

## LEARN MORE ABOUT

- ☑ Gastrointestinal nematode parasites and their life cycle.
- ☑ Smart dewormer use.
- ☑ Integrated parasite control practices including:
  - Pasture and grazing management practices
  - The FAMACHA® System
  - Fecal Egg Counting
  - Selective breeding for resistance to parasites
- ☑ Use of estimated breeding values (EBV) for genetic improvement through participation in the National Sheep Improvement Program (NSIP).
- ☑ Research on the development of a cranberry leaf feed supplement as an alternative dewormer.



Photo courtesy of Dr. Katherine Petersson

### For More Information:

<http://web.uri.edu/sheepngoat>

View our online videos & other resources

## PROJECT PARTNERS

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## *New Approaches for Improving Integrated Parasite Control Strategies for Small Ruminants in the Northeast*



Photo courtesy of Randell Stevenson, University of Rhode Island

**A Northeast SARE Research  
and Education Project  
LNE15-342**

Brochure updated February 2017

## Project Background

Gastrointestinal nematodes (GIN), especially the barber pole worm (*Haemonchus contortus*), are one of the top health concerns of sheep and goat producers in the northeast. GIN parasites are a primary concern when raising sheep and goats on pasture and can cause poor growth, anemia, and death in severe infections.



Barber pole worm (*Haemonchus contortus*)  
<http://vet.uga.edu>

Although integrated parasite control workshops are commonly held throughout the northeast, currently, there are no online options for parasite control training that many of today's producers require.

Additionally, when other management strategies fail to alleviate GIN infection in susceptible animals, producers have few options for the use of alternative and effective dewormers. With parasite resistance to all classes of dewormers rapidly developing, this situation is not sustainable.

Finally, the long-term value of genetic selection for parasite resistance is undervalued and underutilized by small ruminant producers in the northeast, translating into a lack of genetically resistant breeding stock available for replacement animals.

## Project Components

This three year project offers an online training program on integrated parasite control that includes FAMACHA® training and certification, in addition to workshops at large regional events.

Education and assistance with fecal egg counting and promotion of the National Sheep Improvement Program (NSIP) will enable interested producers to factor parasite susceptibility into breeding decisions and use EBVs (estimated breeding values) to balance parasite resistance with other important production traits.

This project will expand current research evaluating the anti-parasitic effects of cranberry leaf on GIN infection in lambs. Cranberry contains condensed tannins, also called proanthocyanidins (PAC) which have demonstrated anti-parasitic efficacy against larval and adult stages of the barber pole worm (*H. contortus*) in a previous Northeast SARE Project (LNE10-300). Development of a cranberry leaf feed supplement to provide an easy, economical deworming alternative will continue.



Cranberry bog prunings provide an abundant, economical source of cranberry leaf. Photo courtesy of Carly Barone.

Project duration:  
September 2015—December 2018

## How to Participate

### Online Training Resources:

- ☑ Visit our website, <http://web.uri.edu/sheepngoat> and view our resources including [videos](#) & [fact-sheets](#) on Integrated Parasite Control, FAMACHA® Scoring, and the use of Fecal Egg Counts in parasite control.
- ☑ Online FAMACHA® certification can be obtained through a 4-step process:
  1. View our online videos on Integrated Parasite Control & FAMACHA® scoring. Complete an online post-video summary.
  2. Practice the Cover, Push, Pull, POP! technique.
  3. Record and email us a video of your FAMACHA® scoring technique.
  4. Follow-up by phone and/or email as needed. Live video sessions can be utilized if needed. Visit our website for detailed instructions.
- ☑ Attend a regional workshop on integrated parasite control/FAMACHA® training.

### Focus on selective breeding:

- ☑ Learn about the NSIP comprehensive, multi-trait selection program that can also include resistance to GIN parasites.
- ☑ Receive assistance in identifying the most parasite resistant sheep and goats in your flock/herd through fecal egg count (FEC analysis) combined with FAMACHA® scores. Receive guidance on using results in individualized selective breeding decisions.
- ☑ Seedstock producers: Receive assistance with enrolling in NSIP and support for FEC analysis. Visit our website for detailed information.

### Program Evaluation:

- ☑ Complete annual follow-up surveys providing feedback on knowledge gained and practices adopted or improved as a result of this project.

<http://web.uri.edu/sheepngoat> for  
Project updates and events