Our Farms, Our Future Conference

SARE Project ENE14-130

Professional Development Project in Weed and Forage Identification and Management

Sid Bosworth[1], Deb Heleba[1], Rick Kersbergen[2] and Richard Brzozowski[2]

University of Vermont Extension[1] and University of Maine Extension[2]

The Challenge

Because high quality perennial forages are critical to sustaining dairy and livestock agriculture in New England, proper identification and management of both weed and forage species are needed. Weeds in these systems pose important management challenges for livestock farmers as they often compete for both above- and below-ground resources that may reduce forage yields, seasonal pasture distribution, and stand life. Being able to identify weeds and understanding their biology, as well as understanding forage quality, are key in helping farmers develop effective forage management strategies.

Survey results indicate that many New England agriculture service providers lack the proper knowledge, skills, and confidence to identify both weed and forage species, as well as developing appropriate strategies to manage them on our dairy and livestock farms.

The objective of this project was to provide a two year training for beginning and mid-level professionals to enhance their knowledge and skills in weed and forage plant identification and management.

Training

In-service training - Participants attended two in-person sessions (which included classroom and on-farm components) in September of 2014 and June of 2015. These were two-day intensive workshops and focused on in-field identification of forage and weed species, weed scouting in crop fields and pasture, silage and hay quality and sampling, pasture management, and farmer decision making.

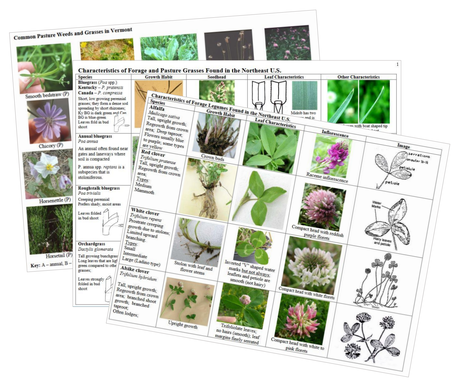
Webinars - During the fall and winter periods, eight one-hour webinars were presented monthly to enhance participant's understanding of weed and forage management. All webinars were posted on the project website.
Topics included the following:

- Forage plant response to defoliation
- Pasture and field renovation
- Weed Management techniques for pasture and hay
- Gearing up for the field season – working with project farmers
- Forage selection and mixtures for New England
- Chemical management of weeds in perennial forages
- Livestock nutrition and grazing management
- Forage-related animal problems

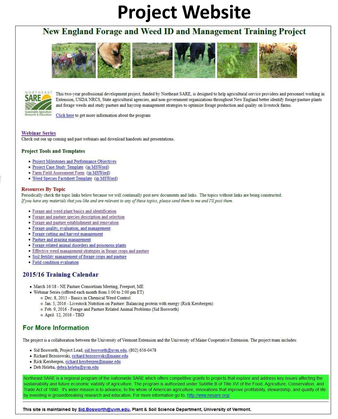
Training Resources

At the first in-person training, participants were provided Forage ID literature, a manual on poisonous plants, and Weeds of the Northeast. A dedicated website for the program was developed and maintained to provide shared resources, announcements and webinar presentations (URL: http://pss.uvm.edu/pdpforage/).

Identification Guides



Project Website



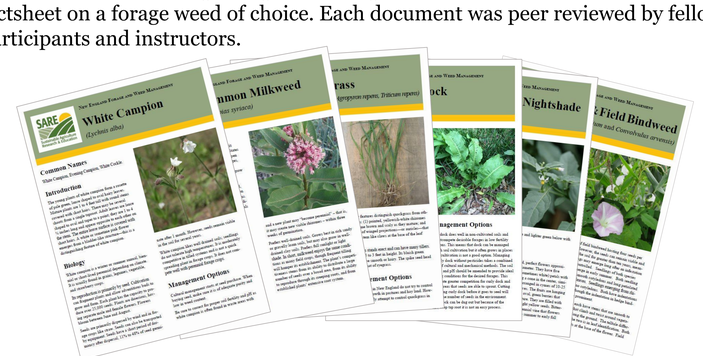
Professional Peer Development

Participants were given the opportunity to attend the 2016 Northeast Pasture Consortium annual meeting held in Freeport, Maine March 16 – 18, 2016. This gave participants an opportunity to interact with leading farmers and other pasture/forage experts in the region.

Active and Experiential Learning

Program Development - participants were offered the opportunity to write mini-grant applications to help provide resources for their own farmer outreach programs in forage and weed management.

Weed Factsheets - Each participant was expected to research and write a brief factsheet on a forage weed of choice. Each document was peer reviewed by fellow participants and instructors.



Examples of factsheets produced during the project.

Results

Participants and instructors at first in-service training.

This project has helped 21 Extension educators, USDA NRCS, commercial and non-profit personnel throughout New England better identify weed and forage species and study pasture and haycrop management strategies to optimize forage quality on livestock farms. The program focused on 1) training, 2) professional peer development, and 3) active experiential learning.

Results of a post-program survey of participants indicated the following :

- 100% said the information they **learned about managing forages** during the training better helped them work with farmers in their current jobs (n=17).
- 84% said the information they **learned about weed identification and management** better helped them work with farmers in their current job (n=17).
- As a result of the project, 94% of respondents said they **felt more confident** in working with farmers on pasture and hayland management (n=16)
- As a result of the project, 94% of respondents said they felt they had built or **strengthened networks** (better connections with resources and fellow professionals).
- 76% of respondents said they **achieved their goals in working with at least 5 farms** (n=17). A total of 468 farmers were served with new info/skills participants gained, accounting for at least 24,714 acres. Participants provided primarily one-on-one technical assistance to farmer clients and offered workshops and field days as well.
- As a result, participants said the outcomes of this education and technical assistance included **management changes** like better grazing management, soil testing, better weed control, improved harvest schedules, successful field renovation, reduced overgrazing and improved pasture quality, greater use of alternative forages, and increased productivity from raised cutting height for faster re-growth. Participants also said farmer clients signed up for technical and financial assistance through EQIP because of their work with farmers. Participants estimated financial impacts of the changes farmers made ranged from $1000 to $4000 per farm in money farmers saved and/or generated because of these efforts.
- In addition, as a result of the project, 82% of the participants said they **gained a better understanding of Northeast SARE programs** and 71% gained more confidence to seek out Northeast SARE funding/resources.

This project is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, through the Northeast Sustainable Agriculture Research and Education program under subaward number ENE14-130. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture or SARE. USDA is an equal opportunity employer and service provider.

nesare.org