



# Northeast Pasture Consortium

This project coordinated research and outreach that has led to economically, socially, and environmentally sustainable livestock production on pastures in the northeastern U.S.

## 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 growing forage for livestock. On forage-based farms, livestock such as dairy and beef cows, sheep, goats, and horses feed on harvested forages like dried hay, or graze in pastures. These farms generate nearly two-thirds of the agricultural income in the Northeast Region; however, these farms can be costly if pastures are under-utilized or completely replaced with confined feeding that uses harvested forage. Therefore, many livestock producers are trying to better utilize pastures (which typically require less labor, machinery, buildings, pesticides, and fossil fuel inputs) as a way to reduce expenses. Unfortunately, the information, technologies, and resources that support pasture-based farming are limited across the region. 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. Poor 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 stable future for agriculture in the northeastern U.S. depends on keeping forage-based farms competitive, profitable, and environmentally friendly.



When the dairy cows go to a new paddock to graze fresh grass, these free range hens and their mobile coop are moved to the vacated paddock. The hens still need to be fed grain and egg-laying mash in addition to the food they find on the pasture; however, the pasture provides a more sanitary and less stressful environment than cages in enclosed buildings. Photo by James Cropper.

## What has the project done so far?

The Northeast Pasture Consortium has brought together farmers, agribusiness professionals, researchers, 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 sequester carbon, improve water quality, and increase farm profitability, leading to collaborations with a variety of agriculture and natural resource agencies that have established research priorities and funding. In addition, the group has kept its members and stakeholders informed about public hearing opportunities to comment on policies and letters to sign to support grants and programs. Each year, the Consortium has held a conference in the winter so that farmers could attend technical sessions before their pasture animals gave birth to a new generation of livestock. The group has also published research results and recommendations in journal articles, newsletters, brochures, and guides, such as the Northeast Grazing Guide (<http://grazingguide.net/>).



During poster presentations, Consortium members keep each other informed about how they have promoted pasture-based farming in their states. Pasture specialist and farmer Troy Bishopp was part of a project that helped deliver pasture system training to Northeast Region agencies, extension educators, and farmer mentors. Photo courtesy of Troy Bishopp.

## Impact Statements

Improved communication about research, programs, and policies for pasture-based farms and built trust among stakeholders.

Addressed farmers' concerns about pasture design, grazing strategies, and animal husbandry, helping farmers run safe, profitable, and environmentally sustainable pasture-based farms that support a viable future for agriculture in the northeastern U.S.

Evaluated new and improved pasture plant varieties under different grazing, climate, and soil conditions, showing farmers how to boost forage availability and extend the grazing season.

Influenced legislation, bringing pasture-based farms more in line with economic, food safety, and environmental standards. For example, the group helped the National Sustainable Agriculture Coalition amend a bill so that small farmers and vendors are not barred from selling products locally.

Rated the effectiveness of management practices for pastures in the Chesapeake Bay watershed, helping farmers set realistic targets for reducing pollution in the Bay.

Shared findings and technologies in a timely manner, ensuring that research, educational, and technical programs are relevant and accountable to stakeholders.

Raised awareness that properly managed pasture-based farms can improve water quality, sequester carbon, enhance food quality and safety, and reduce energy use.

## What research is needed?

Much more work is needed to quantify how efficiently different management practices keep excess sediment and nutrients from entering streams. To do this, scientists need to have better descriptions of pasture hydrologic conditions; monitor overland and groundwater runoff; and determine whether ungrazed grass or pasture sod provides a better buffer between the pasture and streams. Researchers also need to determine the applicability of knifing fertilizers and manures into stony pasture soils of the Northeast U.S., so that nutrients can be applied below the soil surface, preventing excess nutrient build-up in the upper two inches of soil. More research is needed to assess carbon sequestration in pastures in Northeast Region climate and soil types. Long term trials and accurate plant composition descriptions are needed to provide data that compares forage yields from pastures to those from machine-harvested fields. Cooperation is critical for data that can be compared across the entire region.

## Want to know more?

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Compiled and designed by Sara Delheimer



On this grass-fed beef farm, cattle are rotated to a new pasture area (sectioned off by portable fencing) when they have grazed the forage down to a height that consumes most of the forage, but leaves sufficient residual stubble for fast regrowth. Scientists need to further research differences in runoff from pastures that are under rotational grazing versus continuous grazing. Researchers and farmers must also continue to work together to make sure that pastured livestock have a well-balanced diet that keeps the animals healthy and minimizes the amount of nitrogen excreted in animal wastes. Properly managed pastures can save farmers time and money and scientists are investigating possible health benefits for consumers of pasture-fed livestock products like meat, milk, and cheese. Photo courtesy of Gabe Clark, Cold Spring Ranch.