

Cornell University

Local Food and Agriculture Resource Guide



Cornell University
Cooperative Extension



Cover photos: Photos courtesy of Brian Chabot, Cornell Maple Program; Bob Way, The New York State Food Venture Center, Allison Jack, New World Agriculture and Ecology Group at Cornell; Denny Shaw, Cornell University Meats Lab.

Prepared by Andrea Elmore (CHE '09) and Duncan Hilchey, Senior Extension Associate, Community and Rural Development Institute, Cornell University v 8.18.08

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FOREWORD

Local and regional food and agriculture initiatives are growing throughout New York State as communities identify creative ways to tap the rich community and economic development opportunities agriculture and the food industry provide. This publication highlights the depth and breadth of programs that engage faculty, staff, and students in local food and agriculture, including research, education, and outreach.

You will find more than two dozen Cornell University-based programs which provide research-based information and student engagement on subjects related to local food production and processing, supply-chain development, and local food insecurity. Cornell Cooperative Extension (CCE) county associations and other groups benefit from the research-based information generated by these programs on both the Ithaca and Geneva campuses.

We hope that municipal officials, non-government organizations, public institutions and other groups will find the enclosed program descriptions useful in identifying resources that can help them develop and implement programs that support the farm community and bring greater quality of life to all New Yorkers. Providing such informational resources is an important part of the Cornell mission. CCE works to enable people to improve their lives and communities through partnerships that put experience and knowledge to work. The Community and Rural Development Institute (CaRDI) promotes research and education that supports informed community decision making. This publication is a joint effort of CCE and CaRDI to provide information to New Yorkers about Cornell's extensive resources.

Please let us know how our programs can be helpful as you address challenges or opportunities in your community. Also, let us know in which ways we may be of assistance. We look forward to collaborating with you in these endeavors.

Sincerely,

Helene Dillard
Director, Cornell Cooperative Extension

Max J. Pfeffer
Director, Community and Rural Development Institute

INTRODUCTION

Results from the Empire State Poll show New York residents are increasingly interested in buying local foods.¹ There are a growing number of Cornell Cooperative Extension (CCE) Associations and other community-based organizations working to support New York farmers and communities in developing local and regional markets and educate citizens and families about the benefits of local food and agriculture. One of the many strengths of the Extension system is its local capacity to foster sustainable food production in New York's diverse agricultural communities. CCE highlighted many of its initiatives in a brochure, "Local Foods, Local Solutions," in 2007. Through its Local Food Working Group, a thirteen-member alliance of campus and community partners, the system continues to develop and implement strategies to strengthen and effectively communicate CCE's role in creating, supporting, and sustaining community-based food systems in New York State.

These local and regional efforts are enhanced by numerous programs at Cornell on both the Ithaca and Geneva campuses that provide research, extension and outreach on a wide range of local food and agriculture initiatives—from farmland protection and market development to community food security and community gardening. In addition, a growing number of Cornell student-led organizations and activities are oriented to local food, including strengthening the ties between the University and area farms.

This resource guide aims to capture the essence of these programs and projects to showcase the wide range of research and outreach activities Cornell University provides in support of local food and agriculture development in New York State. It serves as a companion to CCE's "Local Foods, Local Solutions" brochure. The data was gathered via an internet survey which was administered through e-mail contact. It is intended to be a tool for our stakeholders to use as both resource and inspiration for their own projects.

The guide includes information reported verbatim from the respondents' completed surveys. Please contact Heidi Mouillesseaux-Kunzman (hmm1@cornell.edu) to report any changes or updates to these profiles, or to create a new profile of a project not included in the guide.

This Guide was developed by Andrea Elmore and Duncan Hilchey of the Community and Rural Development Institute. We would like to thank Heidi Mouillesseaux-Kunzman, Rod Howe, Joanna Green, Ardyth Gillespie and Catherine Greeley for their support and guidance.

¹ Hilchey, D. and Francis, J. 2007. New York Consumers Express Strong Interest in Local Food, *Rural New York Minute*, Issue Number 4, April, 2007.

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Agroforestry and Private Woodland Management


Mission

Our program aims to lay the foundations for learning about forest farming through research, outreach and teaching. The program is generating cultivation practices, marketing strategies and land use systems that landowners in New York and the northeast can employ to produce food and medicinal products from forest resources in ways that enhance the health of forest ecosystems in the region.

Contact:	Secondary contact:
Louise Buck Natural Resources 108 Fernow Hall leb3@cornell.edu 607-255-5994 Website: http://hwwff.cce.cornell.edu http://ecoag.cals.cornell.edu http://www.hort.cornell.edu/mng/mushroom.html http://mushrooms.cals.cornell.edu/htm http://arc.cce.cornell.edu	Ken Mudge Horticulture 13 Plant Science Bldg. kwm2@cornell.edu 607-255-1794

Type of work:	Topical category:	Key words:
Research Extension Outreach Student program	Market development Food business and/or value-added entrepreneurship Sustainable food systems	Forest and tree based production methods Polycultures Woods, mushroom and ginseng cultivation Maple entrepreneurship Marketing innovations Ecoagriculture Experiential learning

Project examples:
<ul style="list-style-type: none"> • McDaniels Nut Grove Demonstration and Research Center: Developing a campus based 7-acre forest farm where forest farming practices are being tried and evaluated • The Agroforestry Resource Center (ARC) of Greene County and surrounding counties in the Hudson-Catskill area: Creating education, research and community based planning initiatives that are anticipated to lead to prosperous small farms and economically and environmentally sound woodlot management • The Cornell Maple Program (see pg. 16) • Gourmet and Medicinal Mushroom Production for Forest Farming in the Northeast: A forest mushroom research and extension project to determine optimal and acceptable production techniques and their potential profitability • Ecoagriculture landscape assessment and management: An emergent initiative to develop a multi-stakeholder process to enhance rural economic development, biodiversity conservation and food production

Program audiences:	Geographic focus:
Business/entrepreneurs General community Community-based organizations Farmers Local elected or appointed government officials Planners/Economic and Community Development staff	New York State PA, VT, other Northeast environments 



Community and Rural Development Institute - Agriculture, Food, and Community Development

Mission


Through applied research, extension, and outreach, our program helps communities support farms and food businesses and capitalize on the contributions these businesses make to their economy and well-being.

Contact:	Leader/Faculty advisor:
Heidi Mouillesseaux Kunzman Development Sociology 39 Warren Hall hmm1@cornell.edu 607-255-0417	Rod Howe Development Sociology 43 Warren Hall rlh13@cornell.edu 607-255-2170
Website: http://devsoc.cals.cornell.edu/cals/devsoc/outreach/cardi/programs/afcd/index.cfm	

Type of work:	Topical category:	Key words:
Research Extension Outreach Capacity Building	Agriculture economic development Agriculture and food-based community development	Agriculture Food Community development Agriculture and food-based community development Local foods Food systems strategies

Project examples:
<ul style="list-style-type: none"> North Country Regional Foods Initiative: a partnership between the EDA University Center at CaRDI and seven counties in northern New York. Goals include: (1) Assessing the economic and community impacts of local food initiatives in the North Country; (2) Identifying and responding to training needs, through educational programming that supports local food initiatives; (3) Enhancing regional collaboration among community and economic developers and local officials to strengthen the contributions of local foods in the region and promote economic and community development in general. Small Farms Work Team on Local Markets: This work team is identifying challenges and opportunities related to local food markets in New York State. Feedback gathered through responses to a statewide survey and a local foods summit will be compiled and shared with participants, community-based organizations, agencies, and policymakers for implementation.

Program audiences:
Community-based organizations General community Local elected or appointed government officials Planners/economic and community development staff

Geographic focus:
New York State 

Controlled Environment Agriculture

Mission

Develop energy-efficient and highly productive greenhouse systems for year-round production of vegetables and other plant products in New York State.

Contact:

Louis D. Albright
Biological and Environmental Engineering
304 Riley-Robb
albright@cornell.edu
607-255-2483

Website: <http://www.cornellcea.com>

Type of work:

Research
Extension
Outreach

Topical category:

Agriculture economic development
Community food security
Food business and/or value-added
entrepreneurship
Market development
Health and nutrition
Sustainable food systems
Energy efficiency

Key words:

CEA
Controlled environment agriculture
Energy
Greenhouses
Food miles

Project examples:

- Demonstration of method to grow hydroponic spinach, for which there is no such production in the United States today
- Collaboration with Challenge Industries in operation of a lettuce production CEA facility located in Dryden, New York
- Scoping study to develop an extensive data base related to food miles and energy inputs for six food crops that are imported and locally produced in New York State
- Assisting with design and development of a CHP-powered CEA facility in northern New York State for year-round vegetable production

Program audiences:

Business/entrepreneurs
Farmers

Geographic focus:

New York State,
anywhere that
greenhouses
can be used



Cooperative Enterprise Program

Mission

Support the training and research needs of all types of cooperative business enterprises and assist new emerging cooperatives and groups of businesses forming networks in rural communities

Contact:

Brian Henehan
 Applied Economics and Management
 202 Warren Hall
 bmh5@cornell.edu
 607-255-8800

Type of work:

Research
 Extension
 Outreach
 Student program

Topical category:

Agriculture economic development
 Community food security
 Food business and/or value-added entrepreneurship
 Market development
 Local food distribution

Key words:

Local food processing
 Distribution and marketing
 Managing local food businesses
 Cooperative processing and marketing

Project examples:

- Northeast Dairy Processing Capacity Workshop
- Upstate Growers and Shippers Cooperative (strategic planning)
- Agri-Mark Cooperative/Allied Federal "Joiner"
- Summit Energy (proposal)
- Farm to Chef Express (incorporated)

Program audiences:

Business/entrepreneurs
 Community-based organizations
 Farmers
 General community
 Local elected or appointed government officials
 Planners/economic and community development staff
 Minorities
 Women
 Cooperative managers and directors

Geographic focus:

New York State



Cornell Agriculture & Food Technology Park

Mission

The Technology Farm is intended to be an economic development engine that facilitates business opportunities through innovation, new technologies and relationships with Cornell resources. The target market is food and agriculture companies, and is focused on research & development within those industries.

Contact:
<p>Steve Isaacs 500 Technology Farm Drive Geneva, NY 14456 stevei@thetechnologyfarm.com 315-781-0070</p> <p>Website: http://www.thetechnologyfarm.com</p>

Type of work:	Topical category:	Key words:
<p>Research Business development</p>	<p>Agriculture economic development Food business and/or value-added entrepreneurship Market development Health and nutrition Tech driven improvements in agriculture</p>	<p>Research & development Value-added Proof of concept Pilot production plants Start-ups Incubator Technology park Microsystems Biofuels</p>

Project examples:
<ul style="list-style-type: none"> • Production and marketing of CherryPharm, an all natural tart cherry drink proven to aid in recovery and prevention of muscular damage and joint pain. CherryPharm is the largest tenant at the Tech Farm. • Top Quality Hay Processors is a company developing a forage drying process that takes the weather out of the production process and results in uniform, top quality hay. • Cole and Parks has created an eatable cookie dough, marketed as Cookie Dough Nuggets, now available in three flavors. Distribution will go nationwide later this year. • Terrenew has developed an environmental remediation product from recycled animal waste. The highly absorbent pads made from composted waste collect and hold spills and prevent further contamination. • Stony Brook Cookie Company is an internet based cookie company that specializes in all natural, local sourced, top quality cookies. Stony Brook bakes all products on site at the Tech Farm in their own custom kitchen.

Program audiences:
<p>Business/entrepreneurs</p>

Geographic focus:
<p>Finger Lakes Upstate New York</p>



Cornell Beef Extension


Mission

A portion of our program mission is to support New York beef farmers in their efforts to enter new markets, such as niche/specialty markets and direct sales to consumers. We are also working with landowners and farmers to revitalize abandoned farmland with grass based farming systems.

Contact:
<p>Michael J. Baker Animal Science 114 Morrison Hall mjb28@cornell.edu 607-255-5923</p> <p>Website: http://www.ansci.cornell.edu/beef</p>

Type of work:	Topical category:	Key words:
<p>Research Extension</p>	<p>Agriculture economic development Farmland protection Food business and/or value-added entrepreneurship Market development</p>	<p>"Natural" Grass finished Idled lands</p>

Project examples:
<ul style="list-style-type: none"> • Marketing beef to two natural markets serving New York and the New England states • Research on weaning systems for grass finishing beef enterprises • Grasslands Utilization Work Team: funded by the Small Farms program, this committee is working to accumulate materials for farmers and landowners that will facilitate the profitable conversion of idled land into productive grazing and forage systems for ruminants.

Program audiences:	Geographic focus:
<p>Business/entrepreneurs Farmers Planners/economic and community development staff</p>	<p>New York State</p> 

Cornell Cooperative Extension


Mission

To improve the lives of New Yorkers through educational partnerships that put experience, scholarship, and local knowledge to work.

Contact:	Secondary Contact
Chris Watkins Cornell Cooperative Extension 365 Roberts Hall cbw3@cornell.edu 607-255-8546 Website: http://www.cce.cornell.edu	Andrew S. Turner Cornell Agroforestry Resource Center 6055 CR 23 Acra, NY 12405-1004 ast4@cornell.edu 518-622-9820 ext. 35

Type of work:	Topical category:	Key words:
Research Extension Outreach Education	Agriculture and food systems Children, youth and families Community and economic vitality Environment and natural resources Nutrition and health	Value-added Market development Business planning Consumer education Sustainable food production

Project examples:
<p><i>Through its local and regional networks, CCE helps communities work toward a sustainable food system with increased consumption of locally produced food and farm products.</i></p> <ul style="list-style-type: none"> • Group Buying and Selling initiatives encourage schools and communities to buy and serve local products (includes locally grown marketing, community assessments, and producer-to-chef efforts). • Farm-to-Table efforts foster new markets for high-quality local farm products • Value-Added initiatives educate consumers, chefs, and growers about New York farm products and promote increased use and consumer satisfaction (includes harvest guides, farm maps, and a focus on maple producers). • New Business Development connects producers to new markets online through MarketMaker, a national network of Web sites linking farmers and processors with food retailers, consumers, and the food supply chain (includes 2,500 registered producers).

Program audiences:	Geographic focus:
Producers and processors Consumers Economic development officials State agency partners	New York State 

Cornell Farm to School Program

Mission

To conduct research, develop educational materials, and provide capacity-building training to foster farm to school connections in New York State.

Contact:

Jennifer Wilkins
 Nutritional Sciences
 305 Martha Van Rensselaer Hall
 jlw15@cornell.edu
 607-255-2730

Website: <http://farmtoschool.cce.cornell.edu>

Type of work:

Research
 Extension
 Outreach

Topical category:

Food business and/or value-added entrepreneurship
 Community food security
 Market development
 Health and Nutrition
 Sustainable food systems

Key words:

Farm to School
 Child nutrition
 School nutrition
 School food service
 Local food
 Food systems

Project examples:

- **Training:** the Cornell Farm to School Program has developed several training opportunities designed to help those with an interest in developing or enhancing farm to school programs. Training modules include: Farm to School 101; Farm to School Basics; Farm to School for Farmers; Farm to Cafeteria and School Food Service; Farm to School: Access and Distribution; Assessing Your Capacity for Farm to School.
- **Networking:** the Cornell Farm to School Program facilitates networking opportunities through an interactive, annually updated, web-based map that identifies the location of existing farm to school programs in NYS. You can use this map to learn about these programs and access contact information for those leading efforts in your region. To communicate with others working on Farm to School, you can also join the Cornell Farm to School Program listserv, NYFarmtoSchool-L.
- **Meeting facilitation:** as part of its for fee services, the Cornell Farm to School Program can work with you to plan and facilitate meetings designed to explore, launch or implement farm to school projects. The staff has a solid understanding of farm to school opportunities and barriers, are experienced in leading groups through the community development process and are trained facilitators.

Program audiences:

Farmers
 General community
 Youth

Geographic focus:

New York State





Cornell Garden-Based Learning

Mission

Cornell Garden-Based Learning encompasses programs, activities and projects in which the garden is the foundation for integrated learning and discovery across disciplines, through active, engaging real-world experiences that are relevant to children, youth, adults and communities.

Contact:

Marcia Eames-Sheavly
Horticulture
169 Plant Science Bldg.
ME14@cornell.edu
607-255-1781

Website: <http://www.hort.cornell.edu/gbl>

Type of work:

Extension

Topical category:

Youth development

Key words:

Community food system education
Garden-based learning
Youth development

Project examples:

- Numerous projects that help to educate children and youth about the garden, where their food comes from, and community food systems. See our website for more.

Program audiences:

Youth
Youth educators

Geographic focus:

New York State
Nation-wide through
American Horticultural
Society networks



Cornell Kosher and Halal Food Initiative


Mission

To provide assistance in the production and marketing of ethnic foods and of kosher and halal foods.

Contact:
Joe M. Regenstein Food Science Stocking Hall jmr9@cornell.edu 607-255-8041 607-592-9883

Type of work:	Topical category:	Key words:
Research Extension Outreach Student program	Agriculture economic development Food business and/or value-added entrepreneurship Market development Health and nutrition Sustainable food systems	Kosher Halal Ethnic foods Hispanic foods

Project examples:
<ul style="list-style-type: none"> • Development of humane/halal slaughter equipment and educational materials on religious slaughter. • Development of a cholev yisroel (Jewish milk) kosher and halal cheese plant and possibly also a fluid milk plant in upstate New York. • Development of small scale slaughter operations for sheep and goats. The development of cooperation between the Muslim and Jewish communities to optimize the utilization of carcasses. • Working with the community trying to establish a Conservative Jewish social justice supervision. Working to expand kosher certification to include other issues. • Working on national animal welfare standards.

Program audiences:	Geographic focus:
Business/entrepreneurs Community-based organizations Farmers General community Minorities	Finger Lakes New York City New York State 



Cornell Maple Program


Mission

To support the development, profitability, and sustainability of the maple sugar industry in New York and the northeast.

Contact:	Secondary contact:
Brian Chabot Natural Resources 102 Little Rice bfc1@cornell.edu 607-254-4234 Website: http://cornellmaple.info	Stephen Childs Natural Resources 110 Fernow Hall slc18@cornell.edu 607 255-1658

Type of work:	Topical category:	Key words:
Research Extension Outreach Student program	Agriculture economic development Food business and/or value-added entrepreneurship Market development Sustainable food systems	Sustainable use of natural resources Local businesses Value added products

Project examples:
<ul style="list-style-type: none"> • Development of value-added maple products and education to increase number of producers involved. We have an active series of workshops around New York. • Expanding public awareness of maple products and their value to local areas. Increasing participation in Maple Weekends in spring and fall. Posters and related educational materials. Increasing news coverage. • Increase producer knowledge through expanded number of "winter schools" around the state. • Increasing number of producers. Expanding beginner workshops and partnering with FAA programs.

Program audiences:	Geographic focus:
Maple producers Business/entrepreneurs Farmers Rural landowners General community	Capital-Saratoga Catskills Central Leatherstocking Chautauqua-Allegheny Finger Lakes Hudson Valley Niagara Frontier Adirondacks New York State Thousand Islands-Seaway 



Cornell Sheep Program

Mission

The Cornell Sheep Program evaluates and disseminates information on management, nutrition, health, selection, and marketing strategies for highly productive sheep systems. Purebred Dorset and Finnsheep flocks and a commercial Finnsheep x Dorset flock are managed under the Cornell STAR management system. Selection in the Dorset and Finnsheep flocks is for aseasonality and fertility. Strategies to make efficient use of labor and to better control health problems are evaluated in the commercial flock. Growing lambs are used to evaluate dietary ingredients such as grain by-products as sources of fermentable fiber and protein. This program is designed to enhance the use of grasslands in New York and to connect lamb production to the large number of lamb consumers in the state.

Contact:
<p>Michael L. Thonney Animal Science 114 Morrison Hall ml2@cornell.edu 607-592-2541</p> <p>Website: http://www.sheep.cornell.edu</p>

Type of work:	Topical category:	Key words:
<p>Research Extension Student program</p>	<p>Agriculture economic development Farmland protection Market development Sustainable food systems</p>	<p>Production from underutilized farmland Economic enhancement of rural communities Sheep farming</p>

Project examples:
<ul style="list-style-type: none"> • Vaccination to control diseases of young lambs. • Methods to formulate ruminant diets on the basis of potentially fermentable neutral detergent fiber to use by-products of ethanol and other grain-processing industries. • Methods to reduce labor and other inputs at lambing time.

Program audiences:	Geographic focus:
<p>Farmers</p>	<p>New York State</p>



Cornell Small Farms Program

Mission

Our mission is to foster the sustainability of diverse, thriving small farms that contribute to food security, healthy rural communities, and the environment. We do this by encouraging small farms-focused research and extension programs and fostering collaboration in support of small farms.

Contact:	Leader/Faculty advisor:
Joanna Green 135C Plant Science Building 121 Plant Science smallfarmsprogram@cornell.edu 607-255-9227	Dr. Anu Rangarajan Horticulture 121 Plant Science Bldg. ar47@cornell.edu 607-255-1780
Website: http://www.smallfarms.cornell.edu	

Type of work:	Topical category:	Key words:
Research Extension Outreach Student program	Agriculture economic development Community food security Food business and/or value-added entrepreneurship Market development	Supply chain development Agricultural districts Conflict resolution Buy-local campaigns Small farm management and viability Beginning farmers Small dairy farms and organic dairy Farmer-to-farmer learning Small farm clusters

Project examples:
<ul style="list-style-type: none"> • Our outreach to small farm families includes Small Farm Quarterly magazine, reaching 27,000 households across the Northeast; Small Farms Website (www.smallfarms.cornell.edu); monthly email update; press releases, annual Small Farms Summit. • NY Beginning Farmer Project is developing resource materials and educational programs (including a new distance learning course) to help Cornell Cooperative Extension educators across the state work effectively with a growing number of beginning farmers. • NY Organic Dairy Initiative is working with dairy farmers, processors, and educators to support this fast-growing sector of New York's dairy industry. • The Small Farm Clusters Project, in cooperation with Penn State University, is researching seven distinct clusters of small farms in seven localities across the Northeast, to understand how working together can help improve the viability of small farms and their local communities. • The Cornell Small Farms Club and a one-credit seminar on Exploring the Small Farm Dream bring together undergraduates, graduate students, staff and faculty to learn from each other and from area farmers about what it takes to be successful in small scale farming.

Program audiences:
Farmers

Geographic focus:
New York State



Food Decision-Making Program


Mission

The Food Decision-Making Program's vision is health and well-being for all where children and their families are: 1. Supported by sustainable, just, and equitable community food systems; 2. Developing healthy attitudes toward food and eating; 3. Making thoughtful food decisions; 4. Bringing their behaviors in alignment with their understandings, goals and current scientific knowledge; 5. Engaging in community improvement. Current initiatives are focused on increasing the consumption of fruits and vegetables through improving their availability, accessibility, and appreciation by children and their families. The program is also interested in fostering partnerships among various stakeholders including, university, industry, and education.

Contact:	Secondary contact:
<p>Ardyth Gillespie Nutritional Sciences 375 Martha Van Rensselaer ahg2@cornell.edu 607-255-2635</p> <p>Website: familyfood.human.cornell.edu</p>	<p>Laura Smith Nutritional Sciences 343 Martha Van Rensselaer les36@cornell.edu 607-255-2143</p>

Type of work:	Topical category:	Key words:
<p>Research Extension Outreach Student mentoring</p>	<p>Agriculture economic development Health and nutrition Sustainable food systems Family and community development</p>	<p>Food decision-making Engaged research Building capacity</p>

Project examples:
<ul style="list-style-type: none"> • Food Decision-making survey: Changes in the Food We Buy, Make and Serve - The food decision-making survey project was developed to understand how and why families make changes regarding the food they buy, make and serve. In the first phase of the project, questions were developed and adapted from previous food decision-making research. Recently, the mail survey was piloted in Cass County, IA and Tompkins County, New York. After results are tabulated, the survey will be revised and available for use. There are plans for other modules of the survey that focus upon other elements of food decision-making. • Cooking Together for Family Meals - The Cooking Together for Family Meals is an interactive Cornell Cooperative Extension (CCE) nutrition program developed with similar principles to Cooking Up Fun! In the first year of funding, pilot sessions of the Cooking Together for Family Meals program were completed in Tompkins, Onondaga and Cayuga counties. The Food Decision-making program has collaborated in the development of evaluation for the program. • Connecting Local Food Systems with Health and Well-being.

Program audiences:	Geographic focus:
<p>Community-based organizations Farmers General community Planners/economic and community development staff Minorities Women Youth Elderly</p>	<p>New York State National and international</p> 

Food Processing and Development Laboratory (FPDL)


Mission

To create a professional environment in which teaching, research, and extension activities can be conducted in support of the mission of the Department of Food Science and College of Agriculture and Life Sciences at Cornell. The activities of the FPDL and Dairy Plant must generate sufficient economic returns to cover FPDL and dairy plant employee salaries and enable appropriate maintenance of the facilities.

Contact:	Secondary contact:
Robert Ralyea Food Science 200 Stocking Hall rdr10@cornell.edu 607-255-7643	Sean Schell Food Science G05 Stocking Hall sss38@cornell.edu 607-255-8798
Website: http://www.foodscience.cornell.edu/cals/foodsci/research/FPDL/index.cfm	

Type of work:	Topical category:	Key words:
Research Extension Outreach	Agriculture economic development Community food security Food business and/or value-added entrepreneurship Sustainable food systems	Food processing Food product development Dairy science

Project examples:
<p>FPDL priorities are as follows:</p> <ul style="list-style-type: none"> • Teaching- To provide hands-on learning experiences for students enrolled in Food Science and related curricula. • Research- To provide a state-of-the-art facility and technical assistance for conducting food related research at the testing/research/pilot plant level of production. To assist in the transfer of new technology from the research program to the industry. To provide facilities and staff support on a fee-for-use basis to assist companies and individuals with production and testing of product formulations provided by the client. • Extension- To provide facilities for use in applied extension research and continuing education programs.

Program audiences:	Geographic focus:
Business/entrepreneurs General community	New York State <div style="text-align: right; margin-top: 20px;">  </div>

Fruit Disease Research Program, Hudson Valley Lab

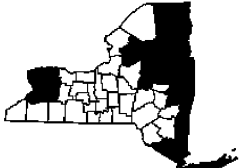
Mission

As Plant Pathologist at Cornell University's Hudson Valley Laboratory in Highland, New York, Dave Rosenberger's research program focuses on finding immediate solutions to disease problems on tree fruits. Field tests are conducted each year to evaluate new fungicides and management strategies for apple diseases. He also conducts research on postharvest decays of apples in storage. As part of his Cooperative Extension program, he monitors the development of apple scab, rust diseases, and fire blight each season and provide timely reminders and "disease alerts" to county-based fruit extension educators, regional extension specialists, fruit industry consultants, and fruit growers.

Contact:
<p>Dave Rosenberger Plant Pathology, Geneva Cornell's Hudson Valley Lab, PO Box 272 Highland, NY 12528 dar22@cornell.edu 845-691-7231 845-691-7151</p>

Type of work:	Topical category:	Key words:
<p>Research Extension</p>	<p>Agriculture economic development Farmland protection Sustainable food systems Keeping farmers in business</p>	<p>Disease control strategies for commercial fruit farms Strategies developed to apply to both small and large farms, although backyard farmers frequently cannot access the most effective pesticides.</p>

Project examples:
<ul style="list-style-type: none"> • Apple fungicide field trials, 2006 and 2007: The Hudson Valley Lab has optimized facilities, equipment and research orchards for efficient evaluation of pesticides. Results from these trials are used to compile disease control strategies presented at winter fruit schools and in extension articles. • The 380 custom-budded Lady New Approaches for Controlling Spread of Fire Blight During Summer: we hope to determine what spray programs might be useful for limiting both populations of potato leafhopper and spread of fire blight to shoots. • Using Foliar Applications of Phosphite Fungicides to Control Summer Diseases on Apples • Effectiveness of Lime-Sulfur for Controlling Summer Diseases on Apples: based on this trial, organic farmers could adopt LLS sprays during summer to control sooty blotch and flyspeck, but additional work is needed to determine if summer sprays of LLS sprays adversely affect fruit size or productivity of the sprayed trees. • Evaluation of Organic Pest Controls and Fruit Thinning on Multiple Apple Cultivars: this trial convinced us that pest-free apples can be produced organically in New York, but organic producers will need a sales premium compared to standard growers due to the high costs and reduced yield associated with organic pest control.

Program audiences:	Geographic focus:
<p>Business/entrepreneurs Farmers</p>	<p>Capital-Saratoga Long Island Hudson Valley Niagara Frontier Adirondacks</p> 

Fostering the use of high tunnels for season extension in NY State through applied research and extension


Mission

To help farmers and extension agents use high tunnels for the production of horticultural products in New York State.

Contact:	Secondary contact:
Chris Wien Horticulture 156 Plant Science hcw2@cornell.edu 607-255-4570	Judson Reid CCE Vegetable Program CCE of Yates County 417 Liberty St. Penn Yan, NY 14527 jer11@cornell.edu 315-536-5123

Type of work:	Topical category:	Key words:
Research Extension	Agriculture economic development Market development	High tunnels Season extension

Project examples:
<ul style="list-style-type: none"> • Introducing high tunnel production techniques to fresh market vegetable producers, and enabling them to expand their market window up to a month earlier in the season. • Helping growers fine-tune their production techniques to optimize yield and quality for the local market.

Program audiences:	Geographic focus:
Farmers	Capital-Saratoga Central Leatherstocking Finger Lakes Long Island Hudson Valley Adirondacks New York State 

H. C. Thompson Vegetable Research Farm


Mission

To provide applied research information and teaching opportunities on conventional or organic vegetable growing systems and cultural practices for present and future growers and farmers in New York State and the Northeast region.

Contact:
Steven P. McKay Cornell University Agricultural Experiment Station H.C. Thompson Vegetable Research Farm 133 Fall Creek Rd. Freeville NY 13068 spm8@cornell.edu 607-844-8167

Type of work:	Topical category:	Key words:
Research Teaching Extension	Vegetable Crops production Agriculture economic development Sustainable food systems	Weed Science Plant disease management Integrated crop management Cultural practices Organic Cropping Systems Cover Crops Soil Health Vegetable crop pest management

Project examples:
<ul style="list-style-type: none"> • Cover crop evaluations and weed control in vegetable and strawberry crops. • Potato and dry bean variety and cultural practice trials. • Disease evaluations in potato, tomato, and cucurbit crops. • IR-4 trials for pesticide use on specialty crops. • Organic cropping systems, vegetable production and soil health nutrition trials.

Program audiences:	Geographic focus:
Farmers Extension Educators Students	New York State North East Region 

Integrated Pest Management


Mission

The New York State Integrated Pest Management Program develops sustainable ways to manage pests and helps people to use methods that minimize environmental, health, and economic risks.

Contact:	Leader/Faculty advisor:	Secondary contact:
Curt Petzoldt IPM IPM Building 630 W. North St. Geneva, NY 14456 cp13@cornell.edu 315-787-2206	Donald Rutz Entomology Schwardt Lab Turkey Hill Rd. dar11@cornell.edu 607-255-3251	Jennifer Grant IPM IPM Building 630 W. North St. Geneva, NY 14456 jag7@cornell.edu 315-787-2209
Website: http://www.nysipm.cornell.edu/		

Type of work:	Topical category:	Key words:
Research Extension Outreach	Food business and/or value-added entrepreneurship Market development Sustainable food systems	Agricultural IPM Community IPM Sustainable agriculture Traceability

Project examples:
<ul style="list-style-type: none"> • IPM in vegetables, fruit, livestock/field crops, ornamental crops and community settings (schools, landscapes, turf, municipalities, parks, etc) • Helping farmers meet consumers' needs for safe, high quality, locally produced and environmentally-friendly food. • Working with processors, grocers, farmers and others to track the IPM practices used on food. • Working with food producers to identify IPM products in the marketplace • Working with farmers to implement IPM Elements in their food production (http://nysipm.cornell.edu/elements/default.asp)

Program audiences:	Geographic focus:
Business/entrepreneurs Community-based organizations Farmers General community Local elected or appointed government officials Planners/economic community development staff Minorities Women Public health/environmental advocates	New York State National and international 

Mapping Local Food Systems


Mission

The program goal is to better understand the capacity of the land base to supply human nutritional needs and to provide local food to individual population centers.

Contact:	Leader/Faculty advisor:
Christian Peters Crop and Soil Sciences 513 Bradfield Hall cjp20@cornell.edu 607-255-8496	Gary Fick Crop and Soil Sciences 507 Bradfield Hall gwf2@cornell.edu 607-255-1704

Type of work:	Topical category:	Key words:
Research Extension	Sustainable food systems	Foodsheds Food miles Land requirements of diet Human carrying capacity

Project examples:
<ul style="list-style-type: none"> • Peters and Fick have developed a geographic information system for mapping potential foodsheds, areas of agricultural land that could feed individual population centers. They have used this approach to map potential foodsheds in New York State. • They have developed a spreadsheet model for estimating the land requirements of diet and human carrying capacity of an agricultural land base. They have used this method to examine the capacity of New York State to supply its own food needs under a range of diet scenarios. • They are developing an Internet Map Server to enable the public to view interactive maps of potential foodsheds for New York State population centers via a web browser.

Program audiences:	Geographic focus:
General community Scientific community Policy makers	New York State 

New World Agriculture and Ecology Group at Cornell

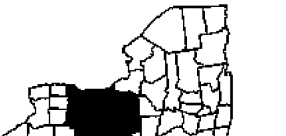
Mission

New World Agriculture and Ecology Group at Cornell works with other food and agriculture campus groups and community members to organize educational events around the theme of sustainable agriculture. The group is also active in campus efforts to create new curricula that take a more holistic view of agriculture and food production. The book group has focused extensively on local foods and has provided a forum for members to educate themselves about these issues.

Contact:	Leader/Faculty advisor:	Secondary contact:
Allison Jack Plant Pathology & Plant Microbe Biology 335 Plant Science alh54@cornell.edu 607-273-5762	Joanna Green Horticulture 135C Plant Science jg16@cornell.edu 607-255-9227	Jennifer Gardner Crop & Soil Sciences Plant Science jmb326@cornell.edu 607- 255-3918
Website: http://www.rso.cornell.edu/nwaeg		

Type of work:	Topical category:	Key words:
Student program Peer to Peer Student Education	Sustainable food systems Education	Sustainable agriculture education On-campus community organizing

Project examples:
<ul style="list-style-type: none"> • Sustainable Agriculture Education Association: formed at a national conference hosted last summer (www.hort.cornell.edu/sustaged). • Farm Tours: The student-run sustainable agriculture book group has visited various local farms with innovative production methods. • Sustainable Food Practicum: The student-run sustainable agriculture book group has also hosted informal educational events on food preservation and value added farm products including drying, canning, soapmaking and cheesemaking. These peer to peer educational activities have allowed our members to strengthen their personal commitment to local foods by enhancing their food preservation skills. • Book group: The self-assembled group of students, staff and community members meet every other week and discuss sustainable agriculture related readings. Previous themes have included local foods and the farm bill. • E-list: nwaeg-l@cornell.edu - The list provides a forum for alumni, students, staff and community members to share news and events and participate in detailed discussions about locally relevant sustainable agriculture topics. Speakers the group helped bring to Cornell: Bill McKibben, Frances Moore Lappé, Joel Salatin, and others.

Program audiences:	Geographic focus:
Community-based organizations Farmers General community	Finger Lakes 



Northeast Dairy Foods Research Center


Mission

The mission of the Northeast Dairy Foods Research Center (NEDFRC) is to conduct research and to work with the industry to implement results of research to maintain and increase utilization of milk produced on dairy farms in the United States and particularly the Northeast.

Contact:
<p>David M. Barbano Food Science 118 Stocking Hall dmb37@cornell.edu 607-255-5482</p> <p>Website: http://www.foodscience.cornell.edu/</p>

Type of work:	Topical category:	Key words:
<p>Research Extension</p>	<p>Agriculture economic development</p>	<p>Cheese making technology Farmstead and artisan cheeses</p>

Project examples:
<ul style="list-style-type: none"> Approaches to improve the safety and consistency of quality of locally produced farmstead cheeses and dairy foods.

Program audiences:	Geographic focus:
<p>Business/entrepreneurs</p>	<p>New York State, with collaboration with similar programs in other states</p> 



New York Beginning Farmer Project

Mission


The New York Beginning Farmer Project works with Cornell Cooperative Extension Educators throughout New York to increase the likelihood of success of new farmers by providing information and training, particularly in business planning and management.

Contact:	Leader/Faculty advisor:	Secondary contact:
Erica Frenay Horticulture 162 Plant Science ejf5@cornell.edu 607-255-9911	Dr. Anu Rangarajan Horticulture 121 Plant Science ar47@cornell.edu 607-255-1780	Joanna Green Horticulture 135C Plant Science jg16@cornell.edu 607-255-9911
Website: http://beginningfarmers.cce.cornell.edu		

Type of work:	Topical category:	Key words:
Extension	Sustainable food systems Food business and/or value-added entrepreneurship Farmland protection Community food security Agriculture economic development	Beginning farmers Diversifying farmers Business plan development New farmer training

Project examples:
<ul style="list-style-type: none"> Published the "Guide to Farming in NY: What Every Ag Entrepreneur Needs to Know," a series of 33 fact sheets on legal, regulatory, tax, and financial aspects of operating a farm. Maintained in an online format in order to keep the information as up-to-date and widely available as possible-http://www.smallfarms.cornell.edu Developing a website specifically for beginning farmers in New York. The site was launched in Summer 2008 and will contain lessons with online worksheets for creating a pre-business plan, a new farmer forum, FAQs, a decision tree for assessing physical resources, and other items of interest for new or diversifying farmers. Launched an online course for beginning farmers in Fall 2007. The course utilizes the lessons contained in the website mentioned above, but allows for real-time contact with Extension Educators as well as the opportunity to share stories and information with other new farmers around the Northeast. Sponsored and facilitated three multi-county new farmer trainings throughout the state each year 2007-2009. The project is targeting under-served counties and providing follow-up business planning assistance to any participant who is ready for the next step. In order to strengthen the CCE support network for new farmers and make Educators more aware of the needs of this audience, the project has offered several well-attended distance learning opportunities for Extension staff.

Program audiences:
Business/entrepreneurs Farmers Extension educators

Geographic focus:
New York State 

New York Field Crops Pathology Program

Mission

Gary Bergstrom's applied research and education program helps sustain food grain and forage production systems in New York. Bergstrom is a core contributor to the New York Field Crops IPM Program and the Northeast Certified Crop Advisor Program and is co-chair of Cornell's Integrated Field Crop, Soil, and Pest Management Program Work Team. His research and extension program addresses the epidemiology and integrated management of diseases in field crops including wheat, corn, soybean, alfalfa, and bioenergy feedstock grasses. Control tactics explored include host plant resistance, cultural practices, biological control, and fungicidal seed treatment.

Contact:

Gary C. Bergstrom
 Plant Pathology and Plant-Microbe Biology
 334 Plant Science
 gcb3@cornell.edu
 607-255-7849

Type of work:

Research
 Extension

Topical category:

Agriculture economic
 development
 Sustainable food systems

Key words:

Plant disease management
 Integrated crop management
 Biological control
 Seed treatment
 Crop resistance to pathogens
 Epidemiology
 Cultural practices

Project examples:

- In cooperation with extension educators, industry, USDA, and colleagues in other states, a sentinel soybean monitoring program is being conducted in New York for timely detection of Asian soybean rust that is used to alert New York soybean producers of the risk of disease and the need to apply protective fungicides when the risk is high. In the past three seasons, this program has indicated to New York soybean producers that there was no substantial disease risk or need for chemical protection of their crop.
- Investigating the value of integrated methods (varieties, fungicide, biological control) for the management of Fusarium head blight and mycotoxin contamination in New York wheat. Each of these tools shows promise for disease control.
- Assessing the prevalence and impact of a new fungal disease, brown root rot, on alfalfa and other forage crop production in New York. It has been established that the problem is widespread in the state and are investigating whether some alfalfa varieties do better than others in soils infested by the pathogen.

Program audiences:

Business/entrepreneurs
 Farmers

Geographic focus:

New York State



New York Organic Dairy Initiative

Mission

The Organic Dairy Initiative's mission is to support New York's growing organic dairy industry. The initiative works with all segments of the value chain; farmers, processors, consumers, etc. to strengthen this new industry which has created opportunity for New York's smaller dairy farmers. This opportunity creates diversity to New York's dairy industry thus allowing more families to work and succeed on their farms. The other focus of their work is to supply New York's consumers with organic dairy products from New York's farms rather than relying on out of state sources.

Contact:	Leader/Faculty advisor:
A. Fay Benson Small Farms CCE of Cortland County 60 Central Ave. Cortland, NY 13045 afb3@cornell.edu 607-753-5213	Dr. Anu Rangarajan Horticulture 121 Plant Science ar47@cornell.edu 607-255-1780

Type of work:	Topical category:	Key words:
Research Extension Outreach	Agriculture economic development Community food security Farmland protection Food business and/or value-added entrepreneurship Market development Health and nutrition Sustainable food systems	Value added Reacting to consumers demand

Project examples:
<ul style="list-style-type: none"> • "Project 36" is a consumer educational project that educates consumers on how to read the FDA's product label that is on every dairy product as well as most food products. 36 is NY's state code. This project was released at the end of 2007 and we are focusing our outreach through local PR releases. • There is a critical shortage of organic grain in New York as well as the rest of the country. Extension efforts this winter focused on providing NY farmers with the resources they need to supply their own needs on the farm or locally. • Developed a Geo-map that shows the state's organic dairies. This has helped local CCE offices realize the growing segment of their farming populations. We have seen an increase in educational events as the result of this effort.

Program audiences:
Business/entrepreneurs Farmers

Geographic focus:
New York State



New York State Food Venture Center


Mission

The Food Venture Center (FVC) provides in-depth technical assistance and education to producers and entrepreneurs that want to introduce new food products into the marketplace thus creating economic development and sustainable local food systems. The Center also coordinates with other service providers that are part of Cornell University to assist in business planning and marketing options.

Contact:	Leader/Faculty advisor:
Cheryl Leach Food Science & Technology 630 West North Street Geneva, NY 14456 cal35@cornell.edu 315-787-2622	Olga Padilla-Zakour Food Science & Technology oip1@cornell.edu 315-787-2259
Website: http://www.nysaes.cornell.edu/necfe	

Type of work:	Topical category:	Key words:
Extension	Food business and/or value-added entrepreneurship	Food safety Food Processing Food Entrepreneurship

Project examples:
<ul style="list-style-type: none"> New York Farm Viability Institute's Agricultural Innovation Center - Food Venture Center provides direct technical services to agricultural producers that result in successful implementation of safe value-added products including advice on formulation, processing, equipment, manufacturing space, packaging and marketing.

Program audiences:	Geographic focus:
Business/entrepreneurs Farmers	New York State 

Slowfood Cornell

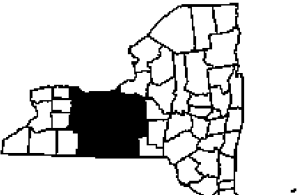
Mission

Slowfood Cornell works to educate members of both the Cornell and the Ithaca community about the benefits of eating locally. They work to support local farmers and spread awareness and understanding of local food issues.

Contact:	Leader/Faculty advisor:
Catherine Greeley Hotel Administration cjpg93@cornell.edu	Gil Gillespie Development Sociology 340 Warren Hall gwg2@cornell.edu 607-255-1675

Type of work:	Topical category:	Key words:
Outreach	Sustainable food systems	Buy-local campaigns

Project examples:
<ul style="list-style-type: none"> • Monthly potlucks: bringing students, faculty, and community members together to supply access to local products and to provide a setting for discussion. • Working to plan a conference for the Fall 2008 semester: students from other schools will be invited and the conference will have speakers and workshops to help spread the local food message and provide access to local NY farms. • Creating a Local food calendar: Slowfood Cornell is collecting local recipes and artwork and are working to create a 100% local calendar that celebrates local foods. The money that is made from this calendar is going towards a grant for community work related to local food issues, which will begin next spring.

Program audiences:	Geographic focus:
Farmers General community	Finger Lakes 

Vegetable Pathology and Soil Health


Mission

The overall goals of the research and outreach efforts are the development of integrated management programs for root diseases of the major vegetables grown in New York and the sustainable management of soil health and crop productivity.

Contact:	Secondary contact:
George S. Abawi Plant Pathology – Geneva 113 Barton Lab gsa1@cornell.edu 315-787-2374 Website: http://www.nysaes.cornell.edu/pp/faculty/abawi/index.htm	John Ludwig Plant Pathology - Geneva jwl2@cornell.edu

Type of work:	Topical category:	Key words:
Research Extension	Community food security Sustainable food systems	Vegetable diseases Soilborne pathogens and root diseases Integrated Pest Management (IPM) Soil health

Project examples:
<ul style="list-style-type: none"> • Biology and management of plant-parasitic nematodes attacking vegetables. • Train the trainers workshop for the Northeast region dealing with the diagnosis of nematode damage, on-farm assessment of nematode soil infestations, and available management options. • Biology and management of root diseases of beans, peas, table beets, carrots and other crops. • Soil health assessment, sustainable management practices, and outreach in New York and the Northeast-region (in collaboration with the Cornell Soil Health Team). • Leaf blight diseases of carrots and table beets and their management.

Program audiences:	Geographic focus:
Farmers Community-based organizations General community Extension educators and other agriculture service providers	New York State Finger Lakes Northeast region National and international 



Vegetable Varieties for Gardeners

Mission

Grow local. Cornell's Garden-based Learning (GBL) program is engaging citizens who want to grow their own produce by helping them identify varieties that might perform best in their home and community gardens. Our web-based forum offers a library of more than 5,000 vegetable and herb variety descriptions as well as reviews of many of those varieties from gardeners in every county in New York. The site also links to vegetable growing guidelines and a list of recommended vegetable varieties for New York State.

Contact:
<p>Lori Bushway Horticulture 134 Plant Science bushway@cornell.edu 607-255-5918</p> <p>Website: http://vegvariety.cce.cornell.edu</p>

Type of work:	Topical category:	Key words:
Outreach	Community food security Health and nutrition	Grow your own local vegetables Home and community gardening

Project examples:
<ul style="list-style-type: none"> The Vegetable Varieties for Gardeners citizen science project provides an online forum for gardeners to get advice from a larger community of gardeners to help decide which varieties to try in their own garden. It also provides an opportunity for scientists to involve knowledgeable and motivated citizens in meaningful research. Asking gardeners to partner with researchers by sharing their own observations via the web is a winning combination for all. With a multitude of gardener observations at their finger tips, researchers can gain new insight into the performance of vegetable varieties under a wide range of garden conditions and practices. Vvi (Vegetable Varieties Investigation) is a new intergenerational citizen science project that bridges the technology divide. Through this real-world opportunity, youth connect with gardeners in their community, learn survey skills, and explore biodiversity through the whimsical world of vegetable varieties. Participants interview gardeners about their opinions on vegetable varieties, and submit their findings to an online database. This online database serves as a library of vegetable varieties descriptions and accompanying reviews. The library is used by vegetable gardeners as well as plant breeders and horticulture researchers.

Program audiences:
<p>General community Minorities Women Youth Elderly</p>

Geographic focus:
<p>New York State</p> 