



Joint Legislative Public Hearing on 2017-2018 Executive Budget Proposal

New York Farm Viability Institute (NYFVI) Environmental Conservation, February 13, 2017

Thank you for accepting this written submission in lieu of testimony at the hearing.

At its core, the New York Farm Viability Institute's mission is to help New York farms improve their economic viability. We do this through strategic management of our competitive grant program, ensuring the projects we fund will create knowledge that will quickly and directly benefit farmers.

Since 2005, Farm Viability has been funded through a legislative appropriation, administered by the New York State Department of Agriculture and Markets. We are appreciative of the trust and confidence the governor, legislature and department have placed in our organization.

Governor Cuomo has demonstrated his faith in our organization by providing a \$400,000 line item for our program in the Executive Budget. NYFVI is respectfully requesting that the legislature supports our competitive grant program for a total of \$2.4 million in the 2017-2018 NYS budget. Our request was formally endorsed by the Council of Agriculture Organizations and its 24 members, as well as 9 additional agriculture organizations.

Last March, as the New York State 2016-2017 budget passed, Farm Viability was appropriated 1.9 million dollars to fund our organization and run our competitive grant program.

The very next month—last April, we awarded slightly over 1.6 million dollars to 20 projects so they could begin work immediately. You'll find a newsletter highlighting the projects selected for funding included as an addendum to this testimony.

Below is a chart of the proposals received and funded for the 2016 grant cycle. As an organization, we don't set funding goals by commodity area. Every year we evaluate the proposals and select the projects we feel will have the most impact for New York's farmers.

Production Sector	2016 Proposals Received	2016 Projects Funded	Dollar Value, Projects Funded
Dairy	4	2	\$208,840
Field Crops	4	3	\$258,906
Grapes	2	2	\$91,405
Apples	2	1	\$101,152
Berries	0	0	\$0
Green Industry	4	2	\$175,734
Brewing	5	2	\$157,686
Livestock	3	0	\$0
Vegetable	5	4	\$386,561
General and Niche	13	4	\$248,925
Totals	42	20	\$1,629,209

Interestingly enough, when you look at how the dollars have been invested over time, it's a reasonably equitable distribution based on the size of the commodity area or the potential for growth.

How the Farm Viability Process Works

It starts with the "request for proposals" the RFP. We do extensive outreach year round to make sure that the entire ag community understands who we are and how our process works—and that applications can come from businesses, nonprofits and educational organizations. We also do dedicated outreach to ag membership groups, making sure they know when the grant cycle is open so they can encourage proposals in areas they feel are important.

Once the word is out about our RFP, Farm Viability staff helps all applicants put their best foot forward. Since 2006, we have had more than 500 potential project leaders participate in our Outcome Funding Framework grant writing workshops and webinars. While not all of those who participated have received grants from Farm Viability, we hope the training has helped them improve every project they undertake.

An applicant will want to make sure they have really thought about their project and the impact it can make for New York's farmers because it will be NY farmers reviewing and scoring the proposal. As you can imagine, farmers aren't shy about expressing their opinions about a proposal.

Last year 93 farmers participated in our review process of the 42 proposals. They each individually read and scored the projects in their commodity area, and then many participated in a conference call to discuss the proposals further and place them in rank order.

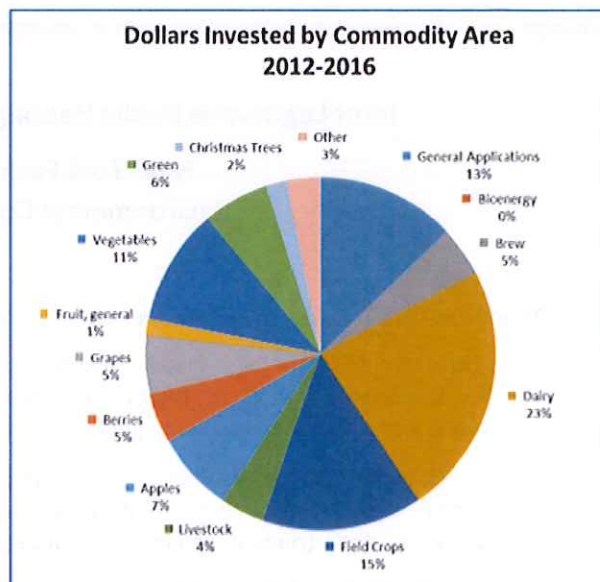
Following are a few of the comments that reviewers submitted with the project evaluations:

- *This project outlines a definite problem in this area of agriculture which seems to show significant monetary value and could benefit producers greatly.*
- *The milestones are well defined and measurable.*
- *9571 acres - NY growers produce 95% of the onions grown in the Northeast. Very relevant. Bacterial diseases are our biggest challenge.*
- *I would have to ask what the outcome of the first year was from the USDA funding.*
- *The farmers should have been doing this already gathering the knowledge--Do Not Fund.*
- *Anyone in the horticulture business should already be aware of these possibilities as they have been widely covered in industry press.*

So you see, it's a thoughtful crowd and one that's not particularly easy to impress.

In addition to our competitive grants program, we also have a Dairy Profit team program funded at \$220,000 a year. We recently streamlined the process for the individual farm program and are working with NOFA-NY and Cornell Cooperative Extension to run "topic specific" profit teams focusing on the Dairy Farm Business Summary for organic farms and helping dairy farmers decide if the transition to organic certification is right for them. We are also working with ProDairy to enroll 40 farms in a new profit team program to help them learn about the benefits of the Dairy Profit Monitor.

For the last two years, Farm Viability has collaborated with the NYS Department of Agriculture and Markets to run a competitive process to select projects for the NYS Specialty Crop Block Grant Program. Last spring the board and review panels reviewed and evaluated 19 proposals, and six projects moved forward for funding. The 2017 applications are currently in review.



As I hope my remarks have reinforced, Farm Viability is a numbers focused organization. And the number we hope you've all heard before is that of our impact.

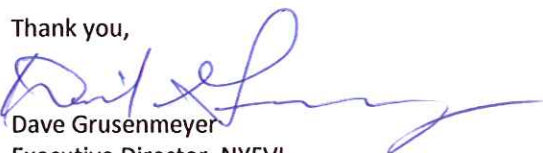
Since the state began funding Farm Viability in 2005, the 222 completed projects have returned seven dollars to the agriculture community for every dollar invested in a project. Based on the more than 220 projects completed, we now have documented nearly \$109 million in cost savings, increased farm product sales, and new capital investment. We think that's pretty impressive.

We currently have 32 projects in review. In March, the board will review the input from the panels, and discuss and rank the proposals. As the budget is passed, we will be ready to put the resources to good use, funding projects that farmers believe are important that will create and share knowledge for the industry.

We understand that resources are limited and that you have requests from many organizations. We believe that our outcomes based, competitive approach to grant making, combined with our farmer review and selection process sets us apart. In short, the competition creates results.

On behalf of the board of directors, I would like to thank the Senate and Assembly Agriculture Committees for their unwavering support. We truly appreciate the trust and confidence you have placed in our organization to make wise use of public funds. We look forward to continuing to serve NY agriculture through future projects that will help farmers overcome the production, marketing and business challenges they face.

Thank you,



Dave Grusenmeyer
Executive Director, NYFVI

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2016 FVI Projects

**\$1.6 million awarded among 20 projects,
9 organizations.**

1. Corn Silage Hybrid Evaluation: Know What to Grow
2. Best Management Practices for Nitrogen Management for Winter Forage
3. Using Interseeding to Increase the Acreage of NY's Cover Crops
4. How Low Can They Go? Identifying Intervention Strategies to Reduce Sporeforming Bacteria Levels in Raw Milk
5. Capturing the Power of Data on Dairy Farms to Reduce Antibiotic Use
6. Onion Growers Can Reduce Rot
7. Best Management Practices for Long Term Profitable High Tunnel Soil Fertility and Health
8. Crops and Wildlife, It's More than a Nuisance
9. Helping Long Island Potato Growers Realize the Benefits of Controlled Release Nitrogen Fertilizer
10. Learning How to Best Use Nematodes to Protect NY's Apple Orchards from Plum Curculio
11. Use of Under Vine Fescues in Long Island Vineyards to Reduce Production Costs and Environmental Impact
12. Developing a Mechanical Method to Seed Under Vine Cover Crops in NY Wine Grape Vineyards
13. Insect-Killing Nematodes to Reduce Pesticide Use and Control Thrips and Fungus Gnats
14. Good Information Will Help Growers Make the Most of Malting Barley
15. Pests and Profits: Developing NY Specific Information for Hops Growers
16. Insects On-Line: Forecasting Insect Management for Nursery and Christmas Tree Growers
17. Growing Business by Gathering Good Data
18. Helping New York Farmers Find Profit in their Forest
19. Chinese Medicinal Herbs: Significant Potential, Patience Required
20. It's Time for F.I.S.H



NY *farm viability*

INSTITUTE

Farmer Review and Selection Process



"I would like to thank our farmer review panels. Their work to evaluate and rank the proposals is greatly appreciated. Their input ensures the projects selected by the board for funding are addressing on the ground priorities."

David Grusenmeyer
Executive Director, NYFVI

New York is fortunate to have such a broad range of agricultural products produced in the state. And it seems that there are more opportunities for diversification every year. One of the challenges the NYFVI board faces in selecting projects for funding is to determine where money is most effective: Is it better to spend \$100,000 to create modest improvements in a large commodity, or invest \$100,000 in knowledge building so that a small crop may succeed and grow its market? What about spending \$100,000 to develop an idea that may be a long shot in a large commodity?

Fortunately, the board doesn't operate in a vacuum, and all the proposals were evaluated by FVI's farmer review panels to ensure the projects selected for funding address on-the-ground priorities. Grant applications were evaluated in five areas:

- **Producer Involvement**—does this proposal reflect engagement by the farmers it is designed to benefit?
- **Relevance to NY Agriculture**,—what is the scale of the problem or size of the potential opportunity?
- **Farm-Level Impact**,—can its impact be measured by increased revenue, reduced operational costs or capital investment?
- **Outreach**—will the results of the work be broadly shared?
- **Budget**—is the budget reasonable? Does the topic warrant the scale of the investment requested?

MARK YOUR CALENDARS!

September 6, 2016

2017 FVI Request for proposals released

November 10, 2016

2017 FVI Request for proposals closes

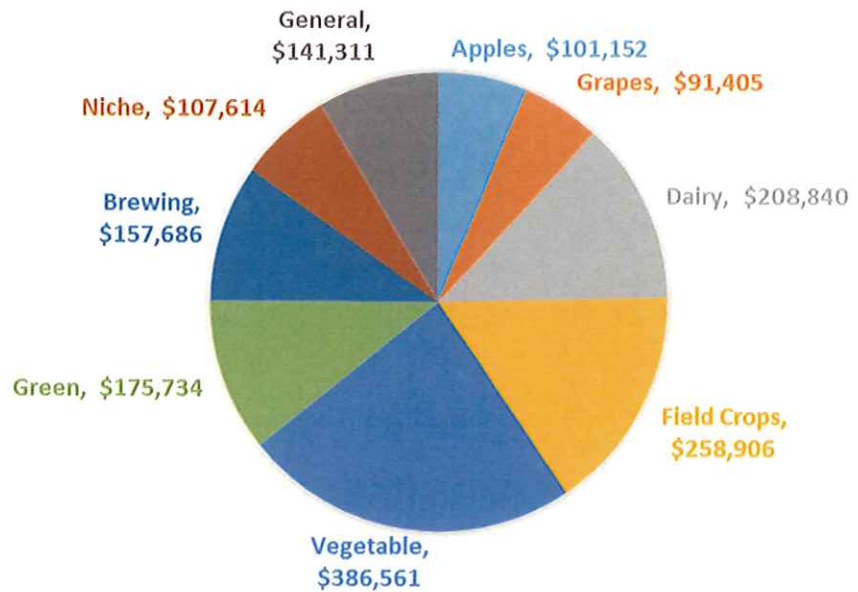
November 14, 2016

NYFVI will be heading back to Albany to host our annual

"Taking Stock for NY Agriculture" meeting.

Please plan on joining us!

2016 FVI GRANT RECIPIENTS



The chart above illustrates how this year's projects break out among commodity areas.

While our goal to help New York Farmers become more profitable is fairly specific, we believe there are as many ways to achieve it as there are agricultural products. The common trait among all our projects is their determination to create and share profitable knowledge with New York's farmers.

Projects in the "general" category help farmers in two or more categories. Projects labeled as "niche" refer to the market, for example the work in Chinese medicinal herbs.

The chart below highlights the NYFVI priority areas for funding and the measurable impact data that is collected for each project.



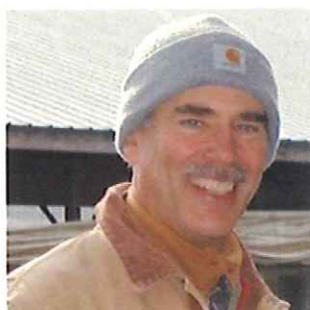
2016 FVI

Field Crop Projects



Corn Silage Hybrid Evaluation: Know What to Grow

The ability to grow good feed can make the difference between red and black on a dairy's balance sheet. Most NY dairy farms use corn silage as the single largest component of their herd's ration. Dr. Tom Overton of Cornell University's PRO-DAIRY program wants to help NY farmers choose the best corn silage hybrids to grow, helping them to know that what they grow and feed will produce high-quality, high-quantity milk. His team has been awarded \$148,570 to conduct varietal trials, analyze the results and share the information broadly with the dairy industry.



Best Management Practices for Nitrogen Management for Winter Forage

Winter cover crops help prevent erosion, improve soil health and water quality and provide more options for nitrogen management. Done well, the right cover crops can provide forage that can be a cash crop, or reduce costs for a dairy farm. With several NYFVI grants, Tom Kilcer, of Advanced Agricultural Systems has built a tremendous amount of knowledge that is helping New York farmers succeed with these crops. This project seeks to define further the best use of nitrogen to increase winter forage yield. These best management practices can help farms of all sizes improve their profitability as well as land management practices.

Using Interseeding to Increase the Acreage of NY's Cover Crops

There's fairly broad agreement about the benefits of cover crops. They are known to improve the fertility of soil, increase nutrient utilization efficiency, suppress weeds, increase beneficial insects, and reduce erosion and run-off. So why are only 200,000 acres of cover crops planted in NY, when the state has over 1.1 million acres in corn alone? A big part of it is the growing season; the timing of the corn harvest is often too late to plant and successfully establish a cover crop. David Haight of The American Farmland Trust has been awarded a grant to help NY farmers learn how to establish cover crops through interseeding either by using a broadcaster from a Highboy within the corn rows or drilled between rows.



Amos Smith Joins NYFVI Board, representing NYSC&SGA

"I was interested in serving on the NYFVI board to help ensure that our agricultural industry remains successful and practices good stewardship. I believe it is very important for our younger generation to become more involved in programs like NYFVI for a better future."

2016 FVI

Dairy Projects



How Low Can They Go? Identifying Intervention Strategies to Reduce Sporeforming Bacteria Levels in Raw Milk

New York State is a leader in dairy production and processing, in part because of the high-quality raw milk produced by progressive dairy farmers. As consumer needs and dairy processing technologies have changed in recent years, new quality standards are slowly emerging. For example, sporeforming bacteria, which are responsible for around 50% of fluid milk spoilage, significant economic damage to cheese and are a hurdle for expanding dairy powder export markets, are already being monitored in some EU countries. Dr. Martin Wiedmann of the Department of Food Science at Cornell, and his team have been working to understand the various type of sporeforming bacteria and where they enter the production system. In this project the work goes a step further, developing intervention strategies for farmers to reduce spore levels and help them be able to market a premium product.



Capturing the Power of Data on Dairy Farms to Reduce Antibiotic Use

Since the early 1970s it's been a common practice on dairy farms to use "blanket" dry cow therapy; that is to administer antimicrobial drugs that prevent and treat costly mammary infections to all cows as they enter a dry off period. Although the practice may have been warranted as it began, animal care and the milking process has become much more sophisticated over time, with many dairies keeping detailed, cow specific records. Dr. Daryl Nydam of the College of Veterinary Medicine at Cornell has a research plan to develop and test an algorithm that will provide dairy farmers with the information they need to move to "selective" dry cow therapy protocols. This will help dairy farms meet the public's desire for more judicious use of antibiotics, and reduce operational costs on the farm.



Rob Noble Joins NYFVI Board, representing NYFVI Dairy Committee

"I've seen firsthand the impact of the projects Farm Viability has supported in the dairy industry. I'm pleased to be able to step up and represent the dairy industry on the board."

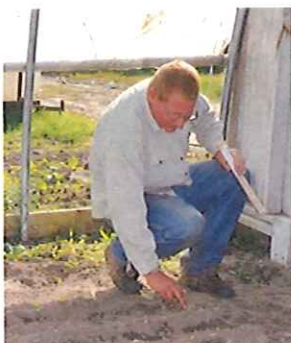
2016 FVI

Vegetable Projects



Onion Growers Can Reduce Rot

New York growers planted almost 1500 fewer acres of dry onions in 2012 than in 2007, a reduction of 16%. Why? One reason, bacterial rot that causes growers to lose routinely 5 to 15% of their harvest and occasionally up to 50%. Dr. Steven Beer with Cornell's Plant Pathology and Plant-Microbe Interaction section and his team may have a solution. Their prior research has found that treating onions during growth with sodium hypochlorite reduces rot and may increase yield. An NYFVI grant will allow them to scale-up this research and test it in fields across the State to help NY onion growers overcome this production challenge with a simple and affordable solution.



Best Management Practices for Long Term Profitable High Tunnel Soil Fertility and Health

The growth in winter market opportunities, paired with the challenges of increasingly volatile weather patterns has led to an exponential increase in the use of high tunnels by New York growers. However, the best management practices (BMPs) to ensure soil health and fertility are not widely known and some of the early adopters of high tunnels are encountering challenges. This project, led by Andy Fellenz of NOFA-NY (pictured on the left), in partnership with Judson Reid of Cornell University is focused on supplementing knowledge of BMPs gained from a prior NYFVI project and ensuring the widespread adoption of these sustainable practices to help NY growers maximize their profits with these structures.



Crops and Wildlife, It's More than a Nuisance

New York sweet corn and cucurbit production have a combined value of over \$104 million. Wildlife, particularly birds and deer, can create significant damage. In 2014 a survey of vegetable growers found that 84% of them had an estimated 16% loss from birds alone. The damage is more than just economic; wildlife contamination of fresh market vegetables is a food safety issue and potential liability for growers. Dr. Darcy Telenko with the Cornell Cooperative Extension, Cornell Vegetable Program (CVP), along with Robert Hadad (CVP) and Marion Zuefle (NYS Integrated Pest Management Program), has received a grant to implement her research plan to test physical and chemical deterrents and provide specific recommendations about timing, placement and use of the tools.

Helping Long Island Potato Growers Realize the Benefits of Controlled Release Nitrogen Fertilizer

Long Island is home to almost 2500 acres of potatoes. Unfortunately, current nitrogen fertilizer practices are not consistent with today's environmental management practices and may contribute to the decline of the region's sole source aquifer. The good news? There is a solution. Controlled release nitrogen fertilizer (CRNF) can reduce overall application rates and lower labor and fuel costs. Rebecca Wiseman, with Cornell Cooperative Extension Suffolk County received a grant to make sure farmers are aware of the benefits of CRNF. The project's goal is for Long Island potato growers to adopt CRNF on 70% of their fields.



2016 FVI

Apples and Wine Grape Projects



Learning How to Best Use Nematodes to Protect NY's Apple Orchards from Plum Curculio

Plum Curculio is a beetle that can create a 60% loss in an unsprayed orchard. Conventional and organic apple growers in NY are all looking for ways to manage this pest. Prior NYFVI projects have shown the benefits of using nematodes for biological control to protect strawberries and fight the alfalfa snout beetle. Art Agnello, with Cornell's NY Agricultural Experiment Station, working with colleague Elson Shields, has identified the right nematode to attack the Plum Curculio, but he needs to do more on-farm research to determine the impact of soil characteristics and ground cover on the nematodes ability to solidly establish a colony. He has received a grant to refine and test his approach at 7 New York orchards. By March 2018, he'll have shared the protocol with many of New York's growers.

Developing a Mechanical Method to Seed Under Vine Cover Crops in NY Wine Grape Vineyards

It costs vineyards \$128 per acre to maintain a weed free strip under the trellis using herbicides. Planting annual groundcovers under the trellis is estimated to reduce production costs by about \$50 per acre. And, reductions in herbicides is good for the environment. The challenge? There's not a good way to mechanically sow cover crops under the trellis system. Hans Walter Peterson, of the Cornell Cooperative Extension Fingerlakes Grape Program, has received an FVI grant to modify equipment and test its ability to seed under the vines. Following a successful test, he will educate the industry about the benefits of the practice.

Use of Under Vine Fescues in Long Island Vineyards to Reduce Production Costs and Environmental Impact

Alice Wise, of Cornell Cooperative Extension, Suffolk County has also received a grant to conduct on-farm research in under vine cover crops. Her focus is to understand better the use of fescues and how they may create changes in the canopy of premium *Vitis vinifera* wine grapes, and the impact those changes may have on wine quality.

2016 FVI

Brewing Projects



Good Information Will Help Growers Make the Most of Malting Barley

The Farmstead Brewery license is creating unprecedented demand for locally grown malting barley, and since 2012 acreage has grown from 100 to 900 acres. Like any new enterprise, there are significant challenges to overcome. Growers are eager to learn about production costs, varietal selections and best management practices to ensure they are growing a product that the state's malting houses will want to purchase. Elizabeth Newbold, with the Cornell Cooperative Extension Harvest NY Regional Team is leading a project that will collect, analyze and disseminate information to help growers better understand market demand, production costs and quality requirements. Her goal is to help New York growers get to 2,000 acres of profitable malting barley production.

Pests and Profits: Developing NY Specific Information for Hops Growers

Thanks to the Farmstead Brewery license, New York has seen hops poles going up in almost every county. While some growers are entering the business as a second career, for others it offers a diversified crop for their farm. There are currently five greenhouses that produce potted hop plants for starting hops yards and interest is growing in other nurseries and greenhouses. Growers are learning that locally grown rootstock is their best chance of success, but recently downy mildew was found in a NY greenhouse, and powdery mildew came in on rootstock from another state. Tim Weigle, with the NYS Integrated Pest Management program at Cornell is leading a team to develop a comprehensive approach for IPM from the greenhouse to harvest. Even better, the project will be collecting financial information from growers to develop enterprise budgets as a reference for the industry.



2016 FVI

Green Industry Projects



Insect-Killing Nematodes to Reduce Pesticide Use and Control Thrips and Fungus Gnats

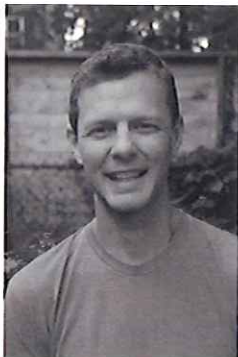
Biocontrol practices, which include the use of predators, parasitoids, and/or pathogens to kill pest insects, are becoming increasingly common, and the right insect-killing nematodes are available commercially for purchase. However, the results are often inconsistent and there is still much to be determined to use this practice cost effectively. Dr. John Sanderson of Cornell University's Department of Entomology received a grant to evaluate, field-test, and share a cost effective biocontrol option for managing thrips and fungus gnats on greenhouse crops using insect-killing nematodes. The project's goal is for 30 greenhouse operators to adopt this practice and reduce pesticide inputs for these pests by 40%.

Insects On-Line: Forecasting Insect Management for Nursery and Christmas Tree Growers

Using measures of heat accumulation, such as growing degree days (GDD) and plant phenology indicators (PPI), to estimate the stage of insect development can reduce ineffective and wasteful applications of insecticides due to poor timing. Many growers currently use the Network for Environment and Weather Application's (NEWA) on-line information to optimize the timing of their insecticides. However, the necessary information for ornamental tree and shrub growers is not yet available in the easy-to-use framework. Dr. Elizabeth Lamb, with the NYS Integrated Pest Management program, has received a grant to make the ornamental tree and shrub information more accessible, and educate growers on the system. Her goal? Ten Christmas tree growers will have successfully used the platform to reduce insecticide applications and production costs while improving insect control and plant quality by the end of 2017. She will also ensure that another 250 Christmas tree growers learn about the program and its results.

2016 FVI

General and Niche Market Projects



Growing Business by Gathering Good Data

While many farm businesses are great at growing food, they often could use some help in staying up-to-date with financial management and marketing practices. Chris Wayne, with FARMroots, Grow NYC program has a plan to help. His team will work with 20 Green-market farmers; helping them to select the best point-of-sale management system for their needs; analyze the data from its use and offer strategic marketing recommendations to the farms. The recommendations may be customer focused "Would you like basil with those tomatoes?" or inventory focused, "Did you know that when you had both basil and tomato available you sold more tomatoes?" The goal of the project is to increase sales by having better information to guide marketing efforts.

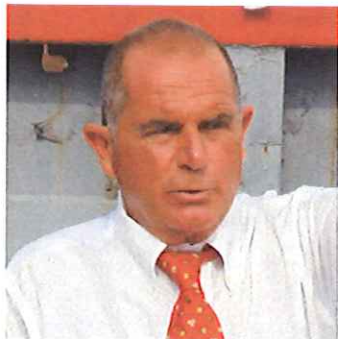
Helping New York Farmers Find Profit in their Forest

66% of New York farms have large amounts of forest which increase purchase costs and taxes for their property, but less than 2,000 of these farms derive any income from their woods. Kenneth Smith, of Cornell Cooperative Extension Chenango County, has a grant to help farms understand the economic potential of maple syrup, firewood and cultivated mushroom operations. His work will start with an online business plan template and use video to take farmers all the way through the production process of the value-added enterprises. His goal? To have 20 farms bring in an additional \$10,000 each in diversified income.



Chinese Medicinal Herbs: Significant Potential, Patience Required

Building any new agricultural industry has its challenges. Chinese medicinal herbs, which are a \$30 million import market, is no exception. These herbs are perennial plants and production quantities of seeds and starts are in limited supply. With prior NYFVI funding, Jean Giblette of the High Falls Foundation has established a network of 30 growers across the state. This new project helps educate the grower network on how to scale up their propagation materials to allow the network to grow, and provides technical education to ag educators to ensure that this horticultural expertise is available across the state. The long-term goal of the work is to have 50 different species of medicinal herbs available for sale to New York's practitioners of Acupuncture and Oriental Medicine.



It's Time for F.I.S.H

John Scotti of Cornell Cooperative Extension Suffolk County will receive \$65,000 to help New York's commercial fisherman develop Community Supported Fishery (CSF) business models on Long Island. Currently almost all of the local catch travels to a distributor in the city before just a small percentage returns to the area for sale at retail outlets. Once there it competes with the imported products that currently dominate the market. This program will educate consumers about the importance of local Fresh, Indigenous, Sustainable and Harvested (FISH). Scotti's set his goals high, with hopes of seeing 5% of the landed value of LI harvested seafood consumed through CSF programs. That equates to approximately 117,000 pounds of product with a value of \$2.3 million.

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Cornell AES, Associate Director



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