RUTGERS UNIVERSITY –



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2023 Horse Management Seminar

RUTGERS New Jersey Agricultural Experiment Station



Equine Science Center Hosts The 2023 New Jersey Equine Industry Summit At Rutgers University

he 2023 New Jersey Equine Industry Summit was hosted by the Equine Science Center on Thursday March 16, at the Cook Campus Center.

Founding Director of the Equine Science Center, Dr. Karyn Malinowski, kicked off the day with opening remarks and highlighted the sponsors of the event who helped to make it all possible.

She was followed by Dr. Alisa Herbst who presented on the "2022 Equine Needs Assessment Survey". While not giving away all of the data, Dr. Herbst focused on some of the results that she thought were pertinent to those in attendance.

The summit featured a keynote by Dr. Jill Stowe, professor and director

From The Clubhouse



Dear Friends,

Spring is finally here and we are all busy helping our equids lose their winter coats. Arm yourself with shedding blades and curry combs and have at it. We were very fortunate to have a mild winter and didn't miss much riding/ driving time due to ice and snow.

We at the Equine Science Center had a busy and productive beginning of 2023. Carey Williams put together a series of Horse Management Seminar webinars on consecutive Wednesday nights in February. Our constituents seem to love the virtual format and attend the webinars from all over the world. We had record numbers of people tune in each night for some great research-based information. For the full story, and the link to the recordings, take a look at Page 14.

The Center also hosted the first New Jersey Equine Industry Summit in 20 years on March 16, 2023 at the Cook Student Center. I want to thank all who attended, our speakers, sponsors, and the facilitators of the afternoon breakout sessions.

Special thanks to Secretary of Agriculture Doug Fisher who gave opening remarks and stayed for the entire morning session. Together we worked to set the priorities for the Center and the horse industry for years to come. We are currently producing the proceedings of the event which will be available online soon on our website. All attendees will receive notice of the availability of the proceedings. See the feature story on the **Front Page**. On Saturday, March 25, the faculty, students and staff of the Center were pleased to host the New Jersey Department of Agriculture's Junior Breeders Livestock Symposium at the Cook Campus Farm.

Young enthusiasts, their parents, and leaders were treated to interactive sessions throughout the day and even though the weather was rainy, windy and cold, everyone left with smiles on their faces.

Thanks to Carey Williams, Alisa Herbst, Ellen Rankins, and Kyle Hartmann who delivered the equine sessions which went off without a hitch. See the story on Page 8.

On April 10, we hosted a group of students from Gloucester County Community College. We are always pleased to host Emily Allen and her students who really enjoy learning about our work and to learn about the possibilities here for them at Rutgers, should they decide to transfer.

Finally, as a reminder, we have two scholarships available to our students. The Doris C. Murphy Endowed Scholarship in Equine Science (flyer on **Page 12**), and the Ronald S. Dancer Memorial Scholarship (flyer on **Page 17**). For a full list of the requirements, and the link to the applications, take a look at the flyers.

We are also currently accepting applications for the Gold Medal Horse Farm Award. This prestigious award recognizes outstanding equine farms for their dedication to environmental sustainability and management. It also underscores the efforts of the New Jersey equine industry to maintain the beauty of the Garden State. For more details, and for the link to the application page, please take a look at Page7.

I also have two exciting upcoming events to share with you. Fast approaching on Saturday, April 29 is Ag Field Day at Rutgers Day. The festivities at the Red Barn on College Farm Road begin at 10:00 AM with the horse handling and fitting show. The Equine Exercise Physiology Lab will be open all day from 10:00 AM to 4:00 PM with treadmill demos at 1:00 and 2:00 PM. Be sure to stop by and say "hi"! See the flyer on **Page 13**.

On May 8 we are hosting a very special event for the Standardbred Breeders and Owners Association of New Jersey. The SBOA-NJ has chosen the Equine Exercise Physiology Lab to be the site for a visit from Assembly Speaker Craig Coughlin. I am proud to be able to showcase what our faculty, students, and staff are doing here and to have Speaker Coughlin have some fun with an interactive demonstration we have planned. Good food, good science, and good friendship will be shared by all.

> 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 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



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

Boehringer Ingelheim Animal Health is the second largest animal health business in the world, with presence in more than 150 countries, and a significant presence in the United States, with more than 3,100 employees in places that include Georgia, Missouri, Iowa, Minnesota, New Jersey and Puerto Rico.

Boehringer Ingelheim

The lives of animals and humans are interconnected in deep and complex ways. We know that when animals are healthy, humans are healthier too. Across the globe, our 9,700 employees are dedicated to delivering value through innovation, thus enhancing the well-being of both. Respect for animals, humans and the environment guides us every day. We develop solutions and provide services to protect animals from disease and pain. We support our customers in taking care of the health of their animals and protect our communities against life- and society-threatening diseases.

For more information about Boehringer Ingelheim Animal Health, please visit: www.boehringer-ingelheim.us

UPCOMING 2023 EVENTS

Ag Field Day At Rutgers Day

Saturday, April 29, 2023

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

esc@njaes.rutgers.edu

Equine Science Center Summer Showcase

Thursday, July 13, 2023

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

esc@njaes.rutgers.edu

2023 Hambletonian Continuing Education Seminar Friday, August 4, 2023

Hilton Meadowlands Hotel 2 Meadowlands Plaza East Rutherford, NJ 07073

Gordon@firstchoicemarketing.us

Evening of Science & Celebration

Thursday, November 9, 2023

Cook Student Center Rutgers, The State University of NJ New Brunswick, NJ

kylehart@njaes.rutgers.edu

The 2023 New Jersey Equine Industry Summit

Continued from Pg. 1



of undergraduate studies at the University of Kentucky, on the "Economic Analysis Of Equine Operations: Reducing Costs For Horse and Horse Farm Owners."

Dr. Stowe went over the financial considerations that people should think about before taking on the commitment of owning a horse, or horse farm, and how difficult, time-consuming, and financially constraining it can be. Not trying to deter people from it, but rather giving them all of the data that they need before making an informed decision.

Dr. Stowe also spoke to those who did own horses or horse farms, and highlighted the things that they should be doing in order to keep a proper budget, record keeping for tax and legal purposes, and other tips to maintain a successful business.

A racing panel took place right before lunch, which included remarks by both James Gagliano, President and Chief Operating Officer of The Jockey Club; and Mike Tanner, Executive Vice President/ CEO of the United States Trotting Association. Both presented on the state of their associations' breeds (thoroughbreds and standardbreds respectively), as well as how sports-betting has affected their industry.

Breakout sessions took place after lunch, and focused on horse health, the future of racing, land use policy, environmental stewardship, the integrity of equestrian sport, and industry sustainability by engaging youth in equine activities and leadership roles.

The summit ended with each group session facilitator reporting back on the discussions that took place in each break out room.

Attendees were thrilled to be asked about their opinions on the different subject matters, and were interested in how they could be more involved in the success of the equine industry in New Jersey.

The summit proceedings are currently being compiled and will be released electronically to both attendees, and the general public, in the near future.



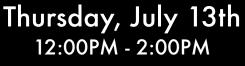






EQUINE SCIENCE CENTER Summer Showcase

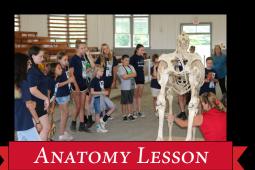




We're Back!

Join us as we return this year to our LIVE Summer Showcase!

To learn more, and to register, use the link below.







go.rutgers.edu/ESCShowcase2023

TREADMILL DEMO

f facebook.com/RutgersESC

instagram.com/ruequinescience

pinterest.com/RutgersESC

twitter.com/RutgersESC



General Admission: FREE

Join us for our annual Equine Science Center Summer Showcase! Please just be sure to register, and invite your friends!

To learn more about the Equine Science Center visit us at esc.rutgers.edu

New Jersey Gold Medal Horse Farm Program



Environmentally friendly farms give the consumer greater confidence in the environmental sustainability of agriculture and encourages public support for the industry. This award gives recognition to the most outstanding equine farms and their environmental sustainability and management.

Eligibility

All New Jersey horse farm owners are invited to submit an application for the award. Farms receiving the highest scores will receive a Gold Medal Equine Farm plaque to be displayed on their farm. Awards will be based upon environmental stewardship, general farm appearance, an implemented AWMP or CNMP, and adherence to the following points:

- 1. Controlling animal access to the waters of the State;
- 2. Storing manure at least 100 linear feet from surface waters of the State; "Water or waters of the State means the ocean and its estuaries, all springs, streams, and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State or subject to its jurisdiction."
- 3. Applying manure using proper nutrient management practices;
- 4. Minimizing odors from manure storage and application areas;
- 5. Optimizing the beneficial use of nutrients from manure and bedding materials;
- 6. Having a biosecurity program in place to minimize disease risk.

How is the selection completed?

The selection is completed by a pre-determined ranking process that requires both a producer application and an evaluative process.

Selection process

- 1. Gold Medal Application. Producers need to complete an application that includes general information about their farm (type, horse numbers, acreage, etc.), a copy of their AWMP/CNMP, and a self-assessment of their farm. A \$100.00 application fee will be required of all applicants to go towards continuing the program.
- 2. Review. A team of reviewers will walk through the farm and make recommendations about the farm. These recommendations have two uses: first, to evaluate the farm for suitability for the program, second to point out any deficiencies. The review team will be made up of members from RCE, NJDA, NRCS, and any other appropriate groups such as might be represented on the US-DA-NRCS Technical Committee.
- 3. The award program may be used for subsequent advertising or promotion for environmental stewardship in New Jersey. Horse farmers, who apply to participate in this program, if selected, agree to cooperate with promotional activities and make all reasonable efforts to maintain the level of environmental stewardship on their operations.

HOW THE JUDGING WORKS

- 1. Formal applications can be obtained from the Rutgers University Equine Science Center. Applications will be due August 1. These will be reviewed for completeness prior to judging.
- 2. Judging teams will visit farms during the month of September.
- 3. The judges' final ranking will be made and results given to the Rutgers University Equine Science Center and the NJDA Division of Agricultural and Natural Resources.
- 4. Results will be announced at the Equine Science Center Update.
- 5. Awards will be given at the New Jersey State Agriculture Convention.
- 6. Any previously awarded farm failing to maintain program standards will have their award revoked.

For more details, as well as a link to the application, please go to: https://go.rutgers.edu/ESC-GMHF

The 2023 Junior Breeder Livestock Symposium



he Junior Breeder Symposium was hosted on Saturday, March 25th on the Cook Campus farm to great success. Over 200 attendees were treated to Hands-on workshops in Equine, Large Ruminant (Cattle), Small Ruminant (Sheep & Goat), Swine, Poultry, Rabbit, Cavy (Guinea Pig), Small Animals, Beekeeping!

This event is sponsored by the New Jersey Department of Agriculture Junior Breeder program in cooperation with Rutgers Cooperative Extension faculty and staff.

The equine seminars presented included a widevariety of sessions. The first session, "The Horse's Digestive Tract – Why we feed them the way we do!" was presented by Rutgers faculty, Dr. Taylor Ross. Dr. Ross went over the horse's digestive tract, and included a interactive activity where students were able to visualize the digestive tract using everyday items to represent the different parts of the tract.

"Hoof Anatomy and How Trimming Affects Movement" was presented by Craig Ferrell, Owner of Winners Edge Horseshoeing in Southampton, New Jersey.

Ferrell spoke about his years of experience shoeing horses, and what he looks for. Giving a demo using some of the horses at Rutgers, Ferrell had the horses walk in front of the group, and gave the attendees a real-time explanation of how he would shoe or trim the hoof to facilitate better movement on a case by case basis.

"Leg Anatomy: Bones, Muscles, Joints" by Rutgers faculty Drs. Anna Hausmann and Carey Williams was a popular session where students learned about the anatomy of the leg, and how the muscles surrounding it help the leg to move. The session included the games "RU A Skeletal Expert?: Horse Legs!", as well as a look a real horse legs!

"How muscular is my horse? – Learn how to use a muscle rating scale to evaluate muscle mass in horses" rounded out the day with Rutgers Post-Doc, Dr. Alisa Herbst presenting her Muscle Atrophy Scoring System (MASS).

Dr. Herbst's system can be used to highlight the differences between muscle, fat, and muscle loss using set parameters that focus on specific spots on

the horses. These differences can then be used as a part of her ranking system to evaluate fat (much like the human body condition scoring system), and then used to score overall muscle atrophy.

To learn more about Dr. Herbst's system, take a look at the **From The Lab** section.

Overall, the 30-45 equine attendees (youth and adults alike) were very positive about their experience throughout the day. They learned a lot and will take what they learned home to their youth groups to share the great information.



To see more of the pictures from the event, please go to: https://go.rutgers.edu/2023JBLSPics





From The Lab: Assessing muscle loss in horses

THE TOP 5 TAKE-A-WAYS



The body condition scoring (BCS) system was developed to rate body fat in horses, while the muscle atrophy scoring system (MASS) was developed to evaluate muscle mass/loss of muscle mass.

#2

The muscle atrophy scoring system (MASS), or a similar muscle mass evaluation system, should be used to detect and monitor muscle atrophy in horses, instead of using the "looking at the horse" method, because minor changes in muscle mass might be missed. orses may experience muscle loss (also called muscle atrophy) due to medical conditions, aging, or inappropriate management. For example, inadequate nutrition, poor saddle fit, or diseases such as pituitary pars intermedia dysfunction (PPID), osteoarthritis, and equine protozoal myeloencephalitis (EPM) can lead to muscle atrophy.

As a loss of muscle mass can have important implications for welfare (e.g., horse's ability to get up after laying down) and can also affect performance, routine muscle mass monitoring is important.

To date, changes in muscle mass are mainly determined by visual assessment of the horse (i.e., "looking at the horse"). This method is, however, highly subjective and it is very difficult to detect subtle changes over time.

To provide a more objective tool, Dr. Herbst (postdoctoral associate at the Rutgers ESC) and her team have recently created a muscle atrophy scoring system (MASS) for horses. The system works similarly to the body condition scoring system (BSC), which is used to evaluate body fat in horses through visual assessment and touching and feeling (palpation) of certain body areas in which fat commonly deposits.

The MASS also uses visual and palpationbased examination of horses, however, to determine the presence of muscle atrophy, which is rated on a scale of zero (no atrophy) to four (severe atrophy).

The research team has tested the scoring system in 38 horses of different age, sex, and breed, and found that the agreement of three raters on atrophy ratings of the horses' neck, back and hind regions was good-to-excellent.

The study further showed that older horses and those with PPID had higher scores than younger horses and those unaffected by PPID, respectively, suggesting that the system likely correctly identifies horses with muscle atrophy.

Further validation of the system is underway, but the MASS may already be used by veterinarians, equine health professional, equine nutritionists and horse owners to detect and monitor muscle atrophy in horses.

Link to the study: https://doi.org/10.1016/j.jevs.2021.103771

The muscle atrophy While the system has **Older horses and** scoring system (MASS) undergone initial testing those with PPID was found to have in this study, a more had higher muscle good-to-excellent thorough validation study atrophy scores inter-rater reliability is important to better in the study, for ratings of the neck, understand the strengths suggesting that the back, and hind regions. and weaknesses of the system correctly spots horses with system. muscle loss.



Doris C. Murphy Endowed Scholarship in Equine Science

The Equine Science Center has extended the application due date for the Doris C. Murphy Scholarship until June 1st, 2023 for this 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

RED BAUN **College Farm Road** New Brunswick, NJ APRIL 29 10:00AN -4:00PM AG FIELD DAY AT RUTGERS DAY HGH-SPEED HORSES

Cook Farm

Cook Farm/Red Barn 1:00PM & 2:00PM Arrive 30 Min Early watch a horse run on a highspeed treadmill and learn about the research and education conducted by the center



The 2023 Horse Management Seminar:

Keeping It Virtual As We Cover Nutrition-Related Topics o make the event as convenient as possible for all attendees, the Horse Management Seminar was held in the virtual format again this year. Hopefully next year will see the return to a in-person format, with the potential for a virtual component.

Similar to last year, the seminar consisted of three Wednesday evening webinars on February 8th, 15th, and 22nd. Each webinar featured two or three speakers who focused on nutrition-related topics.

Each evening focused on a specific topic area and ended with the ever popular "Ask the Expert Live" panel hosted by Dr. Carey Williams, Equine Extension Specialist and the Associate Director of Outreach for the Rutgers Equine Science Center, as well as the evening's speakers.

Attendees had time to ask questions about the presentations and were encouraged to bring their own questions to the webinars based upon the subject area for that night.

On the first night, Dr. Frank Andrews from Louisiana State University spoke on Ulcer Supplements, Dr. Wendy Pearson from the University of Guelph spoke on Antioxidant & Joint Supplements, and Dr. Sarah White-Springer from Texas A&M University spoke on Omega-3, Antiinflammatory Supplements.

The second night included Dr. Kristine Urschel from the University of Kentucky who spoke on "Nutritional Regulation Of Muscle Mass", and Dr. Shannon Pratt-Phillips from North Carolina State spoke on "Potential Issues With Horses On Pasture".

The series closed out with Dr. Amanda Grev from the University Of Maryland who spoke on "Alfalfa: When Is It The Right Choice For Horses?", and Dr. Amy Burk from the University of Maryland spoke on "Weight Loss Strategies And Management Of Horses On Pasture, And All Forage Diets". More specifically some subtopics included weight loss strategies for overweight horses kept on pasture and making sure an all-forage diet is balanced, also the proper use of alfalfa for horses.



"Keeping the seminar series virtual has allowed our audience to hear from experts that would usually be restricted by travel expenses and other commitments," said Dr. Carey Williams, Associate Director of Outreach at the Equine Science Center. "These experts have been able to join us from throughout the United States, as well as attendees

who have been able to join us from around the world!"

All recordings are now available on the Equine Science Center's virtual archive in the "Library" section of the website listed under "<u>Multimedia</u>", the location for all previously recorded webinars.

For all 3 recordings in one place, please visit: https://go.rutgers.edu/2023HMSArchive



The Equine Science Center Raises Funds For The Ronald S. Dancer Memorial Scholarship During The 2023 Rutgers Giving Days

his year the Equine Science Center highlighted the newly launched Ronald S. Dancer Memorial Scholarship.

The scholarship will honor his memory and the legacy he left as a horseman, legislator, colleague, and friend of the equine industry.

All told the Equine Science Center raised over \$40,000 throughout Rutgers Giving Days, and hopes to endow the scholarship by the end of the summer; ensuring that it will be awarded for many, many years to come.

The Center gave a huge thanks to UMH Properties, Inc. who contributed a matching gift of \$10,000 after it hit its first goal of \$10,000; and furthermore, it would like to give a special thanks to Sam Landy and the Landy Family for donating an additional \$10,000 on behalf of the Landy Family Foundation.



Ronald S. Dancer

Memorial Scholarship

The Equine Science Center is happy to announce the first-ever application cycle for the Ronald S. Dancer Memorial Scholarship, due June 1st, 2023 for this year.

The scholarship(s) will be awarded for the following academic year. Please see the application form link on the right, and the 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 undergraduates majoring in Animal Sciences with a concentration in Equine Science.

Scholarships will be awarded annually to fulltime 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, demonstrated interest in equine science, and demonstrated leadership and service to community, school, and to the horse industry. Scholarships may be renewed annually with the approval of the scholarship selection committee.

The Ronald S. Dancer Memorial Scholarship in Equine Science was created to honor the memory of a man who tirelessly served the public throughout his tenure as a New Jersey Assemblyman in the state legislature.

Assemblyman Dancer was a strong supporter of the New Jersey equine industry, agriculture in general, and of the Rutgers Equine Science Center. It is only fitting that this scholarship be awarded to a student who demonstrates leadership skills and community involvement following in Assemblyman Dancer's footsteps.

To Apply for the scholarship, please go to: https://go.rutgers.edu/2023DancerScholarship



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