

# RUTGERS UNIVERSITY

# EQUINE SCIENCE QUARTERLY



From Our Stable To Yours  
Spring 2020

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2020 Horse Management Seminar



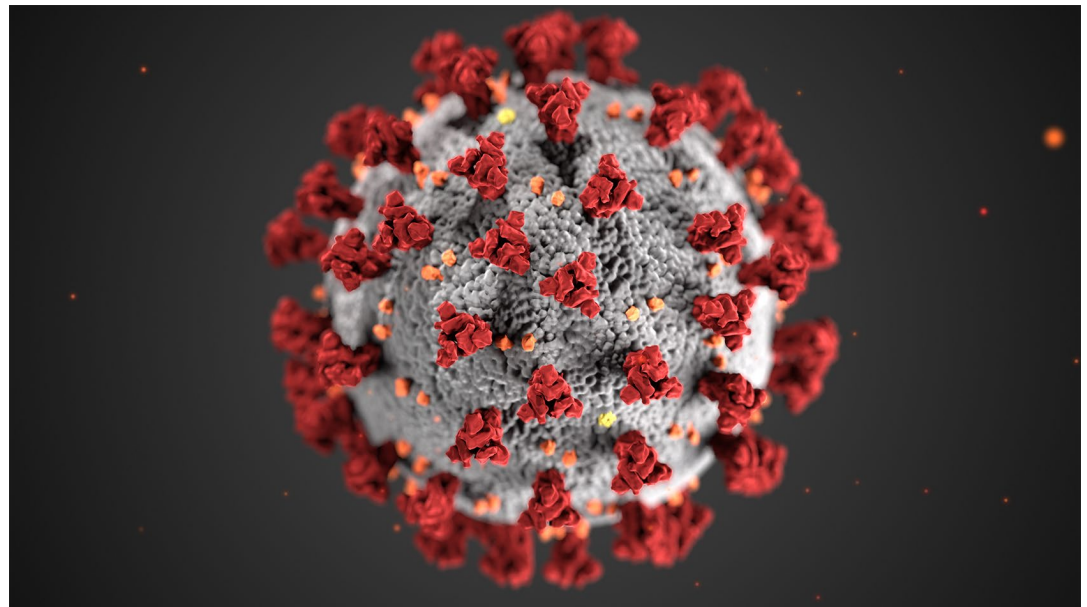
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- Picture Courtesy of the CDC / Alissa Eckert, MS; Dan Higgins, MAMS

## Equine-Related Resources for COVID-19 In New Jersey

The Rutgers Equine Science Center has created a one page resource list for Covid-19 Equine-Related Resources for New Jersey.

The page is a compilation of phenomenal resources that have been made available by groups such as the New Jersey Department of Agriculture, New Jersey Farm Bureau, American Association

of Equine Practitioners, Equine Disease Communication Center, American Horse Council, and Centers for Disease Control and Prevention (CDC).

The Center has been continually updating this page as more resources have become available.

New links such as webinars on Financial Assistance Options

# From The Clubhouse



All of us at the Equine Science Center are working to provide you with the latest information possible as we carry out our mission of “Better Horse Care through Research and Education”.

Dear Friends,

We all are experiencing something that most of us have never experienced before in our lifetimes. I certainly hope that you and your families are safe, and that you continue to enjoy your horses for their well-being as well as yours.

The Equine Science Center is here for you at these most difficult times and I invite you to reacquaint yourselves with our website and its many resources while you are practicing New Jersey’s “Stay at Home” order.

Visit our web-page of resources regarding COVID19 by going to:

<https://esc.rutgers.edu/covid-19-equine-resources-for-new-jersey/>.

Kyle Hartmann has assembled a variety of links from throughout our website, which includes archived videos, newsletters, podcasts, webinars, and radio shows. This new initiative, “Keeping Engaged While Keeping Safe – Resources To Keep You Busy While We #StayHome” will be updated weekly each Friday. Use this free time to review these educational and entertaining materials about horse care and management by visiting the web-page at:

<https://esc.rutgers.edu/news/stayhomevol1/>.

Unfortunately, we had to cancel our events going into summer that I know you all enjoy attending.

These include: Junior Breeders Symposium and the RUTH herd “Meet and Greet”; Ag Field Day at Rutgers Day, and our July Summer Showcase. We look forward to seeing you all soon at another Equine Science Center event, and in the mean time visit our website events section where we will post upcoming webinars and virtual meetings of interest.

New for me is to work and teach remotely! I am technologically challenged (sign of my age!), and I’m struggling as many of us are to not be face to face with our colleagues, staff, and students on a daily basis. Regardless, I have carried on and even recorded guest lectures for the Introduction to Animal Science class! We will eventually share the recordings of them with you in one of our Friday #StayHome postings. I hope you enjoy them!

I also wanted to remind everyone that the deadline for applications for the Doris C. Murphy Endowed Scholarship is quickly approaching! Female students, majoring in Animal Science with an emphasis in Equine Science, who are New Jersey residents, and have a financial need are encouraged to apply. Applications have been extended to June 1<sup>st</sup>. More information about the scholarship, as well as a link to the application, can be found on **Page 5**.

In February Carey Williams organized an outstanding “Horse Management Seminar” which focused on the care and management of racehorses and sport horses. For the full story, and photos, visit **Page 6**.

Last week the announcement of a new referred journal article went out regarding a collaborative research study involving Ken McKeever and myself, as well as other collaborators, regarding cobalt as a performance enhancing drug in racehorses. See **“From the Lab” Section on Page 8** for details.

We have also had one of our students working on a few articles for us. Join Francesca as she talks about her trip to Belize on **Page 10**, and goes over the history of New Jersey’s State Animal on **Page 14**. Both are must reads!

I wish you and yours all the best. As Governor Murphy says, “We will get through this together.”

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](http://www.njfb.org).



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

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](http://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](http://www.nj.gov/agriculture)

## UPCOMING 2020 EVENTS

Extension Horses Presents:  
"Fine-Tuning Equine  
Boarding Contracts" Webinar

Thursday, April 23, 2020

[Click Here To Register](#)

[esc@njaes.rutgers.edu](mailto:esc@njaes.rutgers.edu)

Keeping Engaged While  
Keeping Safe – #StayHome :  
Equine-Related Professions

Friday, April 24, 2020

On Friday Morning after 10  
Go To:

[esc.rutgers.edu](http://esc.rutgers.edu)

Virtual  
Rutgers Day!

Saturday, April 25, 2020

[Click Here To Visit  
The Facebook Page](#)

[esc@njaes.rutgers.edu](mailto:esc@njaes.rutgers.edu)

Keeping Engaged While  
Keeping Safe – #StayHome :  
Vaccinations

Friday, May 1, 2020

On Friday Morning after 10  
Go To:

[esc.rutgers.edu](http://esc.rutgers.edu)

For more events, visit our website @ [esc.rutgers.edu](http://esc.rutgers.edu)

# Equine Related Resources for COVID-19 In New Jersey

Continued from Pg. 1

for Horse Owners and Horse Businesses” and “Horse Biosecurity and Facility Sanitation” from Extension Horses.

The Center wanted to also showcase some fun resources to take everyone’s mind off of things and provide a break from the news.

This new initiative “Keeping Engaged While Keeping Safe” hopes to provide entertaining and educational activities for adults, as well as kids.

Each week on Friday, a new edition will be added to the website, and advertised across the Center’s social media.

Posts will include links from their archives to interesting stories, fact sheets, podcasts, and other resources available on their site.

Professors from the Center have also been

cataloging resources to share from other universities and websites.

The first week’s theme focused on pastures, and the second focused on safety.

The Center’s equine experts are also available to help. For any equine related topics, the Center’s Ask The Expert Portal is live and accepting questions. Submissions can be made at the bottom of the page, and one of the Experts will respond directly to each question as they come in.

“We hope that these initiatives will keep you informed and entertained,” says Center Director Karyn Malinowski, “we look forward to seeing you on our website and social media!”





# Doris C. Murphy

## Endowed Scholarship in Equine Science

The Equine Science Center will be accepting applications for the Doris C. Murphy Scholarship until June 1st, 2020.

The scholarship(s) will be awarded for the following academic year. Please see the application form details on the website listed 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 Science 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 Science 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>



# The 2020 Horse Management Seminar: Racehorse/Sport Horse Care and Rehabilitation

February 9th saw a crowd of horsepeople, sponsors, and students gathering at the Cook Student Center for Dr. Carey Williams' annual Horse Management Seminar. This year's seminar focused on the "Racehorse/Sport Horse Care and Rehabilitation."

The program included Dr. Nancy Lee of Sound Equine, Dr. Jesse Tyma of Mid-Atlantic Equine, Dr. Sarah Bye of Foundation Equine, and Dr. Shannon Pratt-Phillips of North Carolina State University who discussed topics as diverse as caring for and rehabbing a racehorse or sport horse, to transitioning careers, to feeding for different competitive sport's needs.

The event concluded with an update by Jennifer Weinert, PhD candidate, on her equine

pasture research; and preliminary research by Ellen Rankins, PhD candidate, on co-regulation in human-animal interactions.

Throughout the day there were a number of breaks that allowed the attendees to chat with one another and visit representatives from the program sponsors, equine industry, and area equine organizations.

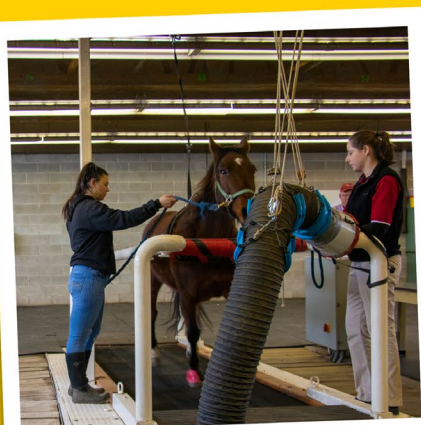
Lots of door prizes were given out throughout the day and everyone left with lots of knowledge they didn't have before!

Attendees even commented, "These seminars always bring to light new information on the care of horses. Feeding, rehabs, treatment are everyday activities for a horse owner. Especially one who does not board their horse."



For more pictures from the seminar please visit: <https://bit.ly/HorseManagement2020>

For Release



Research was conducted for this study using the Equine Exercise Physiology Laboratory on the Cook Farm.

Lab Notes - McKeever

## From The Lab:

"The Evaluation of Cobalt as a Performance Enhancing Drug (PED) in Racehorses" study is published.



THE TOP 5  
TAKE-A-WAYS

#1

The study demonstrated that a sterile solution of cobalt salts did not affect aerobic or anaerobic performance or plasma erythropoietin concentration in race fit Standardbred horses.

#2

Cobalt is a required trace element in animals, but administration in excess is considered dangerous and potentially performance enhancing in equine athletes.



Cobalt is a required trace element in animals, but administration in excess is considered dangerous and potentially performance enhancing in equine athletes.

Supraphysiologic concentrations of cobalt result in an increase in plasma concentration of erythropoietin (EPO) which increases the production of red blood cells and increased oxygen carrying capacity; hence its potential performance enhancing effect.

"The Evaluation of Cobalt as a Performance Enhancing Drug (PED) in Racehorses" study sought to determine if cobalt acts as a performance enhancing drug by altering biochemical parameters related to red blood cell production, as well as markers of aerobic and anaerobic exercise performance.

The study also identified the normal distribution of plasma cobalt in a population of horses on a maintenance dietary ration without excessive cobalt supplementation. Research was conducted using 245 Standardbred horses with no supplementation of cobalt from farms in New York and New Jersey, including those at the Rutgers University Equine Science Center.

The study also demonstrated that a sterile solution of cobalt salts (50 mg of elemental cobalt as  $\text{CoCl}_2$  in 10 ml of saline, given IV for

three consecutive days) did not affect aerobic or anaerobic performance or plasma erythropoietin concentration in race fit Standardbred horses.

The authors concluded that a threshold of 25 micrograms per liter in plasma, currently in place in many racing jurisdictions, may result in horses exceeding the threshold without excessive cobalt administration. They suggest that a threshold of 71 micrograms per liter be considered.

The study also found that plasma cobalt concentrations over 300 ppb had no adverse effects on horse well-being or on performance. However, the investigators found that higher doses are purportedly being illicitly administered to horses with reported dangerous adverse and life-threatening effects on the horses.

The present study did not address the effects of administering the much larger doses that racing officials and investigators have suggested are being misused to enhance performance. This study presents data rather than speculation for the decision-making process for setting thresholds.

The study has been published as an open access paper, accessible for free at:

[www.wageningenacademic.com/doi/abs/10.3920/CEP200001](http://www.wageningenacademic.com/doi/abs/10.3920/CEP200001)

**#3**

**This study identified the normal distribution of plasma cobalt in a population of horses on a maintenance dietary ration without excessive cobalt supplementation.**

**#4**

**The results of this study are the first to document that administration of cobalt salts at the level studied does not stimulate the production of red blood cells and does not affect markers of performance in race fit horses. This study presents data rather than speculation for the decision-making process for setting thresholds.**

**#5**

**The study also found that plasma cobalt concentrations over 300 ppb had no adverse effects on horse well-being or on performance.**

A WINTER BREAK SPENT IN

# Belize

WITH THE CENTER FOR ENGAGED LEARNING ABROAD

By: FRANCESCA BUCHALSKI

**T**his winter, I had the incredible opportunity to participate in Belize's Large Animal Veterinary Practices in the Tropics study abroad program through the Center for Engaged Learning Abroad (CELA).

Our group of twenty students from all across the country shared a passion for animals, and we were all eager to jump right in as soon as we touched down in Belize—and our instructors, Dr. Eduardo Tesecum (Dr. T.), Dr. Stephanie (Dr. Steph), Rueben Tesecum, and teaching assistant Candice were happy to oblige!

The first few days of our trip were a gauntlet of lectures and practical labs where we learned and practiced the skills we would be using throughout the rest of the program, from physical exams, to pregnancy checks, to diseases of concern in Belize, to suture techniques.

My CELA classmates and I couldn't wait to start learning and preparing for the weekend's upcoming spay and neuter clinic. On our first day, we toured the Belize Agricultural Health Authority (BAHA) lab, which is a national organization similar to the USDA. We got to load a fecal-egg count chamber, count some eggs, and prepare a blood smear slide. It was my first experience with both of these, and I had some fantastic beginner's luck!



At a local goat and sheep farm in the Cayo District of Belize, students from the CELA “Large Animal Veterinary Practices in the Tropics” class perform maintenance shots on a group of “kids.” (Pictured from left to right: Francesca Buchalski, Veronica Useche, and Audrey Leonard) - Photo Courtesy of 2020 CELA Belize.

After practicing different suture patterns on some chicken legs, we all got to assist Dr. T by suturing up spay and neuter incisions.

This was absolutely amazing—these were the first spay and neuter surgeries I got to see in person. I even got to participate in them! The practice on the chicken leg carried over really well to suturing up the dogs.

I got to suture a spay incision, a neuter incision, and give subcutaneous injections. I thought it was fascinating that the spay procedure in Belize is done with a side incision as opposed to a midline incision like in the States. Since most dogs in Belize are indoor-outdoor, the less invasive, quicker-healing side incision is typically the go-to route in Belize.

In preparation for the upcoming spay/neuter clinic, we also practiced some small animal restraining skills

on the clinic dog, Manuosa. Most of my experience is with large animals, so this was actually my first time “formally” restraining a dog.

In my high school, I was in the Future Farmers of America’s Pre-Veterinary career development event, and we had to learn all of the steps to restrain dogs and cats—but restraining a real, breathing, moving animal is VERY different from practicing on a stuffed animal! Dr. Steph walked us through all the different types of restraints we might need to use at the clinic, and Manuosa was a very patient teacher.

The spay/neuter clinic was unlike anything I have ever seen in the United States. Overpopulation of dogs is a big issue in Belize, so low-cost clinics like the one we worked are very important to keeping the population healthy and under control.



Veterinary technician Reuban Tesecum and teaching assistant Candice James supervise as the class prepares a dog for surgery at a low cost spay/neuter clinic in Placencia, Belize. (From left to right, Francesca Buchalski, Jasmine Lapsley, Jada Gaskin, Cameron McAbee, Justin Hodrick, Candice James, and Reuben Tesecum) - Photo Courtesy of 2020 CELA Belize.

I was blown away by the number of people who brought their dogs, especially considering just how many were young children.

Some of the highlights of the day included a few TVT—transmissible venereal tumor—cases, and a dog in the early stages of pregnancy with a pyometra, a typically fatal combination. It was so satisfying to know that spaying that dog probably saved her life.

As I continued suturing and giving subcutaneous injections throughout the day, I was very happy to find myself, for the most part, getting progressively steadier and faster.

By the time we got to the last dog, we were a little short-handed—there were always three surgeries going on at once—and I'm proud to say that I got to suture

up his entire incision by myself. We saw a total of 44 dogs, and 36 were spayed or neutered; this means we saw over 6 dogs an hour!

One of my favorite parts about veterinary medicine is communicating with and educating animal owners—I'm considering teaching at a college animal science program or veterinary school one day—and I'm so grateful for the interactions I had with the local animal owners in Belize.

I loved seeing how much Belizean pet owners look forward to health clinics like this one. I had so many people come with their dogs and thank me and the other students profusely for coming, and expressed how happy they were that we were there.

Even with the clinic finished, we didn't slow down

one bit! Our second week focused a lot on large animal medicine. We kicked off the week with a tour of a small-ruminant research/breeding facility. The sheep were so different from what I am used to!

The sheep I've previously worked with are dorsets, which are much bigger and woolier than the Barbados blackbellies, dorpers, and katahdin breeds in Belize. It was really interesting to see first-hand how the breeds that do well there tend to be smaller and lighter-wooled. And giving the subcutaneous injections was awesome—my first sheep injections!

We also went to Dr. T.'s own farm to vaccinate his sheep herd—about fifty in total. We set up an assembly line, and after the farm workers handled the adult animals, we got to “wrangle” the lambs for their vaccines.

Later in the week, we got to vaccinate a herd of about forty cattle. Like the sheep, the cattle in Belize are also more adapted to the heat, so we worked mostly with breeds like Brahms. At this farm, the cattle were driven into a chute, where we reached over the top and vaccinated them in the rump. We administered blackleg vaccine and a vitamin injection, which was a bit more challenging than I thought it would be—it's sometimes difficult to get a needle through the thick hide of a Brahman. It was a serious workout, but also a lot of fun.

After the cattle, we accompanied Dr. T. on some farm calls, first to a bull with a swollen leg (which was treated with antibiotics for infection), and then to a dog with a small growth on its leg. Dr. T. turned the back of a pickup truck into a makeshift surgery table, and removed the mass in about ten minutes—so quickly and steadily!

And of course, my study abroad wouldn't be complete without horses! Our group performed physical exams on a herd of riding horses and administered dewormers and vaccinations. I got to work with Holiday, a spunky little chestnut mare.

After the physical exams, we got to ride our “patients” through the Belizean rainforest—and I was partnered with Holiday!

On our ride, we learned about all sorts of different Belizean plants, and I had a thrilling gallop right behind one of the ride leaders. After we got back, we watched Dr. T. perform castrations on two of the horses, which was another first I could check off my list.

Finally, we certainly went out with a bang during

our last day of hands-on experience.

We started off with some rectal pregnancy tests on cattle. I've done rectals on horses before (shoutout to my teachers at Ryders Lane!), but never on cattle, and the rectal space felt entirely different.

This probably sounds really cheesy, but I felt like a “for real vet” when I was able to determine that my cow was not pregnant based on how her cervix felt. I've seen and worked with a lot of veterinarians who specialize in reproduction, and I've always admired how they can determine so much about an animal by feel alone—and now I'm on my way towards doing that myself!

Next, we were off to castrate and vaccinate a whole bunch of pigs. We started off with young piglets and steadily worked our way up to the larger ones. The smaller piglets we were able to catch and grab, while the larger ones needed to be wrangled. It almost felt like we were in a wrestling match.

We restrained the pigs by grabbing their ears, straddling them, and backing them into the corner of the pen for their vaccines, which was a workout! Keep in mind that this is a very humane way to restrain the pigs, and does not hurt them in the slightest.

Everyone was cheering each other on like we were in a rodeo! By the time we were finished, we castrated about fifteen piglets, vaccinated close to forty, and were all exhausted, hot, and covered in sweat and mud—so Rueben and Dr. Steph took us on a detour to a beautiful hidden waterfall on our way home to jump in and cool off.

It wasn't all work all the time, though. As the CELA motto goes, “Belize is our classroom,” so the learning never stopped, even on our days off! When we weren't doing veterinary work, we got to explore some of the best natural, cultural, and architectural phenomena that Belize has to offer.

We took a guided tour of Xunantunich, the ruins of an ancient Mayan city, participated in a traditional Garifuna dance on New Year's Day, visited the Green Iguana Project, explored one of Belize's extensive limestone caves via canoe, and snorkeled Belize's barrier reef, which is second in size only to Australia's Great Barrier Reef.

I'm beyond grateful for the time I got to spend in Belize. The people and animals I worked with, the knowledge I gained, and the skills I learned—both veterinary and life skills—will stay with me and serve me well for the rest of my life.



“The New Jersey State Flag was adopted in 1896. Its official color is buff, which is a yellowish-tan color. The colors of the state flag, buff and dark blue (Jersey blue), were the colors George Washington chose for the flag of New Jersey’s army regiments during the Revolutionary War. The state seal is featured on the flag.” - Information courtesy of the New Jersey State Website.

# The History Of New Jersey’s State Animal

**A**s horses shed their winter coats and horse people shed their winter-wear, it is a sure sign that the warmer months are coming.

After months of winter’s icy ground and chilly temperatures, everyone is looking forward to the summer, even our equine partners.

Here in New Jersey, the horse has a special place of significance as the state animal—and with the Month of the Horse fast approaching in June, it’s the perfect time to celebrate New Jersey’s state animal.

The horse has held a prevalent and important place in New Jersey since revolutionary times, long before it was designated as New Jersey’s state animal. In fact, New Jersey’s state seal is crowned by a horse’s head, representing strength, speed, independence, and the status of New Jersey as one of the first established states.

The seal also includes several other agricultural

symbols that emphasize the importance of agriculture to New Jersey, such as plows, a cornucopia of produce, and Ceres, the Roman goddess of agriculture and grain.

At the time the state seal was established, horses were the main means of both transportation and agricultural power, giving them an essential role in the agricultural economy and culture of the young Garden State.

Two hundred years later, the legacy of the horse’s role in New Jersey caught the attention of Michael McCarthy and his fifth-grade class at Our Lady of Victories School in Harrington Park.

The class, along with eighth grader James Sweetman, petitioned to have the horse designated as New Jersey’s official state animal. In 1977, exactly two-hundred years after the creation of New Jersey’s state seal, the horse was granted this distinction.

Despite the fact that horses are no longer widely used to plow fields or transport produce to the market, horses continue to play a vital role in present-day New Jersey's economy, culture, landscape, and agriculture.

New Jersey is home to approximately 42,500 horses of all shapes, sizes, and disciplines, and along with these horses come several prominent equine venues and events.

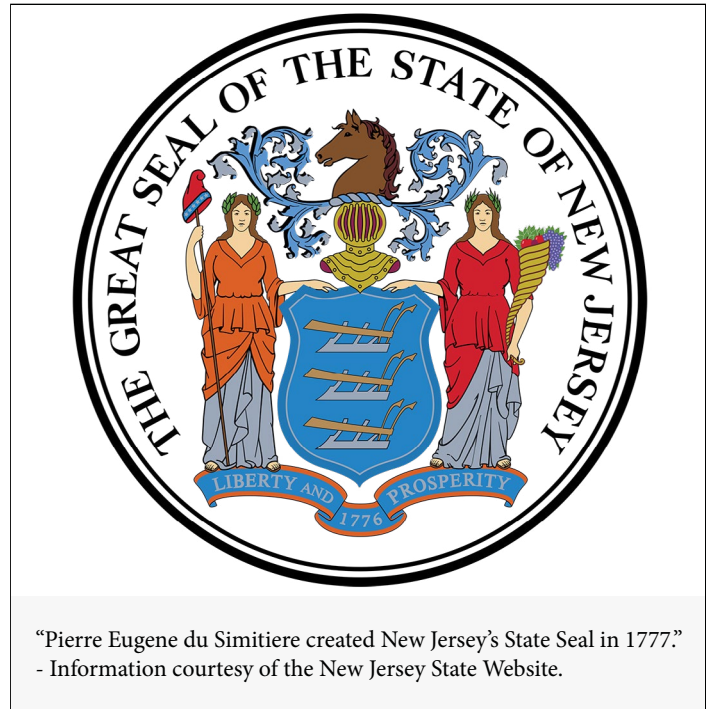
Hamilton Farm in Gladstone, New Jersey, serves as the home base of the United States Equestrian Team Foundation, and is the site of many prestigious equine events such as the Dressage National Championships.

Our own Horse Park of New Jersey hosts the annual Jersey Fresh International 3-Day Event, which serves as a qualifier for the World Equestrian Games, Pan American Games, and Summer Olympic Games.

New Jersey is also home to the "Kentucky Derby" of Standardbred harness racing, the Hambletonian Stakes, and the Haskell Invitational, which attracts the top 3-year old Thoroughbreds of the racing season.

These events and their corresponding industries are of great importance to the economy and landscape of New Jersey. It is estimated that New Jersey's equine industry provides approximately 13,000 jobs and generates approximately 1.1 billion dollars annually.

Additionally, horses play a vital role in preserving open, green space in the most densely populated American state. Approximately 222,000 acres of land in New Jersey remain agricultural because of horses—from breeding facilities, to venues like the Horse Park



of New Jersey, to straw and hay fields, New Jersey owes approximately a quarter of its agricultural land to its state animal.

While the Month of the Horse is usually hosted at a prominent equine location somewhere in the Garden State, it looks like this year might be different. Due to official plans still being discussed due to Covid-19 obstacles to events such as this, make sure that you have "liked" and "followed" the Rutgers Equine Science Center on social media for announcements as we get closer to June.

Mr. Ryck Suydam, President of the New Jersey Farm Bureau; Dr. Rodney Belgrave from Mid-Atlantic Equine Medical Center; Freeholder Director Suzanne Lagay; New Jersey Department of Agriculture Secretary Doug Fisher, Freeholder Susan Soloway, and Dr. Karyn Malinowski, Director of the Equine Science Center at Mid-Atlantic Equine Medical Center for the 2019 Month of the Horse Opening Ceremony.



# Contact Us:

**Karyn Malinowski**

*Director*

**Equine Science Center**

**Phone : 848-932-9419**

**E-Mail : [karynmal@njaes.rutgers.edu](mailto:karynmal@njaes.rutgers.edu)**

**Kyle Hartmann**

*Public Relations Specialist*

**Equine Science Center**

**Phone : 848-932-9419**

**E-Mail : [kylehart@njaes.rutgers.edu](mailto: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](mailto:melissa.mckillip@rutgers.edu)**



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