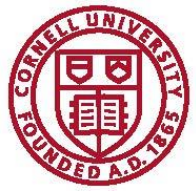


Cornell Cooperative Extension



Northwest NY Dairy, Livestock and Field Crops Program

Serving:

Genesee, Livingston, Monroe,
Niagara, Ontario, Orleans,
Seneca, Wayne, Wyoming,
& Yates Counties

CORNELL NWNYP PROGRAM HIGHLIGHTS OCTOBER – DECEMBER 2017

Feeder School Drives Profit on Dairy Farms

Feeding dairy cows is a daily task that can become monotonous over time. However, feed is the highest cost on all dairies, so meticulousness is essential. Over the course of two days in October and November, 20 dairy employees from five counties learned how to improve their feeding program. Four Spanish-speakers and sixteen English-speakers participated in classroom lectures and on-farm sessions. Top-notch guest presenters brought added depth and expertise to the class.

Many participants commented on the program evaluation that they planned to go home and make specific improvements to their feeding routines. Correcting an error like overfeeding by 5% a day would result in saving \$900 per 100 cows every month! When multiplied by the 22,500 head of cattle represented by the class, the dollars saved quickly add up. One participant commented, "Been feeding cows for 50 years and still learned at this course!"

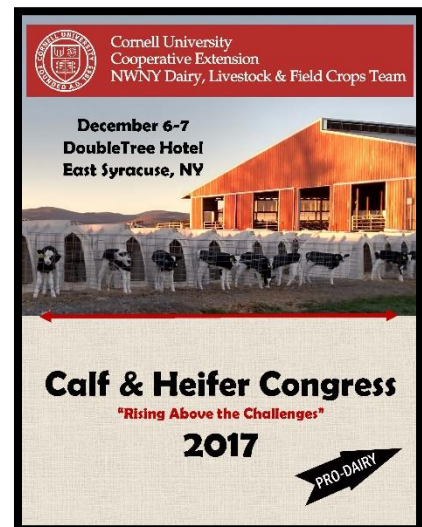


Calf & Heifer Congress 2017 –High Standards and Value

A mix of producers, veterinarians, and Extension, university and industry personnel attended the seventh annual Calf & Heifer Congress on dairy replacement management planned and facilitated by the NWNYP Team. Survey cards indicate they were drawn to the Congress by presentations dealing with challenges and economic issues important to the heifer enterprise on dairy farms. Continuing education credits were an added incentive for veterinarians and Professional Animal Scientists. Fifteen sponsors ensured a quality program in addition to showcasing products and technologies valuable in managing the health and development of dairy heifers.

Over half of the speakers were industry influencers poised to increase the impact of Calf and Heifer Congress. The audience profile pointed towards technically-minded and forward-looking individuals both from the farm community and those that support the industry. Of note were the ten farms that sent two or more people to the conference. The two presentations on the serious health issue of *Salmonella dublin* received the highest scores followed by the closing talk by a consultant who pulled all of the conference topics together. Heifer reproduction strategies, genetic considerations for fertility and an out of the box look at the economics of raising heifers were well received subjects as well.

A high percentage of those from the producer, veterinarian and industry groups commented that they will intensify monitoring and biosecurity especially for *S. dublin*, review health protocols, and take a different look at heifer reproduction and nutrition. This conference together with the more basic calf care trainings and calf facility tours in 2017 has helped identify the NWNYP Team as a valued resource for both farm and industry to collaborate with.



Western Bean Cutworm Resistance to Bt Corn is a Reality

The first Western Bean Cutworm (WBC) was caught in 2009 in a cornfield in Niagara County. The number of male moths caught has doubled each year since and almost 35 thousand were collected statewide in 2017. The primary management for WBC in NY cornfields has been the use of a Bt (*Bacillus thuringiensis*) toxin, Cry1F, in the plant. NY growers have recently noticed more ear damage the past two years and there have been recent findings of decreased efficacy of the Bt Toxin Cry1F in the midwest, Michigan and Ontario. Research by Mike Hunter, CCE, in 2016 showed similar reductions in the control with the Cry1F Bt in NNY.



In NWN, our highest WBC catches have been in the counties along Lake Ontario (Niagara, Orleans, Monroe and Wayne). Research plots were set up in Niagara and Monroe counties to see if the Cry1F Bt has become ineffective due to lack of efficacy or possible resistance. Two grower cooperators planted three different Bt hybrids labeled for WBC control with an untreated and replicated each four times in the field. The percent larval damage was estimated by randomly checking 100 ears in each of the treatment reps for a total of 1600 ears in each of the two plots.

Corn ears were assessed for damage in late September. In both plots, the Cry1F treatment did not hold back WBC from damaging the ear and showed similar percent feeding injury to untreated plants. The other Bt's used showed no injury in either plot. It is evident that we have resistance to the Cry1F Bt in NWN and it should not be used for WBC management. Vipera is the other Bt labeled for control but is currently in limited hybrids. The other option will be spraying an insecticide with a high clearance sprayer around silking stage.

Transitioning from Conventional to Organic Production for the Corn, Soybean, Wheat (CSW)

Cropping System: Transition Period Economics

Farm business owners producing corn, soybean and wheat may look to the production and sale of organic grains as means to improve results. If economic analysis yields favorable results, and the owner concludes that organic production is a good fit for the business, then the decision to transition from conventional to organic production is made. Some owners, after making the decision to transition to organic production, ask, "Is there an optimal crop sequence for the 36 month transition period that positions the business for the first year of organic production with organic prices?"



The NWN Team developed economic analysis to answer the above question. Analysis required agronomic data including yields, input levels and other information by crop for the transition period. The NWN Team worked with Cornell University's Professor Emeritus William Cox to summarize agronomic data from a multiyear study that he led; and to develop the economic analysis. Analysts reported on their work in an [Ag Focus](#) article that provided highlights, and in a more detailed reporting of the work available on the team's website.

Net Present Value analysis of a feasible set of crop sequences for the CSW cropping system during the transition period yielded the following optimal sequence where acres are allocated equally among corn, soybean, and wheat annually.

- Conventional corn as an entry crop precedes organic red clover which precedes organic corn
- Conventional soybean as an entry crop precedes organic corn which precedes organic soybean
- Conventional small grain, barley, as an entry crop precedes organic soybean which precedes organic wheat/red clover