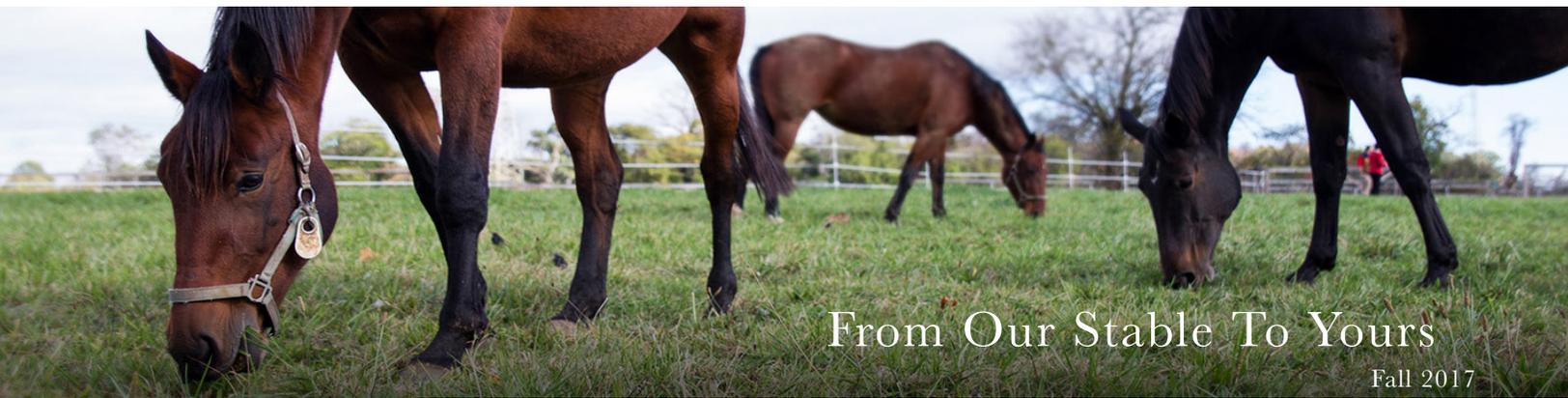


RUTGERS UNIVERSITY

EQUINE SCIENCE QUARTERLY



From Our Stable To Yours

Fall 2017

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Preparing For An Emergency: Are You Ready For A Disaster On The Farm?

Disasters can occur at any time during the year, and can take many forms such as hurricanes, floods, gas leaks, blizzards, tornados, and wildfires.

These events may occur unexpectedly, leaving animals in dangerous situations, or they may be anticipated for several days, giving owners ample time to prepare.

In either scenario, the best solution is to have protocols in place before disaster strikes. The New Jersey Department of Agriculture (NJDA) launched the "[New Jersey Animal Emergency Response](#)" website to guide animal owners in creating emergency preparedness procedures.

The format allows users to search recommendations by species, and provides resources for steps to complete before, during, and after a disaster.

Dr. Meredith Steudle, a veterinarian in the Division of Animal Health of the NJDA, stated, "The website was created as part of a multi-faceted grant from the Office of Homeland Security and Preparedness. The bulk of the website development was handled in-house by the NJDA, with the exception of the mapping function, which was developed by Lucas Marxen at Rutgers. The website launched in August 2015, making New Jersey the first state to provide such a resource to

animal owners."

The initial drive for accessibility to emergency preparedness resources stemmed from the devastating impact of Hurricane Katrina in 2005.

Unfortunately, many people in that disaster lost their animals due to the lack of planning for co-located shelters, and some owners even lost their lives because they refused to leave their animals behind.

"While it is natural for people with animals to seek shelter for themselves and their animals with family or friends outside the affected disaster area," stated Dr. Steudle, "those without that option should never be placed in a position of choosing whether or not to leave their animals behind in order to ensure their own safety."

After Superstorm Sandy and Hurricane Irene severely impacted the Northeast region, the NJDA recognized the need for forms of communication and mapping functions specific to New Jersey.

The mapping function on the website allows owners to locate facilities that include but are not limited to twenty-four-hour animal care and veterinary clinics, resources to locate a missing animal, and places to shelter animals during emergencies.

Volunteers in County Animal

From The Clubhouse



Join us for a fun filled "Evening of Science & Celebration on November 9, 2017.

Dear Friends,

Summer has come and gone and we're almost half-way through the fall semester.

The Center was well represented at several events in the past few months. We had a wonderful day and evening at the annual Hambletonian Veterinary Conference, August 4, organized and produced by First Choice Marketing.

We stayed into the evening to watch some of the finest harness racing in the world at the Meadowlands Racetrack!

On September 16 Center faculty, students and staff celebrated the 6th anniversary of the Open Space Pace with the Landy family at Freehold Raceway. The Center received a check for \$1,000 in recognition of its efforts in helping preserve open space in the Garden State. Read more on [Page 10](#).

We had a wonderful turnout of student volunteers who could be seen in our traditional Rutgers Red. Grand Marshal, Secretary of Agriculture Doug Fisher, stated that he had such a good time that next year he wants to "ride" in the parade.

It is with great excitement and anticipation that I look forward to this year's "Evening of

Science and Celebration", which will be held on Thursday, November 9th. I will deliver the keynote presentation on the pilot study that took place in April 2016 at Monmouth County Park System's Sunnyside Equestrian Center.

Titled "The Effect of EAAT on the Well-Being of Horses, and Veterans Diagnosed with PTSD", the keynote will focus on preliminary findings that will be published later this year. The study aimed to provide insight as to how EAAT affects stress and well-being in horses that are interacting with humans during therapy. For the flyer to to [Page 7](#).

At the event we will also recognize some familiar faces in the New Jersey equine community. Laurie Landy, the Founder of Special Strides Therapeutic Riding Center, will receive the 2018 "Spirit of the Horse Award" and the Center will present its annual Gold Medal Horse Farm award to the Dorsett family from Dorsett Farms in Woolwich Township, NJ.

Additional presentations scheduled will include highlights of Center activity over the last year, a presentation by current graduate student Dylan Klein, and Brittany Smith from Warren County 4-H, who will represent New Jersey at the National 4-H Roundup in Louisville, Kentucky. Smith will give a presentation on the history of the Triple Crown races.

Prior to the the event, the Equine Science Center will present a demonstration of the high-speed equine exercise physiology treadmill at 5:00 pm at the "Red Barn" on College Farm Road.

Don't forget to look into enrolling for the "Developing Future Leaders for the Equine Industry" course to be held January 9 and 11, 2018 at the Cook Campus Center. This is a course team taught by Emil Sadloch and myself and is a MUST for everyone desiring to hone their leadership skills and make a difference in the horse industry. It's a great opportunity to network as well! Go to [Page 18](#) for more info.

I look forward to seeing you all soon!

All the Best,
karyn

PARTNERS



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.

UMH communities are perfect for residents of all ages, let us help up you find your dream home today.

For more information about UMH Properties, Inc., please visit: www.umh.com



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



Merial recognizes that diseases pose a significant threat to the health and well-being of horses, and that's why Merial is at the forefront of supporting horse owners and veterinarians in their efforts to keep horses healthy.

In addition to providing a wide array of vaccines and pharmaceutical products for horses, Merial engages veterinarians and horse owners in educational programs and online tools to build a greater awareness of diseases and the importance of prevention.

These resources, along with industry-leading products enable us to help veterinarians and horse owners keep horses healthy.

UPCOMING 2017 - 2018 EVENTS

2017 Evening of Science & Celebration

Thursday, November 9, 2017

G.H. Cook Campus Center
Rutgers, The State University of NJ
New Brunswick, NJ

esc@njaes.rutgers.edu

Horse Management Seminar

February 11, 2018

G.H. Cook Campus Center
Rutgers, The State University of NJ
New Brunswick, NJ

esc@njaes.rutgers.edu

Junior Breeders Symposium

Saturday, April 7, 2018

Cook Farm
Rutgers, The State
University of New Jersey
New Brunswick, NJ 08901

carey.williams@rutgers.edu

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

For more events, visit our website @ esc.rutgers.edu

Preparing For An Emergency: Are You Ready For A Disaster On The Farm?

(Continued from Pg. 1)

Response Teams (CARTs) reported from animal owners that “the ability to simply type in a person’s current location to then find resources nearby would be the most helpful thing in reaching the largest number of animal owners, rather than trying to answer each person’s question individually via phone call or e-mails.”

Even though the function is state-specific to New Jersey, the resources are directed to any person who holds responsibility for an animal anywhere in the county when disaster strikes.

The website covers the extensive number of factors to consider when preparing for emergency situations. It initially starts by explaining the importance of prearranging areas nearby and outside an individual’s immediate area, and having means of transportation available depending on evacuation procedures.

The NJDA recommendations continue with the introduction of the concept of “Go Bags” to help ensure owners have assembled all of the necessary items to sustain their animals in the case of an emergency.

The “Go Bag” should be a small duffel that can be kept in an easily accessible location. The items, which include veterinary records, medications, a veterinary medical treatment authorization form, and measures of identification, should be sealed in a plastic bag and attached to the barn and/or trailer.

“The forms and records are the surest ways to know that any medical issues a person’s animal may have will be immediately recognized by any animal-health professionals they encounter in a sheltering or evacuation

setting,” Dr. Steudle explained.

However, if a horse is displaced during an emergency, veterinarians are protected by the “New Jersey Veterinary Good Samaritan Law” New Jersey Statute 45:16-9.10 and can treat animals at their licensed and professional discretion during an accident or emergency situation.

The NJDA website also recommends owners should have storage of food and water to last 48-72 hours, first aid supplies, and extra barn supplies. When in storage, it is important to rotate all of the items to keep them as fresh as possible.

If the facility has a backup generator, it is advised to test it a few times per year to ensure its proper function, and have adequate fuel stored.

The Rutgers Farm, which follows recommendations from the NJDA, has four generators available for utilization during a disaster. Therefore, electricity distribution is prioritized to ensure the adequate maintenance and operation of farm procedures.

Vaccines, medications, and other materials are consolidated into one refrigerator, which is designated to a specific generator. In the scenario when there is a greater need for electricity compared to generator availability, the generators are rotated to different facilities around the farm every hour to guarantee materials will be preserved.

If there is ample time to prepare, staff will fill and store extra gas tanks in order to continually fuel the generators.

Rutgers Farm manager Clint Burgher, stated, “Fortunately, there is a diesel pump located directly on



The Rutgers Cook Farm prepares for a disaster by setting aside 55-gallon water buckets, and hay, immediately before any potential threat.



the farm for constant access to fuel, so it allows the staff to continue to operate machinery during any type of disaster.”

Also, staff will store feed bins and hay away in an easily accessible location protected from the elements. In the event of a power outage, the farm still has access to water because it is connected to city water, as opposed to well water which requires an electric pump.

Even though the majority of animals have access to automatic waterers, the staff prepares 55-gallon tanks to drive around the farm and hand-fill the waterers in turnout.

ALL animals, once an emergency is declared, come under the authority of the NJDA in its role as Emergency Support Function 11 (ESF11-Agriculture) coordinator under the State Emergency Response Plan.

Some CARTs in areas where horse ownership is more prevalent (rural and suburban areas vs densely populated urban areas, for example) are aware of that prevalence of horse ownership and plan their response efforts accordingly.

This also is an area where the Animal Emergency Working Group (AEWG) within the NJDA becomes

Creating A “Go Bag”

Here are just a few items that the New Jersey Department of Agriculture recommends including in a “Go Bag”:

- Food and water (with feeding instructions)
- Copy of the animal’s veterinary records
- Vaccination history
- Important test/lab results
- Medications with dosage instructions
- List of emergency contact phone numbers
- Identification: Current photograph & description of your animal (age, breed, sex, color)
- First aid supplies (as recommended by your veterinarian)

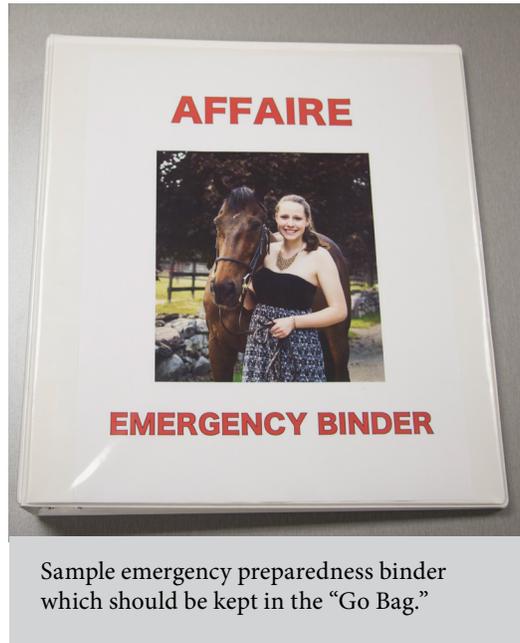
For the full list of items to include, please go to: <https://goo.gl/2rCpGn>

more focused on larger animals, and where the inclusion of county fairgrounds in NJDA's emergency-response plan is geared toward being able to shelter larger animals away from areas that are in more direct line of the disaster.

The NJDA works with other state agencies (e.g. the NJDOT and State Police) to give large-animal owners waivers, where safe and appropriate, from the bans on trailers on the roads once an emergency is declared, so that horses and other large animals can be moved to safer locations.

After the severity of the disaster has dissipated, it is advised to use caution when surveying the property and examining animals. The NJDA reminds its website users the first priority is the safety of people, followed by the safety of animals and property.

The Rutgers farm staff fortunately has the ability to reside on campus, and be in constant supervision of the farm. They are responsible for clearing pathways, and making sure the animals have consistent access to food, water, and shelter. Overall, many farms in New Jersey, including Rutgers University, have followed the guidelines recommended by the NJDA.



Sample emergency preparedness binder which should be kept in the "Go Bag."

The state veterinarians promote the approach of "Before, During and After an Emergency" to avoid surprises and give confidence to owners to survive the unpredictability of natural disasters. The guidelines on the website are intended to reach a national audience, as emergencies can happen independent of geographical location.

"The NJDA has found that creating this widest-possible network of people engaged in animal issues ensures the most active participation of professionals and volunteers in caring for animals during these emergencies, stated Dr. Steudle. "The website also serves as a central communication and planning portal for the CARTs throughout the state to help them all in recruiting and training efforts coordinated through the Department."

Despite all of the preparation, it is important for people to recognize they are never alone in combating the negative consequences of emergencies. Fortunately, because of resources offered through the NJDA, professionals and resources are accessible for owners in all parts of the state to minimize the adverse effects of a disaster.



The binder includes horse identification, emergency contacts, vaccination history, and medical records to ensure proper care in the event of an evacuation or situation where owners are displaced from their horses. A template can be found at: <http://esc.rutgers.edu/go-bag-template/>



THE

EQUINE SCIENCE CENTER

INVITES YOU TO THE

Event highlighting the Equine Science Center's work in advancing equine health, horse management practices, and solutions to equine industry issues.

REGISTRATION

To register, please go online to:
<https://goo.gl/V5nB7C>

Event fee: \$35 for adults
 & \$15 for full-time students

Please remit payment & mail to:
 Rutgers Equine Science Center
 57 US Highway 1,
 New Brunswick, NJ 08901

2017

— EVENING OF —

Science & Celebration

ON

THURSDAY, NOVEMBER 9, 2017

AT

The Cook Campus Center
 59 Biel Road
 New Brunswick, NJ 08901



SCHEDULE

5:00pm
Optional Tour of the
Equine Exercise Physiology Laboratory
Location: Red Barn on Cook Campus

6:00pm
Event Starts & Dinner Is Served

7:00pm
Welcome & Center Highlights
 by Dr. Karyn Malinowski

4-H Roundup Team Presentation

Keynote: "The Effect of EAAT on the Well-Being of Horses, and Veterans Diagnosed with PTSD."

"Fit as a Horse: Body Composition and Aerobic Capacity During Training and Detraining"

Equine Science Center
"Spirit of the Horse"
Award Presentation

Equine Science Center
"Gold Medal Horse Farm"
Award Presentation

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youtube.com/c/RutgersEquineScienceCenter

RUTGERS

New Jersey Agricultural
 Experiment Station

This year's keynote will honor our veterans and horses involved in Equine Assisted Activities Therapies with a preview of the results of a pilot-study. Conducted at Monmouth County Park System's Sunnyside Equestrian Center, this study was done in conjunction with Monmouth University, Special People United to Ride (SPUR), and with the help of New Jersey veterans from Lakewood Veterans Affairs in Ocean County.

For questions regarding the event,
 please contact: Kyle Hartmann
 E-Mail kylehart@njaes.rutgers.edu
 Phone 848-932-9419

For Release



A bioswale at the Ryders Lane Farm is used to collect and filter runoff as it passes through native grasses.

Lab Notes - Williams

From The Lab:



TOP 5 FACTS ABOUT NITROGEN

#1

Elevating protein levels in a horse's diet increases the ammonia and nitrogen levels excreted in manure, the ammonia in the atmosphere, and the urea nitrogen in the animal's blood.

#2

Excessive nutrient supplementation leads to excessive nutrient excretion.

Environmental Implications of Nitrogen Output on Horse Operations: A Review

Nutrients such as nitrogen are not completely utilized during the digestive process, and are excreted into the environment via urine, gas, or fecal matter.

Excess nitrogen in the environment has severe consequences such as water contamination and decreased air quality. Specifically, manure nutrients and nitrogen run-off become attached to soil particles and reach waterways through soil erosion and deposition.

Once contained in the water source, the nitrogen promotes a proliferation of plant life; this is a process referred to as eutrophication.

With an excess population of plants utilizing the dissolved oxygen in the water, it decreases the amount of oxygen available for fish and other aquatic life. This process can result in fish kills, odors, and other negative consequences.

In addition to the concerns related to nitrogen run-off, researchers are concerned with nitrogen volatilization posing a negative effect on human and animal health.

Nitrogen in manure can be converted to ammonia through bacterial degradation as it converts urinary urea to ammonia.

Factors such as temperature, air velocity, pH, surface area, manure moisture content, and storage time can all impact the strength of ammonia emissions.

The paper "[Environmental Implications of Nitrogen Output on Horse Operations: A Review](#)" analyzes the impacts of nitrogen pollution on the environment and horse and human health. It assembles information from certain studies and details methods to decrease the amount of nitrogen in the facility.

The paper also recommends "Whole Farm Nutrient Balance" as an assessment tool to develop plans to manage and mitigate nutrient build up.

As the issue has gained public awareness, several states have developed legislation to incentivize horse owners to manage balance on farms.

#3

Long straw bedding has a higher percentage of total nitrogen before composting than a pelletized straw or wood product.

#4

There is a metabolic energy cost associated with excreting excess nitrogen in the urine, making diets with excess protein inefficient and not cost effective.

#5

Specific to horses, higher protein diets can affect acid-base balance, heat production, and water requirements.



2017 OPEN SPACE PACE BOASTS RECORD NUMBER OF PARTICIPANTS & SPECTATORS

On Saturday, September 16th, the 6th annual Open Space Pace and Festival of Horses was held at Freehold Raceway.

Bright and early tables were being set up by the Standardbred Owners and Breeders Association, Future Farmers of America, and Rutgers' own Equine Science Center.

As the racetrack was manicured, dust was flying on to the sidelines as the staff rushed to prepare the stage, band, food truck stands, and 4-H petting zoo.

In the parking lot across from the racetrack, grassy fields were filled with horses being groomed and tacked for the parade. All of a sudden, a woman dressed as a bunch of grapes rode by on her bay Paso Fino calling out to her carrot dressed friend across the field. Their costumes supported the "Jersey Fresh" theme for the parade down Main Street in Freehold, NJ.

Costumed horses and riders, and a variety of banners from different sponsors and organizations, brought recognition of the fair and industry to the town and surrounding neighborhoods.

The day continued with live harness racing and educational exhibits for children to explore.

The Rutgers Equine Science Center was sporting its Equine Science 4 Kids activities and "horse sports bags," which were a hot commodity among the young and old members of the attending crowd!

The 4-H petting zoo was filled with children feeding the goats, emu, bunnies, skunk, and chickens.

While listening to live music from After the Reign and The Eddie Testa Band in between races, spectators indulged in food and rolled ice cream from local vendors.

The event also raffled away five \$1000



The Equine Science Center student volunteers are joined by RUBEA Co-Chair Dr. Amy Butewicz, and Rutgers alumni Suzanne D'Ambrose on her horse Indy, gathering before the start of the 2017 Open Space Pace Parade of Horses.

scholarships to students, one of which was awarded to Rutgers student, Kelsey Gesner.

The scholarship was created to give college students a reason to come back to the track, create new fans for harness racing, and enjoy the festivities of the Open Space Pace.

With all of the attractions, the Open Space Pace is classified as an agricultural parade and county fair, and was created to commemorate horses and promote open space.

Specifically, its purpose is to raise funds in support of agricultural and recreational organizations who advocate for equine facility land use, and intend to revitalize the harness racing industry.

Currently, New Jersey's horse racing industry is not competitive in its purse structure

when compared to neighboring states, most of which utilize slot machine revenue to boost high purses.

In fact, New Jersey recently decided not to include gaming attractions at racetracks because of concerns related to the casino gaming industry in Atlantic City.

Without secure allocations for purse funds from "racinos," or raceways with games, the horse racing and breeding industries, as well as hay and grain farms, are moving out of New Jersey to take advantage of racetrack purses elsewhere.

New Jersey is now losing the competitive advantage it once had in the horse racing industry. As these businesses move out of state, the land that was once utilized by the farms

is being converted into housing developments and shopping centers.

Forty-thousand acres of open space have been lost between 1983 and 1996 due to the demise of the racing industry, with even more lost to the present day.

This year's Open Space Pace attracted State Senator, Jenifer Beck, who rode "Chasing Rainbows" in the parade. Lieutenant Governor, Kim Guadagno, also attended the event and met with the Standardbred Owners and Breeders Association (SBOA) Board of Directors to further understand the importance of a healthy racing industry, horse and hay farms, and maintaining open space.

Chairman of the event, Brett Taft, stated, "The 6th annual Open Space Pace was our best event yet. We continue to grow the event and believe we are well on our way to accomplishing our mission to educate the public about the importance of the equine and racing industry in NJ."

Sam Landy, founder of the Open Space Pace, member of the Rutgers University Board for Equine Advancement (RUBEA), owner of Congress Hill Farm, and CEO of UMH Properties Inc. noted, "The parade had more



RUBEA Co-Chairs, Dr. Amy Butewicz and Mr. Warren Zimmerman, help to showcase the Equine Science 4 Kids sports bags.

participants and more spectators than ever. The event had record attendance and was great fun. We look forward to making it even more family friendly next year."

The Open Space Pace is a memorable and kid-friendly event that attracts a larger crowd with each passing year! It will be exciting to see the horse industry reinstated in New Jersey with the help of the resources and awareness raised because of this event.



Dr. Williams, Dr. Butewicz, and Dr. McKeever are joined by the student volunteers to receive the Equine Science Center's Charity Organization check from the Open Space Pace. The check was presented to the Center by representatives of the SBOANJ.

For pictures of the Rutgers Equine Science Center at the Open Space Pace, please visit their [FACEBOOK PAGE](#).



Graduate Student Spotlight: Jennifer Weinert

One summer day in Bruce, Wisconsin, a young woman obsessed with horses named Jennifer Weinert furtively brought horses to her family's dairy farm.

Her grandfather, who was an old German dairy farmer, referred to horses as “hay burning nags” and refuted the idea of allowing horses on the property. However, when he left the farm for a family reunion, Jen took the opportunity to sneak the horses in with the help of her brother.

Jen recalls always having an affinity for horses. Her passion began to blossom when she started competing in 4-H events in elementary

school, and it continued to grow as she took dressage and western pleasure riding lessons.

She pursued horses and equine-related activities throughout high school, as she mastered the skills of balancing the demands of the sport and the academic responsibilities of her classes.

Jen graduated her class as valedictorian before continuing her education at the University of Wisconsin at River Falls. After graduating with her Bachelor of Science, she found herself determined to work in the equine industry.



At the 2017 Hambletonian Continuing Education Veterinary Conference, the Equine Science Center staff and students were joined by alumni from the Rutgers Department of Animal Science, and members of the Equine Science Center family, for a fun-filled day of seminars.

Her first career as an assistant reigning trainer brought her to Whitesboro, Texas. This position granted her the opportunity to leave her home state, and fulfill a lifetime dream of becoming a trainer.

After spending time in Texas, she returned to Wisconsin to continue to develop her skills as a trainer. Soon after she found herself back in a college environment where she worked as the enterprise manager for equine operations at the University of Wisconsin.

In this position she was responsible for managing all of the horses on campus, supervising student workers, and taking care of the facilities. More specifically, she managed the breeding herd and artificial insemination program, and helped professors with their applied research and academic classes.

Jen soon realized her interest in extension work and program development, and wanted to continue to expand her reach in academia. She reached out to one of the University's

faculty members, Dr. Danielle Smarsh, who recently graduated from the Endocrinology and Animal Biosciences Graduate Program at Rutgers University.

Smarsh spoke highly of the program and the work she completed under the direction of Dr. Carey Williams. When Smarsh knew Dr. Williams was in search of a new graduate student, she prompted Jen to apply.

Jen's outstanding application and previous teaching experiences landed her a position at Rutgers, where she has started her Ph.D. work with Williams.

A more non-traditional student than most graduate students, she has not been enrolled in classes for nine years. Fortunately, her previous positions have prepared her to conduct her own research, serve as an instructor for an undergraduate section of Animal Nutrition lab, and help Dr. Williams with her extension work.

Jen's research focuses on the effects of alternative forages and how they affect yield,

production costs, and horse health parameters. She will also be analyzing different establishment methods for forages and how crops are grown and laid out, and assessing the respective cost effectiveness.

To explain in further detail, Jen intends to determine which forages will be able to supply adequate nutrition for horses to maintain a healthy body condition score.

While there has been some research conducted on restrictive grazing, Jen's study will also focus on investigating the effects of rotational grazing on the nutrient intake rate and initial grazing consumption periods. Jen will also analyze how the varying types of forages alter glucose and insulin responses in the horses, and the gut's microbiome, composition, and activity.

After spending a majority of her childhood milking cows twice a day, 365 days a year, Jen never anticipated that she would be working at

Rutgers University.

Being on the East coast away from her family has been a transition, but she is grateful her mother and boyfriend are able to visit and discover the area with her. This summer she was able to visit the Statue of Liberty, downtown Philadelphia and the Liberty Bell, a lighthouse tour on the Long Island Sound, and Atlantic City.

Jen discovered how much she loves sitting on the beach and enjoying the calming oceanic atmosphere, which was something she thought she would only experience through movies.

Currently in her second year of the five-year graduate program, Jen's only future plans are to finish her doctorate. "Life is more loopy than it is a straight line," she states, "I want to focus on the now and try my best to be prepared for the future and what is to come."

In her free time, she loves spending time and playing with her dog, Wally.



Jennifer Weinert and Michael Botros table at the 2016 Open Space Pace, one of Jennifer's first events as a Rutgers graduate student.



Wine & Equine Event Educates Community on Environmental Best Management Practices

Rutgers University faculty Carey Williams and Mike Westendorf have again paired with the Natural Resources Conservation Service (NRCS) to host these widely popular events. With different locations and topics, they attracted bigger crowds.

With four events in this series, Dorsett Farm, in Woolwich Township, hosted the kickoff in June with wine from Heritage Winery. Centenary University Equestrian Center, in Long Valley, hosted the second event with wine from Cream Ridge Winery.

In October the last events for fall were hosted by Trilogy Farm in Chesterfield, and Hidden Hills Farm in Hillsborough. Both of

these gatherings featured wine tastings from Cream Ridge Winery.

The program exposed over 120 horse enthusiasts, owners, and farm owners to some of the latest in environmental research for equine farms, provided information on how to manage diet to decrease nutrient excess on horse farms, helped them understand USDA's NRCS funding programs, gave an opportunity to sign-up for these programs, and a chance to network with other managers and owners of New Jersey equine farms.

The program included information on environmental management priorities on equine farms including diet management

and equine nutrition to help decrease on farm nutrient excess, funding opportunities available for horse farms through NRCS EQUIP, program eligibility and signup, soil health demonstration and Best Management Practices (BMP's) Tour, wine tasting and networking.

“It is nice to see that there is educational and financial support from the state and government agencies to help horse farms be compliant with the regulations, and friendly to the environment,” said attendees. “I knew I could go to Rutgers for the educational part, but it was nice to know there is financial assistance for us farmers as well. The wine tasting was also a nice touch!”

There have been 8 of these programs hosted over the last two years. They are the product of a collaborative grant to Rutgers from the NRCS to help them connect with horse farms who need assistance. Since the beginning of the programs over 30 farms have applied for and received funding for their farms.



Pictured above, from top to bottom, are Dorsett Farm, Centenary University, Trilogy Farm, and Hidden Hills Farm, which hosted some of the events. Pictured below, a demonstration from the event series highlighted the importance of established plants in order to prevent run-off.



Developing Future Leaders for the Equine Industry



Save the Date!

January 9 & 11, 2018
8:30 a.m. to 5:00 p.m.

Equine Science Center
57 US Highway 1 South
New Brunswick, NJ 08901

This two-day short course is available not only to Rutgers students, but also to individuals with a high school diploma who are involved in the equine industry and agricultural-related businesses.

The course will help students develop skills in a variety of areas including interpersonal communication, decision-making, and conflict management.



[facebook.com/RutgersEquineScienceCenter](https://www.facebook.com/RutgersEquineScienceCenter) [pinterest.com/RutgersESC](https://www.pinterest.com/RutgersESC) twitter.com/RutgersESC [youtube.com/c/RutgersEquineScienceCenter](https://www.youtube.com/c/RutgersEquineScienceCenter)

RUTGERS
New Jersey Agricultural
Experiment Station

Presented by: **The Equine Science Center**

Equine Professionals: \$150
Students: Winter Session (11:067:413)

For more information about the course please contact
Dr. Karyn Malinowski at: karynmal@njaes.rutgers.edu



NELSON'S CORNER

ARE THERE PLANTS MAKING YOUR HORSE SICK?

Ahhh the sweet brisk mornings of fall! Goodbye hot and humid summer weather, and hello cool days with picturesque red, orange, and yellow scenery! My friends and I love rolling in the leaves, but we have to make sure none of the leaves falling in our turnout are toxic! Although some owners think we have “natural instincts” to protect us from eating poisonous plants, food is food, and sometimes we might not realize it. All it takes is one chomp for us to feel the effects of a toxic plant. It is up to you guys, the horse owners, to prevent us from accidentally eating something we’re not supposed to!

The first step is learning which plants to watch out for! Since leaves are falling, they are the first culprit for danger. Maple tree leaves are highly toxic and will result in kidney damage. They are of interest to us because they are very sweet! Like I always say my friends and I love sweet treats! Unfortunately, fallen and dead maple leaves can remain toxic for a month, so make sure to clear your pastures of leaves frequently. Other palatable leaves we like are from the Japanese yew. Yew is EXTREMELY toxic to horses and will result in respiratory or cardiac collapse. Although it is typically an ornamental plant, meaning people keep it in their yards for aesthetic purposes, make sure your neighbors are not dumping the yard clippings into your pasture!

There are some plants that are covered in toxicity, meaning all of their components like seeds, leaves, and barks are dangerous to horses! These include cherry and black walnut trees. Cherry trees produce a deadly compound known as hydrogen cyanide. Similarly to maple leaves maintaining toxic levels after falling, cherry tree leaves will accumulate more hydrogen cyanide as they wilt or experience stress. Black walnut trees and nuts may be present in the pasture, however, most horses come into contact with it from wood shavings. Either way, make sure your horse will not be exposed to it in any manner because it can experience laminitis. Finally, acorns and leaves from oak trees are fun treats horses seek out, but can result in kidney and liver damage, and colic.

Although there are a wide variety of plants that would cause harm to horses, there are ways to prevent them from coming in contact with them. If you have a toxic plant in your fields, make sure to remove it or fence it off as soon as possible. Also, make sure you are managing your pastures properly! If you encourage the growth of grass, weeds and toxic plants are less likely to develop. Finally, make sure to check out [this fact sheet](#) from my human friends or a [list of other poisonous plants](#) that could be lurking in your pastures!

Your pal,
Lord Nelson

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