

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

Mark said at the end of his presentation that the Maryland Governor has just directed the State Attorney General to sue Pennsylvania and the U.S. Environmental Protection Agency in an effort to protect Chesapeake Bay restoration efforts. The Governor has repeatedly called upon upstream states, including Pennsylvania, to step up and take responsibility for sediment and debris that pours into the Chesapeake Bay by way of the Susquehanna River. The Susquehanna River supplies 50% of the fresh water entering the Bay.

Public and Private Sectors Research, Education, and Technical Assistance Priorities Deliberation Breakout sessions and Report

The breakout sessions were shortened to a half hour so that the Conference could hear the two reports, private and public, before lunch on revisions and additions to the priorities for research, education, and technical assistance going forward. A slow moving snowstorm was entering the western part of the Northeast Region; therefore, the Conference needed to end by midafternoon so those not staying overnight could get home safely. The body of stakeholders, private and public, continues to foster future work in quantifying economics for ecosystem services, soil health, climate resiliency of pastures, and the viability of grazing enterprises. Here are the 2020 research, education, and technical assistance priorities:

1. Explore new methods to transfer knowledge and information to increase adoption of research findings within the agriculture community; incorporate social science research into increased adoption and technology transfer:
 - Including farm organizations and advocacy groups to additionally influence regulations and legislations.
 - USDA-ARS—keep working with and building partnerships and communicate with ARS headquarters about upcoming events.
 - Seek new contact with USDA-NRCS Chief, seek a commitment to encourage reps from every state (electronic options for joining?) and invite NRCS Chief to the 2021 NEPC Conference.
 - Strengthen Extension and university research connections, work listservs and across communication methods; —use Organic Research & Education Initiative (OREI) funding opportunity.
 - 1) Utilizing connections within Pasture Consortium; grazingguide.net
 - 2) Expand distribution list to a set list within each state for advertising date of upcoming NEPC (even if it is only a Save the Date w/o a set agenda)
 - 3) Advertise NEPC on already-existing websites and social media accounts owned by Consortium members (ex: Facebook pages, Instagram, websites)
 - 4) Invite farmers from all NEPC states (Cedar Tree grant—NE states, could apply to USDA OTT, USDA-NIFA Scott Angle) by reaching out to existing grazing networks within each state to reengage farmer participation. (Cedar Tree Foundation and NE Grazing Network as source of funding??)

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- More efficient outreach of objectives:
 - 1) Industry (ex: Organic Valley)
 - 2) Review newsletter distribution (one-click unsubscribe? Which email list to use? Sarah Goslee discussion; outreach to admin within universities and agencies)
 - 3) Educating new farmers; reaching the next generation.
- 2. Ecosystems Services and Disservices from Pasture Systems and Grazing Management:
 - Impacts to riparian areas,
 - Impacts to water quality and availability (citizen involvement),
 - Wildlife benefits to adaptive grazing management,
 - Impacts of permanent stream and streambank exclusion from livestock grazing riparian area pastures in the Northeast and economic impacts on producers,
 - Economic models for ecosystem service payments (measurement, payment, structure).
- 3. Silvopasture contributions to carbon sequestration; adaptive strategy in changing climate conditions.
- 4. Research adjustments in forage management needs in a changing climate:
 - Regional management approaches (understanding variability),
 - Species adaptation and evaluation (meadow fescue, use of annuals, increase in invasive plants),
 - Impacts of grazing on greenhouse gas emissions and environmental resiliency,
 - Management practices to reduce invasion of undesirable plant species due to increased precipitation and lack of water infiltration in pastures,
 - Research on nutritional value of weeds while considering their antiquality issues , and
 - Does climate change affect native/invasive species? Does it change pasture management? Change animal intake or increased lignification of plants?
- 5. Soil biology and management impacts on animal health and human health
 - Small ruminant parasite research at WVU, Rhode Island, and Cornell,
 - Red and white clover functions in animal and soil health, pollinators, forage and animal production,
 - Tanniferous forages to reduce worm load and increase bypass protein in animal diets,
 - and Grazing management as it affects soil health (e.g., compaction, worms).
- 6. Further research in meat and dairy products regarding human nutrition and health:
 - Fatty acid updates, value of side chains on long chain FAs (Jana Kraft), & short chain FAs,
 - Artificial gut for milk digestibility located at the Wyndmoor, PA ARS Laboratory,
 - Whole milk/fats; A2A2 milk – effects on human health and getting information out to a larger audience,
 - Milk probiotics/prebiotics identified and their function in human health discovered,
 - C3, C4 grasses, forbs, and effects on Omega-3 content in milk and meat,
 - Impacts of plant-based products marketed as “meats” and “milks” to farmers and environment,
 - Dairy cow plant fiber digestibility impact on milk quality, and
 - Continue to quantify research in nutrient-dense foods; how does cooking affect beef/food nutrition values?

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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