

January 2015 Annual Report
Northern New York
Agricultural Development Program
Practical Results for North Country Farms

Clinton, Essex, Franklin, Jefferson, Lewis & St. Lawrence Counties

CO-CHAIRS: Jon Greenwood, 315-323-4814; Joe Giroux, 518-563-7523

Jon Rulfs, 518-572-1960

www.nnyagdev.org



2014 PROJECTS



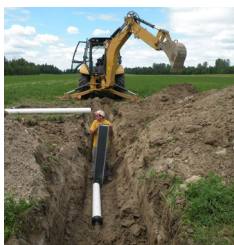
DAIRY & FIELD CROPS PRODUCTION

- **Local NNY Options: Dairy Cow Corn Substitution** . . . 44¢/cow/day gain income over feed costs
Cost-effective, lower starch options available regionally
- **Boosting Feed Supply: Winter Forage Cover Crops** . Forage yield: 1.76 tons/ac
Double-cropping offsets costs, adds value/income
 8 NNY farms, 20 fields
- **Pre-Harvest Alfalfa-Grass Mix Evaluation** 2015: \$17-\$20.75/cwt
Timely harvest boosts forage quality, milk/acre production
 by milk class
- **Post-Harvest Evaluation: Alfalfa % in Mixed Stands** 2015: \$17-\$20.75/cwt
Crops w/proper relative feed value support healthy cows & milk production
 by milk class
- **Assessing Potential for Benefits of Winter Forage Crops after Corn Silage** . \$461/66-100 acres
Winter cover crops to improve soil and retain nitrogen for spring crops
- **Improving Forage Quality with Meadow Fescue-Alfalfa Mixes** Ave 14,090 lb milk/ac (1 trial)
Adding digestibility, fiber balance, field and milk production advantages
- **Expanding Forage and Cover Crop Options in NNY** 1.76 tons/ac average w/
Best options for crop, nitrogen efficiency, profitability
 crude protein % gain possible
- **Evaluating Best Corn Hybrids for Grain Production in NNY** . \$50.6 million crop NNY
Regional on-farm trials identify varieties as best fit for NNY conditions
- **Weed Control Programs for Glyphosate-Resistant Soybeans** . \$6.31 million crop NNY
Strategies for preventing/delaying arrival of new weed into NYS



AG ENVIRONMENTAL STEWARDSHIP

- **Nutrient Recycling: Corn Yield Potential** \$4.15/bu corn 2015
Evaluating corn nitrogen needs/yields; adaptive management
for more efficient field-by-field nutrient use with yield gain
 12 NNY farm participators
 8 fields >110% yield gain
- **Water Quality Impact on NNY Dairy Industry/Milk Production** 4 lbs water/cow/1 lb milk
Measuring use, need for treatment protocol to gain cow health and
milk quality
 100 NNY farms
- **Tile Drainage for Farms Along Lake Champlain** 2.4% average yield gain at
Enhancing profitability, improving soil quality, more consistent
yield, earlier/timely planting, improved harvesting
while reducing nutrient losses to surrounding environment
 \$4.15/bu corn/2015
 1.8% ave. yield gain at
 \$9.50/bu of soybeans/2015
- **Implementing Adapt-N in NNY: Reducing Cost,** . . . 1 NNY farm saved \$20,000
Mitigating Nutrient Loss, Adapting to Climate Change . . . \$26-\$53/acre profit



LIVESTOCK PRODUCTION & MARKETING

- **Enhancing Market Connections for Cow-Calf, Stockers & Cattle Feeders** . . \$2.53-\$14.15/cwt
Emerging opportunity for NNY; NY Beef Producers Association priority for 2015

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SNOUT BEETLE SUCCESS HELPING FRUIT CROPS

- “How-to” Education for NNY Growers/Dairies 200 fields ~10,000ac treated
Long-term NNYADP project produced inexpensive biocontrol for destructive dairy/livestock/cash crop pest Protects \$229-\$381/ac
- Breeding of ASB-Resistant Alfalfa Varieties \$82/ton hay@4 tons/ac
Helping dairy/livestock farmers, cash croppers \$135/ton DM: milk production
- Extending ASB Biocontrol Success to NNY Berry Crops. 1 NNY farm can overcome
Showing promise for NNY strawberry growers, and New York State grape & organic apple growers \$20,000-\$30,000 loss to berry weevils



CROP and LIVESTOCK PEST & DISEASE MANAGEMENT

- NNY Corn & Soybean Disease Diagnosis & Assessment . \$106.91 million NNY
Results alert farmers to emerging & perennial problems
- Parasite Management for NNY Sheep & Goats \$679,000+ NNY
Strategies for reducing major cause of sheep & goat deaths
- Brown Root Rot: Ice Sheeting Impact on NNY Alfalfa Crops \$180-300/ton sold
Winterkill in NNY prompts new focus on genetics of surviving plants
Note: NNY research led to 1st diagnostic test for this soil pathogen
- Evaluating Alfalfa Varieties & Germplasm for Winter Survival in NNY \$180-300/ton sold
Selective variety breeding of winter-resistant crop w/strong yield
- Characterizing Mastitis-Causing Pathogens: “Other Streptococcal Species” Improved cow health & milk production
This work is identifying contagions that appear to be becoming a new challenge to the dairy industry in the region \$486.9 million NNY



NNY FRUIT & VEGETABLE PRODUCTION

- Season Extension: Non-Traditional Tunnel Crops . \$8/lb basil, up to \$1 cukes
Opportunity for high value income crop production \$16/lb ginger, \$3.50/lb beans
- Precision Apple Orchard Management for NNY \$16 million NNY
Systems management improves fruit quality & harvest
- Advancing New York State’s 1st Juneberry/Amelanchier Nursery \$3.25/pint (blueberries \$2.75)
NNY is now a research center for “Superfruit” w/high nutrition & consumer interest
- Evaluating Cover Crops for Plasticulture Vegetable Production \$13/tomato plant
Testing “living mulch” to reduce weeds/pests/disease w/o yield loss \$21/linear ft of onions
- Vegetable Crop Establishment Strategies & Needs for NNY \$6.21 million: direct-to-consumer sales in NNY
Targeting research & technical assistance for emerging market opportunities
- New Fact Sheet for NNY Tomato Growers: Coping with Leaf MoldNYS average: \$3,491/acre
Helping high tunnel & greenhouse growers protect high-value crop

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A Farmer-Led Research, Technical Assistance & Outreach Program for the Agricultural Industry of NY's Six Northernmost Counties

PROGRAM CO-CHAIRS:

JON GREENWOOD, Canton, 315-323-4814 JOE GIROUX, Plattsburgh, 518-563-7523

JON RULFS, Peru, 518-572-1960

Agriculture: An Economic Engine Growing for Northern New York

Census of Ag 2007, 2012 data shows regional growth in the NNY agricultural industry:

- ~12.2% increase in Land in Farms ~ 2% increase in Number of Farms
- ~26.3% increase in Total Value of Farm Product Sales (\$752.8 million)
- ~ 17.5% increase in # of Maple Farms (382)
- ~ 30% increase in Community Supported Agriculture Farms (66)
- ~49.2% increase in Direct-to-Consumer Sales (\$6.213 million)

Funding from the NYS Legislature/Senate supports NNYADP on-farm projects & innovative research/outreach for Northern New York

2015 NNYADP Projects include:

- Ag environmental benefits of tile drainage • Corn and soybean diseases survey and alerts • Emerging local food opportunities: Juneberry, Edamame, Birch Syrup, Cold-Hardy Grapes
- Evaluating emerging causes of dairy cow mastitis • Calf housing & respiratory health • Precision apple production • Small livestock health • Water quality • Beef production
- Cold climate crop protection • New forage crops • Reaching young farmers and more •

NNYADP STEERING COMMITTEE

CLINTON COUNTY

- Willie Giroux
- Tony LaPierre
- Tom Remillard
- Jon Rulfs
- Dan Tetreault

ESSEX COUNTY

- Shaun Gilliland
- Bernard Leerkes
- George Sayward
- Sam Sherman

FRANKLIN COUNTY

- Steve Gokey
- Doug Malette
- Randy Ooms
- Kirby Selkirk
- Norm Shipman

JEFFERSON COUNTY

- Harold Boomhower
- Dennis Forrester
- Don Holman
- Mike Kiechle
- Doug Shelmidine
- Ed Walldroff

LEWIS COUNTY

- Ralph Chase
- Bernhard Gohlert
- Steve Nortz
- Gary Rosiczkowski

ST. LAWRENCE COUNTY

- Kevin Acres
- Bob Andrews
- Dan Chambers
- David Fisher
- Robert Zufall
- Andy Weaber

99 additional farmers from the six-county region serve on Dairy & Field Crops; Livestock Production; Fruit, Vegetable, Greenhouse & Nursery; and Maple & Forestry Products Subcommittees



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NNYADP: A Leader in Addressing Needs & Maximizing Opportunities



"A biocontrol treatment developed to help NNY alfalfa growers is now showing early promise of proving useful to New York apple growers" – *Country Folks Grower*, Nov 2014

"Cornell University and CCE personnel sampled an alfalfa field last week at Philip J. Kubinski's farm to show the benefits two species of nematodes can have in reducing the alfalfa snout beetle population... This research is now expanding to cranberries, grapes. . ." – *Lowville Journal*, Oct. 22, 2014

"Soybean production in NNY has increased significantly in the last five years... The results of variety trials (at local farms) are posted at www.nnyagdev.org." – *Plattsburgh Press-Republican*, April 6, 2014

"A serious crop disease called northern stem canker has been confirmed for the first time in northern NY soybean fields as part of the NNYADP-funded NNY Corn and Soybean Disease Diagnosis and Assessment database building project" – *Farming, The Journal of Northeast Agriculture*, Oct. 16, 2014



"This research partnership with the Northern New York Agricultural Development Program is providing growers with early notice of common pests and crop diseases, and, in the case of northern stem canker, new challenges, so they can quickly respond to maintain crop health and productivity and farm profitability" – *NY Corn & Soybean Growers Association Executive Director Julia C. Robbins*



Grasses have advantages when it comes to nutrient management... new tall fescue varieties have much greater potential as quality forage... The main advantage of a grass variety trial funded independent of company entry fees is that a comprehensive set of varieties can be included, representing the range of varieties currently available. The latest results are available (from NNYADP) – *Progressive Forage Grower*, Aug. 30, 2014

The NNYADP has issued a new resource to help tomato growers cope with a fungal disease (leaf mold)... increasingly troublesome for greenhouse and high tunnel growers across New York state – *Growing Produce Magazine*, July 28, 2014

Northern New York agricultural leaders are undertaking outreach and research to inform growers about a pest (leek moth) that likes onions, garlic, chives, shallots, leeks and other allium crops" – *Growing Magazine*, May 2014



***Associated Press*, May 4, 2014: "When people talk about juneberries in North America, we want to be the comprehensive resource," NNYADP Juneberry Project leader Dr. Michael Burgess of SUNY Plattsburgh, talking about NY's first Juneberry research nursery established by NNYADP at the Willsboro Research Farm**



"Corn is costly to feed dairy cows; \$200/ton... With NNYADP funding, Miner Institute collaborated with regional dairy and feed industry personnel to identify corn-substitute feedstuffs available within the Northern NY region" – *Peru, NY, Gazette*, June 13, 2014

"The objective of the ongoing NNYADP research is to calibrate the most precise optimal nitrogen application rate to achieve high-yield, high-quality crops in a double-cropping system... reduce production costs as well as environmental loss of nitrogen not taken up by the crops." – *Holstein World*, June 26, 2014