

**2020 Northeast Pasture Consortium Conference Proceedings  
January 15-16, Lake Morey Resort, 82 Clubhouse Road, Fairlee, VT**

7. Addressing the Heavy Use Area/Pasture interface (vegetation management)
  - Comparison of options (deep-bed packs, composted packs, wood chips) and economic impact on handling facilities, heavy use areas, and cost-effective options,
  - Biological composition of bedded packs and livestock health (mastitis—John Barlow & Deb Neher),
  - Bale grazing and in-field winter management/calving,
  - Species evaluation for vegetated heavy use areas,
  - Using summer annuals to restore winter sacrifice areas, and
  - Research fact sheet updates?
8. Farm profitability and upcoming cultural/societal changes
  - Compare different philosophies, results, benchmarks,
  - Development of artificial and plant-based “meat” and “milk” (and other animal products) and how they will that affect our work, stakeholders, audience, and research. Three papers of interest listed below:
    - 1) Paper in Global Change Biology, Proceedings for Natl Academy of Sciences “Soil carbon sequestration is an elusive climate mitigation tool.” (2018 Nov 13; 115(46): 11652–11656),
    - 2) EAT-Lancet Commission Summary Report – “Our Food in the Anthropocene: Healthy Diets From Sustainable Food Systems”, Jan 16, 2019, and
    - 3) American Farmland Trust - Testimony of Dr. Jennifer Moore-Kucera, Climate Initiative Director of American Farmland Trust, before the US House Select Committee on the Climate Crisis, October 30, 2019.
  - Ecological/carbon footprint of animal production compared to ecological footprints of alternative products,
  - Quality assurance program requirements; impacts on profitability
9. **New:** Research on planting mixes of 6-12 species together to see what mix works well and remains diverse under well-documented grazing conditions, which species complement one another, and the economics involved in trying to maintain a diverse, as-planted mixture (cost versus value-added with increased meat and milk production and food quality).

### **Business Meeting**

After the public and private sector reports on revised and new research, education, and technical assistance priorities were presented and discussed, the business meeting followed. Fay Benson, Public Sector Co-Chair and Don Wild, Private Sector Co-Chair, presided. The first order of business was to nominate and elect a public sector member-at-large and a private sector member-at-large to the Executive Committee. Jim Cropper nominated Dr. Tom Griggs, West Virginia University forage agronomist, for the public sector member-at-large. Jessica Williamson nominated Dr. Ben Goff, West Virginia University Extension ANR Agent - Mason & Putnam Counties. Once she nominated Dr. Goff, Dr. Griggs withdrew his nomination citing that he will be retiring before the 4-year term was up most likely and moving to Vermont. Thereupon, Jim Cropper seconded Jessica motion to nominate Dr. Goff. Nominations were closed by those present at the meeting. Dr. Ben Goff was unanimously elected to the Executive Committee. Don Wild announced that the Private

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Sector had several people interested in being a member-at-large, but when Aimee Braxmeier was proposed as a candidate, the other people rallied around her candidacy. Mrs. Lora Goss made a motion to nominate Ms. Braxmeier as the private sector member-at-large. Mr. Rob DeClue seconded the motion. Nominations were closed by those present at the meeting. Ms. Aimee Braxmeier was unanimously elected to the Executive Committee. Jim Cropper said he would send out their duties in a welcoming email along with background information about the Northeast Pasture Consortium since they were first year attendees.

**Margaret Smith**, NEPC Administrative Advisor, Cornell University Agricultural Experiment Station, Ithaca, NY presented a PowerPoint "NEPC is a Project of the Northeast Regional Association of Ag. Experiment Station Directors, NEERA 1603". She provided a brief history of the origin of the Northeast Pasture Consortium that began as a concept and was approved by the Northeast Ag. Experiment Station Directors in 1995. The first Multistate Project was established for the Consortium as NEERA1000 in 2001. It brought together a diverse, integrated group: University research and extension, USDA-ARS, NRCS, and farmers and industry.

### Impact Statement 2006-2011

**NEERA-1000 (2006-2011)**

**Northeast Pasture Consortium**

**Who cares and why?**

Because of soil, landscape, and climate limitations, much of the agricultural land in the northeastern U.S. is best suited for grazing forage for livestock. On average, 40 million acres of pasture are used to produce beef cows, sheep, goats, and horses fed on harvested forages like hay or grass in pastures. These forages generate nearly two-thirds of the agricultural income in the Northeast Region, however, these forages are rarely produced on a consistent or profitable basis. Therefore, many livestock producers are trying to better utilize pasture. To help improve pasture forages, researchers, teachers, and students are working together to develop a variety of pasture-based foraging systems. To make appropriate business and land management decisions, farmers need up-to-date information about costs, efficient grazing practices, animal husbandry, plant varieties and growth, and the health benefits of grass-fed livestock products. Past pasture management can result in high costs and forage and livestock production losses for farmers. In addition, poor management can threaten livestock, environmental, and human health. A viable future for agriculture in the northeastern U.S. depends on keeping forage-based farms competitive, profitable, and environmentally friendly.

**What has the project done so far?**

The Northeast Pasture Consortium has brought together farmers, agricultural researchers, animal husbandry, and extension personnel to address pasture-based farming issues. Consortium members have met with government officials to educate them on the ability of pasture to regenerate carbon, improve water quality, and increase farm profitability, leading to collaboration with a variety of agencies and animal resource agencies that have established research positions and funding. In addition, the group has held its meetings and established networks about public grazing opportunities to conserve or produce and bring to market. The Consortium has held a conference as the winter so that farmers could attend reduced expense before their pasture management goals to a new generation of livestock. The group has also published research results and information on pasture-based systems, animal husbandry, and grades, such as in the Northeast Grazing Guide (<http://prograz.com/>).

**Impact Statements**

Improved information about research, programs, and policies for production-based and other grazing characteristics.

Addressed farmer concerns about pasture design, grazing strategies, and animal husbandry, leading to more profitable and environmentally sustainable pasture-based farms that support a viable future for agriculture in the northeastern U.S.

Established and improved pasture-based systems under different grazing, climate, and soil conditions, leading to more forage availability and reduced the grazing process.

Influenced legislation, leading to pasture-based forage in the animal husbandry, food safety, and management standards. Collaborative research and extension projects with the Northeast Regional Association of Agricultural Experiment Station Directors (NEERA) and other regional partners to improve pasture-based forage production, quality, and safety, and reduce energy use.

Reduced the effectiveness of management practices for reducing nitrogen and phosphorus for reducing nitrogen and phosphorus.

Shared findings and technologies in a variety of ways, including through educational and technical programs on pasture-based forage production, quality, and safety, and reduce energy use.

Provided resources that promote improved pasture-based forage production, quality, and safety, and reduce energy use.

**What research is needed?**

Much more work is needed to quantify how different management practices long-term nutrient and animal farm raising systems. To do this, scientists need to have better descriptions of pasture forage conditions, monitor animal and production trends, and determine whether improved grass or pasture and pasture-based forage systems for the general and specific. Researchers also need to determine the applicability of leading practices and measure their impact on the Northeast U.S., so that farmers can be applied before the soil water, pasture-based systems build up to the upper reaches of soil. More research is needed to assess carbon sequestration in pasture in Northeast Region climate and soil types. Long-term trials and research plant composition development are needed to provide data that compare forage yields from pastures to those from machine-harvested fields. Cooperation is critical to the data that can be compared across the entire region.

**Want to know more?**

Administrative Advisor:  
Margaret E. Smith  
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This project was supported by the Multistate Research Fund (MRF) established in 1996 by the Agricultural Research, Extension, and Education Reform Act in accordance to the Hatch Act of 1988 to encourage and enhance cooperative, multi-agency research on critical issues that have a national or regional priority. For more information, visit <http://www.mrf-fund.org/>.

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Two impact statement leaflets were produced for the Northeast Pasture Consortium about the last two 5-year projects, with editorial support from the National Association of Ag. Experiment Station Directors. A support flyer was also produced to inform state and national agricultural agencies that the role of the Northeast Pasture Consortium is to bring this integrated group together to promote pasture-based livestock production and marketing. Already it is nearly time to submit a Project proposal - we need to re-new! The current 2016-2021 project is almost over. After a question and answer period, Margaret asked the membership if they thought it worthwhile to re-new for another 5 years. There was a general consensus that the partnership of private and public sector people are advancing the research, education, and technical assistance needed to create productive pastures all over the Northeast in a

### Impact Statement 2011-2016

**THE NORTHEAST PASTURE CONSORTIUM**

Agriculture land in the Northeast is well suited for grazing cattle, sheep, goats, and horses on pastures. Pasture-based farms provide desirable products, such as organic milk and meat and feed and fiber, for consumers. Pasture management can result in high costs and losses for farmers and threaten animal, environmental, and human health. To make sound management decisions, farmers need up-to-date information about grazing practices, animal husbandry, and forage varieties.

Since 1995, local grass scientists have worked together to lead the Northeast Pasture Consortium. Researchers and Extension specialists work with farmers, agricultural researchers, environmental organizations, and USDA partners to conduct pasture research and share information and technology.

**COORDINATING PASTURE RESEARCH & OUTREACH**

Over the past five years, the Northeast Pasture Consortium has coordinated and published research, extension, and outreach projects, providing fact sheets and webinars, and conducting field tours and workshops. The Consortium has also influenced policy for National Farm Security Administration (NFS) and National Organic Program (NOP) and has been instrumental in the development of the Northeast Pasture-based Forage System (NEPFS) and the Northeast Pasture-based Forage System (NEPFS) and the Northeast Pasture-based Forage System (NEPFS).

The Consortium also influenced a policy change in the Northeast to allow for the use of pasture-based forage in the production of animal products. This change will allow for the use of pasture-based forage in the production of animal products.

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**IMPROVING LIVESTOCK DIETS**

Improving the quality and quantity of forage available to livestock can improve their health and productivity. The Consortium has conducted research and extension projects to help farmers improve their forage-based diets.

**IMPROVING PASTURES & BEDDING**

Improving pasture and bedding management can reduce the risk of disease and improve the health and productivity of livestock. The Consortium has conducted research and extension projects to help farmers improve their pasture and bedding management.

**IMPROVING LIVESTOCK HEALTH**

Improving the health and productivity of livestock can improve the profitability of pasture-based farms. The Consortium has conducted research and extension projects to help farmers improve the health and productivity of their livestock.


**MINIMIZING ENVIRONMENTAL IMPACTS**

Minimizing the environmental impacts of pasture-based farming can help protect the environment and improve the sustainability of the industry. The Consortium has conducted research and extension projects to help farmers minimize the environmental impacts of their farming operations.

NEERA 1000: Northeast Pasture Consortium, also grant supported in part through USDA-NIFA by the Multistate Research Fund established in 1996 by the Agricultural Research, Extension, and Education Reform Act in accordance to the Hatch Act of 1988 to encourage and enhance cooperative, multi-agency research on critical issues that have a national or regional priority. For more information, visit <http://www.mrf-fund.org/>.

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## Support Flyer



**Northeast Pasture Consortium**

*100,000 acres from business and science through 12 million head of cattle (300,000 dairy and 900,000 beef) and 100,000 head of sheep and goats from the top pasture systems represented with their farms, the best of a great area of more healthy production.*

**Linking Researchers, Farmers, and Agencies to Support Northeast Family Farms**

The Northeast (NE) Pasture Consortium region is linked together 38 similar livestock, crop, and climate conditions. Across the 11 states of the Consortium, land is not well suited for conventional row crop production or large scale agriculture with its rocky, shallow, and eroding, and our fields are relatively small and irregularly shaped. Of the 100,000 farms in the NE region, 90% are small family operations. Most NE farms are highly productive, and the region has ample grassland resources that offer unique and valuable advantages for direct sale to the consumer.

Research has shown that intensive pasture management offers more reliable sources of income compared to confinement feeding systems, particularly for smaller farms that are sensitive to market risk. Pasture-based livestock operations tend to have lower input costs, lower environmental impacts, and lower barriers to entry than large confinement systems. Pasture-based systems also offer opportunities for meat and dairy product differentiation (e.g. antibiotic-free, improved farm and transportation practices) and can enhance the economic, social, and environmental sustainability of farms. As increased costs of grain and fuel make feeding livestock on grain in the Midwest less economical, farms with adequate pasture resources can create their livestock and produce grain (through feed) and sell directly to the consumer, the better the chance they will be profitable. Farmers can increase their income by grazing cattle and other farmers can begin grazing operations at much lower costs than starting with raising cattle that require synthetic feed, fertilizer, feeding systems, and heavy equipment. Reduced barriers to entry, lower market risk, and increased environmental, economic, and social attributes of pasture-based systems that favor future generations of farmers.

Small family operations (SFOs) in the NE Pasture Consortium have driven collaborative research through grant activities, USDA Agriculture Experiment Station (AES) and independent organizations (NEPC), and the grassland grazing workshop in Berlin VT, over 10 livestock products, technical education, and application suppliers from 12 NE states center to NEPC that developed a paradigm that focuses on preventing short and long-term research needs. Using property-based researchers to work on technical solutions for these needs, and providing these solutions to farmers. Over the years, the group has offered many services to farmers around the world, including NEPC Pasture Consortium, and a series of detailed handbooks that are used by farmers as well as policy covering the use and care of pasture management. University Extension professionals and cooperative agencies like the USDA, NRCS have based conferences and field days and distributed fact sheets. As a result, farmers are incorporating research results into their pasture-based farming practices that protect their land from erosion, loss of the pasture. The Consortium work is becoming more visible as state and federal agencies are recognizing the value of pasture-based farming and state budgets make limited staff and resources. By building efficient, strategic relationships among researchers, farmers, and action agencies, the Consortium provides timely science-based solutions in an unbiased manner.

The Consortium has facilitated research that has had a far-reaching impact on the industry. Examples of recent and current research supported by the Consortium, include:

PROJECT	COLLABORATORS
Learning Organic Dairy Production to Meet the Demand of New and Emerging Milk Markets	<ul style="list-style-type: none"> <li>Utah New Hampshire</li> <li>Utah Vermont</li> <li>Utah Maine</li> <li>Connecticut</li> <li>USDA, ARS (University Park, PA)</li> </ul>
Tracking the Shortfall Value of Milk from Transitioning to Organic Dairy Feed	<ul style="list-style-type: none"> <li>USDA, ARS (Washington, DC)</li> <li>Rodale Institute</li> </ul>
Forage Based Approaches for Improved Profitability and Ecosystem Services of Dairy Farms	<ul style="list-style-type: none"> <li>Utah New Hampshire</li> <li>Utah New York</li> <li>USDA, ARS (University Park, PA)</li> </ul>
Pasture-based Beef Systems project (Pasture-fed beef)	<ul style="list-style-type: none"> <li>USDA, ARS (Oreano, NV)</li> <li>West Virginia University</li> <li>Virginia Tech</li> <li>Clemson University</li> </ul>
Managing Forage and Grazing Lands for Multiple Ecosystem Services	<ul style="list-style-type: none"> <li>Utah Vermont</li> <li>Utah New Hampshire</li> <li>Utah New York</li> <li>Utah Massachusetts</li> <li>USDA, ARS (University Park, PA)</li> </ul>

The Consortium's past work has advanced pasture-based farming, but there are critical questions in many different research areas that still need to be answered, including:

**Water Quality**

- Are grazing systems contributing to the Chesapeake Bay sediment and nutrient loading?
- Are stream side fences and riparian buffers the only effective tools for managing nutrients and sediment?

**Forage quality**

- How can digestive protein usage and animal health and production be improved?
- Which forage species have low residual detergent fiber (NDF) or highly digestible NDF to enhance livestock efficiency in capturing float nutrients?

**Livestock**


- How do climate change impacting aspects of livestock production, including parasite life cycles in small pastures and heat stress in grazing dairy cows?
- What are the benefits of grazing systems versus confinement systems?

**Land**

- How can pasture quality on moderate to steep hillside be improved with low inputs of capital?
- Which management strategies maximize the cost of transitioning from row-crop and mixed land systems to productive, sustainable grazing lands?

**Human**

- Are cost-share programs properly directing resources to small water and air quality issues?
- What are the human health benefits of pasture raised livestock products?



**Increased support of the NE Pasture Consortium stimulates research, education, and technical solutions for pasture-based farming systems—solutions that increase economic viability, environmental sustainability, and the availability of wholesome, locally grown food.**

manner that is cost-effective, environmentally responsive, and produces wholesome food. It is more important than ever to combine the ever-shrinking resources of university and agency people and funding to continue advancing the science and art of pasture-based farming.

Jenn Colby and Sid Bosworth reminded the attendees to submit any filled-in *Future of the NEPC* questionnaires that were still outstanding. They explained that these would be helpful to guide an ad hoc committee on how to proceed with the Consortium with Jim Cropper retiring as Executive Director in February and Sid Bosworth, the Principal Investigator, retiring later this year.

Jim Cropper wrapped up the business meeting by thanking Jessica Williamson and Cliff Hawbaker for their many contributions while being on the Executive Committee. Both had served out their 4-year terms with distinction. He welcomed Ben Goff and Aimee Braxmeier to the Executive Committee. The two new co-chairs were announced, Kevin Jablonski-Private Sector and Daimon Meeh-Public Sector. The 2020 business meeting was then adjourned earlier than originally planned so those residing in the western part of the Northeast could head home before the snow-storm got there.