



Northern New York Agricultural Development Program News



Dr. Quirine M. Ketterings, director of the Cornell University Nutrient Management Spear Program, Ithaca, NY, and Dr. Eric Young, research agronomist, W.H. Miner Agricultural Research Institute, Chazy, NY, presented information on their current Northern New York Agricultural Development Program projects at the annual NNYADP meetings in February. Ketterings is conducting a corn yield potential study, evaluating crop sensor and yield monitoring technology, considering winter cereal crop production to boost emergency forage supply, and beginning a study of forage sorghum in rotation with winter cereals. Young's NNYADP project work is focused on the crop production and environmental benefits of tile drainage. Photo: NNYADP

Press Release: March 11, 2016

Contacts: Dr. Quirine M. Ketterings, Cornell University, 607.255.3061
NNYADP Publicist Kara Lynn Dunn, 315.465.7578, karalynn@gisco.net

“MEASURE” is MESSAGE from CORNELL CROP NUTRIENT RESEARCHER at NNYADP Meetings

Northern NY. “Measure yield” is the number one thing growers can do to help themselves improve crop production Dr. Quirine M. Ketterings told farmers attending the 2016 Northern New York Agricultural Development Program (NNYADP) annual meetings.

“To improve management of crops, we have to do a better job with measuring yield and crop response. Field-to-field and year-to-year management records are needed for an analysis of what management alternatives can enhance versus limit crop production,” said Ketterings, director of the Cornell University Nutrient Management Spear Program.

“Northern New York has seen an upward trend in corn silage and grain production since World War II due to advances in plant breeding and production efficiencies. Yet, challenging weather and field-to-field variability of soil, drainage, and management practices all continue to limit production,” Ketterings noted.

She encouraged farmers to measure yields and participate in NNYADP field trials to help build a database that can be used to determine what influences production and which practices can be effective in overcoming limitations, given the unique growing conditions, soils and climate of the northern NY region.

“We get the most relevant data when we gather it on your farms. The farmers that have participated in our whole farm nutrient mass balance assessments over the years have shown there is both an opportunity and feasibility to improve production while reducing the environmental footprint of agriculture,” Ketterings concluded.

Ketterings has conducted vital crop production, nutrient management, and agricultural environmental stewardship research in Northern New York for many years. She presented the scope of her current work in the region at meetings in Chazy and Watertown. Her projects include a corn yield potential study, evaluation of Greenseeker and yield monitoring technology, winter cereal crop production to boost emergency forage supply, and, in 2016, a new study of forage sorghum in rotation with winter cereals.



Corn Project Initiated in NNY Now Statewide

The corn yield potential project initiated in Northern New York is now statewide.

“The corn yield potential study is one example of a project where Northern New York took the initiative and leads the rest of the state with its focus on research,” Ketterings commented.

For the corn yield study, the three-year average yield across all fields in the study to date equaled the yields documented in the Cornell yield potential database. Yet, about 25 percent of the fields averaged corn yields that were 10 percent or more above the yield potentials listed in the Cornell database.

“Our followup work is to understand under what conditions we obtain such higher yields and when yields are below potential, and to understand if higher yielding fields need to be managed differently, specifically for nutrient management,” Ketterings explained.

More information on the NNYADP corn yield research project is posted at www.nnyagdev.org/index.php/field-crops/research-corn/.

Crop Sensors, Winter Cereals, Forage Sorghum Under Evaluation

Northern New York farms are participating in Ketterings' work evaluating the use of crop sensors to determine optimal nitrogen application during the growing season. Early field results that included multiple scans throughout the season indicate the best window for crop sensing is the V7 stage of plant growth.

A general conclusion from her analysis of return on investment with winter cereals is that double cropping properly managed can pay off on the right fields. The Winter Forage Small Grains to Boost Feed Supply: Not Just a Cover Crop Anymore report is posted at www.nnyagdev.org/wp-content/uploads/2012/02/NNYADP2014DoubleCropReporttwo.pdf

A new NNYADP-funded project in 2016 will evaluate the use of brachytic dwarf BMR forage sorghum as a shorter growing season option versus corn silage under Northern NY growing conditions. Questions include whether sorghum can compete with corn silage when planted late and harvested early. Data from three NNY sites in 2016 will be added to field trial results from eight sites in central and eastern NY.

“Based on results to date, we think forage sorghum can compete with corn silage for yield and quality in dairy production systems in Northern NY and in the Northeastern U.S.,” Ketterings said. “The trials in 2016 will tell us what is feasible.”

More Crop Production Tips

Ketterings also suggested managing fields for soil conservation, organic matter, optimal fertility and pH; not basing decisions on just one year of data; and conducting a whole farm nutrient balance. The latter is a simple assessment of the difference between nutrients imported through feed, fertilizer, bedding and animals versus the nutrients exported through milk, animals, crops and manure. Knowing the difference, i.e., the balance, has resulted in improvements in nutrient use efficiency over time. As such the whole farm nutrient mass balance is another tool that illustrates the power of measuring for improved management.

More than 100 farmers provide input to the NNYADP on dairy, crops, fruit, greenhouse, livestock, maple and vegetable production.

Funding for the Northern New York Agricultural Development Program is supported by the New York State Senate and administered by the New York State Department of Agriculture and Markets. NNYADP economic impact reports, project reports, resource links, and NNY events are posted on nnyagdev.org.