GROW CONNECTICUT FARMS

Developing, Diversifying, and Promoting Agriculture

A Project of the Governor's Council for Agricultural Development
www.GrowConnecticutFarms.com

December 2014 Update and Recommendations

ABOUT THE COUNCIL

Connecticut agriculture is a diverse industry estimated to contribute between $2.72 and $4.6 billion annually in economic activity, provide as many as 28,000 jobs, and significantly enhance the quality of life for all who live in or visit our state (see *Grow Connecticut Farms* December 2012 report at www.GrowConnecticutFarms.com).

In 1991, the Connecticut General Assembly passed Public Act 91-307, An Act Concerning Agricultural Societies and Establishing a Governor's Council for Agricultural Development (GCAD), recognizing the industry's value and contributions to the state. Unfortunately, the original council had an impractically large membership and lacked defined goals, and suffered a gradual loss of momentum and activity.

Public Act 11-189, passed by the Connecticut General Assembly and signed into law by Governor Dannel P. Malloy in 2011, resurrected and reshaped the GCAD, reducing its size and tasking it with two specific charges:

1. Make recommendations to the Department of Agriculture on ways to **increase the percentage of consumer dollars spent on Connecticut Grown** fresh produce and farm products…**by 2020, to not less than five per cent** of all money spent by such residents on food.
2. Make recommendations concerning the **development, diversification, and promotion** of agricultural **products, programs, and enterprises** …and … provide for an **interchange of ideas** from the various commodity groups and organizations represented.

Council membership currently is as follows:

Chairman: Commissioner Steven K. Reviczky, Connecticut Department of Agriculture

Vice Chairs:

- Henry Talmage, Connecticut Farm Bureau Association; representing the Connecticut Milk Promotion Board
- Dean Gregory J. Weidemann, Ph.D., University of Connecticut, College of Agriculture and Natural Resources

Additional Members:

- Allyn L. Brown, III, Maple Lane Farms, LLC, and Connecticut Currant, representing agricultural production
- James F. Guida, Guida's Dairy (retired), representing agricultural processing
- George Hindinger, Hindinger Farm, representing agricultural production
- Jason Hoagland, Connecticut Agricultural Education Foundation, representing agricultural education
- Herb Holden Jr., Broad Brook Beef, representing agricultural production
- Jamie Jones, Jones Family Farms, representing agricultural production
- Michael T. Keilty, Maple Spring Farms, representing an agricultural trade association
- Shelly Oechsler, Botticello Farms, representing agricultural production
- Peter Orr, Fort Hill Farms, representing agricultural production
- Kevin Sullivan Jr., Chestnut Hill Nursery, representing the Green Industry

The council has since worked to develop and refine Connecticut's first-ever holistic, long-range strategic plan for agriculture, *Grow Connecticut Farms*, and has issued annual reports on its findings and recommendations (available at www.GrowConnecticutFarms.com).

In 2014, the GCAD organized into four working groups to address specific focus areas. After those groups met several times, the full council reconvened throughout the remainder of the year to review findings and develop a set of five additional recommendations, which are presented in this 2014 year-end update.

2014 WORKING GROUPS

Food Safety Modernization

Co-Chairs: GCAD members George Hindinger, Jason Hoagland, and Michael Keilty

Additional Participants:

- Nelson Cecarelli,Cecarelli Farm
- Kristin DeRosia Banick, CT Department of Agriculture
- Bill Driscoll, Sr., Heart of the Harvest
- Frank Greene, CT Department of Consumer Protection
- Diane Hirsch, UConn Extension
- Anita Kopchiniski, Hidden Brook Gardens
- Steve Souza, U.S. Food and Drug Administration

Other Invitees*

- Michael Draghi, Rose's Berry Farm
- Becky Clark, Clark Farm
- Don Preli, Belltown Hill Orchard
- Erin Windham, Windham Gardens
- David Zemelsky, Starlight Gardens

**invited to participate but declined*

Assignments:

- Study both proposed rules of the federal Food Safety Modernization Act
- Gather input from producers on concerns about those rules
- Identify gaps/extraordinary costs for producers to comply with rules

Infrastructure and Wholesale Markets

Co-Chairs: GCAD members Herb Holden and Shelly Oechsler

Additional Participants:

- Chris Bassette, Killam and Bassette Farmstead
- Timothy Cipriano, Chartwells
- Stephen Cop, HPC Foodservice
- Mariana Evica, Urban Oaks Organic Farm
- Joe Geremia, Geremia Greenhouse
- Bryan Hurlburt, USDA Farm Service Agency
- Stacia Monahan, Stone Gardens
- Joseph Ruffini, Northeast Produce
- Ann Simeone, CT Department of Administrative Services
- Chad Simoneaux, Gulf Shrimp Company
- Kathy Smith, The Farmer's Cow

Other Invitees*

- Tim Devanney, Jr., Highland Park Markets
- Al Parziale, Tinarose Produce
- Jason Sardilli, Sardilli Produce and Dairy
- Glenn Vincent, Vincent Farms

**invited to participate but declined*

Assignments:

- Gather producer input on wants/needs for processing, aggregation, storage, and associated business models
- Identify/study models for cooperatives, nonprofits, public/private aggregation, storage, distribution, marketing, etc.

Marketing

Co-Chairs: GCAD members Allyn Brown, Jim Guida, and Peter Orr

Additional Participants:

- Sarah Bishop DellaVentura, Bishop's Orchard and Farm Market
- Kay Carroll, Maple Syrup Producers Association of CT/ Brookside Farm II
- Scott Danis, Stop and Shop/Ahold
- Steve Domyan, MetroCrops
- Kevin Donahue, Imperial Nurseries
- Randy Fiveash, DECD Office of Tourism
- Perry Hack, Two Guys from Woodbridge
- Becky Jones, CT Beekeepers Association/Jones Apiaries
- George Motel, Connecticut Farm Wine Development Council/Sunset Meadow Vineyard
- Peter Rogers, Rogers Orchards
- Michael Theiler, CT Seafood Council/Jeanette T Fisheries

Other Invitees*

- Suzanne Sankow, Sankow's Beaver Brook Farm

**invited to participate but declined*

Assignments:

- Identify Connecticut Grown sectors and messages
- Identify potential partnerships for message dissemination

Producer Education and Innovation

Co-Chairs: GCAD members Jamie Jones and Kevin Sullivan

Additional Participants:

- Bill Davenport, Nonnewaug Agriscience Center
- Dr. Richard Fu, Agrivolution
- Dr. Christoph Geiss, Trinity College
- Joe Geremia, Geremia Greenhouse
- Eileen Hochberg, CT NOFA
- Russell Holmberg, Holmberg Orchards
- Eloise Marinos, GeoRoots Solar Growth Farm
- Dr. Abbie Maynard, CT Agricultural Experiment Station
- Susan Mitchell, CT New Farmers Alliance
- Charlie Viens, Charles Island Oyster Farm
- Gregg Wershoven, Mountaintop Mushrooms
- Jane Williams, CT Board of Regents for Higher Education

Assignments:

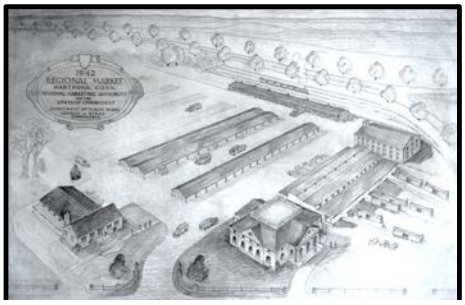
- Gather producer input on needs
- Identify gaps in producer education and research and development
- Identify potential partnerships for providing that education and research and development

2014 RECOMMENDATIONS

Recommendation 1: Invest strategically in the state-owned Hartford Regional Market to revitalize this regional, state, and local food hub and provide code-compliant, modern facilities for aggregation, processing, storage, distribution, and sale of Connecticut Grown farm products.

Existing Conditions

Built in the late 1940s and early 1950s, the 32-acre Hartford Regional Market has served as a hub for local and regional food and farm products for 65 years, providing both wholesale warehouse space and a large outdoor farmers' market.



Hartford Regional Market Conceptual Design 1942

As the largest fresh food distribution facility between Boston and New York, the market currently realizes about $210 million in annual gross sales and contributes more than 450 jobs to Connecticut's economy while providing fresh, nutritious food to the local community and the entire region.

The facility has served the state's residents well for more than six decades, but its infrastructure is now in critical need of significant investment to meet current technology and food safety requirements and meet the evolving needs of agriculture and local, state, and regional food systems.

Hartford Regional Market Conceptual Design 2014

With interest in and demand for fresh, local food and other farm products continuing to rise, the state has recognized this timely opportunity to revolutionize the Hartford Regional Market into a vibrant hub that can continue to serve the community, state, and region for generations to come.

In 2013, the Connecticut departments of Agriculture and Construction Services teamed up with the country's premier planner of public and terminal markets to develop a comprehensive, detailed master plan for the facility.

That plan has been completed and includes the following elements:

1. Orientation and assessment
2. Proposed program elements
3. Design concepts
4. Construction phasing
5. Innovations and partnerships
6. Operations and management plan
7. Construction cost estimate
8. Operations pro forma
9. Economic impact analysis

Hartford Regional Market Master Plan: Total Economic Impact

Source	Jobs	Earnings (millions)	Output (millions)	10-yr. impact (millions)
Market sales	729.0	$38.5	$147.5	$1,691
Farm sales	256.3	$5.9	$37.6	$431
Market management	10.6	$0.2	$2.2	$25
Construction	1,327.9	$63.2	$216.9	$217
Total	**2,323.9**	**$107.8**	**$404.2**	**$2,364**

Source: Hartford Regional Market Master Plan Phase 2 & 3 Report

The extensive analysis completed during the master plan estimates that this project will create 2,324 jobs, increase earnings to $108 million, and increase output to $404 million in the first year, with a 10-year economic impact of $2.36 billion.

Resources now are needed to proceed with the project's next steps, which include development of the architectural, engineering, and site design necessary for the construction phase.

Examining the Gaps

The infrastructure at the Hartford Regional Market was built for a different era. Today's processing, aggregation, storage, distribution, and sale of food and farm products require enhanced vertical space, efficient cooling, effective sanitation, safe flow patterns for multiple modes of traffic, and inviting venues for both retail and wholesale customers. These features do not exist at the current facility but are critical for the market to continue serving Hartford, Connecticut, and the Northeast.

An additional opportunity exists at the facility to create a statewide, centrally located agricultural service center, including offices of the Connecticut Department of Agriculture; Connecticut Marketing Authority; U.S. Department of Agriculture's operations of its Farm Service Agency, Natural Resources and Conservation Service, and Rural Development divisions; University of Connecticut Extension System, and Connecticut Farm Bureau Association and other non-for-profit entities.

These organizations and offices currently are spread out in different locations across Connecticut, resulting in an inconvenient, inefficient support system for the state's agricultural producers and industry members. A centrally located, one-stop service center would enhance communications and collaboration among these different service providers and streamline operations, increase efficiencies, and foster business growth among the farmers and industry members they serve.

Models to Consider

Regional and public markets across the country, including those in Grand Rapids, Michigan, and Rochester, New York, were examined during the master planning phase's analysis of the Hartford Regional Market's strengths, weaknesses, opportunities, and threats. The following goals were developed:

1. Create modern food distribution, production, and marketing facilities that support the evolving needs of Connecticut farmers, food wholesalers, and consumers.
2. Encourage increased consumption of Connecticut Grown and locally produced foods.
3. Minimize energy consumption and operating costs.
4. Improve access to fresh, healthy foods for underserved area consumers.
5. Create jobs.
6. Incubate businesses and spur innovation.

Potential Partners

In addition to the Connecticut Department of Agriculture and Connecticut Department of Construction Services, the following partners will be key to the project's success:

- City of Hartford
- Connecticut Department of Consumer Protection
- Connecticut Department of Economic and Community Development
- Connecticut Department of Energy and Environmental Protection
- Connecticut Department of Public Health
- Connecticut Department of Social Services
- Connecticut Farm Bureau Association and other non-profit organizations
- Local and regional educational facilities
- Local and regional healthcare providers
- Local businesses
- Local community organizations
- U.S. Department of Agriculture
- University of Connecticut

How Will This Enhance Farm Viability?
Modern facilities for farmers and wholesalers to aggregate, process, and distribute Connecticut Grown farm products will provide additional opportunities for farm growth, diversity, and longevity. A new farmers' market facility with improved traffic flow and publicity will further increase opportunities for farms in Connecticut.

Hartford Regional Market Master Plan: Future Purchases of Connecticut Farm Products					
Function	**Type**	**Future sales**	**COG**	**CT %**	**CT $**
Restaurant	Food service	$714,000	35%	20%	$49,980
	Food service Total	$714,000			$49,980
Dairy - wholesale tenants	Retail	$417,600	55%	80%	$183,744
Meat - wholesale tenants	Retail	$626,400	55%	25%	$86,130
Produce - wholesale tenants	Retail	$3,340,800	55%	25%	$459,360
Farmers' market - 35% retail	Retail	$1,603,500	55%	100%	$881,925
Sweetlife Cash & Carry	Retail	$7,000,000	60%	5%	$210,000
	Retail Total	$12,988,300			$1,821,159
Dairy - wholesale tenants	Wholesale	$13,600,000	85%	95%	$10,982,000
Meat - wholesale tenants	Wholesale	$21,200,000	85%	10%	$1,802,000
Produce - wholesale tenants	Wholesale	$167,700,000	85%	20%	$28,509,000
Farmers' market - 65% wholesale	Wholesale	$2,979,000	75%	95%	$2,122,538
	Wholesale Total	$205,479,000			$43,415,538
	Grand Total	**$219,181,300**			**$45,286,677**

Source: Hartford Regional Market Master Plan Phase 2 & 3 Report

Strategy for Implementation
Schematic design options prepared by the consultant all include 15 key elements:

1. Razing all of the existing, deteriorated structures at the Regional Market, including Warehouses A, B, and C, farmers' shed, and the restaurant building
2. Creating two parallel, multi-stall, modern **warehouse buildings** with standard 24' wide by 100' to 120' deep bays. The warehouses are envisioned to have 28' clear ceilings, allowing tenants to utilize up to four high racking systems.
3. Creating an enclosed, shared **rail car loading zone** at the southern edge of Warehouse 1 that will keep the cold chain intact.
4. Establishing a **retail zone** with the eastern side of Warehouse 2, parallel to the farmers' market shed, where the Regional Market's wholesale tenants (or select independent retailers) can expand their retail offerings.
5. Creating a **centralized waste management facility**.
6. Creating an attractive, metal and wood structured **farmers' market shed.**
7. Creating a new **multi-use building** that includes ground level restaurant and retail, and two upper levels for educational spaces and offices, including a demonstration kitchen/event room.
8. Installing a **shared commercial kitchen**.
9. Enhancing **building and promotional signage,** visible from I-91, that promotes Connecticut agriculture and the Regional Market.
10. Relocating and enhancing or mitigating **wetlands.**

11. Relocating **The Open Hearth** to an improved facility elsewhere in Hartford in order to use the CL&P property for overflow parking.
12. Creating a new, primary **warehouse access point** from Maxim Road.
13. Expanding and organizing **parking.**
14. Replacing all **site utilities**, including electrical, water, and sewer.
15. Grading and repaving the entire property to address **storm water management**, plus modest **landscaping** around the multi-use building and retail customer areas to create a more pleasant retail, restaurant, and office environment.

Implementation of the master plan will include informing state decision makers, engaging community and stakeholder groups through informational meetings, distributing information developed through the extensive master planning process, and phasing construction of new facilities to ensure continued operation of market businesses.

Over a five-year period, Net Operating Income is projected to increase from $2.1 million to $3.2 million:

Concept A	Year 1	Year 2	Year 3	Year 4	Year 5
Rent					
Warehouses	$2,911,464	$2,911,464	$2,998,808	$3,088,772	$3,181,435
Retail/Restaurant	$534,720	$534,720	$550,762	$567,284	$584,303
Office	$756,000	$756,000	$778,680	$802,040	$826,102
Farmers' market	$128,000	$128,000	$131,840	$135,795	$139,869
Shared kitchen	$126,075	$135,530	$153,041	$163,022	$182,108
Events	$34,000	$34,000	$35,020	$36,071	$37,153
Fundraising	$75,000	$75,000	$77,250	$79,568	$81,955
Billboards	$80,000	$80,000	$82,400	$84,872	$87,418
Railroad & truck parking	$60,000	$60,000	$61,800	$63,654	$65,564
Gross Operating Income	**$4,705,259**	**$4,714,714**	**$4,869,600**	**$5,021,078**	**$5,185,906**
Vacancy (rent, fm)	$866,037	$649,528	$446,009	$229,695	$236,585
Bad debt (rent)	$84,044	$84,044	$86,565	$89,162	$91,837
Adjusted Gross Income	**$3,755,178**	**$4,630,671**	**$4,783,035**	**$4,931,916**	**$5,094,069**
Operating Expenses					
Market operations	$355,000	$365,650	$376,620	$387,918	$399,556
Personnel	$1,159,557	$1,194,344	$1,230,174	$1,267,079	$1,305,092
Insurance	$0	$0	$0	$0	$0
Property tax	$0	$0	$0	$0	$0
Marketing/Education	$125,000	$130,000	$135,200	$140,608	$146,232
Subtotal	$1,639,557	$1,689,994	$1,741,994	$1,795,605	$1,850,880
Net Operating Income	**$2,115,621**	**$2,940,677**	**$3,041,042**	**$3,136,311**	**$3,243,190**
Capital reserve	**$150,000**	**$150,000**	**$150,000**	**$150,000**	**$150,000**
Available for debt service	**$1,965,621**	**$2,790,677**	**$2,891,042**	**$2,986,311**	**$3,093,190**

Source: Hartford Regional Market Master Plan Phase 2 & 3 Report

Additional details and complete economic analysis from the master plan are available on the Connecticut Department of Agriculture's website at www.CTGrown.gov/HRMmasterplan.

Who Will Be Better Off?

Beneficiaries of this infrastructure project are numerous, widespread, and diverse. A few examples:

- Wholesale and retail tenants at the Hartford Regional Market will benefit from enhanced vertical space, efficient cooling, effective sanitation, safer traffic flows, and inviting sales venues for customers.
- Connecticut farmers participating in the farmers' market, along with their customers, will benefit from the covered sales space and smoother, safer traffic patterns.
- Connecticut residents, especially those in the south end of Hartford, will be better off as a result of increased access to fresh, healthful Connecticut Grown produce and other farm products.

How Will Results Be Measured?

Metrics can include the following:

- Number of jobs created
- Sales by the wholesale and retail tenant companies
- Sales of farmers participating in the farmers' market
- Square footage increase of the wholesale, retail, and farmers' market spaces

How Much Can We Do?

With adequate support, we can implement the master plan in its entirety, creating **2,324 jobs,** increasing farmer and tenant earnings to **$108 million,** and increasing output to **$404 million** in the **first year** of full operation, and provide a **10-year** economic contribution of **$2.36 billion.**

Recommendation 2: Streamline implementation of the federal Food Safety Modernization Act by designating the Connecticut Department of Agriculture as the lead agency in the state responsible for regulating food production, processing, handling, and transport.

Existing Conditions
Food safety in Connecticut currently is regulated by three different state departments--Agriculture (DoAg), Consumer Protection (DCP), and Public Health (DPH); two federal agencies--the Food and Drug Administration (FDA) and Department of Agriculture (USDA); and more than 70 local health districts and departments.

Examining the Gaps
The complex division of regulatory authority over food safety is confusing for all involved, including producers, processors, handlers, transporters, and even the regulators themselves. This complexity and confusion results in an intimidating and overwhelmingly inefficient system. Implementation of the Food Safety Modernization Act, itself an extremely complex web of rules, is a daunting task.

Connecticut's agricultural producers, processors, and handlers affected by these new rules need assistance, first through education about the details of the regulatory changes and new requirements, and then through financial support to help defray costly upgrades to equipment and procedures needed to achieve compliance and remain in business.

Models to Consider
The National Shellfish Sanitation Program and the Pasteurized Milk Ordinance, both federal-state partnerships, are examples of federal regulations that are successfully enforced at the state level though DoAg working in close cooperation with FDA. While other regulatory agencies and organizations have involvement in preventing food-borne illness risks associated with consumption of these products, DoAg effectively serves as the lead.

Other New England states have regulatory structures that place agriculture and food in the same state agency. Vermont's Agency of Agriculture, Food, and Markets, for example, has responsibility for not only animal and plant health and well as feed, seed, fertilizer, it also oversees food safety and consumer protection; land use and water quality, and pest management and pesticides among its wide range of responsibilities. New Hampshire's Department of Agriculture, Markets, and Food has a similar set of responsibilities.

Designating DoAg as the lead responsible for regulating food production, processing, handling, and transport in Connecticut will improve and streamline communication, cooperation, and compliance.

Potential Partners
In addition to the Connecticut Department of Agriculture, essential partners include the following:

- Connecticut Department of Consumer Protection (DCP)
- Connecticut Department of Public Health (DPH)
- Local health departments and districts (LHDs)
- Producers, processors, and related organizations
- U.S. Department of Agriculture (USDA)
- U.S. Food and Drug Administration (FDA)

How Will This Enhance Farm Viability?
The rules are changing and Connecticut's farmers and other food businesses need to comply if they are to continue operating and competing in the marketplace. If Connecticut is proactive instead of reactive, it will position itself as a national leader in food safety.

Strategy for Implementation
Implementation will be a three-step approach: (1) education and outreach, (2) technical and grant assistance, and (3) compliance. This strategy will begin with the development of educational programs about the new requirements, followed by development of grants and/or cost-share programs to assist with

the expenses of achieving compliance, with the end result of compliance itself. In some cases, existing grants can be retooled for this purpose; in other instances, additional funding should be made available through FDA and other partners.

Who Will Be Better Off?

- Connecticut's farmers and related food businesses will benefit from a new competitive advantage by getting ahead of the curve.
- Consumers of Connecticut Grown products will benefit from the more stringent food safety standards that are being met.

How Will Results Be Measured?

Results will be measured by the number of Connecticut farms in compliance with new and expanded rules under the Food Safety Modernization Act. The baseline currently stands at zero.

How Much Can We Do?

Connecticut can lead the nation in this arena if it proactively supports and assists its food producers and manufacturers in complying with the Food Safety Modernization Act.

Recommendation 3: Enhance educational/training programs and Cooperative Extension for Connecticut agricultural producers.

Existing Conditions

Hands-on, practical courses in various aspects of farming and agriculture are limited in Connecticut. As the council has gathered input from stakeholders, it has heard from numerous farmers that their business growth is restricted by a lack of available employees skilled in areas such as food safety, pest and disease management, innovative production, marketing, and business planning and management, among others.

Examining the Gaps

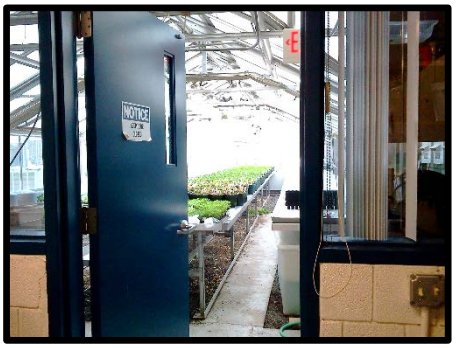
The state's land-grant university, the University of Connecticut, offers bachelor's degree programs through its College of Agriculture, Health, and Natural Resources in allied health sciences, animal science, diagnostic genetic sciences, dietetics, environmental science, environmental studies, horticulture, landscape architecture, medical laboratory sciences, nutritional sciences, pathobiology, natural resources, resource economics, turfgrass and soil science, interdisciplinary agriculture and natural resources, and the individualized major.

The university's Ratcliffe Hicks School of Agriculture offers associate's degree programs in animal science, turfgrass management, nursery and landscaping, and floriculture.

While there clearly are a wealth of offerings in the sciences related to agriculture, there are few hands-on courses available to current and future farmers in actual production techniques and related topics such as equipment operation and maintenance, irrigation, pest and disease identification and management, among many others cited by farmers and essential to a successful farming business.

Connecticut's farmers also have expressed frustration in the lack of sufficient Cooperative Extension agents dedicated to production agriculture and available for in-field consultation on the practical aspects of farming. According to USDA's National Institute, the Cooperative Extension system was created by Congress 100 years ago "to address exclusively rural, agricultural issues." Over recent years, however, it has changed its focus to topics beyond agricultural production, leaving a shortage of agents in Connecticut to assist the state's farmers with farming.

Meanwhile, Connecticut has invested heavily in infrastructure at its 19 agricultural science and technology centers (ASTCs) located at high schools throughout Connecticut. These facilities teach a variety of practical courses in agriculture including agricultural mechanics, aquaculture, and agribusiness, but remain underutilized due to staffing limitations. As a result, many students remain on waiting lists for admission to these highly acclaimed programs. Further, the facilities are empty most evenings, when they could be used as designed to teach current farmers or those interested in entering the field.



Connecticut's agricultural science and technology facilities, like these hydroponic and aquaponic greenhouses at Nonnewaug High School, are ideally suited for teaching courses in hands-on production to both existing and new farmers when high school classes are not in session.

Models to Consider
Connecticut's State Colleges and Universities (ConnSCU) and technical high schools have a cooperative agreement for workforce development in skilled trades that is a ready-made model upon which to build an agricultural workforce development program.

For-credit courses taught at the state's existing ASTCs in partnership with ConnSCU and ASTC instructors—as well as those from industry, the Connecticut Agricultural Experiment Station, and Cooperative Extension—with coordinated work-study opportunities at participating farms could be taken to earn certificates that ultimately could be stacked into an associate's degree.

Potential Partners
- Agricultural producer organizations and their members
- Connecticut Agricultural Experiment Station (CAES)
- Connecticut high school agricultural science and technology centers (ASTCs)
- Connecticut's State Colleges and Universities (ConnSCU)
- Cooperative Extension, University of Connecticut's College of Agriculture, Health, and Natural Resources

How Will This Enhance Farm Viability?
A better educated and more skilled workforce will lead to stronger, more viable farms that produce additional food and agricultural products for Connecticut's residents, while contributing more to their local communities and the state's economy.

Strategy for Implementation
Representatives from ConnSCU, Nonnewaug ASTC, and DoAg met in May 2014 to follow up on the findings and suggestions of the GCAD's Producer Education and Innovation working group. Attendees from that meeting have administered a survey to assess the course topics most wanted and needed by Connecticut farmers, with the goal of offering a few non-credit pilot courses during the fall of 2014 and developing for-credit certificate programs in 2015.

Concurrently, the University of Connecticut can redistribute resources to increase the number of Cooperative Extension agents who assist farmers in the field with production agriculture.

Who Will Be Better Off?
- Existing and future farmers who receive training through these programs will be better prepared for and more productive on the farm.
- Farm owners and managers seeking skilled employees will have confidence that candidates who have earned one or more certificates through these programs already have the practical knowledge and hands-on skills needed to contribute immediately and be a productive member of their teams.
- Farm owners will have the opportunity to send existing employees for training in specific areas as needed, and/or attend classes for their own continuing education and professional development.

How Will Results Be Measured?
Results will be measured based on the following:
- Number of courses and certificate programs created
- Enrollment in those programs
- Number of certificates issued
- Number of associate's degrees awarded
- Number of agricultural jobs filled in Connecticut
- Number of Cooperative Extension agents who assist Connecticut farmers with farming

How Much Can We Do?
A few non-credit pilot courses in late 2014 and a wider variety of for-credit courses and certificate programs beginning in 2015 will be a good start. Based on response to and enrollment in these early offerings, the opportunity to expand the numbers and types of classes is limited only by the resources allocated to this program.

Recommendation 4: Plan, design, and create an agricultural innovation center to research, develop, and teach state-of-the-art controlled environment production models that will enhance Connecticut farmers' opportunities for long-term economic success and expand consumer access to fresh, healthful Connecticut Grown foods year round.

Existing Conditions

Connecticut residents spend only 2.5 percent of their food dollars on Connecticut Grown products (and the other 97.5 percent on consumables produced outside of the state) according to University of Connecticut estimates.

Meanwhile, the United States spends significantly more on health care than any other nation—more than twice per person than the average of 29 other developed countries, based on 2006 data—and has one of the fastest health care spending growth rates, tripling expenditures since 1990. Yet average life expectancy in the U.S. is far below nations that spend less on healthcare.

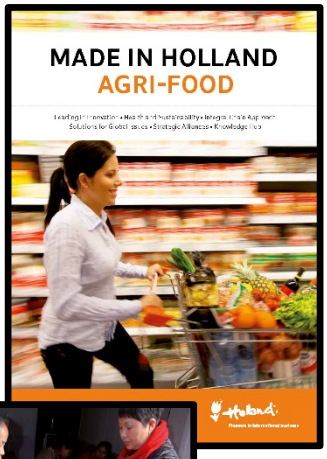
Despite its relatively northern latitude and short growing season, Connecticut already has infrastructure to significantly increase year-round production of food, taking its lead from other countries that have developed technology to grow high-quality, nutritious food in an efficient, cost-effective manner. According to the Connecticut Greenhouse Growers Association, Connecticut has an estimated 300 commercial greenhouse businesses with 8,000,000 square feet of production space under cover.

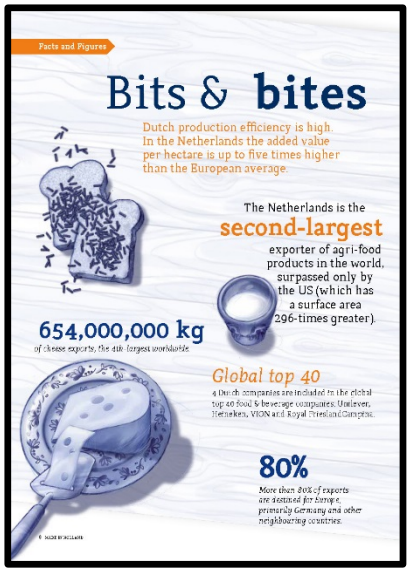
Examining the Gaps

Connecticut greenhouse professionals estimate that the United States is already 30 years behind other countries in its knowledge of and technology for controlled-environment agriculture. If residents want their food grown and produced domestically, the country has to catch up quickly in its ability to produce that food.

Models to Consider

The Netherlands leads the way in its knowledge of and technology for controlled-environment agriculture. Despite its highest-in-the-world population density (nearly 4.65 as many people on only 2.7 as much land area as Connecticut) and its northern latitude (roughly 10 degrees higher than Connecticut), it has become a leader in crop production.





The Netherlands' Ministry of Economic Affairs reports the country is world's second-largest exporter of agricultural products, and one of the world's three leading producers of vegetables and fruit, noting it is "a small country with big achievements." Agriculture contributes nearly 10 percent to The Netherlands' employment and 10 percent to its economy, according to www.hollandtrade.com.

Connecticut can and should use this international model as a foundation on which to ramp up its controlled-environment technology. Connecticut can also study business and marketing models in the Netherlands for ideas that could work here.

Potential Partners
In addition to the Connecticut Department of Agriculture and the Connecticut Department of Economic and Community Development, essential project partners include the following:

- Connecticut Agricultural Experiment Station (CAES)
- Connecticut's high school agricultural science and technology centers (ASTCs)
- Connecticut's State Colleges and Universities (ConnSCU)
- Connecticut agricultural producer organizations and members
- Other public and private colleges and universities in Connecticut and the Northeast
- The Connecticut Greenhouse Growers Association
- University of Connecticut's College of Agriculture, Health, and Natural Resources

How Will This Enhance Farm Viability?
Connecticut can lead the nation in climate-controlled agriculture if the state invests wisely and strategically to take advantage of its existing infrastructure.

Controlled-environment, year-round food production is well suited to Connecticut's existing fruit and vegetable growers, dairy and other livestock farmers looking to diversify and/or transition to expand and strengthen their businesses, and its existing greenhouse operations.

High-tech indoor growing systems can readily combine produce and fish production, providing a year-round source of both types of healthy foods.

Strategy for Implementation
The center must be built on a result-based model that attracts and engages farmers, other agribusiness professionals, consumers, high school students and teachers, researchers, and students and faculty from both public and private colleges and universities.

Who Will Be Better Off?

- The center will propel the state's agricultural industry forward by decades and help it become the nation's leader in year-round, controlled-environment food production
- Consumers will benefit from more readily available and affordable nutritious foods, helping Connecticut's agricultural industry address a root cause of our nation's healthcare crisis.

How Will Results Be Measured?
Metrics used to measure the success of this action include the following:

- Number of agricultural jobs in Connecticut
- Square footage of Connecticut greenhouses dedicated to food production
- Annual sales of Connecticut's controlled-environment agricultural products
- Percentage of consumer spending on Connecticut Grown food and farm products

How Much Can We Do?
Implementation of this recommendation can help achieve the state's goal of increasing consumer spending on Connecticut Grown food and farm products to no less than five percent by 2020. In the longer term, given significant investment in controlled-environment food production, that percentage can be increased even higher, with a doubling of that figure within the state's reach.

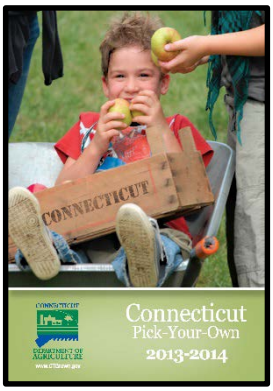
Recommendation 5: Fortify the Department of Agriculture's existing Connecticut Grown marketing efforts to provide additional resources to both farmers and consumers.

Existing Conditions

Connecticut General Statutes Sec. 22-38 designates the Connecticut Department of Agriculture (DoAg) as the organization responsible for the marketing Connecticut Grown farm products.

The agency's Bureau of Agricultural Development and Resource Preservation includes five agricultural marketing and inspection representative positions, which are responsible for administration of numerous grant, farmers' market, and other programs in addition to Connecticut Grown marketing. Its bureau director position is unfilled at this time.

Programs administered by this staff include the Specialty Crop Block Grant, Farm Transition Grant, Farm Viability Grant, Farm Reinvestment Grant, Joint Venture Grant, Farmers' Market Nutrition for WIC, Farmers' Market Nutrition for Seniors, Farm to School, FarmLink, Food Export, Big E coordination, administrative support for various boards and councils, and more.



Currently there is no General Fund appropriation in the State of Connecticut's budget for marketing of Connecticut Grown farm products. The Community Investment Act provides $25,000 per quarter for Connecticut Grown marketing, which supports a multitude of ongoing initiatives, including the Farm-to-School and Farm-to Chef programs along with a variety of Connecticut Grown promotions including radio campaigns, brochures, website listings and information, costumes, farm maps, crop calendars, logo-themed giveaways, and more.

Examining the Gaps

As DoAg's staff juggles numerous responsibilities in addition to Connecticut Grown marketing, it also stretches available funding for such marketing as far as it can, working as creatively and carefully with taxpayers' funds as possible.

The agency's regulatory staff is similarly stretched with diverse responsibilities and lacks the necessary resources to guard against improper use of the Connecticut Grown label, endangering consumer confidence and enabling unfair competition to Connecticut's farmers from those who intentionally mislabel products to mislead consumers.

Models to Consider

The New Jersey Department of Agriculture's Jersey Fresh program, launched in 1984 as a radio campaign, has developed to encompass multi-media advertising, national and international promotion, and quality grading of produce grown on New Jersey farms. The Jersey Fresh brand is recognized, respected, and sought both within that state's borders and well beyond, even among retailers and consumers here in Connecticut.

According to the final report on a USDA funded study by Rutgers University of Jersey Fresh marketing, "each dollar spent on Jersey Fresh promotion resulted in $54.49 of increased economic output in the State."

The New York State Department of Agriculture and Markets' Pride of New York program promotes farm products grown in that state along with other New York based foods and businesses, targeting wholesale and retail customers both within and outside the state's borders.

Potential Partners
The Connecticut Department of Economic and Community Development and its state Office of Tourism should be a major partner in marketing Connecticut agriculture and Connecticut Grown farm products, especially in conjunction with its Still Revolutionary Campaign. In addition, effective marketing of Connecticut Grown depends on the following:

- Connecticut Department of Administrative Services
- Connecticut Department of Public Health
- Connecticut Department of Social Services
- Farmers' market associations
- Local media outlets
- Other nonprofit agricultural organizations
- Processors
- Producer organizations
- Retailers
- Wholesalers

How Will This Enhance Farm Viability?
Strengthening resources in these areas will enhance the viability of Connecticut's farms in a number of ways. It will expand the market share captured by the state's farmers while augmenting those farms' sales, increasing consumer demand for Connecticut Grown farm products, and enhancing farm-to-consumer and connections in local communities.

Strategy for Implementation
Strengthening the agency with additional resources for Connecticut Grown marketing efforts will help provide the level of service warranted by today's unparalleled interest in and demand for locally grown farm products.

Parallel strengthening of the agency's regulatory division will provide for enhanced enforcement pertaining to use of the Connecticut Grown label, reducing opportunists who attempt to use it on products grown elsewhere to deceive well-intentioned consumers who want to support local farm families.

Who Will Be Better Off?

- Connecticut farmers will benefit from these additional resources and efforts.
- Consumers interested in fresh, local, healthful foods also will be better off as a result.

How Will Results Be Measured?
Results will be measured in a variety of ways:

- Number of Connecticut Grown marketing materials/impressions produced
- Consumer survey results
- Increase in consumer spending on Connecticut Grown food and farm products

How Much Can We Do?
We can double or triple existing resources allocated to Connecticut Grown marketing.