellence Award recognizes a student organization that represents the values, traditions, and mission of Rutgers through their outstanding engagement, enthusiasm, and spirit in and commitment to the campus community. SAS club members look forward to competing and participating in the event next year at the University of Delaware!
On Wednesday April 11th, the Equine Science Center was a stop on the tour organized for the president of Delaware Valley University, Dr. Maria Gallo. The tour highlighted some of the phenomenal work that comes from Rutgers, as well the New Agricultural Experiment Station, and showed the Dr. Gallo the “Horsepower” of a program that we have!

The 2018 Meet-n-Greet was held on April 7th. The Class of 2018 horses include foster horses Dreamer, a Halflinger from Forgotten Angels Equine Rescue; Soldier from the Saddlebred Rescue; Augustina also from the Saddlebred Rescue; Lady from the Saddlebred Retirement Foundation; loaner horse Barron from Farrington Farms; and permanent horses Gus (Paint); Wiser (Thoroughbred), Molly (Standardbred) and Marcie (Standardbred). For 6 weeks, the students and horses work diligently to transform from learning the safety basics, to executing difficult patterns with confidence. The foster horses will be available for adoption after Ag Field Day through their parent adoption agencies. Check out all the happenings with the RUTH horses on their Facebook page: https://goo.gl/NUWNTK

**Delaware Valley University President’s Tour**

On Wednesday April 11th, the Equine Science Center was a stop on the tour organized for the president of Delaware Valley University, Dr. Maria Gallo. The tour highlighted some of the phenomenal work that comes from Rutgers, as well the New Agricultural Experiment Station, and showed the Dr. Gallo the “Horsepower” of a program that we have!
The Junior Breeder’s Symposium was held on April 7th at the Rutgers Cook Campus farm and included sessions for all livestock species!

The first equine session was led by Dr. Carey Williams and Ph.D. student Jennifer Weinert, as they discussed the most effective methods of measuring horse body weight and taught the attendees how to evaluate body condition scores. The participants then had the opportunity to try it themselves, utilizing the very diverse breeds and body shapes of the Rutgers University Teaching Herd horses!

The next session proceeded to discuss one of the most important factors that affects horse body condition – hay and feed consumption! Dr. Williams and Jen covered the barn with varying types of hay samples, highlighting the key differences between poor and high-quality grasses and legumes. They also explained the proper way to measure the amount of hay your horse is actually ingesting!

After lunch, attendees showed off their knowledge and skills with the famous equine jeopardy game! This year the game focused on equine nutrition.

The final session was presented by Equine Science Center staff member Elena Rizzo, who discussed equine dentition and dental care. With the help of Public Relation specialist Kyle Hartmann, they designed an activity that challenged participants to determine horse age and sex based on incisor teeth eruptions! If you missed it this year, stay tuned for a save the date for next year’s program!
For more pictures from the seminar please visit:  
February started off on a roll with Dr. William’s Horse Management Seminar on Sunday, February 11th. The day began with an interactive presentation by Dr. Burt Staniar, who discussed how fiber behaves in the gut. With a majority of equine feed samples, he blended them into a “smoothie” concoction to demonstrate how feed density impacts the digestion of a horse’s diet.

Dr. Mary Durando presented next and discussed Equine Gastric Ulcers Syndrome; she highlighted common symptoms of horses suffering from ulcers, the proper way to diagnose this condition, and the methods of successful treatment.

After lunch, Dr. Amy Biddle presented information being researched regarding the equine microbiome. Before the last presentations, all three experts sat on a panel to address a wide range of questions from attendees.

To finish a jam-packed day of presentations from equine specialists, Dr. Williams presented the results from her survey regarding the prevalence of ulcers in eventing horses, and Ph.D. student Jennifer Weinert highlighted her research that will be completed this year regarding the impact of varying grazing systems on the equine microbiome.

For more pictures from the event please visit: http://bit.ly/2018HMS
The Equine Science Center will be accepting applications for the Doris C. Murphy Scholarship until May 1st, of each calendar year.

The scholarship(s) will be awarded for the following academic year. Please see the application form on the right and scholarship details below.

Rutgers Equine Science Center and the Department of Animal Sciences at the School of Environmental and Biological Sciences at Rutgers, The State University of New Jersey, are pleased to announce the availability of financial assistance to undergraduate women who are New Jersey residents majoring in Animal Sciences with a concentration in Equine Science.

Scholarships will be awarded annually to full-time undergraduate Rutgers University students (including at least one incoming student).

Criteria include New Jersey residency, acceptance or current enrollment at the School of Environmental and Biological Sciences, academic merit, financial need, and demonstrated interest in equine science. Scholarships may be renewed annually with the approval of the scholarship selection committee.

The Doris C. Murphy Endowed Scholarship in Equine Science was created to honor the memory of a woman who loved animals. Ms. Murphy was born in Jersey City, moved to Dumont, and worked for the Ford Motor Company in Newark.

She and her husband had no children, and shortly before her death in 1998, she contacted her financial advisor, Kate Sweeney of Morgan Stanley and expressed her desire to support animal studies.

Ms. Sweeney, a Cook College alumna, suggested the equine science program as an appropriate beneficiary, and as Ms. Murphy was also very supportive of women's education, the endowed scholarship is offered to women students majoring in Animal Sciences with an equine science interest. Thus, the scholarship reflects Doris C. Murphy's love of animals and her deep interest in encouraging young women to complete their academic studies.

To Apply for the scholarship, please go to: http://bit.ly/DCMScholarship
Ag Field Day at Rutgers Day

Ag Field Day 2018: Saturday, April 28

Ag Field Day is an annual celebration of our community spirit and of the close ties enjoyed by Rutgers School of Environmental and Biological Sciences students, faculty, staff, alumni, and volunteers, and New Jersey residents. It is held on the last Saturday of April on the G. H. Cook Campus of Rutgers in New Brunswick, N.J.

Ag Field Day is part of a larger, university-wide Rutgers Day. For decades, Ag Field Day has been an opportunity for members of the public to learn about and participate in our programs. Rutgers Day built on that tradition and invited the community to learn more about Rutgers University through tours, performances, hands-on activities, demonstrations, exhibits, and lectures across the G. H. Cook/Douglass, Busch, Livingston, and College Avenue Campuses.

The History of Ag Field Day

The year was 1906. The State Board of Agriculture decided there was a need for New Jersey farmers to become better acquainted with the experiments taking place at the Rutgers New Jersey Agricultural Experiment Station (NJAES). On August 17 of that year, the first Field Day (the original name for Ag Field Day) was held at the College Farm.

About 800 people attended, and all indications were that the event was an unqualified success. It was such a hit, in fact, that Field Day became an annual event, with occasional interruptions due to wartime and other pressures.

By 1917, Rutgers and the New Jersey Agricultural Experiment Station assumed full responsibility for the event. Field Day was expanded to include lectures, demonstrations, and tours that attracted more people of varied backgrounds and interests.

By the late 1920s, the annual Field Day was drawing 3,000 to 4,000 people, including increasing numbers of urban and suburban residents. View a program from the 45th Ag Field Day (3.7MB PDF) in 1960.

Today, Ag Field Day, now part of the university-wide Rutgers Day, attracts a much larger crowd to the George H. Cook Campus to learn about the university’s cutting-edge research, education, and outreach programs.

Field Day tractor demonstrations are now a thing of the past. But while Ag Field Day no longer caters specifically to farmers, the reporting of scientific findings and demonstrations of science-based solutions important to New Jerseyans continue to take center stage.

Note: Much of the preceding article was derived from Woodward and Waller’s New Jersey Agricultural Experiment Station—1880-1930.
RED BARN
APRIL 28
10:00AM - 4:00PM
2018

AG FIELD DAY AT
RUTGERS DAY

HIGH-SPEED HORSES
Cook Farm/Red Barn
1:00PM & 2:00PM
Arrive 30 Min Early

watch a horse run on
a high-speed treadmill
and learn about the
research and education
conducted by the center

cook farm
college farm road
new brunswick, nj
Contact Us:

Karyn Malinowski
Director
Equine Science Center
Phone: 848-932-9419
E-Mail: karynmal@njaes.rutgers.edu

Kyle Hartmann
Public Relations Specialist
Equine Science Center
Phone: 848-932-9419
E-Mail: kylehart@njaes.rutgers.edu

Melissa McKillip
Vice-Dean for Advancement
School of Environmental and Biological Sciences
Phone: 848-932-4214
E-Mail: melissa.mckillip@rutgers.edu

esc.rutgers.edu