Mansfield Agriculture Strategy

July, 2013

Mansfield Tomorrow
OUR PLAN ▶ OUR FUTURE

Prepared By:

YELLOW WOOD
associates, inc.

228 North Main Street
St. Albans, VT 05478
Phone: (802)524-6141
www.yellowwood.org

[This page intentionally left blank.]

Table of Contents

Introduction & Methodology

Mansfield Tomorrow is a Town-wide project designed to provide the vision, strategies and tools for Mansfield to become the 21st century community Mansfield wants to be.[1] This project includes a community participation process and the preparation of an updated Plan of Conservation and Development (POCD). A Town-wide visioning survey (with approximately 330 respondents), conducted by Goody Clancy as part of the Mansfield Tomorrow project found that more than 91% of respondents agreed that Mansfield's working farmland will remain an integral part of the town's character, confirming that the existence and success of agriculture in Mansfield is important to the majority of residents.

Yellow Wood Associates (Yellow Wood) was responsible for developing the agricultural strategy for the plan. Yellow Wood worked with the consultant responsible for the economic development strategy (Mt. Auburn Associates) to identify areas of synergy between the agriculture strategies and economic development strategies. Another member of the consulting team (Milone & MacBroom) focused on land preservation projects and Goody Clancy (the lead consultant on the Mansfield Tomorrow project) is responsible for understanding the zoning and planning implications of the selected strategies.

This agricultural strategy report is based on extensive public input and is intended to provide Mansfield with actionable strategies that are based in the current realities of agriculture in Mansfield, Connecticut and New England. These strategies provide the Town with a range of opportunities to support and grow the agriculture sector while addressing the challenges identified by the Town's Agriculture Committee and participants in the Agricultural Forum and Agricultural Focus Group. Supporting and growing Mansfield's agriculture sector will provide the Town with an opportunity to maintain the sense of rural character that is so highly valued by residents. The goals, strategies and actions presented in this report are focused on ensuring that agriculture in Mansfield is vibrant and able to contribute to the economy. They take into account the state of agriculture in Mansfield today, as well as in the region, and are designed to achieve a shared vision for agriculture in Mansfield over the next 20 years.

Definitions

It is important to note that when this report refers to "agriculture" and "farming," it assumes the State of Connecticut definition inclusive of the "cultivation of the soil, dairying, forestry, raising or harvesting any agricultural or horticultural commodity, including the raising, shearing, feeding, caring for, training and management of livestock, including horses, bees, poultry; ...the operation, management, conservation, improvement or maintenance of a farm and its buildings."[2] See appendix B for the full text of the state's definition of agriculture.

The Census of Agriculture defines "farm" as, "any place that produced and sold, or normally would have sold, $1,000 or more of agricultural products during the Census year."[3]

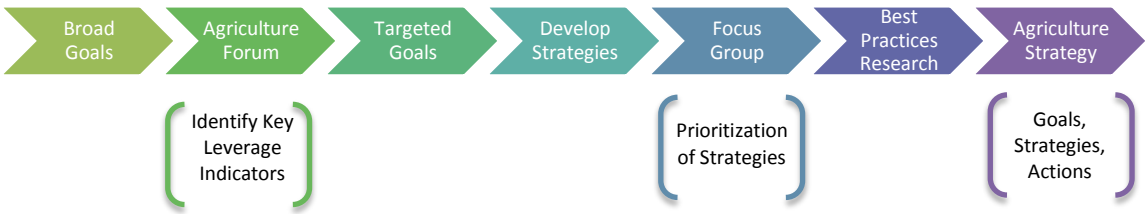
Data

This report uses the most recent data available. In many cases, that is data from the 2007 Census of Agriculture. While this data may not be reflective of the most current conditions it is the most useful data to use to establish conditions that can be compared to other points in time and to other Towns, counties and states. Data from the 2012 Census of Agriculture will be available in 2014. We recommend that the Town update the appropriate data and statistics in this report based on the 2012 census data when it becomes available. Likewise, the most

recent data available from the Connecticut Center for Land Use and Education (CLEAR) is from 2006. While it is likely that land use in Mansfield has changed since the study this is the most accurate data available at this time. Using the CLEAR data also provides historical information to show change over time. We recommend that the Town update the appropriate data and statistics in this report when new land use data is made available.

Process

Figure 1: Process Diagram



After reviewing background material provided by the Mansfield Agriculture Committee and a basic review of Census of Agriculture data, resources and programs related to agriculture at UConn and other information relevant to understanding the context for agriculture in Mansfield, Yellow Wood proposed three **broad goals** that were approved by the Agriculture Committee, for the Town over the next 20 years. Yellow Wood then facilitated an **Agriculture Forum** with a diverse group of 44 participants (including local and regional farmers, agricultural service providers, UConn staff, municipal staff, state representatives and interested residents) to identify indicators of progress towards each of the three goals. Based on the results of the February workshop, Yellow Wood developed four **targeted goals** with key questions as the focus for **developing strategies**. The strategies were reviewed and prioritized with an agriculture ***focus group***. Yellow Wood then conducted **best practices research** to develop the **agriculture strategy** in this report. After reviewing the draft goals, strategies and actions, the Mansfield Agriculture Committee recommended two foundational goals and three "actionable" goals. All goals, strategies and actions were then reviewed and updated by the Agriculture Focus Group. Please see Appendix A for a more detailed overview of the process.

Agriculture in Mansfield Today

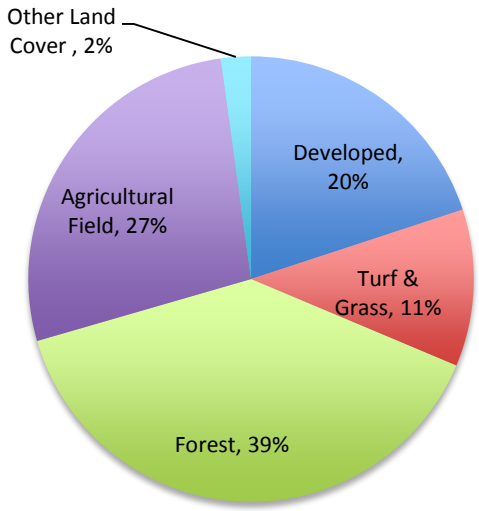
Located in Tolland County, Mansfield, CT has a total population of 26,543; just under half of this population consists of UConn students, leaving a population of 13,653 living in households[4]. Mansfield has a long agricultural history and it has been home to an agricultural college since 1880 when the Storrs brothers offered 170 acres and $5,000 to start an agricultural school. In addition to the agricultural college (now known as the College of Agriculture and Natural Resources at the University of Connecticut), Mansfield is home to Mountain Dairy, one of the few remaining dairy processing plants in the state, that has been producing and processing milk on the Stearns farm for more than 140 years.

Agricultural Land

Mansfield is a New England hill town with about 58% of its land classified as farmland soils (4,202 acres of prime farmland soils, 2,896 acres of statewide important farmland soils and 9,911 acres of locally important farmland soils).[5] The *Report on Lands of Unique Value* completed for Mansfield in 2003 has a comprehensive set of maps showing that these prime agricultural soils are predominant in southwestern Mansfield and generally dispersed elsewhere in Town. These maps also show that wetlands are pervasive throughout the community (limiting agricultural uses) and many areas of natural diversity (areas of concern with regard to threatened or endangered species) are associated with agricultural land.[6]

A 2006 study of land cover over agricultural soils by the Center for Land Use Education and Research found 24.4% of the Town's land (7,133 acres) was prime agricultural soil, with 1,947 acres of that land being used for farming (27% of all land with prime agricultural soils, down 7% from 1985) with an additional 1,092 acres of land being used for farming that was not on agricultural soils (for a total of 3,039 acres of farmland, 10.4% of the Town's total land).[7] In contrast, 20% of Mansfield land with prime agricultural soils has been developed (an increase of 23% between 1985 and 2006) and there is "turf and grass" on 11% of Mansfield's prime agricultural soils (an increase of 37% from 1985).

Figure 2: Distribution of uses on Mansfield's Prime Agricultural Soils (2006)



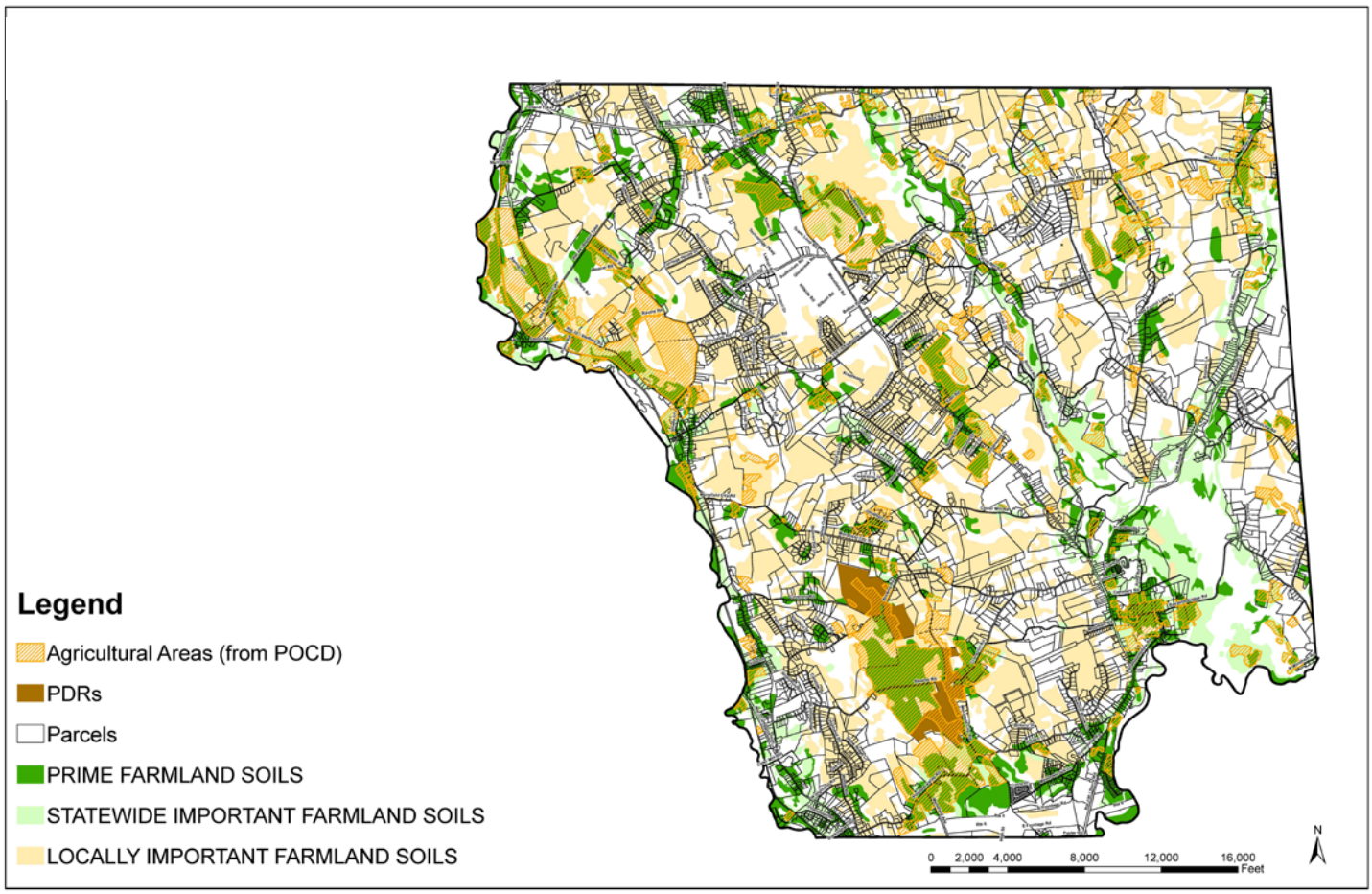
Approximately 75% of the Town is zoned Rural Agricultural Residential (RAR 90), where agriculture or 2-acre house lots are permitted.

If Mansfield continues to lose farmland at the same rate over the next 20 years, agricultural field on prime agricultural soils will decrease another 138 acres, down to just 25% of all land in prime agricultural soils. Loss of farmland at this rate provides a challenge to maintaining and/or growing agriculture in Mansfield and highlights the need for the Town to continue to focus on preserving farmland. Development pressure in Mansfield also threatens open space with the market value for excess acreage (non-farm/forest land, non-building/house lot) in Mansfield ranging from $7,000 to $12,000 per acre for road frontage and $3,500 - $6,000 per acre for rear acreage. [8]

This is in contrast to the 2010 State-wide recommended land use values that range from $90 per acre of pasture to $2,400 per acre for soils that are, "excellent, well drained, typically flat or level, no stones."[9]

While it is unlikely that prime agricultural soils that have been developed will be converted back to agricultural land, there is an opportunity to increase the percentage of Mansfield's prime agricultural soils being farmed through the conversion of some of the land in turf and grass and in forest back to agricultural field.[10]

Figure 3: Town of Mansfield Farmland Soils



Farmland Preservation

Since the mid-1980's Mansfield has funded, and managed, an active open space acquisition program. Since 1990, Mansfield has purchased over 32 open space parcels, totaling over 1,000 acres of land. In addition to Town purchases, the Town has acquired open space through donations and dedication requirements included in the Town's land use regulations. As of September 1, 2013, the town owns or manages over 2,500 acres of undeveloped open space land, including over 400 acres of private land with conservation easements. These acquisitions include eight properties with agricultural land that are leased to local farmers and three agricultural easements on private land. The Town is actively engaged with state and regional

entities to identify farmland for protection and is working to make farmland preservation a reality. See Appendix C for detailed information about the Town's open space acquisitions that include farmland. In addition to the Town's acquisitions, more than 300 acres of farmland has been preserved through the purchase of development rights by the state during that same time period.

Farms

According to the 2007 Census of Agriculture, there are 4,196 farms in the state of Connecticut, 405,616 acres in farmland and the market value of agricultural products sold is $5.5 million.[11] A recent study showed that the total impact of Connecticut's agricultural industry on the state economy was $3.5 billion (approximately 2% of the Gross State Product).[12]

Agriculture is changing across America, as farms get bigger in the mid-west, farms in New England are getting smaller and the number of farms is increasing, up an average of 19% in New England between 2002 and 2007 (with a 0.1% increase in Connecticut).

Following national trends, the median farm size in Tolland County decreased from 38 acres in 2002 to 25 acres in 2007, while the number of farms increased from 398 to 484.[13]

The 2007 Census of Agriculture identified 19 farms in Mansfield, five of which support farming as a primary occupation.[14] According to a 2012 report by the Congressional Research Service, at the national level, the share of farm income derived from off-farm sources has increased steadily in recent decades and appears to have peaked at about 95% in 2002. In 2012, off-farm income sources are forecasted to account for about 84% of the national average farm household income, compared with about 16% from farming activities.[15]

A 2010 survey done by the Town identified close to 40 agricultural enterprises (19 of which identified themselves as farmers, other enterprises included farm stands, agritourism destinations, retail outlets, etc.). Agriculture in Mansfield is diverse, producing dairy products, livestock and meat products, fruits and vegetables, honey, maple syrup, Christmas trees and nursery stock as well as agritourism experiences. While the Mansfield dairy farms own or lease over 1,800 acres of land, the majority of Mansfield farms operate on less than 50 acres and some on less than 5 acres.

Mansfield's Agricultural Enterprises

Arrowhead Farms	Honey, goat milk, pumpkins, berries, vegetables, angora wool and non-edibles.
Bailey's Maple Syrup and Honey, LLC	Maple syrup and honey.
Bird Walk Farm	Eggs, seasonal lamb, pork, chicken.
Cedar Ledge Tree Farm	Christmas trees. Natural stone for walls, walks, patios. Pumpkins. Firewood.
Country Stop & Goods	Produce and country goods.
Don's Rhubarb	Rhubarb
Foxfire Farm	Raw milk.
Formerly Sweet Acre Farm	Vegetables and goats
Hillside Farm	Milk, mulch bark and feed hay
Hye Acres	
Ledgecrest Greenhouses	Annuals, perennials, herbs, vegetable plants and spring flowering plants.
Maple Crest Farm	Rhubarb, blueberries, raspberries, are sold wholesale. Tree fruit, jams, honey, yellow wax beans, potted raspberry plants, Aloe, Christmas cactus, hand-painted egg shells, are sold retail, by appointment only.
Mathews Farm	Blueberries
Mike's Stand	Organic tomatoes, peas, broccoli.
Mountain Dairy	Milk and dairy products.
Karen Green	
Phenix Farm	Maple syrup, hay/ alfalfa.
Pleasant Valley Harvest	Organic fruits and vegetables.
Round the Bend Farm	Tomatoes, peppers, green beans, cucumbers, squash.

UConn

In addition to the private agricultural enterprises in Mansfield, UConn also has a significant agricultural presence in the town. Approximately 700 acres (approximately 23%) of active farmland in Mansfield is owned by UConn. The Department of Animal Science is home to an Equine Center, which maintains 85 horses and specializes in breeding of Morgan horses; the Dairy Center, operating with 100 cows to send milk to the Creamery; the Livestock Unit for beef cows, sheep and pigs; and the Poultry Unit, housing 3,000 chickens. (U Conn also owns approximately 900 acres of Forest land in Mansfield and an additional 86 acres of farmland in Coventry[16]). Many of these facilities are open to the public 365 days a year, making UConn a popular agritourism destination. UConn's Dairy Bar, serving award winning ice cream produced in the Creamery from UConn dairy cows, is one of the top 10 tourism destinations in Connecticut. UConn largely attributes the success of the Dairy Bar to the School's location, half way between New York and Boston, two cities with large populations looking for day-trips and weekends relating to agritourism. [17] UConn officials are committed to keeping the agricultural land it currently uses in active use.[18]

Mansfield's Agricultural Enterprises cont.

Shundahai Farm	Vegetables. CSA.
Staples Farms	
Storrs Farmers Market	Year-round farmers market. "Our focus is food."
Storrs Regional FFA	Christmas trees, plants, eggs.
Gardens at Bassetts Bridge Farm	Rhubarb, tomatoes, asparagus, pumpkins, blueberries, hanging baskets, annuals and perennials
Thistle Springs Farm	Hay, and beef cattle. Sand and gravel.
Thompson and Sons, Inc.	Farm supply.
Thompson's Christmas Tree Farm	Christmas trees, vegetables.
Three Green Acres/Chelsea's Blue Ribbon Lamb	Sheep-lamb for meat, wool blankets, show animals (Hampshire Sheep and Jersey Cattle)
Towill's Tree Farm	Christmas Trees
Tri County Greenhouse	Annuals, perennials, herbs, vegetables, hardy mums
Twin Ponds Farm	Hay, lumber, firewood, nursery stock, plant stock, seasonal berries.
University of Connecticut	Ice Cream, eggs, chickens, beef cows, horses.
Valley Farms	Kobe-style beef, hogs, free-range eggs.
Windover Farm	Heritage swine, cattle, sheep.

Economics of Farming

In a 2010 survey of Mansfield farmers, "financial stability, lack of funding, input costs" were identified as some of the major challenges faced by farmers and help with marketing and accessing funding was requested. The majority of Mansfield farms are small, under 50 acres and with sales less than $50,000. Seven (39%) of 19 Mansfield farms identified in the 2007 census had sales over $50,000 (2 horticultural operations, 2 dairy operations, 2 animal operations, including products, and 1 cattle and calves operation). While Mansfield farms make up just under 4% of farms in Tolland County, they account for more than 7% of the operations in Tolland County with sales over $50,000.

The 2007 Census showed that the average net income for farms in Tolland County was $15,307, up significantly from an average of $5,833 in 2003 but still significantly below the state average of $25,087.[19] Assuming the average net income for Mansfield farms is the same as for Tolland County it is not surprising that only 26% of Mansfield farms support farming as the primary occupation, versus 55% of all Connecticut farms and 49% of farms in New England. If we assume the 19 farms in Mansfield make the average Tolland County farm income it would account for 0.1% of all the income earned by residents in Mansfield. [20]

Farming Jobs

Data from the 2010 census showed that less than 2% of the Mansfield population was employed in agriculture compared with Connecticut communities with the highest proportion of residents employed in agriculture, like Scotland and Preston that have between 4% and 8% of the population.[21] The majority of farms in Tolland County do not hire farm labor and of the farms that do, 90% hire less than 10 workers. The Connecticut Department of Labor reports 398 jobs in Tolland County in the agriculture, fishing and hunting sector in 2011, making up just 1% of all Tolland County jobs.[22] Participants of the February 2012 agricultural forum identified that access to farm labor was a challenge for local and regional farms.

Markets

Forum participants also identified access to markets as a challenge faced by Mansfield farmers. According to the 2010 survey of Mansfield farmers, the majority of farmers direct market their products to consumers through roadside stands or farmers markets and/or sell direct wholesale to restaurants and stores. Of the 19 operations where the respondent identified themselves as "farmers," 11 do direct marketing only, one does wholesale only and seven do a combination of direct marketing and wholesale. According to the 2007 Census of Agriculture, Connecticut had the second highest percentage of farms involved in direct sales in New England, and the entire country, suggesting that Mansfield farmers are following a state-wide trend in selling products directly to consumers. While this type of marketing and sales usually ensures that farmers get the highest possible price for their products, this type of marketing and sales requires that farmers spend a lot of time building and maintaining relationships with many individual buyers. Direct marketing and direct wholesale marketing also puts the burden of transportation and distribution on the farmer.

Mansfield is home to a year-round farmers market, Storrs Farmers Market, providing a direct-market outlet to local farmers and value-added producers. (Currently just under 30% of the producers on the Storrs Farmers Market website are from Mansfield.) In addition to the farmers market, the Town produces a "Mansfield Grown" brochure featuring a guide to locally produced agricultural products and services – the brochure includes 29 farms and stores (in addition to the farmers market) providing locally produced goods. One Mansfield farm offers a CSA[23] program. Farmfresh.org, a local food guide for Southern New England, identifies 6 producers in Mansfield with farm stands making direct sales to consumers.

Mansfield is located 20 miles from I-91, a major North/South transportation corridor and 73 miles from I-90 (East/West) corridor – it is 29 miles from Hartford, 85 miles from Boston and 137 miles from Manhattan. This location places the Town, and its agricultural enterprises, in a prime location for Agritourism (as mentioned by the University when asked to explain the success of the Dairy Bar). The new Adventure Park at Storrs, an aerial park set in the trees off of Storrs road, is another natural-resource-based destination attracting visitors to the Town. According to the 2007 census of agriculture 2% of CT farms (and 2% of Tolland County farms) offered agritourism and recreational services, ranking Connecticut #3 in New England for the percentage of farms involved in agritourism. (Rhode Island led New England with 3.5% of all farms reporting income from agritourism activities). The success of the Dairy Bar offers Mansfield farmers with an interest in agritourism a ready-made opportunity for cross-marketing.

Access to Local Food

In the 2013 "Locavore Index" which ranks states based on number of farmers markets, CSA and food hubs per capita, Connecticut ranks 15th (behind all other New England states) with 154 Farmers Markets, 96 CSAs and 2 Food Hubs. This is an improvement from its ranking of 29 in 2012.[24] The same study showed that while Connecticut has 25% of the New England population it has only 22% of the region's farmers markets, 18% of the region's CSAs and 10% of the region's food hubs. These statistics are evidence of growth in locally-driven direct and wholesale marketing, and they also indicate room for further expansion. While Mansfield is already well served by a year-round farmer's market and has one active CSA farm, this is a movement to which Mansfield can continue to contribute and benefit from the lessons learned by others and the structures they develop.

A 2012 report by the Zwick Center for Food and Resource Policy estimated that locally-produced food accounts for approximately 2.5% of Connecticut's total food expenditures and if all locally-grown food was consumed in-state it would account for 3.5% of all food expenditures. The Governor's Council on Agricultural Development has developed a target of 5% of food expenditures on locally-grown food by the year 2020.

Non-Market Benefits of Mansfield Farms

While agriculture is not a significant sector in Mansfield's economy from the standpoint of direct income and jobs, agriculture does play an incredibly important role in the Town's economy, sustainability and identity. Many studies have been done to identify, and attempt to quantify, the myriad of benefits that working farmland has on our communities. Farmland:

- contributes to food security and local food supply
- generates more in tax revenues than it costs in services (if privately owned and managed)
- provides food and cover for wildlife / increases biodiversity
- helps protect against flooding
- protects wetlands
- maintains/improves air quality
- can absorb and filter waste water
- retains soil for plant growth and absorbing and sequestering carbon
- enhances local heritage and sense of place
- maintains rural integrity
- provides scenic views / amenity value
- encourages well-being and social health

A 2003 study by the Massachusetts Audubon Society placed a value of $1,381 per acre of farmland and $984 per acre of forestland for these non-market services provided by the land.[25] If you use this value of $1,381, land in agricultural use in Mansfield would be valued at more than $4 million above and beyond the market value of the land (ranging from $90 - $2,400 per acre of farmland based on soil types[26]).

Working lands have impact on other economic drivers in the community. Many studies have found that people will pay more for houses near farmland[27] and we know that working lands

attract visitors and tourists that spend money not just on agricultural products and experiences but across other economic sectors. A vibrant agricultural sector that provides all of the non-fiscal benefits listed above, plays a significant role in quality of life and provides access to local foods supports other economic development activities. As indicated in the larger economic development strategy for Mansfield Tomorrow, "enhancing quality of life" amenities is a key strategy for attracting economic development opportunities such as spin-offs from the proposed Technology Park, attracting companies seeking partnerships with UConn and companies in regional growth industries. The amenities provided by a vibrant agricultural sector make Mansfield a more attractive place for entrepreneurs and others to base their companies, bringing quality jobs and increased economic activity to the town.

One of the main challenges indicated in the economic development strategy is balancing development with quality of life concerns. This means, in part, supporting agriculture and ensuring the conditions exist for agriculture to thrive in Mansfield.

Supporting Mansfield's Agricultural Enterprises

"Mansfield 2020: A Unified Vision Strategic Plan," developed in 2008 identified "historic and rural character, open space and working farms" as a priority vision point for the town and the 2006 Plan of Conservation and Development includes a policy goal (#2) to, "conserve and preserve Mansfield's natural, historic, agricultural and scenic resources," with one of the objectives being, "to protect agricultural and forestry resources and to encourage retention and expansion of agricultural/forestry uses…."[28]

The Town has an active Agriculture Committee that serves as an advisory board to the Town Council and other Town officials, has implemented many of the recommendations from the 2006 POCD and has achieved other significant accomplishments such as being the first town in Connecticut to pass all three local agriculture tax exemptions and abatements (property tax abatements on farm businesses, exemptions on farm buildings and structures and exemptions on farm machinery) – see appendix H for the full language of these tax exemptions and ordinances.

Additional steps the Town has taken to support agriculture include:

- Passed a Right-to-Farm ordinance
- Encouraged agricultural use of Town-owned land
- Published the "Mansfield Grown" brochure, marketing agricultural enterprises in Mansfield
- Supported the Storrs Farmers Market by providing town land for the outdoor market and space at the public library for the indoor market.
- Hired a Natural Resources and Sustainability Coordinator
- Held events, such as a "Farmers Meeting" (2012)
- Made a presentation on agriculture to the Town Council (2010)
- Included an "agriculture" section in the Business portal of the Town website
- Participated in Farm-to-School (apples, pears, peaches, corn, pumpkins, squash from Palazzi Orchards) at Mansfield Public Schools

- Reviewed zoning related to agriculture in 2011 with a commitment to reassess when the "Guidance and Recommendations for CT Municipal Zoning Regulations and Ordinances for Livestock" was published.
- Preserved farmland through subdivision process

Mansfield Agriculture By the Numbers

Mansfield		
	County	Tolland
	Population	25,543
	Population Living in Households	13,653
Land in Agriculture[29]		
	Prime Farmland Soils	4,202
	Statewide Important Farmland Soils (acres)	2,896
	Locally Important Farmland Soils (acres)	9911
	Farmland as a percentage of all land	58%
	Change in Land in Agriculture 1985-2006[30]	-16%
	Distribution of Uses on Mansfield's Prime Agricultural Soils[31]	
	Developed	20%
	Turf & Grass	11%
	Forest	39%
	Agricultural Field	27%
	Other Land Cover	2%
	Mansfield Farmland Preservation Fund Acquisitions 1990-2010:	
	Acres	200
	Properties	9
	Cost	$973,600
Farms		
	Number of Farms	19
	Number of farms which support farming as the primary occupation	5
	Farm size (acres)	3 - 700
	Number of Agricultural Enterprises	33
	Diverse Production	Dairy products, livestock and meat products, fruits and vegetables, honey, maple syrup, Christmas trees and nursery stock, agritourism experiences

Uconn		
	Actve Farmland (acres)	700
	Facilities	Equine Center, Dairy Center, Creamery, Livestock Unit, Poultry Unit
	Annual visitors to the Dairy Bar	20,000
Economics of Farming		
	Farms with sales over $50,000	7
	Average net Income*	$15,307
	Change in Net Income from 2002-2007*	162%
	Farming as % of Mansfield's Total Income	0.10%
	Population employed in agriculture	<2%
	Farmers that sell through Direct Marketing only	11
	Farmers that sell wholesale only	1
	Farmers that sell through a combination of Direct Marketing and Wholesale	7
Retail Outlets		
	Farmers Markets	1
	CSA programs	1
	Farm stands	6
	Other Retail Outlets	12
	Farms offering Agritourism Experiences or Services*	2%

*Data for Tolland County

Challenges and Opportunities

Identity

Despite all of the work the Town has done to support agriculture and the Town's diverse and historic agricultural sector, many feel Mansfield is not currently recognized as an agricultural community and Mansfield farmers feel underappreciated. Many feel that the Town "has failed to recognize the importance of local small farms," and that agriculture is currently seen as a stand-alone issue rather than something that is integrated into the identity of the Town.

Increasing the visibility of this diverse sector and sharing the value of its multiple contributions to the Town will play a major role in the short, medium, and long term viability and growth of agriculture in Mansfield. Integrating knowledge of the agricultural sector and agricultural goals across municipal government and continuing to review and revise regulations to support agricultural production and sales will decrease the chances of municipal-level decisions negatively impacting agricultural viability and improve coordination of services for and support of agricultural enterprises.

It is these kinds of actions that will make existing farmers feel supported and valued and will attract new farmers and agricultural entrepreneurs to Mansfield.

Land

Access to agricultural land is one of the most pressing challenges facing Mansfield's agriculture. If the loss of farmland continues at the historic rate (total land in agricultural land decreased 16% between 1985 and 2006[32]) availability of land will pose a significant challenge to the viability of both existing and potential future farmers.

In addition to preserving farmland, it is essential that the Town preserves the existing farmland viewsheds from Route 32, Route 195, Route 6, Pleasant Valley Road, Stearns Road, Mansfield City Rod, Crane Hill Road and Browns Road and considers farmland views when prioritizing farmland for preservation.

Mansfield has the opportunity to increase the percentage of the Town's prime agricultural soils being farmed through the conversion of some of the land in turf and grass and in forest back to agricultural production.[33] Defining and protecting existing farmland and prime agricultural soils will help the Town to effectively balance development with a viable agricultural sector and the quality of life concerns associated with open space. Encouraging clusters of agricultural activity and improving signage will increase the visibility of agriculture, and may also contribute to viability by increasing opportunities for sharing infrastructure and knowledge among producers.

Development pressure in Mansfield also threatens open space with the market value for excess acreage (non-farm/forest land, non-building/house lot) in Mansfield ranging from $7,000 to $12,000 per acre for road frontage and $3,500 - $6,000 per acre for rear acreage.[34] This is in contrast to the 2010 State-wide recommended land use values that range from $90 per acre of pasture to $2,400 per acre for soils that are, "excellent, well drained, typically flat or level, no stones."[35] High land values make it more difficult for young farmers to put down roots in Mansfield; this is mitigated to some degree by the opportunity to farm intensively on relatively small acreages.

The Connecticut Department of Agriculture, Working Lands Alliance, Connecticut Farmland Trust and the Connecticut Land Conservation Council are all working to preserve farmland and facilitate access to working lands. The Town has an important role to play in connecting farmers and other landowners with agricultural land with resources and programs available for preservation. In addition to land preservation, the Town can pursue opportunities to make land available for farming through the identification of preserved land with prime agricultural soils that is not currently being farmed and the identification of private land with prime agricultural soils that could be leased to farmers.

Working with UConn to identify other potential lands for active use by new and existing local farmers provides Mansfield with another significant opportunity for increasing activity on productive land in Town. Any farmland developed as part of the Tech Park will be replaced at a 1:1 ratio, with the schedule of conversion to be determined in the permitting process. The University estimates that there will be a total of 34.1 acres disturbed in the development of the Tech Park and has identified 54 acres of land north of the Depot Campus that is suitable for conversion to farmland (48 acres prime agricultural soils and 6 acres with soils of statewide importance).[36&37] UConn's commitment to preserve farmland, and to replicate or mitigate for farmland that would be lost to development, is documented and made enforceable through the Economic Impact Statement (EIS)[38]. UConn also intends to further reinforce the mitigation commitments through an internal agreement with the Dean of the College of Agriculture and Natural Resources (CANR) on a plan and schedule for converting the land to farmland.[39] This could be an opportunity for Mansfield to work with UConn on identifying farmland available for lease for new farmers.

Economics of Farming

There are many components to creating an agricultural identity, but one critical component is maintaining agricultural activity. Farmland that is conserved and farmed is the ultimate goal. In this regard, agriculture in Mansfield faces many of the same challenges being faced throughout the state, the region and even the country.

The average age of farmers in Connecticut is 57.6, higher than the New England average of 56.6.[40] While the average age of farmers has been a concern regionally and nationally for a number of years, in recent years we have seen more young people choosing to farm. With the presence of the University, Mansfield is in a position to engage young people in its agricultural community in ways that would be harder for a more isolated community. There is evidence that some young people are already interested in farming in Mansfield. More can be done to attract and retain a new generation of farmers. It will be important to work with the current generation on transition plans as well where there is interest in passing the farm to another generation.

A significant majority (95% in 2002) of farm households in the United States rely on off farm income to support themselves[41]. There is no evidence that this is likely to change in the near future. Historically, UConn has provided employment to faculty and staff that has supported farming as a seasonal activity. Today, in addition to income, farm households seek off-farm employment to obtain health insurance coverage. It is unclear how this imperative will be affected by changes in health insurance options at the federal level. In the meantime, it will be important to identify and increase the visibility of employment opportunities in and around Mansfield that can complement farming enterprises as one way of encouraging more people to farm.

As consumer tastes change and the costs of production rise, farming has become an increasingly entrepreneurial endeavor in which those seeking to farm full-time (and even part time) often need to move from production of raw materials to production of value-added products. Even those producing raw materials, must, if they choose to market at any significant scale, meet ever higher safety and quality standards to find and maintain a footing in the marketplace. Some of the costs associated with value-added production, trainings and certifications, labeling and packaging, and enhanced distribution can be shared among groups of farmers, but only when there is sufficient volume of similar product to warrant it. With the exception of its dairy operation, Mansfield's agricultural activity is so diverse and currently at a scale so small as to make it difficult to justify individual farmers investments in any particular type of shared value-added facility. However, as subsidized facilities come on line, existing and future Mansfield farmers will have the opportunity to develop new products and serve new markets.

Throughout the country, not only in Mansfield, farming is often a lifestyle choice as much as an economic endeavor. This means that farmers often lack, or fail to apply, the business skills required to grow their enterprises, establish track records of sales, and qualify for investments that would help them further expand. While those who choose to farm as a lifestyle can and do make important contributions to the working landscape, the environment, and other indirect economic and social aspects of quality of life, continuing agriculture into the future will likely require a mix of lifestyle farmers and entrepreneurial farmers. The entrepreneurial farmers will require the same types of business planning, management, and financing assistance that any small business needs. By understanding the potential for farming as a business, the Town can encourage innovative enterprises and help connect agricultural entrepreneurs with appropriate business-related services.

Markets

Identifying and accessing appropriate market channels is a challenge facing all small farmers in New England. Like others in the region, Mansfield farmers have a number of marketing opportunities available to them. Accessing any of these market channels will take marketing and relationship building; accessing some markets might require the development of a producer cooperative to meet the needs of larger buyers or updating practices to meet GAP certification or organic growing requirements. Investments in marketing, relationship-building, cooperative development and certifications will help facilitate expanded access to markets for Mansfield farmers.

Direct Sales

The value of agricultural products sold was close to $2.6 billion in New England in 2007 up 20% from 2002. With 73% of agricultural products in crop sales and 27% in livestock, Connecticut is similar to Massachusetts and Rhode Island, while Maine and New Hampshire have closer to a 50/50 split and Vermont has a larger majority of livestock sales (85%).

Increasing direct sales to consumers is an emerging market opportunity for all New England farmers. Direct sales make up a little more than 5% of the total market value of agricultural sales New England, and more than 20% of New England farmers do some direct sales (including 26% of Connecticut farms). Connecticut leads the region with the highest average direct market sales per farm at $28,072. While 32% of Tolland County farms had direct sales, it made up only 8% of all agricultural products sold in the State.

Mansfield's geographical location places the town in proximity to a large population, with many people seeking access to local food. A recent report by The Last Green Valley (TLGV) - Mansfield is one of 35 towns making up the "last green valley" in Massachusetts and Connecticut - identified 300,000 people living in the region and 11 million people living within 2 hours of TLGV, indicating significant potential local demand.[42] According to consumption statistics published in the TLGV report, Mansfield residents (living in households, not students) consume approximately 8 million pounds of vegetables, 300,000 pounds of cheese and butter, 2.4 million pounds of poultry and meat and 1.7 million quarts of dairy products annually.[43] This indicates significant potential for local food. The current state average household expenditure of food dollars on local food[44] is 2.5% of the food budget. If we assume Mansfield residents spend 2.5% of their food dollars on locally produced food they would spend more than $850,000 annually. If that goes up to 5% (the goal set in the Governor's Council report by 2020[45]) this would go up to $1.7 million in annual spending on local foods.[46] This volume of local consumption could support 111 farms at the county average income of $15,307 or 38 farms at $44,568 (livable wage for a family of four)[47].

Agritourism

UConn's Dairy Bar, serving award winning ice cream produced in the Creamery from UConn dairy cows, is one of the top 10 tourism destinations in Connecticut with 20,000 visitors annually. This provides a powerful engine for further development of agritourism, eco-tourism, and adventure tourism opportunities that can be compatible with agricultural enterprises. If 30% of annual dairy bar visitors also visited a local farm or other agritourism destination in Mansfield, that would be 6,000 annual visitors to Mansfield farms.

Agricultural conditions in Mansfield are compatible with production of many different types of crops and agritourism experiences, including nature-based tourism. Many areas of natural diversity (areas of concern with regard to threatened or endangered species) are associated with agricultural land. Many of the lands designated as agricultural include wetlands and areas of significant habitat that can form the basis for combined agri and eco-tourism activities.

Wholesale Markets

Emerging and potential wholesale or direct wholesale markets for Mansfield farmers include the Connecticut Farm-to-School program, new local restaurants, new food outlets, new companies at the Tech Park, and UConn Dining Services. Mansfield Public Schools already participate in the Farm-to-School program, receiving apples, pears, peaches, corn, pumpkins and squash from Palazzi Orchards (in Killingly, CT). The Connecticut farm-to-school program is actively recruiting local farmers to participate in the program.[48] Similar to the farm-to-school program, the Connecticut Department of Agriculture also supports a farm-to-chef program, helping to connect restaurants with locally produced food. As more restaurants open in the new Storrs Center, restaurants interested in sourcing local food offer a new marketing opportunity for Mansfield farmers.[49] As the Tech Park develops and new business enterprises come to Mansfield, there is potential for increased direct sales through employer-based CSAs.

Effective participation in these programs may require scaling up of production and adherence to stricter quality standards, as well as a willingness to accept wholesale prices. A business analysis of farming enterprises for those interested in growth would help farmers identify the mix of crops and market channels that will yield the best overall return. Even though direct sales may occur at a higher price per unit sold, farmers may not be considering the total cost of

per unit direct sales including their time and travel costs. Sometimes, when these costs are considered, and if the quantity of production can be increased and appropriate distribution connections are made, a mix of direct and wholesale markets can prove profitable.

The director of UConn Dining Services, Dennis Pierce, is committed to procuring local foods whenever possible. Dennis has been actively engaged in an initiative to change procurement guidelines for state institutions, making it easier for them to procure local food.[50] There are tentative plans for UConn to move the central warehouse for dining services to a new facility on the Depot campus which will allow the university to do more of their own processing (cut, cook, chill, freeze) making it easier for Dining services to contract directly with local farmers. This type of contracting could increase the stability of revenues for farmers that choose to participate.

One way for Mansfield farmers to take advantage of emerging markets is by working with local distributors and other regional farmers to plan production to meet emerging demand; forming a farmer cooperative is another option for taking advantage of wholesale demand for locally produced foods.

Organic Production

New England leads the United States in another agricultural trend, with more than 5% of New England farms with organic sales (versus less than 1% for the entire United States). This is up significantly from just over 2% in 2002. Connecticut's organic sector also increased from 2002 to 2007, with 4% of Connecticut farms being certified organic. The 2007 census showed that less than 0.5% of land in farms is being farmed organically in Connecticut (0.3% of land in Tolland county is being farmed organically) versus 9% of farms and 5.5% of land in Vermont. New England trends toward increased organic certification show that there is significant opportunity for expansion of organic production in Connecticut. While becoming organically certified can be time consuming and expensive, organic production leads to higher prices for farmers and lessens the negative environmental impacts from farming and may actually improve environmental conditions.

Food Security

In a recent UConn study evaluating community food security at the town level, Mansfield ranked 145 out of 169 Connecticut towns in terms of the likelihood that a resident lacks access to enough nutritious food for an active, healthy life. In other words, based on Mansfield's population mix of income and socioeconomic characteristics, there is a relatively higher likelihood that a Mansfield resident is food insecure compared to 144 other towns in the state. In terms of food purchasing, Mansfield residents have slightly below average number of opportunities to purchase food at grocery stores and other food retailers compared to the rest of the state (ranking 89 out of 169). Finally, Mansfield residents are slightly above average in terms of their successful utilization of public food assistance programs compared to other towns (ranking 56 out of 169).[51, 52] Addressing access to food, food assistance and access to food retail (which will be addressed in part by the new Price Chopper planned for the Storrs Center) can provide new opportunities for local farmers. These issues have been addressed in other communities through greater access at farmers markets through the acceptance of SNAP/EBT (this is a strategy the Storrs Farmers Market should pursue with the Connecticut Department of Social Services[53]) and the use of mobile markets or pop up markets. The USDA recently announced increased funding to expand support for farmers markets accepting SNAP

benefits through the availability of Point-of-sale equipment and extends the funding to direct marketing farmers serving consumers receiving SNAP benefits[54]. These are all potential additional outlets for Mansfield farmers that will also increase food security for the community.

Infrastructure

Gaps in food system infrastructure have been identified as a challenge to agricultural viability at the state, regional and local level. The gaps consistently identified include facilities for value-added processing, aggregation and distribution of locally produced products and meat processing services. The Governor's Council on Agriculture plans to focus on studying "infrastructure gaps and opportunities for the aggregation, light processing, and distribution of Connecticut Grown products," with a focus on the existing Hartford Regional Market and the opportunity there to develop a "green-goods hub" to serve institutional markets across the state. Recommendations include the addition of a food processing center that aggregates and processes produce from local farms.[55] The Last Green Valley strategy calls for a regional food hub with a commercial kitchen to process and prepare food as well as a facility to aggregate and distribute to local markets, and restaurants, retailers, schools and other institutions.[56] Both of these initiatives offer opportunities for Mansfield producers and others in food system businesses. Additional initiatives to support a mobile slaughtering unit and the re-activation of slaughtering facilities that have gone off-line and multi-use processing centers that allow for meat, poultry, fruit and vegetable processing are ongoing in the region and should be followed and supported by the Town. These infrastructure upgrades and additions are essential to a sustainable local food system and provide the opportunities Mansfield farmers need to support and grow agricultural enterprises whether the infrastructure is located in Mansfield or nearby. Filling infrastructure gaps will provide farmers with access to value-added processing and access to aggregation and distributions systems that can facilitate access to a broader range of buyers and markets.

UConn

It is clear that there is an important role for UConn to play in the success of agriculture in Mansfield. UConn appears to have underutilized potential to contribute to a vibrant local agriculture sector and there are many roles the University could play in Mansfield's agriculture strategy. A strong, collaborative relationship with UConn that supports the Town's agricultural vision should provide multiple opportunities for collaboration and achieve goals of both the Town and the University.

While the development pressure caused by the University provides a challenge to Mansfield agriculture the school also provides local and regional farmers with opportunities. And while it is true that UConn is a state university with obligations beyond the Town in which it is located, the fact that it is located in Mansfield provides many potential opportunities for productive partnerships.

The Dean of the UConn School of Agriculture and Natural Resources recommended that the Mansfield Agriculture Committee invite a representative from the college to participate on the Committee as a non-voting or ex-officio member. This type of collaboration would provide a clear and consistent way to make connections between the University and the Town that is solely focused on agriculture. It would also allow for a regular transfer of information and identification of opportunities for mutually beneficial collaboration.

An example for potential collaboration is the new funding available through the federal Local and Regional Food Systems Marketing Program. This funding is available to state entities, including universities, for projects that:

- Create wealth in rural communities through the development of local and regional food systems and value-added agriculture; and
- Develop direct marketing opportunities for producers, or producer groups.
- Assess challenges and developing methods or practices that could assist local and regional producers in marketing agricultural products that meet the mandates of the Food and Drug Administration's new Food Safety Modernization Act.

The solicitation prioritizes applications that industry groups, community-based organizations and other local and regional project stakeholders.[57]

The presence of the University means there is a large population of students, some of whom have a demonstrated interest in agriculture. While many residents are skeptical of student labor on farms, farm apprenticeship programs do exist and function successfully in the United States and abroad. There is an opportunity to explore more direct engagement of interested students and the Town's own youth in supporting agricultural production and marketing not only at the University but on area farms. The more youth that have positive experiences on Mansfield farms, the greater the likelihood that some will chose to continue farming in or around Mansfield.

The new Vice President for Economic Development at the University, Mary Holz-Clause, is interested in developing a central processing facility, developing cooperatives and providing information on opportunities to purchase agricultural products through a website or smart phone application.[58] These are all activities that align with the goals and strategies identified in this report.

Additional opportunities for partnership with the University were identified in this work, including: working with Career Services around farm labor issues and the potential of a farm-to-work program; co-sponsoring agriculture-related events; cross pollination of UConn staff on Mansfield boards and Mansfield staff or farmers on relevant UConn committees. Other opportunities included connecting with "non-agriculture" resources at the university, such as working with the Landscape Architecture program to do large landscape planning in town and presenting maps and other sophisticated documents for selling a concept (like farmland restoration), connecting with researchers to work with Mansfield farmers to understand their water needs (ensuring that their voice is heard at the table when water allocation is discussed), and engaging the science and natural resources clubs in discussion on sustainable agriculture in Mansfield.

While some in town are reluctant to engage UConn, interviews conducted for this strategy suggest openness to productive partnerships on the part of the University that should not be dismissed without further exploration. The resources UConn brings to the table and the myriad ways in which they could be instrumental in strengthening agriculture in Mansfield and the region as a whole are simply too significant to ignore.

Regional Partnerships

Mansfield faces many of the same challenges faced by neighboring communities in the region. These shared challenges can be turned into shared opportunities by partnering with

neighboring communities and others in the region to support and grow a viable regional food system. Many of the goals and strategies identified in this report align with those of the Governor's Council on Agriculture and The Last Green Valley's regional *Call to Action,* including:

- Study infrastructure gaps and opportunities for the aggregation, light processing, and distribution of Connecticut Grown products. (Governor's Council 2012 Recommendation.)
- Develop and Invest in a comprehensive marketing strategy for Connecticut agriculture. (Governor's Council 2012 Recommendation.)
- Perform a comprehensive review of agricultural labor issues and develop initiatives that provide an adequate workforce for Connecticut farm businesses. (Governor's Council 2012 Recommendation.)
- Establish a bridge between the state departments of Agriculture and Education through a dedicated agricultural education coordinator, and develop ways to integrate agriculture into Connecticut's K-12 curriculum. (Governor's Council 2012 Recommendation.)
- Earmark state and federal funding to develop a food science program and facility at UConn (Food Innovation Center). (Recommendation to the Governor's Council.)
- Create a regulatory environment that promotes energy diversification, efficiency, and resiliency for agriculture. (Recommendation to the Governor's Council.)
- Commission a study for the feasibility of a Connecticut Agricultural COOP/Processing Center. (Recommendation to the Governor's Council.)
- Hold "on farm" legislative picnics/forums which includes a tour, food and educational presentations for legislators and their families. (Recommendation to the Governor's Council.)
- Create an Agriculture Education Matching Program under the Agriculture Viability Grants to be used to educate public about the benefits of CT grown. (Recommendation to the Governor's Council.)
- Protect land that is currently farmed or identified as valuable for farming, because of its soils or other characteristics and maximize its use for agricultural purposes. (TLGV Call To Action Priority Strategy.)
- Ensure that farmers have sufficient knowledge, tools, infrastructure and workforce to succeed. (TLGV Call To Action Priority Strategy.)
- Expand the markets, products and processing available to farmers and end-users.
- Advocate the use of local foods by local restaurants, grocery stores and institutions, including schools and hospitals. (TLGV Call To Action Priority Strategy.)
- Educate residents of TLGV and the surrounding region about the significant value of local foods and their production. Facilitate easy access to those foods. (TLGV Call To Action Priority Strategy.)
- Educate municipal officials about the value of working lands and encourage support of agricultural operations through their fiscal and land use policies. (TLGV Call To Action Priority Strategy.)
- Encourage the start of new agricultural operations and the continuation of existing farms by new generations. (TLGV Call To Action Priority Strategy.)
- Promote agritourism and agritainment. (TLGV Call To Action Priority Strategy.)

This overlap means that Mansfield not only has a ready set of regional partners but also that there is no need to start from scratch on many of the strategies and actions identified.

Summary of Challenges and Opportunities

Challenges	Opportunities
Identity	
Some do not recognize Mansfield as an agricultural community.	Increase the visibility and knowledge of local agriculture.
Some farmers feel underappreciated and that the town does not recognize the value of local farms.	Promote agricultural experiences for the public.
Agriculture is not integrated into the identity of the town (seen as a stand-alone issue).	Update Town website to give agriculture a significant presence (provide relevant information for residents, visitors and producers)
	Become a regional leader and model of farm-friendliness.
	Educate and engage municipal staff, boards and commission about the impact of their decisions on the agriculture sector
	Ensure regulations, policies and incentives support agricultural viability
	Integrate agriculture throughout the updated POCD
Land	
Loss of farmland (total land in agricultural land decreased 16% between 1985 and 2006[59])	Increase the percentage of the Town's prime agricultural soils being farmed through the conversion of some of the land in turf and grass and in forest back to agricultural production
High price of farmland in Mansfield	Support small-acreage farming
	Continue farmland preservation with local, regional, state and federal resources
	Facilitate access to farmland
	Make new farmland to come available at the Depot campus available for lease
Economics of Farming	
Average age of Connecticut farmers is 57.6	Attract new farmers and agricultural entrepreneurs
	Support transition planning
The significant majority of farm households in the US (and Mansfield) rely on off-farm income to support themselves	Increase the visibility of complementary employment opportunities in and around Mansfield

Challenges	Opportunities
Cost of agricultural production is on the rise	Move from production of raw materials to production of value-added products
	Understand the potential for farming as a business; help connect agricultural entrepreneurs with business-related services
	Connect farmers with available local, regional and statewide resources.
	Attract and support agriculture-related businesses and agribusiness expansion
Markets	
Mansfield farmers desire, and need, access to more and more diverse markets	Support agribusiness marketing efforts
	Direct Sales: Mansfield's geographical location places the town in proximity to a large population, with many people seeking access to local food.
	Capture significant potential for local demand. If Mansfield residents spent 2.5% of their food budget for vegetables, dairy products and meat locally it would amount to $850,000 annually, if this increased to 5% it would amount to $1.7 million.
	Promote agritourism. UConn's dairy bar serves more than 20,000 customers annually and is a top tourist destination in the state providing local and regional farmers with a ready supply of agricultural tourists. If 30% of dairy bar visitors also visited a local farm of farmers market that would be an additional 6,000 visitors annually.
	Agricultural conditions in Mansfield are compatible with production of many different types of crops and agritourism experiences, including nature-based tourism. Many areas of natural diversity are associated with agricultural land, areas of significant habitat that can form the basis for combined agri and eco-tourism activities.

Challenges	Opportunities
Barriers to wholesale markets for small farm operations include production volumes, packaging, certifications (GAP, organic), and relationships with aggregators.	Emerging and potential wholesale or direct wholesale markets for Mansfield farmers include the Connecticut Farm-to-School program, new local restaurants, new food outlets, new companies at the Tech Park, and UConn Dining Services. Support exploration of the feasibility of a regional producer cooperative to provide access to more markets for Mansfield farmers.
Organic Production	
Less than 0.3% of land in farms in Tolland County is being farmed organically. Organic certification can be time consuming and expensive.	Organic production leads to higher prices for farmers and lessens the negative environmental impacts from farming. The Connecticut DOAG has a cost-share program which reimburses up to 75% of the cost of organic certification.
Food Security	
Mansfield ranked in the bottom 25% of all Connecticut towns in a ranking of Population at Risk (likelihood that a resident is food insecure)	Addressing access to food retail for Mansfield residents (which will be addressed in part by the new Price Chopper planned for the Storrs Center) can provide new opportunities for local farmers. Greater access to local foods through the acceptance of SNAP/EBT at the Storrs Farmers Market. USDA recently announced new funding to support the use of SNAP benefits at Farmers Markets.
Infrastructure	
Gaps in food system infrastructure have been identified as a challenge to agricultural viability at the state, regional and local level. The gaps consistently identified include facilities for value-added processing, aggregation and distribution of locally produced products and meat processing services.	State-wide and regional initiatives exist to address these gaps. Mansfield can partner with other Towns and organizations in the region to fill some of the infrastructure gaps in Mansfield or support the development of needed infrastructure in neighboring communities. Filling infrastructure gaps will provide farmers with access to value-added processing and access to aggregation and distributions systems that can facilitate access to a broader range of buyers and markets.

Challenges	Opportunities
UConn	
UConn expansion will increase development pressure.	Increase communication that is focused on agriculture between the Town and UConn by appointing a UConn staff member to the Agriculture Commission.
Some Mansfield residents are reluctant to engage UConn.	Potential for a Food Innovation Center to be located at UConn with access to value-added processing, business services, etc.
	Collaborate with UConn to address food systems issues in Mansfield and across the state (central processing facility, developing cooperatives, marketing opportunities, etc.)
	Engage UConn students to work on farms or provide other support of Mansfield's agricultural vision through engagement of the appropriate student clubs.
	Take advantage of existing UConn events (such as Cornucopia) to highlight and market Mansfield farms.
Regional Partnerships	
Mansfield faces many of the same challenges faced by neighboring communities in the region. These shared challenges can be turned into shared opportunities. Partnering with neighboring communities and others in the region to support and grow a viable regional food system. Many of the goals and strategies identified in this report align with those of the Governor's Council on Agriculture and The Last Green Valley's regional *Call to Action* (see full text of *Challenges and Opportunities* for a complete list of the overlapping goals, strategies and actions.	

Agriculture in Mansfield Tomorrow

Mansfield residents, represented by members of the Agriculture Commission and participants in the agricultural strategy development process, have a shared vision for the future of agriculture in Mansfield that includes:

- An **agricultural sector** that is **visible, understood**, and **appreciated** by Town staff and the public;
- Citizens that are **supportive of agriculture** based on its **multiple contributions** to the larger **economy, sense of place**, and **environment**;
- A municipal government that **facilitates the development of agriculture** based on shared understanding of its needs and contributions;
- The Town is **"known" for being agriculture-friendly**;
- **Working lands** and **prime agricultural soils** are **recognized** and **protected**;
- **Increased land in agricultural production;**
- Producers **access multiple markets** for locally produced agriculture products;
- A **new generation of farmers** and agricultural entrepreneurs are engaged and supported; new types of agriculture are viable;
- Integration into regional agriculture initiatives; farmers benefit from **regional collaboration**;
- Producers take advantage of **regional and state initiatives**;
- Producers benefit from Mansfield's position as a top **agritourism destination**;
- A strong, **collaborative relationship with UConn** that supports the Town's agricultural vision.

The goals strategies and actions presented in this report are focused on ensuring that agriculture in Mansfield is vibrant and able to contribute to the economy. They take into account the state of agriculture in Mansfield today, as well as in the region, and are designed to achieve the shared vision (above) of agriculture in Mansfield over the next 20 years.

Relevant State-wide and Regional Initiatives

There is a buzz about agriculture in Connecticut, with the industry of agriculture experiencing, "something of a renaissance, with more and more of the state's residents interested in both the practice of farming and in the outcomes of that vocation," according to the first annual report by the Governor's Council for Agricultural Development.[60] Mansfield's shared vision for the future of agriculture in the Town does not exist in a vacuum and cannot be achieved by working within the Mansfield community alone. When it comes to supporting and growing agriculture, Mansfield does not have to go it alone; in fact, it will be well served by partnering with the neighboring communities, relevant agriculture and consumer organizations, and the State in addressing its concerns, many of which are widely shared.

The Town has the opportunity to align its resources and strategies with those being put forth at the regional level by The Last Green Valley in "Green and Growing. A Call to Action: A Comprehensive Regional Plan to Sustain and Expand Food, Fiber, and Forest Production and Related Agricultural Economies in The Last Green Valley" and at the State level by the Governor's Council for Agricultural Development. Both of these plans addresses many of the same challenges and opportunities prioritized in Mansfield and provide the Town with an important opportunity to identify partners and opportunities for collaboration to achieve this agricultural vision. In addition to the two strategic plans mentioned above there are numerous

organizations and programs, such as AGvocate, Working Lands Alliance and Farm Bureau that are working to achieve some of these same goals, and community initiatives, like the CLiCK (commercially licensed cooperative kitchen) in Willimantic, that can play an important role in the development of new market opportunities and agriculture viability for Mansfield producers. Relevant initiatives and potential partners are identified throughout the Goals, Strategies and Actions section to identify some existing opportunities for collaboration, these opportunities are sure to evolve and grow in the coming years. See appendix J for general information about these relevant partners and projects.

There are many opportunities for partnership with other Towns and local, state and regional organizations like, AGvocate, Working Lands Alliance, Joshua's Trust, CT Farm Bureau, CT Farmland Trust, American Farmland Trust, CT Department of Agriculture, Cooperative Extension, CT agricultural research station, CT Natural Resources Conservation Services (NRCS) and CT Department of Agriculture (DOAG).

Goals, Strategies and Actions

This work synthesizes input from the public agriculture forum, interviews with more than 20 local, regional and state-wide agricultural stakeholders, input from the focus group and best practices research focused on prioritized strategies. Strategies were discussed and prioritized by a focus group of 18 people representing a wide variety of interests and areas of agricultural expertise in the region. Based on *draft* goals, strategies and actions, the Mansfield Agriculture Committee recommended two "foundational" goals (conditions that will result when action goals are achieved) for the Town's agriculture strategy and three "actionable" goals that have detailed strategies and actions for achievement. The strategies and actions under each goal appear in the order of priority determined by the agriculture focus group and the Agriculture Committee. "Call out" boxes in this section (highlight examples of best practices and opportunities related to the goals, strategies and actions. The table below summarizes the goals and strategies.

Figure 4: Goals and Strategies

Foundational Goals →	**Mansfield is an active leader in the region's agricultural identity and successes** **Mansfield supports sustainable, productive agriculture, farmland preservation and restoration**
Actionable Goals:	***Strategies:***
Agriculture is visible and valued in the community	Increase visibility of local/regional agriculture Promote agricultural experiences for the public Share information on agriculture-related activities, policies, products, activities and experiences
Mansfield's agribusinesses are green and growing	Support the expansion of agricultural operations and agriculture-related businesses Support new market channels for local agricultural products Support marketing of agriculture and agriculture-related businesses Preserve existing farmland resources and increase access to land for agricultural use Connect farmers with resources
Mansfield is a model and regional leader for farm-friendliness	Mansfield Town Council understands and declares that agriculture is essential to Mansfield and ensures municipal staff, boards and commissions are engaged and educated about the impact of their decisions on agriculture Integrate agriculture throughout the updated Plan of Conservation and Development (POCD). Farmers' voices are heard on a range of Town Commissions and Boards to bring the challenges and opportunities related to agriculture to the table. Continually review and revise regulations, policies and incentives to support agricultural viability Ensure farmers and landowners are aware of agriculture-related regulations, tax exemptions, conservation options, etc.

Foundational Goal: Mansfield is an active leader in the region's agricultural initiatives and successes

Growing Mansfield's agriculture sector and providing tools, markets and infrastructure Mansfield farmers need to thrive needs to be done at a regional level. It is not possible, nor does it make sense, for Mansfield to try to accomplish all of the strategies and actions identified in this document alone. This foundational goal names the need and desire for Mansfield to collaborate with other Towns in Eastern Connecticut and The Last Green Valley to meet the challenges facing agriculture in the region and take advantage of the opportunities. Successful achievement of all the "action" goals will contribute to this "foundational" goal.

West Virginia Value Chain Cluster:

The West Virginia Value Chain Cluster funded through a Rural Jobs and Innovation Accelerator Challenge grant, provides business coaching, training and marketing for food-related businesses in 17 West Virginia counties. The goal of this work is "better coordination of the many 'links' involved in bringing to market fresh local food from small-scale producers. In addition to coordination, any new or existing producer, processor, aggregator of distributor of local food in the 17-county region can apply for:

- Business planning help
- Legal assistance (e.g contracts, incorporation)
- Web technology to access markets
- Consulting services for marketing and branding
- Flexible, patient loans through Natural Capital Investment Fund
- Development of HACCP Plans
- Recipe Formulation
- Facility Design; Compliance with State & Federal Regulations & 3rd Party Audits
- Website Development & Label Design
- Transition to Organic Certification
- Energy Audits
- Assistance with REAP Cost Share Grant Applications and other programs
- Set-up of Accounting Systems
- Market Assessment and Planning
- Feasibility Studies for processing or distribution facilities

www.vc2.org

http://www.rurdev.usda.gov/ruraljobsaccelerator.html

Foundational Goal: Mansfield supports sustainable, productive agriculture, farmland preservation and restoration

Without land available for farming, Mansfield will lose not only its agricultural sector but also the rural character and identity that is so important to the large majority of Mansfield residents. Ensuring that available land is in productive use and local farmers are practicing sustainable agriculture is vital to the role of agriculture in the overall sustainability of Mansfield. Successful achievement of all the "action" goals will contribute to this "foundational" goal.

Actionable Goal # 1 Agriculture is visible and valued in the community

Mansfield engages residents and showcases benefits of agriculture – economic, cultural, health, environmental.

Engaging and educating the public about the role and value of agriculture in Mansfield will lead to an environment where citizens are supportive of agriculture based on its multiple contributions to the larger economy, sense of place and healthy environment. Educating the public about the economic, environmental and cultural importance of farming and agriculture in Connecticut is a primary goal of the Working Lands Alliance. TLGV has a similar goal, to "educate residents of TLGV and the surrounding region about the significant value of local foods and their production [and] facilitate easy access to those foods." The State of Connecticut's *Buy CT Grown* campaign and Farm Map tool are raising awareness at a state-wide level.

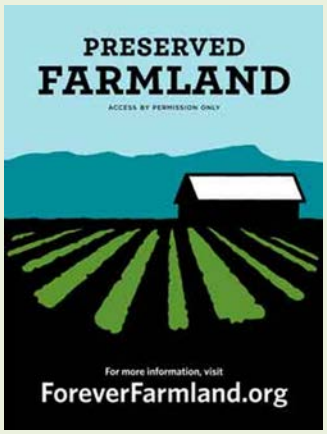
Strategy 1.1: Increase visibility of local/regional agriculture

Increasing the visibility of local agricultural production contributes to both a shared understanding of the value of agriculture and the viability of local producers. There are many ways to increase the visibility of agriculture in Mansfield and the actions below provide opportunities for engaging the range of Mansfield citizens from school children to seniors in the Town's agricultural sector. When the Town recognizes and celebrates agriculture it sends a message to all citizens that this agriculture is valued in the community.

Enhancements to the farm to school program that both increase the volume of local products being served and the educational component of the program impact farmers directly and educate the Town's youngest citizens. The *Growing Minds Farm to School* program in North Carolina incorporates school gardens, local food cooking classes and demonstrations, farm field trips and the serving of local food in school cafeterias. In addition to these activities geared towards students, the program provides resources for teachers, nutrition directors, cafeteria staff, parents, extension staff and farmers to encourage and sustain farm-to-school efforts.[61] A holistic approach to farm to school like *Growing Minds* engages students, staff, parents and farmers to fully realize the role and value of local agriculture.

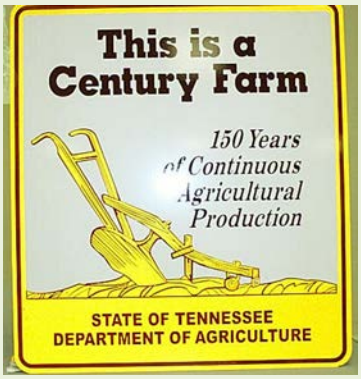
Signage is a way to increase the visibility of agriculture for both local residents and visitors.

Surveying residents on their attitudes about agriculture allows people to reflect on the role of agricultural in their personal lives and in the Town, provides collated information about the citizen's support of agriculture and measures opinions about locally grown food, land preservation, or other investments. The Town of Lebanon used an agriculture viability grant to conduct a survey of residents regarding land usage and current referendums and used findings to illustrate community support in the POCD and other venues.[62]



The "Forever Farmland" sign project in the Pioneer Valley of Massachusetts aims to publicly recognize permanently protected farmland and honor landowners who have chosen to conserve their farms.

(www.foreverfarmland.org)



The Tennessee Century Farms Programs recognizes farms owned by the same family for at least 100 years.

(www.tn.gov/agriculture/marketing/centuryfarms.shtml)

Actions:

- School Engagement. Highlight local foods on school menus; incorporate nutritional and agriculture-based curriculum; provide students experiential learning opportunities through farm visits, taste-tests and composting.
- Community Engagement. Encourage programs and resources for residents to grow their own food at home or in community gardens as a way to increase interest and awareness of local agriculture.

- Signage. Post signs at Town gateways showing support for agriculture. Develop signage to identify preserved land. Increase the visibility of agricultural producers through directional signs.
- Celebrate (awards, dinner, etc.) farmers or others who are making a contribution to agriculture in the community with "farmer of the year" awards or "farmer appreciation" awards.
- Feature local products at community events.

Strategy 1.2: Promote agricultural experiences for the public

Engaging the public through agricultural experiences provides an opportunity for residents and visitors to see up close what agriculture is, where agricultural products come from and meet the farmers in the community.

Actions:

- Encourage agritourism in Mansfield (weddings, farm to table events, agriculture and natural resource tourism)
- Support and encourage private/family non-commercial agriculture
- Support and encourage 4-H and FFA students and projects
- Work with UConn to link events with Mansfield farmers and agriculture. (Trips to local farms and other agritourism sites, food from local farms, etc.)
- Support community gardens and community farm projects.

Strategy 1.3: Share information on agriculture-related town policies, activities, products and experiences.

Disseminating information is another important way to increase awareness of the agricultural sector so that it is understood and appreciated. Information sharing needs to happen on a consistent and on-going basis; running a one-time column on town policies to support agriculture is not going to have a significant impact. Sharing information regularly and across multiple formats (newspaper, Town website, direct mail, brochures, etc.) will increase the likelihood that more people will see the material and many will see it more than once. Other communities have:

- Sent an annual town-side mailer to let people know about the Town's support

A survey of Lebanon registered voters found:

- *96% believe that having working farms makes Lebanon a better place to live.*
- *93% consider it important to preserve additional open space and farmland in Lebanon.*
- *86% assume Lebanon is one of the largest agricultural communities in Connecticut.*
- *77% believe the Town should fund open space preservation efforts.*
- *71% feel that farmland and open space preservation should be Lebanon's planning focus over the next decade.*

- From Lebanon, CT POCD

More than 20 years of COCS [Cost of Community Services] studies around the country have shown that farmland and other open space generate more public revenue than they require in municipal services. Even when farmland is assessed at its current agricultural use value under Public Act 490, farmland generates a surplus to help offset the shortfall created by residential demand for public services. ***A review of COCS studies done in Connecticut towns shows that for each dollar of property tax revenue generated by working lands, on average only 31 cents is required in municipal services.***

- Planning for Agriculture: A Guide for CT Municipalities

- Run monthly quizzes/games to increase agriculture awareness in the local paper
- Worked with realtors and new homeowners to provide education about living next to a farm and the Town's "right to farm" ordinance.

Actions:

- Communicate the fiscal and other benefits of farmland and open space and any town policies applicable to agriculture to relevant audiences. Document current revenues and expenses on a land use basis through a Cost of Community Services (COCS) study.
- Develop/understand the full range of benefits related to agriculture to help communicate why agriculture is important to people with different priorities (i.e. highlight the role that agriculture plays in sustainability, economic development, tourism, etc.).
- Add an "Agriculture Portal" to the Town website that includes a listing of all agricultural businesses, and highlights local agricultural products and experiences.
- Encourage articles and features spotlighting an agriculture enterprise or activity.

Actionable Goal # 2 Mansfield's agribusinesses are green and growing

This goal references The Last Green Valley's 2011 report, "Green and Growing - A Call to Action: A comprehensive regional plan to sustain and expand food, fiber and forest production and related agricultural economies in the Last Green Valley."[63] This "call to action" by TLGV is intended to provide a useful regional strategy that will identify factors affecting successful agricultural and related businesses, synchronize efforts of partners and provide a reliable local/regional food system.

Sustainable Agriculture[64]:

Sustains the economic viability of farm operations (profitable)

Maintains or enhances the resource base upon which it depends (maintain or improve soil, groundwater, surface water and air quality *through* soil conservation and regeneration, nutrient management and recycling, biodiversity; protects the integrity of natural systems)

Integrates natural biological cycles and pest control tools with production practices (grazing, cover crops, ecological weed and pest management, and crop, livestock and landscape diversity)

Improves the quality of life of individuals and communities (access to employment opportunities, health care, education, social services, cultural activities; community vitality)

Makes productive use of the knowledge and skills of farmers

Is durable and resilient to disturbances (pest outbreaks, market variability)

Uses resources efficiently / uses renewable and recyclable resources effectively (minimize use of non-renewable inputs that cause harm to the environment or human health; use energy saving devices and on-farm renewable energy generation; maintain the use of recyclable resources such as groundwater at rates less than recharge rates to sustain such resources)

What does it mean to for Mansfield's agribusinesses to be green and growing? It means supporting and expanding the agriculture sector in Mansfield in a way that ensures that

agricultural enterprises have positive impacts on the economy and on the environment and human health. It means Mansfield prioritizes agricultural economic development and sustainable agricultural practices.

Economic development activities that support and grow the agricultural sector in Mansfield are essential to the shared vision for the future of Mansfield. This type of support facilitates the development of agriculture, supports producers in accessing multiple markets and attracts a new generation of farmers and agricultural entrepreneurs. Ensuring that growth in the agriculture sector prioritizes healthy farm practices and emphasizing the environmental benefits of farming to the public will emphasize the role of agriculture in a sustainable future for Mansfield.

Strategy 2.1: Support the expansion of agricultural operations and agriculture-related businesses

In attracting and supporting agriculture-related businesses, it is essential that Mansfield work on a regional level to reduce any duplication of efforts, support existing infrastructure initiatives and ensure that they will meet the needs of Mansfield's producers. The first recommended action from the Governor's Council on Agricultural Development is to, "study infrastructure gaps and opportunities for the aggregation, light processing, and distribution of Connecticut Grown products." TLGV strategies also address the need for expanded agricultural infrastructure and processing capacity as integral to the viability of the region's farmers.

"In looking at strategies to promote agriculture, you need to be holistic … you need to promote storage, processing tractor sales, etc. If it isn't in your town, it needs to be in your region" –Jim Gooch, CT Farmland Trust

Town staff or members of the Agriculture Committee should be aware of and engaged in regional initiatives such as CLiCK (Commercially Licensed Cooperative Kitchen) in Willimantic and initiatives around a regional and/or mobile slaughter unit. The Town should also work with UConn to follow the progress of the potential Food Innovation Center and the potential relocation of the commissary, which will include facilities for washing, chopping and freezing produce.

Actions:

- Support food processing and agricultural product distribution initiatives (at both the town and regional levels)
- Provide flexibility in zoning to enable development of infrastructure that would support agriculture-related businesses such as inputs, food waste, aggregation, processing, distribution, etc.
- Identify a liaison for the potential Food Innovation Center being planned to ensure that it will meet the needs of local and regional farmers.
- Incubate and retain new farm operations.
- Give out small grants to farmers for development of a CSA, signage or other marketing materials.
- Support initiatives to remove market barriers (institutional purchasing policies, GAP certification) for producers.

Food Innovation Centers

The Food Innovation Center (FIC) program was developed by the USDA to provide technical and business development assistance to agricultural producers seeking to enter into ventures that add value to commodities or products they produce.

There are currently about a dozen innovation centers funded through the USDA, and a number of private or non-profit food hub efforts that also aim to help support value-added producers. These innovation centers typically offer services that help aggregate small to medium sized farmers products to enable them to reach new or larger markets that farmers may not have been able to reach on their own. The centers also typically offer processing facilities that help create a graduated system for value-added producers to scale up their operations without investing too much money in infrastructure and equipment costs. Innovation centers also tend to offer SERVSAFE classes and other educational opportunities for producers, such as speakers that may offer insights on marketing methods, labeling requirements, or other topics. These centers also can serve as a congregating place for producers at similar stages of growth to learn from each other and make connections. Farmers and producers typically have the opportunity to request equipment and educational needs to be incorporated into the facility as funding allows.

Existing Food Innovation Centers Include:

Agriculture Innovation and Commercialization Center, Center for Food and Agricultural Business, Purdue University.
Agriculture Utilization Research Institute, Minnesota.
Georgia Centers of Innovation
Kansas AgriFoods Innovations, Kansas State University.
The Keystone Agricultural Innovation Center, Pennsylvania State University.
Montana Agriculture Innovation Center
New York Agricultural Innovation Center, Cornell University.
Product Center for Agriculture and Natural Resources, Michigan State University.
Rutgers University Food Innovation Center, New Jersey.
Vermont Agriculture Innovation Center, Vermont Agency of Agriculture.
Wisconsin Agriculture Innovation Center, University of Wisconsin.

(http://agmrc.org/directories_state_resources/agmrc_directories/usda-agricultural-innovation-centers/)

Strategy 2.2: Support new market channels for local agricultural products

Mansfield farmers have identified the need to access more profitable markets and find markets for their products. Connecting farmers with restaurants, institutional buyers and other potential wholesale markets is one way to increase access to markets. Due to the small scale of many Mansfield farms, accessing these buyers would likely require a cooperative agreement between farms or an independent aggregator to act as a liaison between individual farms and larger buyers.

Actions:

- Support campaign/incentives that encourage the use/sale of local products at restaurants, retail establishments, schools and institutions (including UConn Dining Services).

- Help connect restaurants with local farmers by encouraging/supporting participation in the State's "Farm to Chef" program.
- Increase the volume of local foods in public and private institutions (i.e. school food service, day care, and pre-k programs, hospitals, correctional facilities, etc.).
- Help make connections between farmers and new restaurants, stores, and the distributors that supply them.

Strategy 2.3: Support marketing of agriculture and agriculture-related businesses

Marketing is essential to the success of many of Mansfield's agricultural businesses. This can include direct sales of locally produced products through signage, advertising, CSA development and investment in the Storrs Farmers Market. Farmers Market investments can include an electronic terminal to accept and process SNAP benefits, construction of a pavilion in a dedicated location, incentivizing vendors by subsidizing insurance, vendors fees and the development of a marketing plan that is incorporated into the Town's tourism and economic development plan.

The Town also has an opportunity to make Mansfield a major agritourism destination in the state. Anchored by the UConn dairy bar (with 20,000 annual visitors and named one of five "Best Classic Attractions" by Yankee Magazine, Best in Connecticut for Ice Cream and a top tourist destination in the state[65]) the Town can become an all-day destination for visitors looking for an agricultural experience and promote producers choosing to include an agritourism component to their business. The CT DOAG Agricultural Direction Signage Program (example at right) is designed to direct tourists and regional consumers off state roadways to local roads where farm operations are established. Currently, signs are paid for by farmers, but Mansfield could have a program that provides cost-sharing for the signs or integrate the implementation of directional signage into a larger Agricultural Viability Grant. The University of Vermont had developed an agritourism web-based resource for farmers that provides a place for farmers to gather information about agritourism, learn about events near them, and network with farmers, practitioners and professionals. The site features a number of different resources ranging from agritourism "how-to" guides and economic benefit studies to state-wide and/or region-wide agritourism associations.[66] The University of Vermont has also published a research brief summarizing the regional, national and international government activities in support of agritourism.[67] The Town can also play a role in connecting farmers to other local and regional agritourism activities and initiatives (UConn Dairy Bar and animal barns, Walktober, Winter Wandering, Summer Sensations) and ensure interested farmers are listed on the State's "Farm Map" and in The Last Green Valley's Visitor Guide.

Using the Town website to share information is a relatively inexpensive way to provide information about Mansfield's agricultural enterprises and provide access to relevant resources for farmers by including information that is relevant to Mansfield farmers from other places already aggregating information, like AGvocate, CT Farm Bureau, The Last Green Valley.

Actions:

- Facilitate a vibrant farmers market.
- Apply annually for money through Connecticut's Farm Viability Grant program and identify appropriate projects to market local agriculture.[68]
- Share sponsorship of events for regional farmers that allow for networking, provide education on marketing channel selection and explore the potential for a regional cooperative to facilitate sales to institutions, restaurants, and grocery stores.
- Support and promote agritourism in Mansfield and the region. Ensure that regulations support compatible commercial enterprises on farms and appropriate signage and parking. Support non-profit community farms (local and regional) that provide education and community food and farm experiences. Help connect interested farmers to other local and regional agritourism destination, activities and initiatives.
- Update Town website to contain information on events, resources, and opportunities offered by organizations relevant to agriculture in Mansfield.

Strategy 2.4: Preserve existing farmland resources and increase access to land for agricultural use

Access to farmland is essential to engaging a new generation of farmers and increasing the land in production in Mansfield. This is a national, as well as state-wide, regional and local issue being addressed by many organizations in response to the decreasing land in farming trend. The Connecticut Department of Agriculture, Working Lands Alliance, Connecticut Farmland Trust and the Connecticut Land Conservation Council are all working to preserve farmland and facilitate access to working lands.

"Gaining access to high quality, affordable farmland is one of the most difficult obstacles for beginning farmers and expanding agricultural operations." –Vermont Land Trust Farmland Access Program

The Town has an important role to play in connecting farmers and other landowners with agricultural land with resources and programs available for preservation. Identifying UConn-owned land that could be available for lease to farmers is one potential strategy that was identified during this process.[69]

Actions under this strategy fall into four categories, 1) Preservation; 2) Expanded use of agricultural land; 3) Restoration of agricultural land; and 4) Stewardship.

Actions:

Preservation

- Commit municipal funds and support to farmland preservation.
- Provide financial match to state and federal programs that purchase development rights on agricultural land in Mansfield.
- Identify all farms that are 30 acres or less and conduct outreach for the State's Community Farms Preservation Program.[70]
- Support the preservation of state and federal agricultural land including UConn agricultural land.[71]
- Identify and consider Town-owned farmland for permanent preservation for agricultural use.

Expand use of agricultural land

- Identify opportunities for farming on Town and other public lands in Mansfield, including state (including UConn) and federal lands and support advocacy for its agricultural use.
- Identify private land and land trust parcels that could be leased for agricultural use and explore opportunities with landowners to lease land for farming (utilize the CT Farmlink program and Farmland ConneCTions Guide[72]).
- Continue to lease Town-owned land to local farmers for agricultural use.
- Support efforts to connect farmers and farmland, including succession planning with current farmers.

Restoration of agricultural land

- Identify and consider Town-owned farmland for permanent preservation for agricultural use.
- Identify privately owned and land trust parcels that could be restored to agricultural use.
- Assist landowners in applying for the State's Farmland Restoration Program.

Stewardship

- Support and promote environmentally sensitive farming practices.
- Prioritize new farmers for lease of select Town-owned farmland.

Strategy 2.5: Connect farmers with resources

Bringing farmers together to connect directly with each other and resources available helps producers take advantage of regional and state initiatives and resources and can facilitate regional collaboration. Because many farmers in the region face the same challenges as Mansfield farmers and require access to the same type of information and resources sharing these events with neighboring towns makes a lot of sense. These events should be structured so that Mansfield farmers have opportunities to get to know farmers in surrounding communities. Event topics could include: Land preservation options and strategies; Best agricultural practices that provide environmental and public benefits; development of a Plan of Conservation for individual farms; transitioning to organic production[73]; and opportunities for expanded production, coordinated farmer efforts and marketing channels.

University of Missouri Extension Field Days

The University of Missouri sponsors "field days" at research areas throughout the state. These field days showcase techniques, tools and technology in response to the current needs of the State's farmers.

"Research presented at our field days is almost totally driven by those we serve. Our scientists gather information about problems farmers are facing and work to solve those. Research is done in collaboration with farmers, industry, government and other universities in order to determine the best approach - economically, environmentally and socially - for the challenges that confront Missouri farmers." John Poehlmann, assistant director of the Missouri Agriculture Experiment Station.

http://agebb.missouri.edu/news/ext/showall.asp?story_num=6226&iln=45

Alliance for Sustainable Agricultural Production Field Day

Focus on sales, marketing and networking to develop relationships and help farmers coordinate efforts to access markets like specialty food stores, local schools. The goal is to help local farmers coordinate efforts and dramatically increase sales with a 4-part agenda.

1. Share information and help increase sales of locally grown foods
2. Discuss sales/marketing options: Sales-to-buyers and direct-sales to consumers
3. Discuss produce needs and requirements
4. Develop stronger relationships between local farmers and local buyers

Actions:

- Work with other Towns to share the responsibility for putting together an annual or semi-annual event that brings together regional farmers, people from relevant support organizations and resources.
- Partner with UConn to make information about upcoming speakers, events, research related to agriculture more easily accessible to the public.
- Support the development of a network of Mansfield farmers that communicate regularly, collaborate and share information.
- Connect farmers with state programs and resources at CT Department of Agriculture like Farm-to-School, Farm-to-Chef, Farm Viability Grants, etc.

Actionable Goal # 3 Mansfield is a model and regional leader for farm-friendliness

Welcoming new farmers and agribusinesses while building on the foundation of work already done at the town-level, Mansfield has the opportunity to become a regional leader and "model town" when it comes to farm friendliness and welcoming new farmers and agribusiness. Integrating agriculture into the identity of the Town through training, education, outreach and Town regulations, policies and incentives that support agricultural viability is an important step in becoming known as a regional leader for farm-friendliness. It is these strategies and activities that will attract the next generation of Mansfield farmers and agricultural entrepreneurs and an increase in the productive use of the Town's prime agricultural soils.

Strategy 3.1: Mansfield Town Council understands and declares that agriculture is essential to Mansfield and ensures municipal staff, boards and commissions are engaged and educated about the impact of their decisions on agriculture.

Enabling a common understanding of agriculture among all municipal departments is identified as a permitted activity for agriculture councils in the State's *Act Authorizing Local and Regional Agricultural Councils*.[74]

Based on the results of the February 2nd workshop, there is a felt need to infuse awareness of benefits and issues related to agriculture throughout the local government (and community); to ensure that local government understands how government decisions impact agriculture in the community and to increase the knowledge, engagement and empathy for agriculture. It is important for local government to understand both the range of issues faced by farmers and the benefits of agriculture to the community as a whole.

Having this declaration be understood and declared by the Town Council will ensure that Mansfield's agricultural identity is infused throughout the town government and boards.

There are a numerous ways that Town can go about educating municipal employees and others who serve on boards, committees and commissions on the role of agriculture in the community. Whether the Town moves forward with developing a structured training that is delivered annually to all staff and commission members or puts together events for employees and other decision-makers to highlight the role of agriculture in Mansfield, building a shared understanding of challenges and opportunities and educating decision-makers is an important

step in ensuring that Mansfield has a municipal government that is supportive of agriculture and able to facilitate the development of agriculture.[75] As is ensuring that potential impacts of each department on agricultural viability (eg. where culverts are placed can impact usability of pasture) are identified and staff are educated accordingly.

There is an opportunity for this type of training to be integrated into a "Know Your Town" education campaign that ensures municipal employees, decision-makers and committee members have an up-to-date understanding of agriculture as well as other important issues, sectors and components of Mansfield's identity.

The Last Green Valley has identified, "Educate municipal officials about the value of working lands and encourage support of agricultural operations through their fiscal and land use policies." as one of its primary strategies and the AGvocate program is actively engaged in the education of municipalities on agricultural issues. Both The Last Green Valley and AGvocate can act as resources for Mansfield in the development of training for Mansfield's municipal staff, boards and commission members.

Actions:

- Provide ongoing education to municipal employees and committee members on the importance of agriculture in the community, the contributions it makes to the community, and why it is the Town's policy to support agriculture. Education will include the identification of potential impacts of each department, board and commission on agricultural viability and educate staff accordingly.

Strategy 3.2: Integrate agriculture throughout the updated Plan of Conservation and Development (POCD).

The POCD provides the Town with an important opportunity to highlight the role and value of Agriculture in Mansfield and illustrate how agriculture is integrated into the Town's current and future identity. The Town of Lebanon uses its Plan of Conservation and Development as a training tool, requiring, "all new commission members to read the POCD and follow the plan."[76] The Lebanon POCD not only has a significant agriculture section, but references the role of agriculture in six of the eight sections of the plan, including Economic Development, Natural Resources, Historical and Cultural Resources, Future Land Use Plan, and implementation.

Actions:

- Ensure that the POCD highlights the role and value of agriculture in Mansfield.
- Include an Agriculture section in the Plan of Conservation and Development that provides a summary of agriculture in Mansfield, context and the selected goals, strategies and actions.
- Include agricultural information and goals in all of the relevant sections of the POCD, including, but not limited to, sustainability, economic development, natural resources and overall priorities of the Town.
- Include specific steps to address the needs of local farmers and the agricultural goals of the community with an implementation plan that assigns responsibility for each action.

Strategy 3.3: Farmers' voices are heard on a range of Town Commissions and Boards to bring the challenges and opportunities related agriculture to the table.

Farmers are often the best advocates for agriculture and will play an important role in ensuring that Mansfield has an agricultural sector that is visible, understood and appreciated. Farmers will also be the first to understand how decisions being made by other boards and committees at the municipal level will impact the viability of agriculture. Providing opportunities for members of the Agriculture Committee to "roll up their sleeves" with the Town Council, Planning and Zoning Commission and other relevant committees will help to successfully integrate agriculture at the municipal level. If there are not farmers serving on relevant Town committees, the Agriculture Committee should make presentations to, or conduct joint meetings with, those committees to ensure cross-fertilization of goals, activities, etc.

Actions:

- Allocate space for, and invite farmers to serve on all relevant Town committees, commissions and boards such as, Commission on Community Quality of Life, Conservation Commission, Economic Development Commission, Clean Energy Team, Open Space Preservation Committee, Strategic Planning Committee, Sustainability Committee, Town/University Relations Committee.
- Plan semiannual meetings at which representatives of each committee inform the Agriculture Committee and others of the actions being taken related to agriculture.

Strategy 3.4: Continually review and revise regulations, policies and incentives to support agricultural viability.

The Town should continue to review regulations, policies and incentives that impact agricultural viability (looking for impacts on farm productions and sales, compatible commercial enterprises on farms and farm energy) to ensure that regulations are continually improved as opportunities become available to be farm-friendly. "Planning for Agriculture: A Guide for Connecticut Municipalities," updated in 2012, also provides detailed information on how agriculture is affected by municipal rules and regulations, how these rules can hinder farm viability and changes that can be made to support agriculture at the municipal level.[77] The Agriculture Committee should continue to provide valuable information and guidance about zoning issues relating to agriculture and there are several resources available specifically for Connecticut municipalities that identify potential changes to regulations to support agriculture.

Actions:

- Advocate for legislation and policies that support farming.
- Conduct annual outreach with farmers to identify any existing regulations that are impacting agricultural viability.
- Develop regulations that support, and remove barriers to, farm viability, including but not limited to: keeping of livestock (per Recommendations for Connecticut Municipal Zoning Regulations and Ordinances for Livestock[78]), compatible farm businesses, signage, parking, housing for seasonal workers, hoop houses or other growing structures, horticulture, farm-energy opportunities and incentives for low-income households in order to purchase local food.

Strategy 3.5: Ensure farmers and landowners are aware of agriculture-related regulations, tax exemptions, conservation options, etc.

If few people know about the work the Town is doing to pass right-to-farm laws, tax exemptions and revise regulations to support agricultural enterprises, this work has very limited value. Getting the word out on these accomplishments as well as conservation options will increase the impact of these actions and let everyone know that Mansfield is an agriculture-friendly community.

Actions:

- Conduct annual outreach to all farmers and landowners to make sure they are aware of new and existing agriculture-related regulations, tax exemptions and conservation options and publish on Town website.

Foundational Goals, Actionable Goals, Strategies and Actions Summary

Foundational Goals:

Mansfield is an active leader in growing the region's agricultural identity and successes

Mansfield supports sustainable, productive agriculture, farmland preservation and restoration

Actionable Goal 1: Agriculture is visible and valued in the community	
Strategy 1.1: Increase visibility of local/regional agriculture	
A	School Engagement. Highlight local foods on school menus; incorporate nutritional and agriculture-based curriculum; provide students experiential learning opportunities through farm visits, taste-tests and composting.
B	Community Engagement. Encourage programs and resources for residents to grow their own food at home or in community gardens as a way to increase interest and awareness of local agriculture.
C	Signage. Post signs at Town gateways showing support for agriculture. Develop signage to identify preserved land. Increase the visibility of agricultural producers through directional signs.
D	Celebrate (awards, dinner, etc.) farmers or others who are making a contribution to agriculture in the community with "farmer of the year" awards or "farmer appreciation" awards.
E	Feature local products at community events.
Strategy 1.2: Promote agricultural experiences for the public	
A	Encourage agritourism in Mansfield (weddings, farm to table event, agriculture and natural resource tourism)
B	Support and encourage private/family non-commercial agriculture
C	Support and encourage 4-H and FFA students and projects
D	Work with UConn to link events with Mansfield farmers and agriculture (trips to local farms and other agritourism sites, food from local farms, etc.).
E	Support community gardens and community farm projects.
Strategy 1.3: Share information on agriculture-related policies, products, activities and experiences	
A	Communicate the fiscal and other benefits of farmland and open space and any town policies applicable to agriculture to relevant audiences. Document current revenues and expenses on a land use basis through a Cost of Community Services (COCS) study.
B	Develop/understand the full range of benefits related to agriculture to help communicate why agriculture is important to people with different priorities (i.e. highlight the role that agriculture plays in sustainability, economic development, tourism, etc.).
C	Add an "Agriculture Portal" to the Town website that includes a listing of all agricultural businesses, and highlights local agricultural products and experiences.
D	Encourage articles and features spotlighting an agriculture enterprise or activity.

Actionable Goal 2: Mansfield's Agribusinesses are Green and Growing	
Strategy 2.1: Support the expansion of agricultural operations and agriculture-related businesses	
A	Support food processing and agricultural product distribution initiatives (at both the town and regional levels).
B	Provide flexibility in zoning to enable development of infrastructure that would support agriculture-related businesses such as inputs, food waste, aggregation, processing, distribution, etc.
C	Identify a liaison for the potential Food Innovation Center being planned at UConn to ensure that it will meet the needs of local and regional farmers.
D	Incubate and retain new farm operations.
E	Give out small grants to famers for development of a CSA, signage or other marketing materials.
F	Support initiatives to remove market barriers (institutional purchasing policies, GAP certification) for producers.
Strategy 2.2: Support new market channels for local agricultural products	
A	Support campaigns/incentives that encourage the use/sale of local products at restaurants, retail establishments, schools and institutions (including UConn Dining Services).
B	Help connect restaurants with local farmers by encouraging/supporting participation the State's "Farm to Chef" program.
C	Increase the volume of local foods in public and private institutions (i.e. school food service, day care, and pre-k programs, hospitals, correctional facilities, etc.).
D	Help make connections between farmers and new restaurants, stores, and the distributors that supply them.
Strategy 2.3: Support marketing of agriculture and agriculture-related businesses	
A	Facilitate a vibrant farmers market.
B	Apply annually for money through Connecticut's Farm Viability Grant program and identify appropriate projects to market local agriculture.
C	Share sponsorship of events for regional farmers that allow for networking, provide education on marketing channel selection and explore the potential for a regional cooperative to facilitate sales to institutions, restaurants, and grocery stores.
D	Support and promote agritourism in Mansfield and the region. Ensure that regulations support compatible commercial enterprises on farms and appropriate signage and parking. Support non-profit community farms (local and regional) that provide education and community food and farm experiences. Help connect interested farmers to other local and regional agritourism destination, activities and initiatives.
E	Update Town website to contain information on events, resources, and opportunities offered by organizations relevant to agriculture in Mansfield.
Strategy 2.4: Preserve existing farmland resources and increase access to land for agricultural use	
A	Commit municipal funds and support to farmland preservation.
B	Provide financial match to state and federal programs that purchase development rights on agricultural land in Mansfield.
C	Identify all farms that are 30 acres or less and conduct outreach for the State's Community Farms Preservation Program.

Strategy 2.4: Preserve existing farmland resources and increase access to land for agricultural use CONTINUED	
D	Support the preservation of state and federal agricultural land including UConn agricultural land
E	Identify and consider Town-owned farmland for permanent preservation for agricultural use.
F	Identify opportunities for farming on Town and other public lands in Mansfield, including state (including UConn) and federal lands and support advocacy for its agricultural use.
G	Identify private land and land trust parcels that could be leased for agricultural use and explore opportunities with landowners to lease to land for farming (i.e. Farmlink and Farmland ConneCTions programs).
H	Continue to lease Town-owned land to local farmers for agricultural use.
I	Support efforts to connect farmers and farmland.
J	Identify and consider Town and other public land in Mansfield that could be used or restored for agricultural use.
K	Identify privately owned and land trust parcels that could be restored to agricultural use.
L	Assist landowners in applying for the State's Farmland Restoration Program.
M	Support and promote environmentally sensitive farming practices.
N	Prioritize new farmers for lease of select Town-owned farmland.
Strategy 2.5: Connect farmers with resources	
A	Work with other Towns to share the responsibility for putting together an annual or semi-annual event that brings together regional farmers, people from relevant support organizations and resources.
B	Partner with UConn to make information about upcoming speakers, events, research related to agriculture more easily accessible to the public.
C	Support the development of a network of Mansfield farmers that communicate regularly, collaborate and share information.
D	Connect farmers with state programs and resources at CT Department of Agriculture like Farm-to-School, Farm-to-Chef, Farm Viability Grants, etc.

Actionable Goal 3: Mansfield is a model and regional leader for farm-friendliness	
Strategy 3.1: Mansfield Town Council understands and declares that agriculture is essential to Mansfield and ensures municipal staff, boards and commissions are engaged and educated about the impact of their decisions on agriculture	
A	Provide ongoing education to municipal employees and committee members on the importance of agriculture in the community, the contributions it makes to the community, and why it is the Town's policy to support agriculture. Education will include the identification of potential impacts of each department, board and commission on agricultural viability and educate staff accordingly.
Strategy 3.2: Integrate agriculture throughout the updated Plan of Conservation and Development (POCD)	
A	Ensure the POCD highlights the role and value of Agriculture in Mansfield.
B	Include an Agriculture section in the Plan of Conservation and Development that provides a summary of agriculture in Mansfield, context and the selected goals, strategies and actions.
C	Include agricultural information and goals in all of the relevant sections of the POCD, including, but not limited to, sustainability, economic development, natural resources and overall priorities of the Town.
D	Include specific steps to address the needs of local farmers and the agricultural goals of the community with an implementation plan that assigns responsibility for each action.
Strategy 3.3: Farmers' voices are heard on a range of Town Commissions and Boards to bring the challenges and opportunities related to agriculture to the table	
A	Allocate space for, and invite, farmers to serve on all relevant Town committees, commissions and boards such as, Commission on Community Quality of Life, Conservation Commission, Economic Development Commission, Clean Energy Team, Open Space Preservation Committee, Strategic Planning Committee, Sustainability Committee, Town/University Relations Committee.
B	Plan semiannual meetings at which representatives of each committee inform the agriculture committee and others of the actions being taken related to agriculture.
Strategy 3.4: Continually review and revise regulations, policies and incentives to support agricultural viability	
A	Advocate for legislation and policies that support farming.
B	Conduct annual outreach with farmers to identify any existing regulations that are impacting their agricultural viability
C	Develop regulations that support, and remove barriers to, farm viability, including but not limited to, keeping of livestock, compatible farm businesses, signage, parking, housing for seasonal workers, hoop houses or other growing structures, horticulture, farm-energy opportunities and incentives for low-income households in order to purchase local food.
Strategy 3.5: Ensure farmers and landowners are aware of agriculture-related regulations, tax exemptions, conservation options, etc.	
A	Conduct annual outreach to all farmers and landowners to make sure they are aware of new and existing agriculture-related regulations, tax exemptions and conservation options and publish on Town website.

Appendices

The following appendices are available under separate cover.

Appendix A: Process

Appendix B: Connecticut Definition of Agriculture

Appendix C: Mansfield Open Space Acquisitions with Farmland

Appendix D: Agriculture Forum Summary

Appendix E: Agriculture Focus Group Summary

Appendix F: Focus Group Worksheets

Appendix G: Phone Interviews

Appendix H: UConn College of Agriculture and Natural Resources Land Use Task Force Report

Appendix I: Mansfield Agriculture Ordinances and Tax Abatements

Appendix J: Mansfield Farmer Survey

Appendix K: Relevant Partners and Projects

Appendix L: Case Studies

Endnotes

[1] For more information on Mansfield Tomorrow, go to www.mansfieldtomorrow.com.
[2] Definition of Agriculture. Connecticut General Statutes, Sec. 1-1. http://www.ct.gov/doag/cwp/view.asp?a=1366&q=258978. This report focuses on agricultural commodities and does not address forestry commodities or the wood products industry.
[3] http://www.agcensus.usda.gov/Help/FAQs/General_FAQs/
[4] 2010 Census Data.
[5] Land Assessment by Windham Region Council of Governments. 2012. GIS layer analysis by Phillip Shaeffing, Goody Clancy.
[6] Land of Unique Value Study for Mansfield Connecticut. The Program for Landscape Architecture @ The University of Connecticut. 2002. http://www.mansfieldct.gov/filestorage/1904/1932/2043/louv_report.pdf
[7] Mansfield Land Cover Over Agricultural Soils. http://clear.uconn.edu/projects/town.asp?townname=78&Go=Go
[8] Email Communication. Irene Luciano, Town of Mansfield, Assessor. LucianoIE@Mansfieldct.org. 5/20/13.
[9] Act 490 - 2010 Recommended Land Use Values. http://www.ct.gov/doag/cwp/view.asp?a=1366&q=259038
[10] There are a range of opinions regarding the transformation of forest land to agricultural field. There is a common understanding that tracts of forest land larger than 100 acres should be left in tact, but many believe that smaller parcels adjacent to open farmland can, and should, be converted back to farm land.
[11] 2007 Census of Agriculture. State and County Data: Connecticut.
[12] "Economic Impacts of Connecticut's Agricultural Industry." Department of Agricultural and Resource Economics with the Connecticut Center for Economic Analysis. 2012. http://www.are.uconn.edu/documents/economicimpacts.pdf
[13] 2007 Census of Agriculture. State and County Data: Connecticut.
[14] 2007 Census of Agriculture. Data by Zip Code: 06268 and 06269.
[15] Schnepf, Randy. "U.S. Farm Income." Congressional Research Service. December 10,2012.
[16] University of Connecticut, College of Agriculture and Natural Resources. "Land Use Task Force Report." September 2006.
[17] Schirm, Nicole. "Education and so much more!" Holstein World; New England Holstein Annual. March 2013.
[18] Phone Interview. Greg Weidemann, Dean, UConn College of Agriculture and Natural Resources. 4/8/13.
[19] 2007 Census of Agriculture. State and County Data: Connecticut.
[20] Assumes 11,027 jobs in the community at average salary of $49,637 per Peter Kwass, Mansfield Economy Fact Sheet.
[21] Percentage of Population with Farming, Fishing & Forestry Jobs in Connecticut by Zip Code: 06268 and 06269. http://zipatlas.com/us/ct/storrs-mansfield/zip-code-comparison/percentage-farming-jobs.htm
[22] Tolland County: Covered Employment and Wages by Industry. 2011 QCEW Program Data. http://www1.ctdol.state.ct.us/lmi/cty_tolland.asp
[23] CSA stands for Community Supported Agriculture, a popular way for consumers to buy food directly from farmers through a subscription program. In this model, the consumer pays for a "farm share" (a percentage of the food produced that season) up front and receives a weekly box of produce during the growing season. This provides farmers the opportunity to do marketing and have cash flow during the winter and spring seasons.
[24] "Stroll's 2013 Locavore Index ranks states in terms of commitment to local foods." http://www.strollingoftheheifers.com/locavore-index-2013/ . 2013 Locavore Index. http://www.strollingoftheheifers.com/wp-content/uploads/2013/04/Locavore-Index-2013-data.pdf
[25] Working Lands Alliance. Plowing Ahead. Windsor, CT. March 2010.
[26] Act 490 - 2010 Recommended Land Use Values. http://www.ct.gov/doag/cwp/view.asp?a=1366&q=259038
[27] Lynch, Lori and Joshua Duke. "Economic Benefits of Farmland Preservation: Evidence from the United States." Department of Agricultural and Resource Economics, The University of Maryland, College Park. 2007. http://ageconsearch.umn.edu/bitstream/7342/2/wp070004.pdf

[28] Mansfield 2020: A Unified Vision, Strategic Plan. 2008.
http://www.mansfieldct.gov/filestorage/1904/1930/strategic_plan-low.pdf
Mansfield Plan of Conservation and Development 2006.
http://www.mansfieldct.gov/filestorage/1904/1932/2043/20060415_final_pocd.pdf
[29] Prime Farmland, Statewide Important Soils and Locally Important Soils per GIS shape analysis of Mansfield Farmland Preservation Plan map by Goody Clancy. Email Communication. Philip Schaeffing. 06/10/13.
[30] Mansfield Land Cover Over Agricultural Soils.
http://clear.uconn.edu/projects/town.asp?townname=78&Go=Go
[31] Mansfield Land Cover Over Agricultural Soils.
http://clear.uconn.edu/projects/town.asp?townname=78&Go=Go
[32] Mansfield Land Cover Over Agricultural Soils.
http://clear.uconn.edu/projects/town.asp?townname=78&Go=Go
[33] There are a range of opinions regarding the transformation of forest land to agricultural field. There is a common understanding that tracts of forest land larger than 100 acres should be left in tact, but many believe that smaller parcels adjacent to open farmland can, and should, be converted back to farm land.
[34] Email Communication. Irene Luciano, Town of Mansfield, Assessor. LucianoIE@Mansfieldct.org. 5/20/13.
[35] Act 490 - 2010 Recommended Land Use Values.
http://www.ct.gov/doag/cwp/view.asp?a=1366&q=259038
[36] Phone Interview. Tom Callahan, Vice President, UConn, 05/29/13. Email Correspondence. Tom Callahan, Vice President, UConn. 5/29/13.
[37] Final Environmental Impact Statement North Hillside Road Extension, Mansfield, Connecticut. October 2011. Reference to replacement of farmland can be found on page ES-9.
http://www.ct.gov/dot/lib/dot/documents/denviro/UConn_FEIS_120911.pdf
[38] Final Environmental Impact Statement North Hillside Road Extension, Mansfield, Connecticut. October 2011. Reference to replacement of farmland can be found on page ES-9.
http://www.ct.gov/dot/lib/dot/documents/denviro/UConn_FEIS_120911.pdf
[39] Email Communication. Rich Miller, Director of Environmental Policy, UConn. 06/13/13. The Economic Impact Statement is available at: http://www.envpolicy.uconn.edu/NHR%20Final%20EIS.pdf
[40] 2007 Census of Agriculture. State and County Data.
[41] Schnepf, Randy. "U.S. Farm Income." Congressional Research Service. December 10,2012.
[42] The Last Green Valley. "Green and Growing. A Call to Action: A Comprehensive Regional Plan to Sustain and Expand Food, Fiber, and Forest Production and Related Agricultural Economies in The Last Green Valley." 2011. (http://www.tlgv.org/uploads/Publications/Green_Growing/GreenGrowingWeb.pdf)
[43] Assumes Mansfield population living in households, 13,653 (per US Census); assumes annual consumption of 585 pounds of vegetables, 22 pounds of cheese and butter, 176 pounds of poultry/meat and 124 quarts of milk per person per year
(http://www.tlgv.org/uploads/Publications/Green_Growing/GreenGrowingWeb.pdf)
[44] Warner, Tammy, et al. "Estimates of Consumption of Locally-Grown Agricultural Products in Connecticut." Prepared for the Connecticut Governor's Council on Agricultural Development. 2012.
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/07_uconn_zwick_center_estimates_of_consumption_of_ct_grown_agricultural_products_in_ct.pdf
[45] Grow Connecticut Farms: Developing, Diversifying and Promoting Agriculture. First Annual Report: December 2012. Governor's Council for Agricultural Development.
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/grow_ct_farms_3_6_2013_low.pdf
[46] Assumes same consumption rates identified in TLGV report "Green and Growing" and vegetables purchased at $1.50 per pound, cheese and butter purchased at $5 per pound, meat and poultry purchased at $7 per pound and milk products purchased at $2.25 per quart.
[47] The living wage in Connecticut is calculated at $21.47 for two adults and two children (http://livingwage.mit.edu/states/09). If we assume 2080 hours in a year, that is an annual income of $44,567.60. The number of farms supported by local consumption is calculated by dividing the annual income by the estimated expenditures on local food of $1,70,601.03 – see previous note.
[48] Information about participating in the CT Farm-to-School program can be found at:
http://www.ct.gov/doag/lib/doag/farm_to_school_images_/farm-to-school_how_to_participate.pdf

[49] Information on the Farm-to-Chef program is available at:
http://www.ct.gov/doag/cwp/view.asp?a=2778&q=330830
[50] Phone Interview. Dennis Pierce, Director of Dining Services, UConn. (860) 486-3128. April 10, 2013.
[51] Rabinowitz, A.N. and Martin, J. (2012) 2012 Community Food Security in Connecticut: An Evaluation and Ranking of 169 Towns. Zwick Center Outreach Report #12, Storrs, CT: University of Connecticut. Retrieved from http://www.zwickcenter.uconn.edu/CFS.
[52] Email communication. Jiff Martin. 7/23/13.
[53] Learn how you can accept SNAP benefits at Farmers Markets. http://www.fns.usda.gov/snap/ebt/fm.htm
"SNAP at Farmers Markets: Four Case Studies from Connecticut." 2011 http://www.nafmnp.org/wp-content/uploads/2012/03/SnapAtFarmersMarkets_CitySeed_CT.pdf
[54] USDA Expands Support for Farmers Markets to Accept Supplemental Nutritional Assistance Program Benefits. http://content.govdelivery.com/bulletins/gd/USDAOC-78ddc5
[55] Grow Connecticut Farms: Developing, Diversifying and Promoting Agriculture. First Annual Report: December 2012. Governor's Council for Agricultural Development. Page 23-24.
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/grow_ct_farms_3_6_2013_low.pdf
[56] "Green and Growing - A Call to Action: A comprehensive regional plant to sustain and expand food, fiber and forest production and related agricultural economies in the Last Green Valley." 2011. Page 52.
(http://www.tlgv.org/uploads/Publications/Green_Growing/GreenGrowingWeb.pdf)
[57] Local and Regional Food System Marketing Program Opens Up New Round of Funding.
http://sustainableagriculture.net/blog/fsmip-fy2013-rfa/?utm_source=roundup&utm_medium=email
[58] Interview. Mary Holz-Clause, Vice President for Economic Development, UConn. 4/9/13. Phone Interview. John Guszkowski, AGvocvate. 4/1/13.
[59] Mansfield Land Cover Over Agricultural Soils.
http://clear.uconn.edu/projects/town.asp?townname=78&Go=Go
[60] Grow Connecticut Farms: Developing, Diversifying and Promoting Agriculture. First Annual Report: December 2012. Governor's Council for Agricultural Development. Page 3.
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/grow_ct_farms_3_6_2013_low.pdf
[61] Growing Minds Farm to School. http://asapconnections.org/growing-minds-farm-to-school/
[62] Phone Interview. Phil Chester, Planner, Town of Lebanon. 3/28/13.
[63] "Green and Growing - A Call to Action: A comprehensive regional plant to sustain and expand food, fiber and forest production and related agricultural economies in the Last Green Valley." 2011.
(http://www.tlgv.org/uploads/Publications/Green_Growing/GreenGrowingWeb.pdf)
[64] Adapted from: Montana State University Extension. "An Introduction to the Principles and Practices of Sustainable Farming." MT200813AG 11/08.
http://msuextension.org/publications/AgandNaturalResources/MT200813AG.pdf
Sustainable Agriculture Research and Education (SARE). "What is Sustainable Agriculture?"
http://www.sare.org/Learning-Center/SARE-Program-Materials/National-Program-Materials/What-is-Sustainable-Agriculture
Gerber, John. "Principles of Agricultural Sustainability." 1990.
http://www.umass.edu/umext/jgerber/principl.htm
Pretty, Jules. "Agricultural sustainability: concepts, principles and evidence." Philosophical Transactions of The Royal Society, Biological Sciences. 2008 February 12; 363 (1491: 447-465.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2610163/
[65] "Best of New England: Best Classic Attractions Connecticut" Yankee Magazine.
http://www.yankeemagazine.com/?s=dairy+bar&submit.x=0&submit.y=0
Schirm, Nicole. "Education and so much more!" Holstein World; New England Holstein Annual. March 2013.
[66] Agritourism: A Web-Based Resource for Farmers. http://www.uvm.edu/tourismresearch/agritourism/
[67] The Legislative Research Shop. "Government Activities in Support of Agritourism." University of Vermont.
http://www.uvm.edu/~vlrs/EconomicIssues/agritourism.pdf
[68] Connecticut Farm Viability Grant program. http://www.ct.gov/doag/cwp/view.asp?a=3260&q=419408
[69] Any open space developed as part of the Tech Park will be replaced at a 1:1 ratio, likely at the Depot Campus (Phone Interview. Tom Callahan, Vice President, UConn, 05/29/13). This could be an opportunity for

Mansfield to work with UConn on identifying farmland available for lease for new farmers and/or a farmer incubation program in Mansfield. For more information, see *Challenges and Opportunities.*

[70] Mansfield has entered into a Cooperative Agreement with the State to participated in the Community Farms Program. State of Connecticut Pilot Program for Community Farms Preservation. http://www.ct.gov/doag/lib/doag/farmland_preservation_/2011_dec_6_community_farms_program_pr.pdf

[71] It is important to note that while this strategy was widely supported by many people interviewed for this report and attending the Agriculture Focus Group, this is not a strategy that has received support from the University. While there has been a clear message from the University that there are no existing plans to develop land in active use (or stop active use of these lands) now or in the near future, the University feels that it is not in the University's best interest to put restrictions on that land and constrain the University for future generations. (Phone Interview. Tom Callahan, Vice President, UConn, 05/29/13.) Mansfield should partner with Working Lands Alliance (WLA) to pursue this project. WLA is actively engaged in the preservation of state-owned agricultural land.

[72] The Connecticut Farmlink Program is a State-run clearinghouse for connecting farm seekers with owners of farmland interested in selling or leasing their land. http://www.farmlink.uconn.edu/
Farmland ConneCTions: A Guide for Connecticut Towns Institutions and Land Trusts Using or Leasing Farmland. http://www.farmland.org/programs/states/ct/Connecticut-Farmland-Leasing-Guide.asp

[73] The Connecticut DOAG has a cost-share program which reimburses up to 75% of the cost of organic certification. Organic Certification Cost Share Program.
http://www.ct.gov/doag/cwp/view.asp?a=3243&Q=465932

[74] HB 5472 AN ACT AUTHORIZING LOCAL AND REGIONAL AGRICULTURAL COUNCILS.
http://www.cga.ct.gov/2011/ba/2011HB-05472-R010772-BA.htm

[75] Participants in the April 30th agricultural focus group were mixed on whether or not the training for municipal employees, board members and decision-makers should be required. Twelve participants felt the training should be required to ensure that it was received and to highlight the Town's commitment. Seven participants felt that the training should not be required. This group felt that requiring the training would backfire and create a negative feeling towards agriculture. One potential solution they offered was, "to make the training so fun everyone would want to participate."

[76] Phone Interview. Phil Chester, Planner, Town of Lebanon. 3/28/13.

[77] American Farmland Trust and Connecticut Conference of Municipalities.
"Planning for Agriculture: A Guide for Connecticut Municipalities." 2012.
http://ctplanningforagriculture.com/guide/AFT_guide_web9-29.pdf

[78] Eastern Connecticut Resource Conservation and Development Area. "Recommendations for Connecticut Municipal Zoning Regulations and Ordinances for Livestock." 2012.
http://aginfotlgv.org/documents/LivestockManual_6_20_12.pdf

Mansfield Agriculture Strategy

APPENDICES

July 2013

Mansfield Tomorrow
OUR PLAN ▶ OUR FUTURE

Prepared By:

YELLOW WOOD
associates, inc.

228 North Main Street
St. Albans, VT 05478
Phone: (802)524-6141
www.yellowwood.org

[This page intentionally left blank.]

Appendix A: Process

Appendix B: Connecticut Definition of Agriculture

Appendix C: Mansfield Open Space Acquisitions with Farmland

Appendix D: Agriculture Forum Summary

Appendix E: Agriculture Focus Group Summary

Appendix F: Focus Group Worksheets

Appendix G: Phone Interviews

Appendix H: UConn College of Agriculture and Natural Resources Land Use Task Force Report

Appendix I: Mansfield Agriculture Ordinances and Tax Abatements

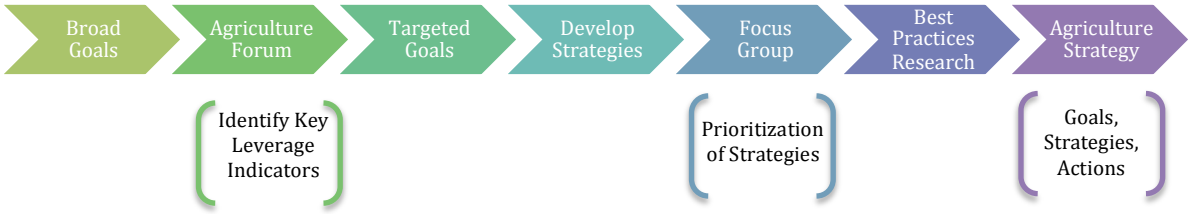
Appendix J: Mansfield Farmer Survey

Appendix K: Relevant Partners and Projects

Appendix L: Case Studies

Appendix A: Process

Process



After reviewing background material provided by the Mansfield Agriculture Committee and a basic review of Agricultural Census data, resources and programs related to agriculture at UConn and other information relevant to understanding the context for agriculture in Mansfield, Yellow Wood proposed three **broad goals** for the Town over the next 20 years that were approved by the Agriculture Committee. Yellow Wood then facilitated an **Agriculture Forum** with a diverse group of 44 participants (including local and regional farmers, agricultural service providers, UConn staff, municipal staff, state representatives and interested residents) to identify indicators of progress towards each of the three goals. Based on the results of the February workshop, Yellow Wood developed four **targeted goals** with key questions as the focus for **developing strategies**. The strategies were reviewed and prioritized with an agriculture ***focus group***. Yellow Wood then conducted **best practices research** to develop the **agriculture strategy** in this report. After reviewing the draft goals, strategies and actions, the Mansfield Agriculture Committee recommended two foundational goals and three "action" goals – those are the goals included in this report. All goals, strategies and actions were then reviewed and updated by the Agriculture Focus Group.

Defining Broad Goals

After reviewing background material provided by the Mansfield Agriculture Committee and a basic review of Agricultural Census data, resources and programs related to agriculture at UConn and other information relevant to understanding the context for agriculture in Mansfield, Yellow Wood proposed three broad goals, that were approved by the Agriculture Committee, for Agriculture in the Town over the next 20 years. These goals are conditions that need to be met if agriculture is going to continue to make a contribution to the sustainability of the Town and incorporate the main concerns raised by the Agriculture Committee as they prepared for this process (strengthen agricultural enterprises, protect agricultural land, help farmers recognize value from their land, expand agribusiness / agri-tourism opportunities).

There are viable agricultural enterprises in Mansfield.

This goal emphasizes the survival and viability of agriculture in Mansfield, which is not a given. Achieving this goal requires that there is land available for farming and other agricultural enterprises, there is a next generation of farmers and agricultural entrepreneurs and farmers and entrepreneurs make connections with consumers for agricultural products produced in Mansfield.

Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

This goal identifies the need for agriculture in Mansfield to be profitable, or if agriculture is not profitable, for farmers to be economically viable (have access to off-farm jobs or other sources of income and affordable health insurance). It also speaks to the need for agriculture to be integrated into Mansfield's formal and informal economies. Because Mansfield is not interested in the kind of agricultural enterprises or development, such as factory farms, that would have negative impacts on the community or the environment, the qualifier, "not at the expense of the environment and human health," was added to this goal.

Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.

Based on what we know about agricultural best practices, resources sustainability, waste handling, processing and distribution, this goal addresses what needs to change or be taken into consideration to ensure that agriculture has a positive impact on the environment and human health. Because, this cannot be done "at any cost," the qualifier, "but not at the expense of the economy" was added.

These goals are conditions that need to be met if agriculture is going to continue to make a contribution to the sustainability of the Town. These conditions incorporate the main concerns raised by the Agriculture Committee as they prepared for this process (strengthen agricultural enterprises, protect agricultural land, help farmers recognize value from their land, expand agribusiness / agri-tourism opportunities).

Agriculture Forum

On February 2, 2013 Yellow Wood facilitated a public workshop with a diverse group of 44 participants (including local and regional farmers, agricultural service providers, UConn staff, municipal staff, state representatives and interested residents) to identify indicators of progress towards each of the three goals (listed above). An indicator is a condition in current reality that must change (or remain the same) to show meaningful progress toward the goal from the perspective of the person that articulates it.

In the workshop, participants broke up into three groups, self-selecting which goal they were most interested in and identifying what would need to change in current reality (or stay the same) to make progress toward the goal (identifying indicators) from their individual perspectives. A diversity of perspectives was represented in each group. After clarifying their individual indicators so that the whole working group understood what they meant to the people who wrote them, the groups worked together to complete a systems analysis that identified the key leverage points in the system that would need to change to make progress towards each of these three goals. A full summary of the agricultural forum can found in Appendix B .

Targeted Goals for Strategy Development

Based on the results of the February workshop, Yellow Wood developed four key questions as the focus for best practices research and agriculture strategy development (the four questions researched were reviewed and approved by the Agricultural Committee).

- How can agriculture be integrated into Mansfield's identity?
- How can town-level regulations support agriculture viability?
- What is the role of the Town in connecting farmers to resources and information?

- How can the university (students, staff, administration) be consistently and intentionally engaged in the viability of Mansfield agriculture?

The table below shows the results of this process.

Overarching Goals	*Key Leverage Indicators (results of Agricultural Forum)*	*Targeted Goals*
There are viable agricultural enterprises in Mansfield.	Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions. Producers and residents share the identity of Mansfield as an agriculture community (shared concern, shared interest). Mansfield is realistically (viable) attractive as a place to farm. High-level of commitment from UConn to Mansfield's vision and agriculture strategy.	**Agriculture is integrated into Mansfield's Identity / Mansfield is known as "farm-friendly"** **The Town connects farmers with resources and information.** **The Town has regulations that support Agricultural Viability.** **UConn is engaged in the viability of Mansfield agriculture**
Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.	Resource center / Clearing house for farmers & community. Farmers have access to best practices in relation to the environment and human health. Increased sharing of knowledge between agriculture community and regulatory agencies / Increased transparency & streamlining of existing agricultural regulation. Increased understanding of agriculture's contribution to our local, state and regional economy.	
Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.	More Mansfield residents realize the public health /environmental benefits of locally worked land. Increase education of consumer and farmers on new techniques, public health and environmental benefit. Improve land use regulation to support agriculture and economic independence. More collaboration between UConn Students, corporations and Town to support local agriculture. Create incentives to grow on small acreage/Grow as much on less land (*Tax incentives or exemptions)*	

Prioritizing Strategies with the Agriculture Focus Group

Between February and April, Yellow Wood built on the results of the agriculture forum held in February; conducted research into what types of activities relevant to the four key questions are already taking place or are planned in the Town, region and state; reviewed best practices research; and interviewed local, regional and state-level agriculture "experts." Based on this research Yellow Wood developed six sets of agricultural strategies to address the target goals related to each of the four key questions. These were the basis for discussion and prioritization with the focus group.

- The public is engaged and educated about the role of agriculture in the Community
- Municipal staff, boards and commissions are engaged and educated about the impact of their decisions on agriculture
- The Town invests in agriculture / supports farmers
- The Town plays a role in connecting farmers with resources
- Town regulations support agricultural viability
- UConn is engaged in the viability of Mansfield's agriculture

Eighteen people participated in the focus group, representing a wide variety of interests and areas of agricultural expertise in the region. Participants used worksheets to review the strategies and consider which ones would be most relevant to Mansfield, which strategies are most likely to be implemented and which strategy they were most excited about. Then each participant told the others which one they would choose to prioritize and why. After discussion, focus group participants identified the strategy they would choose if they could only choose one. (People who were not able to attend the focus group completed the worksheets electronically.) All of the strategies presented are included in this report; the strategies that the focus group prioritized are highlighted and include best practices when applicable. See Appendix D for the full results of the April 30th Agriculture Focus Group.

Goals, Strategies and Actions

The final section of the Agriculture Strategy Report provides the Town with a set of targeted goals, strategies and potential actions. This work synthesizes input from the public agriculture forum, interviews with more than 20 local, regional and state-wide agricultural stakeholders, input from the focus group and best practices research focused on prioritized strategies. Based on draft goals, strategies and actions, the Mansfield Agriculture Committee recommended two foundational goals for the Town's agriculture strategy and three "action" goals with detailed strategies and actions. All goals, strategies and actions were then reviewed and updated by the Agriculture Focus Group.

Appendix B:
Connecticut Definition of Agriculture

Definition of Agriculture

Connecticut General Statutes, Sec. 1-1 (q) Except as otherwise specifically defined, the words "agriculture" and "farming" shall include cultivation of the soil, dairying, forestry, raising or harvesting any agricultural or horticultural commodity, including the raising, shearing, feeding, caring for, training and management of livestock, including horses, bees, poultry, fur-bearing animals and wildlife, and the raising or harvesting of oysters, clams, mussels, other molluscan shellfish or fish; the operation, management, conservation, improvement or maintenance of a farm and its buildings, tools and equipment, or salvaging timber or cleared land of brush or other debris left by a storm, as an incident to such farming operations; the production or harvesting of maple syrup or maple sugar, or any agricultural commodity, including lumber, as an incident to ordinary farming operations or the harvesting of mushrooms, the hatching of poultry, or the construction, operation or maintenance of ditches, canals, reservoirs or waterways used exclusively for farming purposes; handling, planting, drying, packing, packaging, processing, freezing, grading, storing or delivering to storage or to market, or to a carrier for transportation to market, or for direct sale any agricultural or horticultural commodity as an incident to ordinary farming operations, or, in the case of fruits and vegetables, as an incident to the preparation of such fruits or vegetables for market or for direct sale. The term "farm" includes farm buildings, and accessory buildings thereto, nurseries, orchards, ranges, greenhouses, hoop houses and other temporary structures or other structures used primarily for the raising and, as an incident to ordinary farming operations, the sale of agricultural or horticultural commodities. The term "aquaculture" means the farming of the waters of the state and tidal wetlands and the production of protein food, including fish, oysters, clams, mussels and other molluscan shellfish, on leased, franchised and public underwater farm lands. Nothing herein shall restrict the power of a local zoning authority under chapter 124.

Appendix C:
Mansfield Open Space Acquisitions with Farmland

Town of Mansfield Farmland

Property	Acres in Agriculture	Frontage	Property Description
Commonfields	16	Storrs Road and Bassetts Bridge Road	The 21-acre Commonfields was part of a common field shared by early settlers. The west side of the property includes part of a pond and a trail. The fields are leased to a local dairy farmer for alfalfa production. The property is adjacent to active farmland.
Eagleville Field	12	Stafford Road (Rte 32)	Eagleville Preserve is a 23-acre property along the Willimantic River. There are trails in the wooded riverside area. The 10-acre field and 2-acre field are leased to a local dairy farm for silage corn production.
Torrey	3	Gurleyville Road	Torrey Preserve is a 30-acre parcel with a 3-acre field. The Nipmuck Trail extends along part of the eastern boundary. The field is leased to a local dairy farmer for alfalfa production. There is a trail on the edge of the field.
Baxter	10	Baxter Road	The Baxter Property has 25.8 acres, including a 10-acre field and .5-acre pond. The field is leased to a local farmer and is currently being converted to meet organic farming standards. No public access.
Crane Hill Field	12.23	Crane Hill Road	Crane Hill Field has 12.23-acres and is leased to a local dairy farmer for silage corn production. The field is adjacent to actively farmed properties. No public access.
Mt Hope Park	6	Warrenville Road (Rte 89)	Mt. Hope Park is a 35-acre property along the Mt. Hope River. Most of the park is wooded and includes a stream and pond. A 6-acre field is leased to a local farmer for hay production. There is a trail on the edge of the field.
Bone Mill Field	2.89	Bone Mill Road	Bonemill Field has 2.89-acres leased to a local dairy farmer for silage corn production. No public access
Coventry Road Field	2.7	Coventry Road	Coventry Road Field has approximately 2.7 acres leased to a local farmer and being restored to a hay field.
Total Acres of Town Agricultural Land Owned			**64.82**
Kegler	14	Crane Hill Road	The Town owns the development rights to 14-acres ~~of~~ privately owned land (8 acres of fields 6 acres of forest
Green	14.5	Wormwood Hill Road	The Town acquired an agricultural easement on 14.5 acres of privately owned land through the subdivision process. The field is currently hayed by a local dairy farmer.
Sauve	4.13	North Windham Road	The Town acquired an agricultural easement on __ acres of privately owned land through the subdivision process. The land is not yet developed.
Total Acres of Town Agricultural Easements			**32.63**

Appendix D:
Agriculture Forum Summary

Mansfield Agriculture Workshop Summary

March 6, 2013

Prepared By:

YELLOW WOOD associates, inc.

228 North Main Street
St. Albans, VT 05478
Phone: (802)524-6141
www.yellowwood.org

Photo by Amy Kohn, Goody Clancy

Mansfield Agriculture Workshop Summary

Contents

Executive Summary

On February 2, 2013 the Town of Mansfield hosted an interactive workshop on the Town's Agriculture Strategy as part of the *Mansfield Tomorrow* initiative (to learn more about *Mansfield Tomorrow*, go to www.MansfieldTomorrow.com). The workshop was held from 8:30 am to 2:00 pm in the Buchanan Center at the Mansfield Public Library and facilitated by Yellow Wood Associates, Inc. (Yellow Wood Associates is the consultant responsible for developing the Agriculture Strategy for the *Mansfield Tomorrow* plan). Forty-four participants with an interest in Mansfield's agricultural future from Mansfield and neighboring communities attended the workshop, including farmers, municipal staff, land owners, University of Connecticut staff, food service coordinators, policy makers, agricultural service providers and more.

Table 1: List of Participants

First Name	Last Name	Association
Nick	Ballas	Farmer
Wes	Bell	The Gardens at Bassetts Bridge, Mansfield Agriculture Committee
Nancy	Bradley	Windover Farm
Julia	Cartabiano	Uconn Eco Farm Manager
Robin	Chesmer	The Farmers Cow
Kate	Crowther	Willimantic Resident
Alan	Cyr	Breezy Acres, Mansfield Agriculture Committee
Charlie	Galgowski	Round the Bend Farm, Mansfield Agriculture Committee
Aaron	Gankofskie	Mansfield Board Ed. and Region 19 Food Services Coordinator
Gregg	Haddad	CT State Representative
Edward	Hall	Thistle Springs Farm
Matthew	Hart	Town Manager
Pat	Hempel	Resident and Farmland Owner
Alison	Hilding	Resident
Marty	Hrischorn	Mansfield Economic Development Commission
Bruce	Hussey	Valley Farm
Jonathan	Janeway	Sweet Acres Farm
Martha	Kelly	Board of Education
Quentin	Kessel	Farmland Owner, Mansfield Conservation Commission
Bryan	Kielbania	Twin Ponds Farm Stand
Anthony	Kotula	Farmer
Kathy	Kotula	Farmer
Chris	Kueffner	Bird Walk Farm
Chris	Landeck	Valley Farm
Jiff	Martin	Sustainable Food Systems Educator
Colin	McMullan	Farmer
Joyce	Meader	Uconn Cooperative Extension, Dairy and Livestock Educator
Raluca	Moncanu	Shundahai Farm
Joan	Nichols	CT Farm Bureau Association
Linda	Palmer	Palmer Family Farm, Tolland
Betsy	Paterson	Mayor
Kathleen	Paterson	Storrs Farmers Market
Dennis	Pierce	Uconn Dining Services
Jeff	Polhemus	Eastern Highlands Health District
Meg	Reich	Resident/Willimantic River Alliance

First Name	Last Name	Association
Charlotte	Ross	Sweet Acres Farm
Elisa	Santee	Foxfire Farm
Shepard	Stearns	Mountain Dairy
Lynn	Stoddard	Bird Walk Farm
Kelsey	Sullivan	Uconn Student, UConn EcoFarm
Pat	Supernant	Mansfield Independent
Becca	Trietch	Foxfire Farm
Ed	Wazer	Shundahai Farm
Vicky	Wetherell	Mansfield Agriculture Committee

Yellow Wood worked with the Mansfield Agriculture Committee before the workshop to develop three broad Agriculture goals for the Town – the goals are conditions that need to be met if agriculture is going to continue to make a contribution to the sustainability of Mansfield.

> Goal A. There are viable agricultural enterprises in Mansfield.
>
> Goal B. Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.
>
> Goal C. Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.

At the workshop, participants were asked to choose which goal they wanted to focus on for the day and split up into three groups. Facilitators worked to ensure that each of the groups had a diverse mix of participants.

Within these three groups, participants identified indicators of progress towards each goal from the perspective of each individual, and then divided into two subgroups to perform a systems analysis to identify the key leverage points in the system. Each of the two subgroups began their systems analysis with the exact same set of indicators. In all three instances, the two subgroups for each goal identified the same (or virtually the same) key leverage indicators and key results indicators. The goals, key leverage indicators and key results indicators are identified in the table below. Key leverage indicators are the strongest drivers of positive change that will move the entire system toward the goal. Key results indicators are affected by many parts of the system. If the key leverage indicators move in the desired direction, over time, the key results indicators should be in evidence. This will only happen if the assumptions made about how the system works are correct. Therefore, the key assumptions about the leverage indicators are also identified here.

Goal	Key Leverage Indicator	Key Results Indicator
Goal A. There are viable agricultural enterprises in Mansfield.	**Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions.** *Assumes that more local government employees will better understand and appreciate the contribution of farmers to the community, and the agricultural issues facing local farmers.*	The number of functional farms in Mansfield remains the same or increases. *Assumes that functional farms are self-supporting, full-time farms.*
Goal B. Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.	**Resource center / Clearing house for farmers & community.** *Assumes a place (could be a website) where people (not just farmers) can access multiple resources, tools, best practices research and information about agriculture (including regulations).*	Greater food security. *Assumes an increase in both quantity and quality of food security.*
Goal C. Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.	**More Mansfield residents realize the public health /environmental benefits of locally worked land.** *Assumes residents will spend more money on locally produced goods.*	More locally produced agriculture products.

The purpose of the workshop was to inform the choice of topics for best practices research that will inform strategies to highlight in the Mansfield Tomorrow plan. This highly productive workshop engaged a diverse group of stakeholders in identifying key areas of focus to ensure that agriculture will continue to make a contribution to the sustainability of Mansfield. Yellow Wood Associates will work with the Mansfield Agricultural Committee to identify areas for Best Practices research based on the findings from the workshop and existing conditions in Mansfield.

Creating Indicators of Progress

Working in three groups, one for each goal, each participant was asked to identify, from their perspective, the most important thing that would need to change based on current conditions to make progress toward the goal(an indicator).

Each person shared their indicator with the group, explained what it meant to them and answered questions group members had about the indicator. After each person presented their indicator the group reviewed all of the indicators to see if any were duplicates and to see if any major indicators were missing.

Below is a summary of the indicators identified for each goal.

What is an indicator?

Indicators are an expression of values. An indicator is something that must be changed, or a condition that must be achieved, in order to claim that progress is being made toward a goal. There are no wrong indicators.

How is an indicator constructed?

An indicator can describe the need for less of, more of, presence or absence. Indicators show the desired direction of change.

Goal A: Indicators

Goal A: There are viable agricultural enterprises in Mansfield

More full-time farmers can make a living without the need for off-farm income

More ag-related enterprises (including farms, retailers, suppliers, processors, distributors) are present, visible and growing in our community

Lower taxes for agricultural endeavors

The land resources necessary to attract, and keep, agricultural enterprises in Mansfield are available and affordable

Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions

More student education about/ interaction with agriculture

Producers and residents share the identity of Mansfield as an agriculture community (shared concern, shared interest)

Mansfield is realistically (viable) attractive as a place to farm

High-level of commitment from UConn to Mansfield's vision and agriculture strategy

The number of functional farms in Mansfield remains the same or increases

Tax equality for all agricultural enterprises

Prioritize existing farmland or farmland preservation

Farmer's market is overrun (public awareness)

More affordable labor / more people to work on farms

More coordinated supportive services and complementary agricultural services/enterprises

Goal B Indicators

Goal B: Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

(Indicators in parenthesis indicate that the group combined these with one or more additional indicators or rewrote the indicator for the analysis.)

More innovation in farming
(The region is experimenting and adopting more products to existing infrastructure)

There are profitable markets for farmers
(Mansfield regional farms are increasing able to compete and find markets for products)

Mansfield has more opportunities for farmers to process and distribute their products

Increased understanding of agriculture's contribution to our local, state and regional economy

Resource center / Clearinghouse for farmers and community
(Resource center where people who wish to farm can be put in touch with people who own land; mentor system.)

Neighbors and town officials are more supportive
(Local producers have support of neighbors and town to operate without fear of complaints if they are adhering to state and local regulations. Fewer complaints)

Agritourism – value of rural landscape
(Find a way to value agriculture as a form of tourism and its impact on the local and regional economy)

More land dedicated to agriculture
(more farms in Mansfield provide a greater amount of food to Mansfield and area residents)

Greater food security (quantity and quality)

Increased sharing of knowledge between Ag. Community and regulatory agencies
(Increase transparency and streamlining of existing regulations)
(Favorable regulatory climate; Realistic expectations; Utilize Ag. Committee)
(Keep land in Ag. Production. Economic conditions need to be created so that agriculture can economically attain the status of highest and best use of the land. Recognition of agriculture.)

Farmer's have access to best practices in relation to environment and human health

Goal C Indicators

Goal C: Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.

Choice of crops adjusts to climate change

Create Incentives to grow on small acreage / Grow as much on less land (*Tax incentives or exemptions for farmers)*

Farms exist on 1-2 acres sustainably

Finding more ways to insure that more land is available for agriculture (both large and small)

Greater use of "grey" water for homes and agriculture through conservation and harvesting of rain and snow and support of Mansfield government for this

Increase education of consumer and farmers on new techniques, public health and environmental benefit

Improve land use regulation to support agriculture and economic independence.

Improve land/water stewardship

Improve regulations to support alternative water practices

Keep and protect rural lands (farmland and forestland) in large and small parcels from development

Less soil erosion occurs on locally farmed land

Large acreage pockets of agriculture creating greenways to enhance critical wildlife habitat

Mansfield becomes more economically independent

Mansfield has a way of measuring local food quality and exceeds national food standards

More collaboration between UConn Students, corporations and Town to support local agriculture

More environmentally friendly farming practices to steward land and water resources

More food dollars being spent on local food/at local farms

More food is being produced in our community to feed our community

More locally produced agriculture products

More Mansfield residents realize the public health /environmental benefits of locally worked land

More ways to reach customers with fresh, healthy farm products and affordable local alternatives to processed food

More young people engaged in sustainable farming, training and view farming as a viable way to make a living

The cost of products produced locally that can be bought by schools is decreasing

Vocational-Agriculture program at the High School is increasing

Water sources for agriculture are identified and protected

Identifying the Leverage Points

Once three goal groups had come up with a set of indicators, the groups were split into two smaller groups (for a total of 6 small groups) to do an analysis of the indicators. The system analysis identifies the key leverage points in the system, the indicators that are going to push the whole system of indicators to make progress toward the goal. Identifying the leverage points allows the community to identify the indicators to focus on.

The process begins by arranging each indicator, written on a Post-It, in a circle near the perimeter of a sheet of flipchart paper. Each small group had a set of indicators for the analysis. Starting with the first indicator in the circle, the group examined its relationship to each indicator around the circle. For example, "if indicator 1 moved in the desired direction, would it cause indicator 2 to move in the desired direction?" If the group identified a direct connection between indicators then a solid line was drawn from Indicator 1 to the other indicator, with an arrow pointing to the other indicator. If the causality was less clear, or some in the group felt there was a connection, a dotted line was drawn. If is the group felt that there was no connection,, no line was drawn. The group then considered the next indicator (#2) with all of the other indicators.

This process determines how the system of indicators is constructed, and draws out those indicators that most significantly affect the entire system (we call these the key leverage indicators or "KLI") and those that are a bellwether that the system is changing (key results indicator or "KRI").

Interpreting the Indicator Analysis

- Indicators with many connections are deeply embedded in the system as participants understand it today, and can likely be influenced by a wide range of actions.
- Indicators with few connections are relatively peripheral to the system and may require specially focused efforts to influence.
- Indicators with many arrows coming into them are likely to change as a result of actions focused on other indicators. These are called key results indicators (KRI).
- **Finally, indicators with the most arrows leading out of them have the greatest leverage to change the system as a whole. Actions focused on these key leverage points are most likely to impact the entire system. In most system diagrams, there are one to three key leverage points which, when taken together, will influence the entire system. These are called key leverage indicators (KLI).**

The Key Leverage Indicators (KLI) and Key Results Indicators (KRI) identified through the analysis are shown in the tables below. Because two groups did the analysis for each goal, the results are shown for both groups.

The spreadsheets found in Appendix A show the connections identified by the group between each of the indicators during the analysis. The tables list the indicators for each goal on both the horizontal and vertical access. If the group drew a solid line between indicators, it is identified with an "S" in the attached tables; if the group drew a dotted line between indicators, it is identified with a "D" in the

attached tables; if the group did not draw a line between the indicators, the cell in the table was left blank.

Goal A: Indicator Analysis Results

Goal A: There are viable agricultural enterprises in Mansfield

Indicator	*Group 1*	*Group 2*
Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions.	KLI #1	KLI #1
Producers and residents share the identity of Mansfield as an agriculture community (shared concern, shared interest).	KLI #2	
Mansfield is realistically (viable) attractive as a place to farm.		KLI #2
High-level of commitment from UConn to Mansfield's vision and agriculture strategy.	KLI #3	KLI #3
The number of functional farms in Mansfield remains the same or increases.	KRI	KRI

This table shows that both groups doing the analysis for Goal A found the same Key Leverage Indicators 1 & 3 and the same Key Results Indicator, with different Key Leverage Indicators #2. This confluence of results shows a widely shared common understanding of the system.

Actions focused on the key leverage points (KLI #1-3) are most likely to impact the entire system. In most system diagrams, there are one to three key leverage points which, when taken together, will influence the entire system.

The indicator identified as Key Results Indicators (KRI) in the analysis is the thing that is likely to change as a result of actions focused on the other indicators in a system. This means that if actions are focused on the Key Leverage Indicators the number of functional farms in Mansfield should stay the same or increase over time. This indicator assumes the number of ***self-supporting/full-time*** farmers will remain the same of increase.

Goal B: Indicator Analysis Results

Goal B: Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

Indicator	**Group 1**	**Group 2**
Resource center / Clearing house for farmers & community	KLI #1	KLI #1
Farmer's have access to best practices in relation to the environment and human health	KLI #2	KLI #2
Increased sharing of knowledge between agriculture community and regulatory agencies / Increased transparency & streamlining of existing agricultural regulation	KLI #3	
Increased understanding of agriculture's contribution to our local, state and regional economy		KLI #3
Greater food security (quantity and quality)	KRI	KRI

This table shows that both groups doing the analysis for Goal B found the same Key Leverage Indicators 1 & 2 and the same Key Results Indicator, with different Key Leverage Indicators #3. This confluence of results shows a widely shared common understanding of the system.

Actions focused on the key leverage points (KLI #1-3) are most likely to impact the entire system. In most system diagrams, there are one to three key leverage points which, when taken together, will influence the entire system.

The indicator identified as Key Results Indicators (KRI) in the analysis is the thing that is likely to change as a result of actions focused on the other indicators in a system. This means that if actions are focused on the Key Leverage Indicators there should be an increase in food security over time.

Goal C: Indicator Analysis Results

Goal C: Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.

Indicator	**Group 1**	**Group 2**
More Mansfield residents realize the public health /environmental benefits of locally worked land.	KLI #1	
Increase education of consumer and farmers on new techniques, public health and environmental benefit.		KLI #1
Improve land use regulation to support agriculture and economic independence.	KLI #2	
More collaboration between UConn Students, corporations and Town to support local agriculture	KLI #3	KLI #2
Create Incentives to grow on small acreage/Grow as much on less land (*Tax incentives or exemptions for farmers)*		KLI #3
More locally produced agriculture products.	KRI	
Mansfield becomes more economically independent		KRI

The indicator analysis for goal showed less consensus among the two groups working on this goal. It is important to note that these two groups collapsed some of the indicators (identified duplicates) during the analysis process, leaving them with slightly different sets of indicators to complete the analysis.

Actions focused on the key leverage points (KLI #1-3) are most likely to impact the entire system. In most system diagrams, there are one to three key leverage points which, when taken together, will influence the entire system.

The indicator identified as Key Results Indicators (KRI) in the analysis is the thing that is likely to change as a result of actions focused on the other indicators in a system. This means that if actions are focused on the Key Leverage Indicators there should be an locally produced agriculture products and Mansfield should become more economically independent over time.

Defining Key Terms

Once the indicator analysis was completed each group had time to define the key terms in the first key leverage indicator. The process of defining key terms allows the group to develop a common language and understanding of what is meant by the indicator.

Goal A: There are viable agricultural enterprises in Mansfield

Key Leverage Indicator: **Better understanding of agricultural issues by municipal employees , elected officials and Town committees and commissions.**

Better

- Deeper, more detailed
- Improved
- Greater number of people
- Current/Up to date (changing regulations and circumstances)
- More individualized/personal (know more about specific operations)
- Continuous

Understanding

- Knowledge
- Appreciation
- Engagement
- Comprehension
- Empathy

Agricultural Issues

- Need for/cost of health insurance
- Minimal income
- Reality of making a living farming in Mansfield
- Day-to-day pressures (weather, regulations, input costs (fees, labor), land use, water use, neighbors/use conflicts, zoning, time)
- Understanding the daily/seasonal rhythms of farming
- Contributions that farmers make to the community (food security, preservation, scenic views)
- Considering how laws and ordinances will impact current and future farmers
- Access to affordable land
- Knowledge of farming community (case-to-case basis, (eg. Who has good soil))
- Taxes paid by farmers require less services (less costs to the Town) compared to other land owners

Goal B: Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

Key Leverage Indicator: **Resource Center / Clearinghouse to provide information and education to farmers, community and region.**

Resource Center/Clearinghouse

- Where to go
- Up to date information on regulations
- Equipment/product sharing
- Financial/business planning
- Access to support agencies
- Networking (face-to-face and online)
- Mentoring (face-to-face and online)
- Career Center – Jobs available, people looking for jobs, interaction with future farmers
- Inventory of products available and products needed
- Marketing – special events, social media
- Repository for state/local information
- Access to Best Management Practices
- Newsletter
- Partnerships with UConn (they provide facility?)
  Questions that came up during the definition:
  Is it a facility?
  Does it start as a website?
  Who manages it?
  Where will the resources come from?

Farmers

- Anyone who produces agricultural products (or nursery stock, fiber, lumber) for their own use or others. Size is not important. Doesn't have to be prime Ag land.

Community

- Anyone who lives in a common geographic area and shares common resources.

Region

- Area serving and being served by Mansfield

Goal C: Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.

Key Leverage Indicator: **More Mansfield residents (and businesses and students) recognize and value the environmental and public health benefits of working lands.**

Residents

- Includes businesses and UConn
- People who live, work and play in Mansfield
- Community
- Includes consumers and farmers

Recognize

- Value
- People are buying products
- Town policies / Investments that support open space purchases
- Incentives and policies (I don't want to see housing built)

Questions/Comments

- Don't we need something more quantifiable than recognize? Just recognizing may not result in more actions. Price is a big barrier, maybe people don't have the money to buy organic?
- May include a suite of policies that reflect recognize…
- In Norway farms are subsidized, the country values farms and supports them.

Environmental and Public Health

- Preservation of water, soils

Benefits

- Direct product of food (micro)
- Fewer pollutants/ecosystem benefits, like water and air (macro)
- Land used for Ag, open space (not developed) may result in less impacts on services, less waste.
- Need to educate on what the benefits are. The information has to be true.
- A diversity here that needs to be preserved – it's pretty here, it's aesthetic
- Mental health

Questions

- Do farms use less water than a family of 4 would on same amount of land?
- Are public health benefits really real?
- Do we add quality of life?
- Do we include mental health? (I like to see cows in the summer, it puts me in a better mood.)

Working Land

- Working farm/forest lands managed in a sustainable manner
- (There is no inherent environmental benefit to working land if it isn't managed sustainably.)

Questions

- Could the definition include agricultural practices that could be used to restore land damaged by prior uses?
- What about business practices that impact working lands?
- Should we explicitly mention permaculture – includes so many aspects?

Next Steps

The purpose of the workshop was to inform the choice of topics for best practices research that will inform strategies to highlight in the Mansfield Tomorrow plan. Yellow Wood Associates will recommend areas of Best Practices research based on the findings from the workshop and existing conditions in Mansfield and work with the Mansfield Agriculture Committee to finalize the Best Practices research topics. Best Practices research will include interviews with local, regional and national contacts that have experience in the areas of study. Yellow Wood will produce a draft Best Practices report.

When the Best Practices research has been completed Yellow Wood will hold focus groups with interested and relevant parties to identify the best practices that are most relevant to Mansfield and strategies for implementation. Yellow Wood will finalize the Best Practices report.

Yellow Wood will draft an "Agriculture Strategy" based on input from the February 2nd public workshop, best practices research and the focus groups. The draft strategy will be presented at a joint public forum to collect final input from the public.

Yellow Wood will work with Mt. Auburn Associates, the consultant responsible for the economic development component of the plan, to identify areas of crossover. Yellow Wood will be in communication with Goody Clancy throughout the process. When the agriculture strategy has been completed, Goody Clancy will integrate the strategy with the rest of the plan.

Appendix A: Indicator Analysis Details

The following pages show the indicator analysis that was completed by each group. We first show a photograph of the actual analysis completed by the group. After the photo we include a table that shows the connections identified by the group between each of the indicators during the analysis. (The table is a spreadsheet version of the analysis.) The tables list the indicators for each goal on both the horizontal and vertical access. If the group drew a solid line between indicators, it is identified with an "S" in the attached tables; if the group drew a dotted line between indicators, it is identified with a "D" in the attached tables; if the group did not draw a line between the indicators, the cell in the table was left blank.

Goal A – Table 1 – Indicator Analysis

Goal A: There are viable agricultural enterprises in Mansfield

Goal A: “There are viable agricultural enterprises in Mansfield.”

Goal A - Table 1 - Indicators

	Indicators	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Dotted OUT	Solid OUT	Total Out	Key Leverage Indicator
Indicator 1: More full-time farmers can make a living without the need for off-farm income.	1		S					S	S		S						0	4	4	
Indicator 2: More ag-related enterprises (including farms, retailers, suppliers, processors, distributors) are present, visible and growing in our community.	2					D		S	S		S			S			1	4	5	
Indicator 3: Lower taxes for agricultural endeavors	3	S	S		S				S		S						0	5	5	
Indicator 4: The land resources necessary to attract, and keep, agricultural enterprises in Mansfield are available and affordable.	4	S	S					D	S		S			D			2	4	6	
Indicator 5: Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions.	5	S	S	S	S			S	S	D	D	S	S	D			3	8	11	KLI #1
Indicator 6: More student education about/ interaction with agriculture	6							S						S	S		0	3	3	
Indicator 7: Producers and residents share the identify of Mansfield as an agriculture community (shared concern, shared interest).	7	S	S	D	S				S		S	D	S	S	D	D	4	7	11	KLI #2
Indicator 8: Mansfield is a realistically (viable) attractive as a place to farm.	8										S						0	1	1	
Indicator 9: High-level of commitment from UConn to Mansfield’s vision and agriculture strategy.	9				D		S	S	S		S			S		S	1	6	7	KLI #3
Indicator 10: The number of functional farms in Mansfield remains the same or increases.	10																0	0	0	
Indicator 11: Tax equality for all agricultural enterprises	11	S	S		D				S		S						1	4	5	
Indicator 12: Prioritize existing farmland or farmland preservation	12		S	S	S				S		S						0	5	5	
Indicator 13: Farmer’s market is overrun (public awareness)	13	S							S		S						0	3	3	
Indicator 14: More affordable labor / more people to work on farms	14	S	S						S		S						0	4	4	
Indicator 15: More coordinated supportive services and complementary agricultural services/enterprises	15	S	S						S		S						0	4	4	
Dotted In		0	0	1	2	1	0	1	0	1	1	1	0	2	1	1				
Solid In		8	9	2	4	0	1	5	12	0	12	1	2	4	1	1				
Total In		**8**	**9**	**3**	**6**	**1**	**1**	**6**	**12**	**1**	**13**	**2**	**2**	**6**	**2**	**2**				
Key Results Indicator											KRI									

KRI = Key Results Indicator

KLI#1 = Key Leverage Indicator #1

KLI#2 = Key Leverage Indicator #2

KLI#3 = Key Leverage Indicator #3

D = Dotted (Causal relationship, not very strong or clear)

S = Solid (Direct and/or strong correlation)

Goal A – Table 2 – Indicator Analysis

Goal A: There are viable agricultural enterprises in Mansfield

Goal A: "There are viable agricultural enterprises in Mansfield."

	Indicators	Indicator 1: More full-time farmers can make a living without the need for off-farm income.	Indicator 2: More ag-related enterprises (including farms, retailers, suppliers, processors, distributors) are present, visible and growing in our community.	Indicator 3: Lower taxes for agricultural endeavors	Indicator 4: The land resources necessary to attract, and keep, agricultural enterprises in Mansfield are available and affordable.	Indicator 5: Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions.	Indicator 6: More student education about/ interaction with agriculture	Indicator 7: Producers and residents share the identify of Mansfield as an agriculture community (shared concern, shared interest).	Indicator 8: Mansfield is a realistically (viable) attractive as a place to farm.	Indicator 9: High-level of commitment from UConn to Mansfield's vision and agriculture strategy.	Indicator 10: The number of functional farms in Mansfield remains the same or increases.	Indicator 11: Tax equality for all agricultural enterprises	Indicator 12: Prioritize existing farmland or farmland preservation	Indicator 13: Farmer's market is overrun (public awareness)	Indicator 14: More affordable labor / more people to work on farms	Indicator 15: More coordinated supportive services and complementary agricultural services/enterprises	**Dotted OUT**	**Solid OUT**	**Total Out**	**Key Leverage Indicator**
Goal A - Table 2 - Indicators		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
Indicator 1: More full-time farmers can make a living without the need for off-farm income.	1		S				D				S						1	2	3	
Indicator 2: More ag-related enterprises (including farms, retailers, suppliers, processors, distributors) are present, visible and growing in our community.	2						D	S			S						1	2	3	
Indicator 3: Lower taxes for agricultural endeavors	3	D	S		S			D	S		S						2	4	6	
Indicator 4: The land resources necessary to attract, and keep, agricultural enterprises in Mansfield are available and affordable.	4	S	S					D	S		S					D	2	4	6	
Indicator 5: Better understanding of agricultural issues by municipal employees, elected officials, and Town committees and commissions.	5			S			S	S	D	D	D	S	S			S	3	6	9	KRI #1
Indicator 6: More student education about/ interaction with agriculture	6		S					S			D		D	D			3	2	5	
Indicator 7: Producers and residents share the identify of Mansfield as an agriculture community (shared concern, shared interest).	7										D		S	S	S	S	1	4	5	
Indicator 8: Mansfield is a realistically (viable) attractive as a place to farm.	8	S	S				S	S			S						0	5	5	KRI #2
Indicator 9: High-level of commitment from UConn to Mansfield's vision and agriculture strategy.	9		D		D		S	D	S		D		S			S	4	4	8	KRI #3
Indicator 10: The number of functional farms in Mansfield remains the same or increases.	10																0	0	0	
Indicator 11: Tax equality for all agricultural enterprises	11	S		S	D				S		S						1	4	5	
Indicator 12: Prioritize existing farmland or farmland preservation	12	S			S				S		S						0	4	4	
Indicator 13: Farmer's market is overrun (public awareness)	13	S	S						S		S						0	4	4	
Indicator 14: More affordable labor / more people to work on farms	14	S	S						S		S						0	4	4	
Indicator 15: More coordinated supportive services and complementary agricultural services/enterprises	15		S						S		S						0	3	3	
Dotted In		1	1	0	2	0	2	3	1	1	4	0	1	1	0	1				
Solid In		6	8	2	2	0	3	4	8	0	10	1	3	1	1	3				
Total In		**7**	**9**	**2**	**4**	**0**	**5**	**7**	**9**	**1**	**14**	**1**	**4**	**2**	**1**	**4**				
Key Results Indicator											**KRI**									

KRI = Key Results Indicator
KLI#1 = Key Leverage Indicator #1
KLI#2 = Key Leverage Indicator #2
KLI#3 = Key Leverage Indicator #3
D = Dotted (Causal relationship, not very strong or clear)
S = Solid (Direct and/or strong correlation)

Goal B – Table 1 – Indicator Analysis

Goal B: Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

Goal B: “Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health. ”

Goal B - Table 1 - Indicators

	Indicators	Indicator 1: More Innovation	Indicator 2: There are profitable markets for farmers	Indicator 3: More opportunity to process and distribute	Indicator 4: Increased understanding of agriculture’s contribution to our local, state and regional economy	Indicator 5: Resource Center / Clearing House	Indicator 6: Fewer complaints. Local producers have support of neighbors and town to operate without fear of complaints if they are adhering to state and local regulations.	Indicator 7: Agritourism – value of rural landscape.	Indicator 8: More land should be dedicated to agriculture	Indicator 9: Greater food security (quantity and quality)	Indicator 10: Increased transparency & streamlining of existing agricultural regulation	Indicator 11: Farmer’s have access to best practices in relation to the environment and human health	**Dotted OUT**	**Solid OUT**	**Total Out**	**Key Leverage Indicator**
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**				
Indicator 1: More Innovation	**1**		S	S				D	S	S			1	4	**5**	
Indicator 2: There are profitable markets for farmers	**2**			S	S	D		S	S	S			1	5	**6**	
Indicator 3: More opportunity to process and distribute	**3**		S		S		S	S	S	S			0	6	**6**	
Indicator 4: Increased understanding of agriculture’s contribution to our local, state and regional economy	**4**	S					S		D	S			1	3	**4**	
Indicator 5: Resource Center / Clearing House	**5**	S	S	S	S		S	S	S	S	S	S	0	10	**10**	KLI #1
Indicator 6: Fewer complaints. Local producers have support of neighbors and town to operate without fear of complaints if they are adhering to state and local regulations.	**6**			S					S	S			0	3	**3**	
Indicator 7: Agritourism – value of rural landscape.	**7**		S	S	S		S		S	S			0	6	**6**	
Indicator 8: More land should be dedicated to agriculture	**8**									S			0	1	**1**	
Indicator 9: Greater food security (quantity and quality)	**9**												0	0	**0**	
Indicator 10: Increased transparency & streamlining of existing agricultural regulation	**10**	S	S	S			S	S	S			S	0	7	**7**	KLI #3
Indicator 11: Farmer’s have access to best practices in relation to the environment and human health	**11**	S	S	S	S		S	S	S	S			0	8	**8**	KLI #2
Dotted In		0	0	0	0	1	0	1	1	0	0	0				
Solid In		4	6	7	5	0	6	5	8	9	1	2				
Total In		**4**	**6**	**7**	**5**	**1**	**6**	**6**	**9**	**9**	**1**	**2**				
Key Results Indicator										**KRI**						

KRI = Key Results Indicator

KLI#1 = Key Leverage Indicator #1

KLI#2 = Key Leverage Indicator #2

KLI#3 = Key Leverage Indicator #3

D = Dotted (Causal relationship, not very strong or clear)

S = Solid (Direct and/or strong correlation)

Goal B – Table 2 – Indicator Analysis

Goal B: Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health.

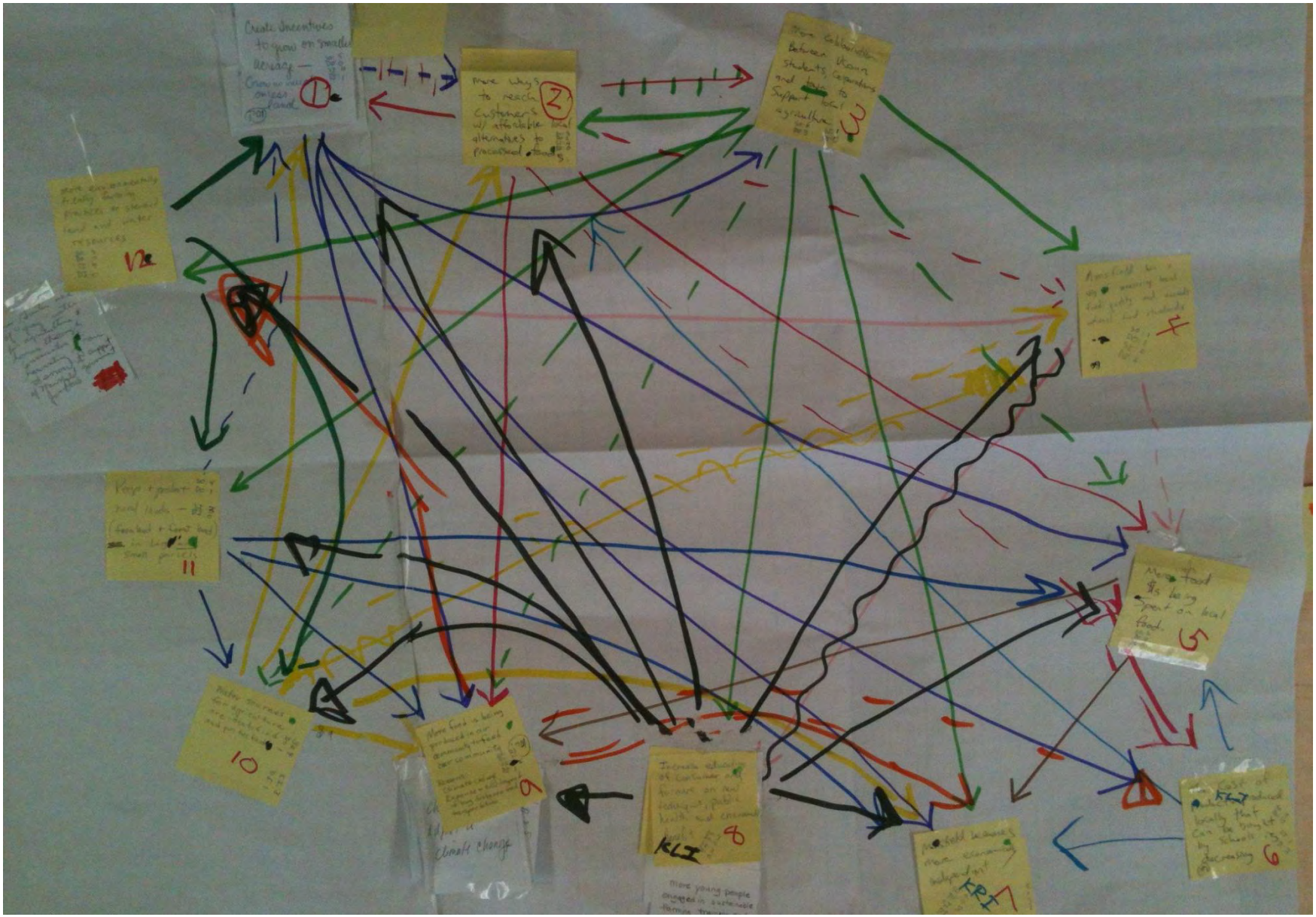
Goal B: "Agricultural enterprises in Mansfield have positive impacts on the economy but not at the expense of the environment and human health. "

Goal B - Table 2 - Indicators	Indicators	1	2	3	4	5	6	7	8	9	10	11	Dotted OUT	Solid OUT	Total Out	Key Leverage Indicator
		Indicator 1: More Innovation	Indicator 2: There are profitable markets for farmers	Indicator 3: More opportunity to process and distribute	Indicator 4: Increased understanding of agriculture's contribution to our local, state and regional economy	Indicator 5: Resource Center / Clearing House	Indicator 6: Neighbors and town officials are more supportive / Fewer complaints.	Indicator 7: Agritourism – value of rural landscape.	Indicator 8: More land should be dedicated to agriculture	Indicator 9: Greater food security (quantity and quality)	Indicator 10:Increased sharing of knowledge	Indicator 11: Farmer's have access to best practices in relation to the environment and human health				
Indicator 1: More Innovation	1							S	S	S			0	3	3	
Indicator 2: There are profitable markets for farmers	2	S						S	S	S			0	4	4	
Indicator 3: More opportunity to process and distribute	3	S	S		S	S	S	S		S			0	6	6	
Indicator 4: Increased understanding of agriculture's contribution to our local, state and regional economy	4	D	S	S			S		S	S	S		1	6	7	KLI #3
Indicator 5: Resource Center / Clearing House	5	S	S		S		S	S	S	S	S	S	0	9	9	KLI #1
Indicator 6: Neighbors and town officials are more supportive / Fewer complaints.	6	S						S	S	S	S		0	5	5	
Indicator 7: Agritourism – value of rural landscape.	7				S				S	D			1	2	3	
Indicator 8: More land should be dedicated to agriculture	8			S						S			0	2	2	
Indicator 9: Greater food security (quantity and quality)	9	S	S				S	S	S	S			0	6	6	
Indicator 10:Increased sharing of knowledge	10												0	0	0	
Indicator 11: Farmer's have access to best practices in relation to the environment and human health	11	S	S	S	S		S	S	S	S			0	8	8	KLI #2
Dotted In		1	0	0	0	0	0	0	0	1	0	0				
Solid In		6	5	3	4	1	5	7	8	8	3	1				
Total In		**7**	**5**	**3**	**4**	**1**	**5**	**7**	**8**	**9**	**3**	**1**				
Key Results Indicator										**KRI**						

KRI = Key Results Indicator
KLI#1 = Key Leverage Indicator #1
KLI#2 = Key Leverage Indicator #2
KLI#3 = Key Leverage Indicator #3
D = Dotted (Causal relationship, not very strong or clear)
S = Solid (Direct and/or strong correlation)

Goal C – Table 1 – Indicator Analysis

Goal C: Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.



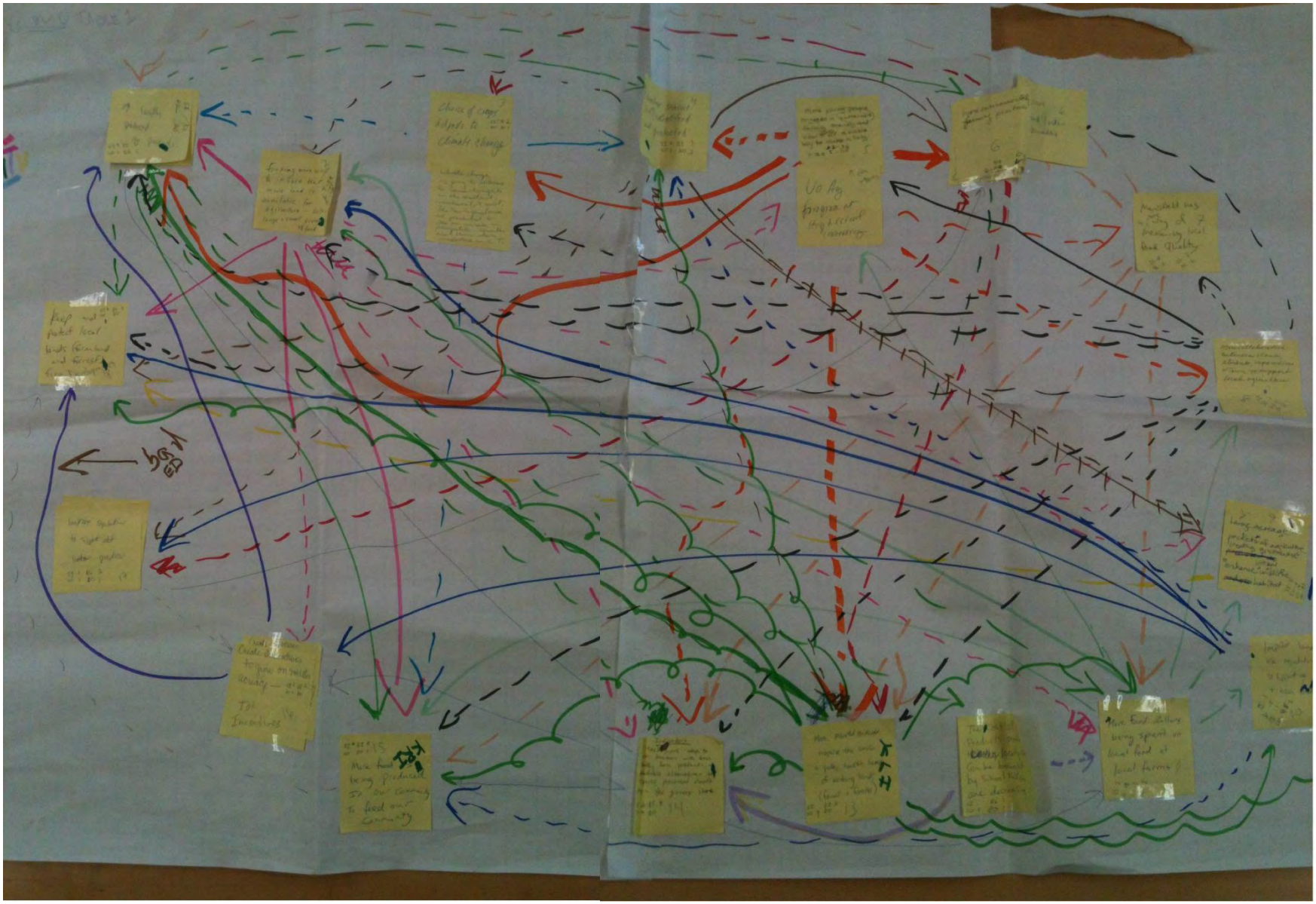
Goal C: “Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.”

Goal C - Table 1 - Indicators	Indicators	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	Dotted OUT	Solid OUT	Total Out	Key Leverage Indicator
		Indicator 1: More locally produced agriculture products.	Indicator 2: Finding more ways to insure that more land is available for agriculture (both large and small)	Indicator 3:Choice of crops adjusts to climate change	Indicator 4: Water sources for agriculture are identified and protected.	Indicator 5:More young people engaged in sustainable farming, training and view farming as a viable way to make a living	Indicator 6: More environmentally friendly farming practices to steward land and water resources.	Indicator 7: Mansfield has a way of measuring local food quality and exceeds national food standards	Indicator 8: More collaboration between UConn Students, corporations and Town to support local agriculture	Indicator 9: Large acreage pockets of agriculture creating greenways to enhance critical wildlife habitat	Indicator 10:Improve land use regulation to support agriculture and economic independence.	Indicator 11 : More food dollars being spent on local food/at local farms	Indicator 12: The cost of products produced locally that can be bought by schools is decreasing	Indicator 13: More Mansfield residents realize the public health /environmental benefits of locally worked land.	Indicator 15: More food is being produced in our community to feed our community.	Indicator 15: More food is being produced in our community to feed our community.	Indicator 16: Create Incentives to grow on small acreage/Grow as much on less land	Indicator 17: Improve regulations to support alternative water practices	Indicator 18: Keep and protect local farm land and forest land from development.				
Indicator 1: More locally produced agriculture products.	1				D		D					D	D						D	5	0	5	
Indicator 2: Finding more ways to insure that more land is available for agriculture (both large and small)	2	S				D				D					D	S	D		S	4	3	7	
Indicator 3:Choice of crops adjusts to climate change	3	D			S															1	1	2	
Indicator 4: Water sources for agriculture are identified and protected.	4						S			D								D	D	3	1	4	
Indicator 5:More young people engaged in sustainable farming, training and view farming as a viable way to make a living	5	S		S	D		S	D	D					D	D					5	3	8	
Indicator 6: More environmentally friendly farming practices to steward land and water resources.	6			D										D						2	0	2	
Indicator 7: Mansfield has a way of measuring local food quality and exceeds national food standards	7	D					D					D		D	D	D				6	0	6	
Indicator 8: More collaboration between UConn Students, corporations and Town to support local agriculture	8	D	D			S	D	D						D	D	D			D	8	1	9	KLI #3
Indicator 9: Large acreage pockets of agriculture creating greenways to enhance critical wildlife habitat	9																		D	1	0	1	
Indicator 10:Improve land use regulation to support agriculture and economic independence.	10		S		D					S						D	S	S	S	2	5	7	KLI #2
Indicator 11 : More food dollars being spent on local food/at local farms	11		S			S			S	D	D					S				2	4	6	
Indicator 12: The cost of products produced locally that can be bought by schools is decreasing	12											D			S					1	1	2	
Indicator 13: More Mansfield residents realize the public health /environmental benefits of locally worked land.	13	S	S		S					S	S	S			S	S			S	0	9	9	KLI #1
Indicator 14: More ways to reach customers with fresh, healthy farm products and affordable local alternatives to processed food	14	S										S				S	S			0	4	4	
Indicator 15: More food is being produced in our community to feed our community.	15																		D	1	0	1	
Indicator 16: Create Incentives to grow on small acreage/Grow as much on less land	16	S																	S	0	2	2	
Indicator 17: Improve regulations to support alternative water practices	17						S										D			1	1	2	
Indicator 18: Keep and protect local farm land and forest land from development.	18																			0	0	0	
Dotted In		3	1	1	3	1	3	2	1	3	1	3	1	4	4	3	1	1	4				
Solid In		5	3	1	2	2	3	0	1	2	1	2	0	0	2	4	2	1	4				
Total In		8	4	2	5	3	6	2	2	5	2	5	1	4	6	7	3	2	8				
Key Results Indicator		KRI																					

KRI = Key Results Indicator
KLI#1 = Key Leverage Indicator #1
KLI#2 = Key Leverage Indicator #2
KLI#3 = Key Leverage Indicator #3
D = Dotted (Causal relationship, not very strong or clear)
S = Solid (Direct and/or strong correlation)

Goal C – Table 2 – Indicator Analysis

Goal C: Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.



Goal C: “Agricultural enterprises have positive impacts on the environment and human health but not at the expense of the economy.”

Goal C - Table 2 - Indicators	Indicators	Indicator 1: Create Incentives to grow on small acreage/Grow as much on less land	Indicator 2: More ways to reach customers with affordable local alternatives to processed food	Indicator 3: More collaboration between UConn Students, corporations and Town to support local agriculture	Indicator 4: Mansfield has a way of measuring local food quality and exceeds national food standards	Indicator 5: More food dollars being spent on local food	Indicator 6: The cost of products produced locally that can be bought by schools is decreasing	Indicator 7: Mansfield becomes more economically independent	Indicator 8: Increase education of consumer and farmers on new techniques, public health and environmental benefit.	Indicator 9: More food is being produced in our community to feed our community.	Indicator 10: Water sources for agriculture are identified and protected.	Indicator 11 : Keep and protect rural lands (farmland and forestland) in large and small parcels.	Indicator 12: More environmentally friendly farming practices to steward land and water resources.	Dotted OUT	Solid OUT	Total Out	Key Leverage Indicator
		1	2	3	4	5	6	7	8	9	10	11	12				
Indicator 1: Create Incentives to grow on small acreage/Grow as much on less land	1			S		S	S	S		S				0	5	5	KLI #3
Indicator 2: More ways to reach customers with affordable local alternatives to processed food	2	S			D	S	D			D				3	2	5	
Indicator 3: More collaboration between UConn Students, corporations and Town to support local agriculture	3		S		S	D		S	S	D	D	S	S	3	6	9	KLI #2
Indicator 4: Mansfield has a way of measuring local food quality and exceeds national food standards	4					D							S	1	1	2	
Indicator 5: More food dollars being spent on local food	5							S		S				0	2	2	
Indicator 6: The cost of products produced locally that can be bought by schools is decreasing	6	S				S		S						0	3	3	
Indicator 7: Mansfield becomes more economically independent	7													0	0	0	
Indicator 8: Increase education of consumer and farmers on new techniques, public health and environmental benefit.	8	S	S		S	S		S		S	S	S	S	0	9	9	KLI #1
Indicator 9: More food is being produced in our community to feed our community.	9						D	S					S	1	2	3	
Indicator 10: Water sources for agriculture are identified and protected.	10	S	S		D			S		S				1	4	5	
Indicator 11 : Keep and protect rural lands (farmland and forestland) in large and small parcels.	11	D				S		S		S	S			1	4	5	
Indicator 12: More environmentally friendly farming practices to steward land and water resources.	12	S									S	S		0	3	3	
Dotted In		1	0	0	2	2	2	0	0	2	1	0	0				
Solid In		5	3	1	2	5	1	8	1	5	3	3	4				
Total In		**6**	**3**	**1**	**4**	**7**	**3**	**8**	**1**	**7**	**4**	**3**	**4**				
Key Results Indicator								KRI									

KRI = Key Results Indicator
KLI#1 = Key Leverage Indicator #1
KLI#2 = Key Leverage Indicator #2
KLI#3 = Key Leverage Indicator #3
D = Dotted (Causal relationship, not very strong or clear)
S = Solid (Direct and/or strong correlation)

Appendix E:
Agriculture Focus Group Summary

Memorandum

TO: Mansfield Agriculture Committee

FROM: Yellow Wood Associates

CC: Jennifer Kaufman, Natural Resources and Sustainability Coordinator, Mansfield
Larissa Brown, Director of Community Planning, Goody Clancy

DATE: May 7,2013

RE: Summary of April 30 Agriculture Focus Group

On April 30th, Yellow Wood Associates facilitated an agricultural focus group at the Mansfield Town Hall to share potential agricultural strategies and receive input on which ones seem most relevant and actionable to Mansfield. Eighteen people participated in the focus group:

Joan Nichols, Director of Member Relations and Community Outreach, CT Farm Bureau
Joan Buck, Mansfield Conservation Commission
Eva Chatay, Farmer's daughter, Storrs Mansfield Transition Town
Al Cyr, Farmer, Mansfield Agriculture Committee (Chair)
Elisabeth Moore, CT Farmland Trust, Director of Conservation
Andrew Zidoro, Teacher of Natural Resources, EO Smith
Karen Green, Mansfield Farm Owner
Charlene Cutler, Executive Director, Last Green Valley
Vicky Wetherell, Mansfield Agriculture Committee
John Guszkowski, AGvocate, CME Associates
Jiff Martin, Associate Extension Educator for Sustainable Food Systems, Cooperative Extension
Micheal O'Neill, Associate Dean for Outreach Education and Public Service/Associate Director, Cooperative Extension System
Ed Wazer, Farm Owner
Jim Raynor, Retired dentist, Mansfield resident for 40 years
Rich McAvoy, UConn Professor & Extension Specialist
George Thompson – Mansfield resident, Local Economic Development Committee
Charlie Galgowski – Agriculture Committee, Natural Resource Council
Eileen Booth – Alternate on Conservation Commission, Member of Zoning Board

The focus group was also attended by:
Michael Looney, Senior planner/associate, Milone & MacBroom
Larissa Brown, Director of Community Planning, Goody Clancy
Amy Kohn, Senior Planner and Associate, Goody Clancy
Linda Painter, Director of Planning and Development, Town of Mansfield
Jennifer Kaufman, Natural Resources and Sustainability Coordinator, Town of Mansfield
Samantha Dunn, Yellow Wood Associates
Jackie LeBlanc, Yellow Wood Associates

The strategies were presented to the group in six clusters based on the results of the February 2nd Public Forum.

1. Agriculture is integrated into Mansfield's identity: **Engage & Educate the Public**
2. Agriculture is integrated into Mansfield's identity: **Engage & Educate Municipal Employees, Commissions and Boards**
3. Agriculture is integrated into Mansfield's identity: **Economic Development / Investment in Agriculture**
4. **The Town has regulations that support agricultural viability**
5. **The Town connects farmers with information and resources**
6. **UConn is engaged in the viability of Mansfield agriculture**

Participants were asked to answer four questions about each cluster of strategies using a set of worksheets. Each worksheet listed the strategies for that cluster and the questions:

1. Which strategy is most relevant to Mansfield?
2. Which strategy will have the most impact here?
3. Which strategy are you most excited about?
4. If you could only prioritize one strategy, which one would it be?

At the focus group, each person said which strategy they would prioritize (if they could only choose one) and why. People who were not able to attend the focus group were able to review and prioritize the same strategies through an online survey. This document summarizes responses to the questions from both the focus group and on-line survey.

The six tables below summarize how many people selected each strategy, if they could only choose one, to prioritize (the one the most people selected is shaded grey). For example, in the first cluster 2 people selected strategy A, 3 people selected strategy B, 0 people selected strategy C and 20 people selected strategy D.

Agriculture is integrated in Mansfield's Identity: **Engage & Educate the Public**

A - 2	B - 3	C - 0	D - 20
Share information on agriculture-related activities, products, and experiences through articles and websites.	Educate residents about town policies applicable to agriculture.	Gather information on attitudes of residents toward agriculture through surveys and report findings on a regular basis (annually).	**Increase visibility of local/regional agriculture through direct action (signage, publicity, activities, awards, farm-to-school, feature local products at events).**

Agriculture is integrated in Mansfield's Identity: **Engage & Educate Municipal Staff**

A – 15	B – 2	C – 0	D - 6
Develop training to educate town officials, key decision-makers, and committee members.	Allocate space for, and invite, farmers to serve on all Town commissions and boards.	Document current revenues and expenses on a land use basis through a Cost of Community Services (COCS) study.	Integrate agriculture throughout the updated Plan of Conservation and Development (POCD) (not just in a section on agriculture.

Agriculture is integrated in Mansfield's Identity: **Economic Development / Investment in Agriculture**

A – 1	B – 15	C – 0	D – 2	E - 7
Invest in Storrs Farmers Market improvements	**Attract and support agriculture-related businesses including agri-tourism.**	Direct support to farmers.	Improve access to farmland	Commit municipal funds and support to farmland preservation.

The Town has Regulations that Support Agricultural Viability

A - 10	B - 7	C - 6	D - 2
Review and revise regulations that effect farm production and sales	Review and revise regulations to support compatible commercial enterprises on farms	Conduct annual outreach to farmers and landowners on local agriculture-related regulations, tax exemptions, conservation options, etc	Assign responsibility to Ag Commission to be actively up-to-date on new technologies and trends that make small-acre farming viable

The Town Connects Farmers with Information and Resources

A - 10	B – 9	C - 5	D - 0
Organize/host/co-host events for farmers that connect them with resources available	Update Town website to contain information on events, resources, and opportunities offered by organizations relevant to agriculture in Mansfield	Partner with UConn Extension to pursue improving access to information for farmers that will serve Mansfield as well as the state	Partner with UConn Extension to explore improving usability of NRCS database of best practices

UCONN is Engaged in the Viability of Mansfield Agriculture

A – 0	B - 0	C - 3	D - 9	E - 3	F - 2	G - 6
Invite UConn participation (non-voting, ex officio) on the Agriculture Committee	Identify & connect with "non-agriculture" resources at the University applicable to agriculture	Partner with UConn to develop and co-host events that support agriculture in the region	Partner with UConn to fill value-added processing gap in the regional food system.	Establish relationship with career services to connect interested students with work opportunities on local farms	Pursue concept of leasing UConn land to farmers and/or using UConn land to incubate new farmers	Pursue preservation of UConn agriculture land

The following pages list the strategies for each clusters and the results to all four questions for each of the six clusters.

Agriculture is integrated into Mansfield's identity: Engage & Educate the Public

Strategies

A. Share information on agriculture-related activities, products, and experiences through articles and websites (regular articles in local papers such as The Chronicle featuring agriculture and showcasing farms).

B. Educate residents about town policies applicable to agriculture through contests in the paper, feature articles on policies in relation to agriculture issues on town's website and in the papers, local public access program on town policies and agriculture issues, study of impacts of town policies and report results, article in town report.

C. Gather information on attitudes of residents toward agriculture through surveys and report findings on a regular basis (annually).

D. Increase visibility of local/regional agriculture through direct action (signage, publicity, activities, awards, farm-to-school, feature local products at events).

	A	B	C	D
Which strategy is most relevant to Mansfield?	4	4	2	**13**
Which strategy will have the most impact here?	4	5	2	**13**
Which strategy are you most excited about?	3	4	0	**19**
If you could only prioritize one strategy, which one would it be?	2	3	0	**20**

Agriculture is integrated into Mansfield's identity: Engage & Educate Municipal Employees, Commissions and Boards

Strategies

A. Develop training to educate town officials, key decision-makers, and committee members on the role of agriculture in the community, the multiple values of agriculture to the Town, and challenges faced by farmers. (Including information on how decisions-making affects agriculture. Repeat training annually and make it required.)

B. Allocate space for, and invite, farmers to serve on all Town commissions and boards.

C. Document current revenues and expenses on a land use basis through a Cost of Community Services (COCS) study.

D. Integrate agriculture throughout the updated Plan of Conservation and Development (POCD) (not just in a section on agriculture).

	A	B	C	D
Which strategy is most relevant to Mansfield?	**18**	1	0	4
Which strategy will have the most impact here?	**12**	4	1	6
Which strategy are you most excited about?	**14**	3	1	3
If you could only prioritize one strategy, which one would it be?	**15**	2	0	6

Agriculture is integrated into Mansfield's identity: Economic Development / Investment in Agriculture

Strategies

A. Invest in Storrs Farmers Market improvements.

B. Attract and support agriculture-related businesses including agri-tourism. (Possible creation of industrial zone dedicated to infrastructure that would support agriculture-related businesses (inputs, processing, aggregation, distribution, food waste.)

C. Direct support to farmers. (Sponsor trainings, give out small grants, provide marketing support through signage/brochures/other promotion, etc.)

D. Improve access to farmland. (Identify small acreage land that can be farmed, prioritize new farmers for some town-owned land, farm restoration.)

E. Commit municipal funds and support to farmland preservation. (Budget line item for farmland protection, explore transfer of development rights, explore additional state and federal matching grants.)

	A	B	C	D	E
Which strategy is most relevant to Mansfield?	2	**12**	1	3	5
Which strategy will have the most impact here?	2	**6**	2	1	**6**
Which strategy are you most excited about?	1	**8**	0	2	7
If you could only prioritize one strategy, which one would it be?	1	**15**	0	2	7

The Town has regulations that support agricultural viability

Strategies

A. Review and revise regulations that effect farm production and sales (off-site signage, water use, waste management, parking, etc.).

B. Review and revise regulations to support compatible commercial enterprises on farms (signage, value added production, agri-tourism, etc.).

C. Conduct annual outreach to farmers and landowners on local agriculture-related regulations, tax exemptions, conservation options, etc.

D. Assign responsibility to Ag Commission to be actively up-to-date on new technologies and trends that make small-acre farming viable (high tunnels, hydroponics, etc.) and recommend updates to regulations accordingly.

	A	B	C	D
Which strategy is most relevant to Mansfield?	**9**	4	4	2
Which strategy will have the most impact here?	5	**6**	5	1
Which strategy are you most excited about?	4	**6**	4	2
If you could only prioritize one strategy, which one would it be?	**10**	7	6	2

The Town connects farmers with information and resources

Strategies

A. Organize/host/co-host events for farmers that connect them with resources available (eg. NRCS, DOAG, Farm Bureau, UConn Extension, CT Farmland Trust, American Farmland Trust, etc., including resources that can provide information and cost-share assistance on specific agriculture practices).

B. Update Town website to contain information on events, resources, and opportunities offered by organizations relevant to agriculture in Mansfield. (Partner with AGvocate to obtain information on a regular basis.)

C. Partner with UConn Extension to pursue improving access to information for farmers that will serve Mansfield as well as the state.

D. Partner with UConn Extension to explore improving usability of NRCS database of best practices.

	A	B	C	D
Which strategy is most relevant to Mansfield?	**10**	8	3	0
Which strategy will have the most impact here?	**7**	**7**	4	0
Which strategy are you most excited about?	**8**	5	4	0
If you could only prioritize one strategy, which one would it be?	**10**	9	5	0

UConn is engaged in the viability of Mansfield agriculture

Strategies

A. Invite UConn participation (non-voting, ex officio) on the Agriculture Committee (consider staff and student seat).

B. Identify & connect with "non-agriculture" resources at the University applicable to agriculture: (e.g. Landscape Architecture for large landscape planning, mapping; Researchers to work with Mansfield to quantify water needs; relevant student clubs).

C. Partner with UConn to develop and co-host events that support agriculture in the region.

D. Partner with UConn to fill value-added processing gap in the regional food system. (UConn is being considered as a site for a Food Innovation Center.)

E. Establish relationship with career services to connect interested students with work opportunities on local farms. Engage student clubs. Identify potential for sharing costs and insurance.

F. Pursue concept of leasing UConn land to farmers and/or using UConn land to incubate new farmers.

G. Pursue preservation of UConn agriculture land (this requires participation at the state level).

	A	B	C	D	E	F	G
Which strategy is most relevant to Mansfield?	1	1	4	**9**	3	1	4
Which strategy will have the most impact here?	0	1	2	**7**	3	0	5
Which strategy are you most excited about?	0	0	2	**8**	3	1	6
If you could only prioritize one strategy, which one would it be?	0	0	3	**9**	3	2	6

Appendix F:
Focus Group Worksheets

Agriculture is integrated into Mansfield's identity: Engage & Educate the Public

Name (optional):_____

Choose one strategy from the list below (A –D) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Share information on agriculture-related activities, products, and experiences through articles and websites (regular articles in local papers such as The Chronicle featuring agriculture and showcasing farms).

B. Educate residents about town policies applicable to agriculture through contests in the paper, feature articles on policies in relation to agriculture issues on town's website and in the papers, local public access program on town policies and agriculture issues, study of impacts of town policies and report results, article in town report.

C. Gather information on attitudes of residents toward agriculture through surveys and report findings on a regular basis (annually).

D. Increase visibility of local/regional agriculture through direct action (signage, publicity, activities, awards, farm-to-school, feature local products at events).

Thoughts/Comments:

Agriculture is integrated into Mansfield's identity:
Engage & Educate Municipal Employees, Commissions and Boards

Name (optional):_____

Choose one strategy from the list below (A –D) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Develop training to educate town officials, key decision-makers, and committee members on the role of agriculture in the community, the multiple values of agriculture to the Town, and challenges faced by farmers. (Including information on how decisions-making affects agriculture. Repeat training annually and make it required.)

B. Allocate space for, and invite, farmers to serve on all Town commissions and boards.

C. Document current revenues and expenses on a land use basis through a Cost of Community Services (COCS) study.

D. Integrate agriculture throughout the updated Plan of Conservation and Development (POCD) (not just in a section on agriculture).

Thoughts/Comments:

Agriculture is integrated into Mansfield's identity:
Economic Development / Investment in Agriculture

Name (optional):_____

Choose one strategy from the list below (A –E) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Invest in Storrs Farmers Market improvements.

B. Attract and support agriculture-related businesses including agri-tourism. (Possible creation of industrial zone dedicated to infrastructure that would support agriculture-related businesses (inputs, processing, aggregation, distribution, food waste.)

C. Direct support to farmers. (Sponsor trainings, give out small grants, provide marketing support through signage/brochures/other promotion, etc.)

D. Improve access to farmland. (Identify small acreage land that can be farmed, prioritize new farmers for some town-owned land, farm restoration.)

E. Commit municipal funds and support to farmland preservation. (Budget line item for farmland protection, explore transfer of development rights, explore additional state and federal matching grants.)

Thoughts/Comments:

The Town has regulations that support agricultural viability

Name (optional):_____

Choose one strategy from the list below (A –D) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Review and revise regulations that effect farm production and sales (off-site signage, water use, waste management, parking, etc.).

B. Review and revise regulations to support compatible commercial enterprises on farms (signage, value added production, agri-tourism, etc.).

C. Conduct annual outreach to farmers and landowners on local agriculture-related regulations, tax exemptions, conservation options, etc.

D. Assign responsibility to Ag Commission to be actively up-to-date on new technologies and trends that make small-acre farming viable (high tunnels, hydroponics, etc.) and recommend updates to regulations accordingly.

Thoughts/Comments:

The Town connects farmers with information and resources

Name (optional):_____

Choose one strategy from the list below (A –D) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Organize/host/co-host events for farmers that connect them with resources available (eg. NRCS, DOAG, Farm Bureau, UConn Extension, CT Farmland Trust, American Farmland Trust, etc., including resources that can provide information and cost-share assistance on specific agriculture practices).

B. Update Town website to contain information on events, resources, and opportunities offered by organizations relevant to agriculture in Mansfield. (Partner with AGvocate to obtain information on a regular basis.)

C. Partner with UConn Extension to pursue improving access to information for farmers that will serve Mansfield as well as the state.

D. Partner with UConn Extension to explore improving usability of NRCS database of best practices.

Thoughts/Comments:

UConn is engaged in the viability of Mansfield agriculture

Name (optional):_____

Choose one strategy from the list below (A –G) to answer the following questions:

1. **Which strategy is most relevant to Mansfield?** _____
2. **Which strategy will have the most impact here?** _____
3. **Which strategy are you most excited about?** _____

Strategies

A. Invite UConn participation (non-voting, ex officio) on the Agriculture Committee (consider staff and student seat).

B. Identify & connect with "non-agriculture" resources at the University applicable to agriculture: (e.g. Landscape Architecture for large landscape planning, mapping; Researchers to work with Mansfield to quantify water needs; relevant student clubs).

C. Partner with UConn to develop and co-host events that support agriculture in the region.

D. Partner with UConn to fill value-added processing gap in the regional food system. (UConn is being considered as a site for a Food Innovation Center.)

E. Establish relationship with career services to connect interested students with work opportunities on local farms. Engage student clubs. Identify potential for sharing costs and insurance.

F. Pursue concept of leasing UConn land to farmers and/or using UConn land to incubate new farmers.

G. Pursue preservation of UConn agriculture land (this requires participation at the state level).

Thoughts/Comments:

Appendix G:
Phone Interviews

The following is a list of people who were interviewed as part of the development of the Mansfield Agriculture Strategy.

Betsy Paterson, Mayor, Mansfield

Dennis Pierce, UConn, Director of Dining Services

Elisabeth Moore, CT Farmland Trust, Director of Conservation

Greg Weidemann, UConn College of Agriculture and Natural Resources, Dean

Jennifer Kaufman, Town of Mansfield, Natural Resources and Sustainability Coordinator

Jiff Martin, CT Cooperative Extension, Associate Extension Educator for Sustainable Food Systems

Jim Gooch, CT Farmland Trust, Executive Director

Jim Pomeroy, EO Smith High School, Director of Agricultural Education

Joan Nichols, Director of Member Relations and Community Outreach, CT Farm Bureau

John Guszkowski, Agvocate

Joyce Meader, CT Cooperative Extension, Dairy/Livestock Educator

Joyce Okonuk, First Selectman, Town of Lebanon

Julia Cartabiano, UConn Spring Valley Farm, Farm Manager

Kathy Kotula, Mansfield Farmer

Kip Kolesinskas, Private Soil Science Consultant (retired from CT NRCS)

Laura Cruickshank, UConn Master Planner

Lisa Bassani, Working Lands Alliance, Project Director

Mary Holz-Clause, UConn, Vice President for Economic Development

Mathew Hart, Town Manager, Mansfield

Maureen Nicholson, Pomfret, CT, First Selectman

Phil Chester, Town of Lebanon, Town Planner

Tom Callahan, UConn Vice President for Bioscience CT

Tony Kotula, Mansfield Farmer

Appendix H:
UConn College of Agriculture and Natural Resources Land Use Task Force Report

University of Connecticut

College of Agriculture and Natural Resources

Land Use Task Force Report

September 2006

Table of Contents

Foreword

Very few individuals, even within the CANR (College of Agriculture & Natural Resources), appreciate the extent and variety of lands currently managed and operated by the College. In 1880 Charles and Augustus Storrs offered the original gifts of 170 acres of land and $5,000 in cash. This led to the establishment of the Storrs Agricultural School, and eventually the University of Connecticut. Since then CANR has benefited from numerous acquisitions and endowments. The College currently manages all of these lands, either directly through the Department of Farm Services or through its appropriate academic departments. At present, all of the College's land is used in support of its overall mission, which is to develop knowledge and disseminate it through its three academic functions of teaching, research and outreach education.

In 2005, it was decided to record the extent and usage of the land currently under the management of the CANR. Furthermore, the recent establishment of CLEAR (Center for Land Use, Education & Research) within EXT & NRME in the College meant the committee could call on their GIS (Geographic Information System) resources to produce a series of accurate and informative maps which greatly improved the value of the report.

Members of the CANR, Land Use Task Force:

Sandra Bushmich	(PVS)
Michael Darre	(ANSC)
Ian Hart	(Chair, CANR)
Roy Jeffrey	(EXT)
Mary Kegler	(FS)
Mary Musgrave	(PLSC)
Stephen Olsen	(PLSC)
David Schroeder	(NRME)
Mark Westa	(PLSC)

The committee is particularly grateful to Daniel Civco and Jason Parent for producing the high quality maps.

DEPARTMENT OF ANIMAL SCIENCE

AND

DEPARTMENT OF FARM SERVICES

CAMPUS FARM
(Appendices C, D and E)

Overview:

The Campus Farm is located in the northeastern part of the Storrs campus and is jointly managed by ANSC and FS. It is approximately 224.7 acres in total and is comprised of seven distinct areas: Ash Farm, Mink Farm, Mansfield Supply, Cemetery, Kessels, Horsebarn Hill, Valentine Meadow, and various permanent pastures and paddocks. Resource mapping of the Campus Farm show that it includes approximately 30% permanent pasture, 33.5% hay and pasture land, and 36.5% tillable land. Other significant resources on the property include the Nipmuck Trail, a forest management trail, a large wetland area located north of the Agricultural Biotechnology Laboratory, and various small streams.

Arthur Lorentzon Stables

Horsebarn Hill Arena

Current Use:

Currently the Campus Farm has a variety of uses which primarily support the research and instructional activities of ANSC but also provide resources for PLSC and NRME. In addition, this area provides significant recreational, open space and educational benefits that are enjoyed by the University's students and staff, the residents of the Town of Mansfield, and the State of Connecticut in general.

Ash Farm, Mansfield Supply, Mink Farm, Cemetery and Kessels are primarily used to support the dairy cattle, beef cattle, sheep and horses through forage production and nutrient management. Horsebarn Hill is also used to support livestock through nutrient management and the subsequent forage and pasture production. It also contains soil pits that are used by the Department of Plant Science to teach courses in soil science. In addition, there are several small pastures and animal paddocks in this area.

Valentine Meadow

Livestock Unit 1

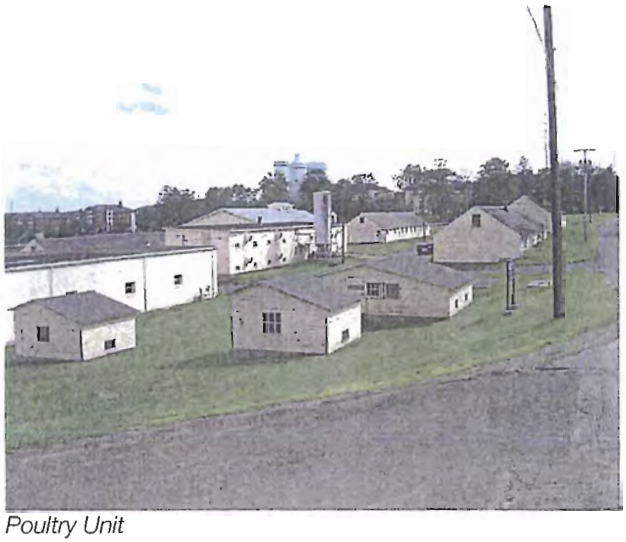
They are located close to the livestock housing units. Valentine Meadow is used to support the UConn livestock through forage production, pasture and nutrient management. It also contains several water wells which are used for monitoring and by NRME for teaching and research purposes.

The livestock farms (Poultry Unit, Frances E. Osborne Kellogg Dairy Center, Cattle Resource Unit, Livestock Unit 1, Livestock Unit 2, Horsebarn Hill Arena and the Arthur L. Lorentzon Stables) are all located on the Horsebarn Hill portion of the Campus Farm. These are all used to support the teaching of 36 ANSC undergraduate courses that require dairy cattle, pigs, sheep, beef cattle, horses and poultry. In addition many, if not all, of these animals are used for research-related activities, such as growth trials, nutritional studies, behavioral studies, reproductive studies and biotechnological research (e.g., cloning). These animals are also used in support of the outreach activities of Extension faculty and to provide extramural activities for the University's undergraduate students.

Cemetery and Kessels acreage will be used for forage production for livestock and for nutrient management from the livestock units. Horsebarn Hill fields will continue to be used for forage production, pasturing livestock (horses, sheep and beef) and for nutrient management from livestock units. Valentine Meadow will be used for similar purposes: forage production, pasture and nutrient management. All of the courses which currently require the use of the animals supported by these lands will continue to be taught in the foreseeable future. Increased student enrollments have placed increased curricula related demands on these animals and the lands supporting them. It is expected that the number of animals supported on these lands will remain the same for the next several years. However, sub-dividing pastures for use by livestock will be needed and watering equipment will be required to support the livestock on pasture.

Poultry Unit

Frances E. Osborne, Kellog Dairy Center



Poultry Unit

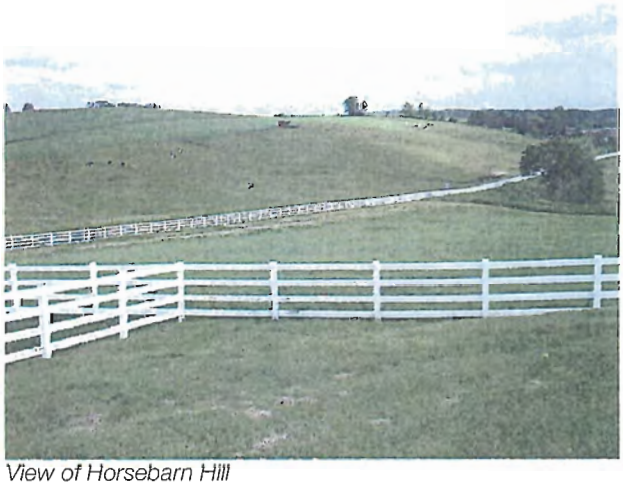
View from Horsebarn Hill Rd.

Future Use:

The Campus Farm will continue to be used in support of the teaching, research and outreach missions of the College of Agriculture and Natural Resources. The Ash Farm, Mansfield Supply, Mink Farm,

Cattle Resource Unit

Frances E. Osborne, Kellogg Dairy Center



View of Horsebarn Hill

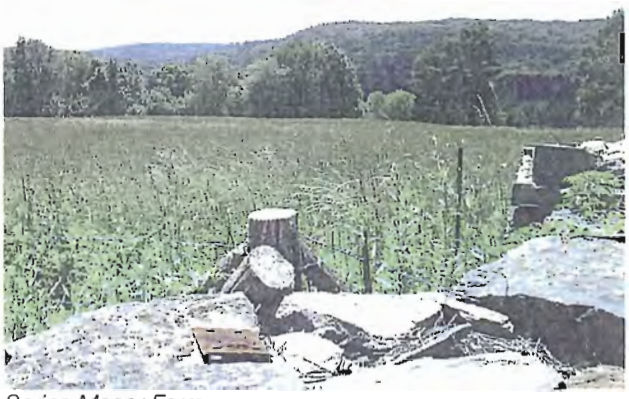
Poultry Unit

View of Horsebarn Hill

Cattle Resource Unit & Livestock Unit from Horsebarn Hill

SPRING MANOR FARM
(Appendices F and G)

Overview:
Spring Manor Farm is located in the northwest part of the main Storrs campus, not far from the Depot campus. It is managed jointly by FS and ANSC. Spring Manor is approximately 221 acres in total and is comprised of three distinct areas: Pink Ravine, Depot and the Spring Manor Farm. Resource mapping of the area show that it includes


Spring Manor Farm


Spring Manor Farm

approximately 49% tillable land, 31% permanent pasture, 13.5% hay/pasture land and 6.5% forest. Other significant resources on the property include water wells that service the University, the Oak Cottage, a State of Connecticut group home, several outbuildings used for storage and a large bunker silo.

Current Use:
Spring Manor has a variety of uses which support the teaching, research and outreach objectives of ANSC and NRME. In addition, this area also provides significant open space and recreational benefits that are enjoyed by the residents of the Town of Mansfield and the State of Connecticut.

Pink Ravine is primarily a permanent pasture with a small hay field and is used to feed a variety of livestock. The horses maintained on the pasture here support the undergraduate teaching program.

The Depot area and Spring Manor Farm are also used to support a variety of livestock through nutrient management, forage production and pasture. Spring Manor,also has several storage buildings used to store hay and farm equipment. A large bunker silo is also located at Spring Manor and is used to store a great deal of the farm's corn silage. The livestock, who are fed the forage grown on these lands and whose manure is used as nutrients for these lands, are used in support of teaching applied management skills, animal behavior and handling and other aspects of livestock management. Over 40 ANSC undergraduate teaching classes are supported by pasture and forage grown on this land.


Spring Manor Farm

Future Use:

Spring Manor lands will continue to be used to support the teaching, research and outreach missions of ANSC and other departments of the CANR. All of the courses which currently require the use of the animals supported by these lands will continue to be taught in the foreseeable future. It is proposed that some of the permanent structures will be removed and/or renovated for storage of hay and other feeds and for livestock housing. The bunker silo will continue to be used for corn silage storage.

Pink Ravine lands will also continue to be used to support livestock production, mainly horses, on the small pasture. Forage production will continue on the small hay field.

The buildings from the poultry unit will eventually be either used for storage or removed and the land made available for pasture/forage production.

The Depot Area will continue to be used for forage production and nutrient management.

Spring Manor Farm

Spring Manor Farm

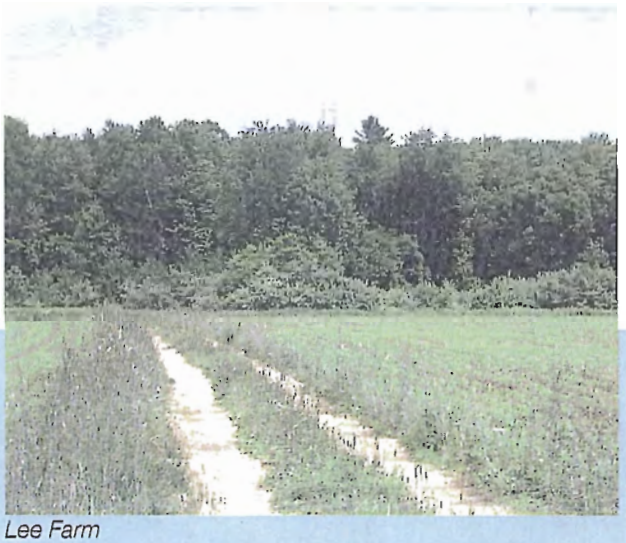
LEE FARM
(Appendices H and I)

Overview:
The Lee Farm is located on the southern side of US Rt. 44 in Coventry approximately 6 miles west of the main campus. It is managed jointly by FS and NRME. The farm is approximately 86 acres in total and is comprised of two distinct areas the tillable portion (26%) and the forest portion (74%).

Current Use:
The Lee Farm supports the teaching, research and extension activities of NRME and ANSC. In addition, the area provides significant open space that is enjoyed by the residents of the Town of Coventry and the State of Connecticut.

The tillable portion of the Lee Farm is used to support a variety of livestock through forage production and nutrient management. The Lee Farm Tract of the UConn Forest is utilized for air pollution and forest micrometeorology field research by NRME.

Future Use:
The Lee Farm will continue to be used in support of the teaching, research and outreach activities of ANSC and NRME. The site is particularly valuable because it is isolated but is only 15 minutes from campus.



Lee Farm

DEPARTMENT OF PATHOBIOLOGY

AND

VETERINARY SCIENCE

SPRING HILL FARM
(Appendices P and Q)

Overview:
Spring Hill Farm occupies approximately 45 acres of land and has six buildings. It is located approximately 2 miles south of the main campus on Route 195. The farm consists of an animal disease research facility (jointly managed by PVS and the Office of Animal Research Services), and surrounding acreage which is primarily used for forage production (managed by FS) and at times used for pasturing ANSC cattle.

The main animal disease research building is the isolation barn (building #1034). There are two identical wings. There is a ventilation system that is regulated by a thermostat. Each wing has four animal holding rooms; three of the rooms have anterooms. The rooms are air conditioned and have exhaust fans and are suitable for a variety of larger animal species (calves, sheep, swine, dogs, ponies, etc). These are the only facilities available on campus for animal disease research using large animal species; the isolated nature of the facility (separate from the Animal Science livestock barns) is important to the nature of animal disease research. All rooms have automatic watering as well as light timers. There is also a locker room with a shower room, a lunchroom, laundry room, office and a safe for storage of controlled drugs. Outside there are two paddocks; each has two pole barns and automatic watering. Each paddock can hold up to twenty-five cattle. Between the two paddocks there is a corral system with a sweep gate and squeeze chute with a scale for weighing cattle. The farm is equipped with a Kubota tractor that has a scraper for cleaning the paddocks.

There are two animal modular buildings (#1135 and #1136). These buildings are rated for Biosafety level 2. The air supply is subject to HEPA filtration in and out. Each building has two large animal holding rooms with two pens in each room and each has two anterooms. These rooms are suitable for a variety of species (calves, sheep, swine, dogs, ponies, wildlife, etc.). They are equipped with automatic waterers, light timers, dosatron medicators, supplemental heat lamps, and digital scales for weighing. There is a fire and smoke alarm system as well as automatic phone dialing system for mechanical room failures.

The Butler Building (#1032) has four large animal holding rooms and is divided in half by a chain link fence. Each room has an anteroom and automatic waterers and exhaust fans for ventilation. There is also a locker room with a shower, laundry room and storage room.

The Sears Barn (#1013) is currently used for equipment and hay storage. It has the capacity to hold approximately 4000 bales of hay.

The Honneger Building (#1033) is used for equipment storage only and is not suitable for animals.


Spring Hill Farm


Spring Hill Farm

Current Use:

Currently the Spring Hill Farm animal facilities are used for large animal disease research, Biosafety levels 2 and lower. The facility has been utilized for various swine, poultry, cattle and other studies, involving infectious diseases of animals, including vaccine studies. The facility is a critical resource for faculty in PVS who wish to do infectious disease research in large animal species. It is also important to the training of graduate students in these areas of research. The current forage crop production is an important resource for the CANR, providing high quality feed for the college's livestock.

Future Use:

Future use of the Spring Hill Farm will be similar to past usage. Additional facility usage can be expected with the growth of the Center for Vaccine Research, which is involved primarily in the development of vaccines for agricultural species.

Spring Hill Farm

DEPARTMENT OF PLANT SCIENCE

PLANT SCIENCE FARMS
(Appendices J, K, P and Q)

Overview:
The Plant Science Farms are located on Route 195, 2 and 4 miles south of the main Storrs campus. They are managed by PLSC and comprise approximately 208 acres in total located in five distinct areas (see below). Resource mapping of the Plant Science Farms show that they include approximately 61% tilled field and pasture area and 39% wooded.

Plant Science Research & Education Facility

Plant Science Research & Education Facility

Other significant resources on the property include an observatory, three irrigation ponds and minor wetland areas.

Current Use:
The farms are used in a variety of ways to support the PLSC mission, the CANR and the University of Connecticut as a whole. Teaching, research, and extension activities of 20+ faculty and professional staff and their associated graduate students in two colleges and eight departments are performed at these farms. These activities are conducted in the areas of turfgrass, ecology, entomology, floriculture, forages, soils, sustainable agriculture, vegetables, weed ecology and control, and woody and herbaceous ornamentals. Courses are taught at these facilities, allowing students to gain hands-on practical experience in their major field of study.

Following is a brief description of each of the farms and their uses:

Research and Education Facility: Currently the Research and Education Facility is primarily used as a field station for the research, extension, and education activities of faculty and professional staff in Plant Science, Natural Resources, Cooperative Extension, Physics, and Ecology and Evolutionary Biology. It is 153 acres. The oldest, continually operating National Weather Service cooperative weather station in Connecticut is located at the Research and Education Facility, accumulating daily data from 1888 to present. The Research and Education Facility has three

Plant Science Research & Education Facility

Plant Science Research & Education Facility

buildings: the main building with its three attached greenhouses (totaling 5,500 sq. ft.), one equipment storage building, and the Turf Resource Unit. Students in numerous courses learn hands-on practical experience through class laboratory sections and field demonstrations in this area.

Hicks-Burr Nursery: The Hicks-Burr Nursery is a 5-acre teaching nursery started in 1986. The Hicks-Burr Nursery provides hands-on experience for our two- and four-year students, and is one of only a few teaching nurseries in the country associated with a university. Students learn nursery production methodologies and practices through laboratory exercises. The Nursery is also used to grow and evaluate plants for ornamental purposes and to provide plants to the campus for use in the plant material courses.

Plant Science Research & Education Facility

Plant Science Research & Education Facility

Certified Landscape Technician Testing Site: In 1999, the Connecticut Grounds Keepers Association approached the University of Connecticut College of Agriculture and Natural Resources about establishing a permanent Certified Landscape Technician testing site. Many test sites are located on college campuses because of the natural tie-in with the education and training done by the schools. UConn agreed to provide a six-acre field at the Research and Education Facility to host the exam, and has become the only site in New England to offer this professional exam. Students in the Department of Plant Science are extensively involved with the event, held annually in October. A small observatory, placed near this site by the Physics Department in 1971, is still in operation.

Plant Science Conifer Collection: Adjacent to the Research and Education Facility is a 10-acre ornamental evergreen research nursery that contains the largest witches' broom collection of dwarf conifers in America. Over 40 varieties were named and introduced to the industry by the late Dr. Sidney Waxman. In addition to serving as a germplasm source, the nursery provides a unique opportunity to view the mature growth forms of these unusual plants. As such, it enjoys use as an educational and demonstration site for Plant Science courses, extension activities, and outside professionals in the industry.

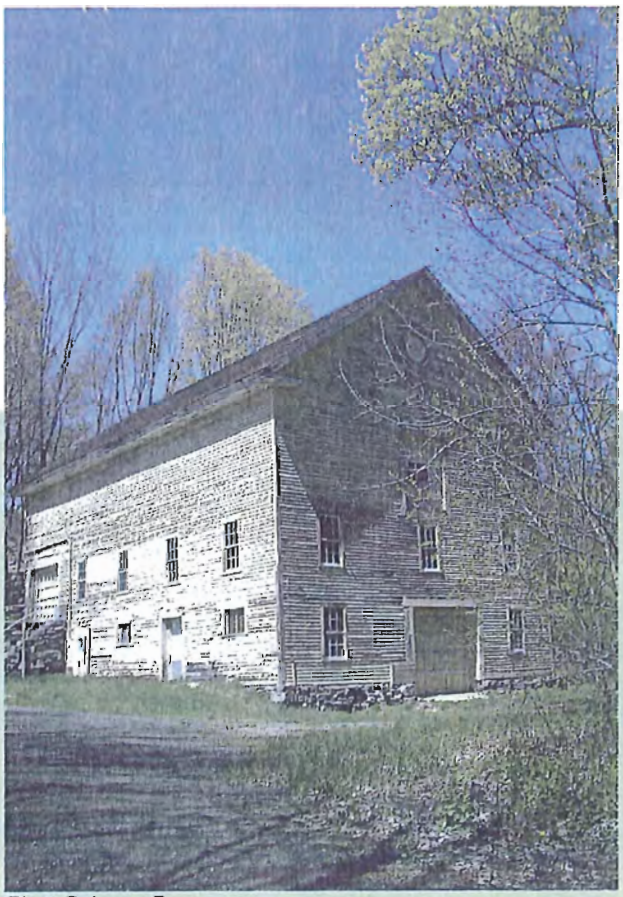
Plant Science Orchard

Plant Science Orchard: Currently the Orchard (33.5 acres) is primarily used for education and demonstration purposes. Where trees have been removed it is used for corn silage production by Farm Services to support ANSC livestock. Several PLSC faculty use the Orchard for research-related activities such as apple integrated pest management. In addition, this area is used by extension personnel to teach pruning techniques.

Future Use:

It is expected that in the near future the PLSC farms will continue to be used in much the same manner. It is anticipated that all of the courses that currently require this facility will continue to be taught. It is also expected that current research efforts or similar efforts will continue here. In addition new research efforts in the areas of turfgrass pathology, ornamental horticulture, and constructed soils will place additional demands on this area. Extension efforts related to turfgrass, ornamental horticulture, and environmental quality will also continue to use this area for outreach education and demonstrations. There is interest in converting the PLSC Conifer Collection from a nursery into a specialized arboretum highlighting the introductions of the late Dr. Sidney Waxman, while offering a leisure recreation opportunity for town residents. Future plans for the Orchard include establishing a demonstration/outreach center focusing on turf landscaping and sustainability issues.

National Weather Service, Cooperation Weather Station



Plant Science Barn

Plant Science Conifer Collection

DEPARTMENT OF NATURAL RESOURCES

MANAGEMENT AND ENGINEERING

(University of Connecticut Forest)

UNIVERSITY OF CONNECTICUT FOREST

(Appendices H, I, L, M, N, O, P, Q, R and S)

Overview:

The UConn Forest is located primarily in Mansfield, in close proximity to the campus, and also in South Willington and Coventry.

Current Use:

Currently the UConn Forest is used to support educational programs in NRME and the University of Connecticut. The primary goals of the UConn Forest Management Program are:

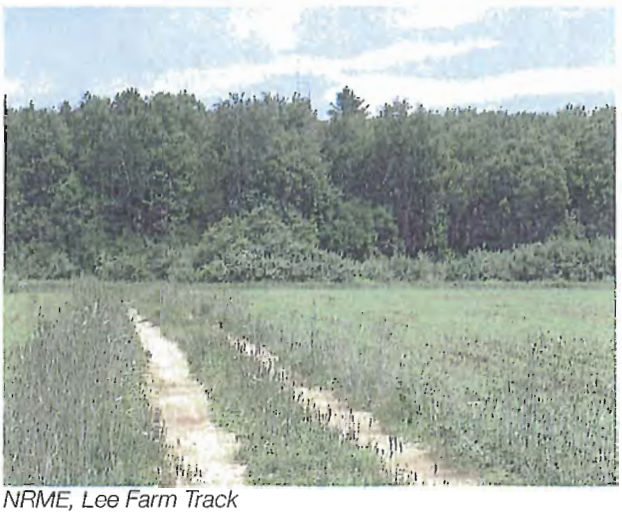
1. To maintain the health, productivity and natural biological diversity of the forest ecosystem.
2. To demonstrate state-of-the-art forest stewardship practices appropriate for private forest landowners, land trusts and municipal forests, including practices designed to improve wildlife habitat, produce high value wood products, protect water quality, protect rare or endangered species, enhance recreational opportunities and demonstrate innovative alternative income opportunities.
3. To facilitate research opportunities for faculty and graduate students.
4. To create an outdoor classroom where University students and Cooperative Extension clientele can develop skills and gain practical experience in renewable natural resource conservation.
5. To maintain self-sufficiency.

In addition to the above uses, the UConn Forest is extensively utilized by UConn students, faculty, and citizens of Mansfield and Willington for passive recreation. It also complements the open space holdings of both towns. Since the Fenton River runs through the Moss, Fenton and Spring Hill Tracts, the UConn Forest is important in helping to maintain water quality.

Following is a brief description of each of the Tracts and their current uses:

Fenton Tract: (Appendices L, M). The 440 acre Fenton Tract is the largest contiguous parcel of the UConn Forest. It borders Old Turnpike Road to the north, the Fenton River to the east, Gurleyville Road to the south and various sections of Moulton Road and the UConn campus to the west. The Fenton Tract is drained by five main intermittent streams that flow northeast into the Fenton River, which flows in turn into the Natchaug River.

Like most of Connecticut, the entire tract was cleared for agricultural use at various times over the past 300 years. With the exception of a six acre meadow bordering the Fenton and a small portion of the Warren Farm, the entire tract is now forested. Most of the forest is in mixed hardwoods with occasional stands of white pine and hemlock. As one of the largest contiguous forests in the Storrs area, the Fenton Tract has considerable local importance environmentally. It, along with the 320 acre Moss Tract to the north, forms the basis of an important



NRME, Lee Farm Track

NRME, UConn Forest

local habitat corridor that includes more than 4 miles of riparian habitat along the Fenton River and Eldridge Brook. The Fenton Tract has been utilized for decades by NRME and other departments for research, teaching and extension education. Recreational use is heavy, primarily by students, faculty and neighbors for hiking, fishing and mountain biking. The Nipmuck Trail, part of the Connecticut Blue Trail hiking system runs some 10,000 feet along the Fenton River from Gurleyville Road to Old Turnpike Road.

There have been several red pine salvage operations on the Fenton Tract. Silvicultural treatments have been applied to several areas to demonstrate white pine regeneration and hardwood management techniques. Augswitcz's meadow and an area bordering Old Turnpike Road have been managed for wildlife, particularly woodcock, grouse and turkey.

Some examples of classes using the Fenton Tract are Dendrology, Forest Management, Wildlife Management, Wildlife Techniques, Summer Flora,

NRME, UConn Forest

Fisheries Management and others. For details on individual stands and their management plans, see the Fenton Tract Plan of Conservation and Management in the Appendix L.

Moss Tract: (Appendices N, O). The Moss Tract consists of approximately 320 acres of forested land located in Willington on both sides of Daleville Road and extending southward to Route 44. It includes nearly three quarters of a mile of the Fenton River: another quarter mile of the river forms its western boundary. Also on the property is 4,000 feet of Eldridge Brook, a natural hatchery for native brook trout. The Moss Tract has been managed by NRME since 1969 for teaching, research and extension education and is presently being used for field instruction in Dendrology, Forest Management, Forest Ecology, Fisheries Management and Wildlife Management Techniques.

Several forest management projects including a red pine salvage and white pine regeneration demonstration site are located on the Moss Tract. Also, permanent vegetative study plots have been established in several stands. Although not well suited to recreational use, because of the lack of hiking trails a network of illegal ATV trails and "dirt" bike trails has been established which is resulting in erosion and wildlife disturbance problems. In addition, because of the isolated nature of the site, a considerable amount of illegal dumping has occurred.

Spring Hill Tract: (Appendices P, Q). This 187 acre forest lies south of Storrs between Chaffeeville Road and Route 195. It includes nearly three-fourths of a mile frontage on Chaffeeville Road and abuts UConn farm land with frontage on Route 195. The tract is dominated by timber sized, second growth deciduous trees in the 60 to 90 year age class. As one of the largest contiguous forests in the Storrs area, this tract has considerable local importance environmentally. It abuts the Army Corps of Engineers flood control land to the east, which in turn bounds the Mansfield Hollow State Park and Reservoir. The 100+ acre abutting tract to the north called the Fifty Foot Preserve is owned by the Town of Mansfield.

The Spring Hill Tract has been utilized by the Forest Management class and has a hardwood management demonstration site. An experiment on yellow-poplar regeneration is being conducted on the tract.

Lee Farm Tract: (Appendices H,I). The 63 acre Lee Farm Tract of the UConn Forest is utilized for air pollution and forest micrometeorology field research by NRME on an almost continuous basis. It is located in Coventry on Route 44 and we are currently using it to measure mercury deposition from the atmosphere to the forest and to measure aerosol dispersion processes in the air over Connecticut forests. We plan to continue these projects for several more years and then expand to other air pollutants. We also have plans to use the site to study wind and tree canopy movement dynamics. The site is very valuable for this type of research because it is locally isolated but still within 15 minutes of campus.

Infrastructure at the site includes:

- a semi-permanent instrument tower (35m tall) in the forest for measurements in and above the forest canopy.
- Line power.
- Security gates and fences to limit access to the tower.
- Equipment/electronics shed.
- Inventories of the forest resources on the site.

North Eagleville Tract: (Appendices R, S). This tract of approximately 130 acres is predominately occupied by mixed hardwoods. Because of its close proximity to Northwood Apartments and the fact that the Mansfield park, Shelter Falls, borders it on the north makes this tract a popular recreation site. A trail starting in Pink Ravine heads north and joins a trail in Shelter Falls Park. A red pine salvage cut and a hardwood management demonstration site are located in the southern portion of the tract. We have not prepared a formal plan of conservation and management for the North Eagleville Tract.

Future Use:

The UConn Forest will continue to be used to support the teaching, research and extension activities of NRME and the University of Connecticut. Plans of conservation and management have been prepared for the Moss, Spring Hill and Fenton Tracts of the UConn Forest. Future use strategies for the Spring Hill and Fenton Tracts are detailed in the Appendices. The Moss Tract was recently designated as a long-term research forest (UConn Experimental Forest) by the board of trustees. In the near future an 80 acre-parcel will be deeded to the University of Connecticut for inclusion in the Experimental Forest. The new use of the Moss Tract will require a revised management plan. The Lee Farm Tract will continue to be used as a forest meteorology research site. The majority of the North Eagleville Tract will continue to be managed primarily as a recreation site. Assuming the tract remains undisturbed, it will also provide an excellent demonstration site for hardwood management.

NRME, UConn Forest

NRME, UConn Forest

SUMMARY: CANR LAND HOLDINGS AND STEWARDSHIP

Parcel	Description	Current/Future Use	Acreage
Campus Farm (F) (Mansfield)	Permanent pasture; hay & pasture land; tillable land	*Current:* Support research & instructional activities *Future:* Same	224.7
Spring Manor Farm (W) (Mansfield)	Tillable land; permanent pasture; hay/pasture; forest	*Current:* Teaching, research, outreach activities, open space and recreation. *Future:* Same	221.0
Lee Farm (W) (Coventry)	Tillable land and forest	*Current:* Teaching, research, extension activities. Future: Same	86.0
Spring Hill Farm (F) (Mansfield)	Forage production; pasturing	*Current:* Research *Future:* Same	45.0
Plant Science Farms (F) (Mansfield)	Tilled field & pasture; forest	*Current:* Teaching, research, outreach *Future:* Same	208.0
Fenton Tract (F) Mansfield	Forest	*Current:* Support education programs related to forest ecosystems, forest stewardship, outdoor classroom Future: Same	440.0
Moss Tract (F) Willington	Forest	Same as above	320.0
Spring Hill Tract (F) Mansfield	Forest	Same as above	187.0
No. Eagleville Tract (W) Mansfield	Forest	Same as above	130.0
Moss Sanctuary (F) Mansfield	Forest	*Current:* Passive Recreation *Future:* Same	157.0
Total			2018.7

Appendix I:
Mansfield Agriculture Ordinances and Tax Abatements

Town of Mansfield
Code of Ordinances
"An Ordinance Regarding the Right to Farm"
Adopted July 23, 2012
Effective

Section 1. Title.
This chapter shall be known and may be cited as the "Right to Farm Ordinance."

Section 2. Legislative Authority.
This chapter is enacted pursuant to sections 1-1, 7-148 and 19a-341(a) and (c) of the Connecticut General Statutes.

Section 3. Findings and Purpose.
Agriculture plays a significant role in the heritage and future of the Town of Mansfield. The Town Council of the Town of Mansfield recognizes the importance of agriculture and farming to the quality of life, heritage, public health, scenic vistas, tax base, wetlands and wildlife, and local economy of the Town of Mansfield. This ordinance is intended to encourage the pursuit of agriculture and farming, promote agriculturally based economic opportunities, and protect farmland within the Town of Mansfield by allowing agricultural uses and related activities to function with minimal conflict with abutting property owners and Town of Mansfield agencies.

It is the declared policy of the Town of Mansfield to conserve, protect and encourage the maintenance and improvement of agricultural land for the production of food and other agricultural products and for its natural and ecological value, while being respectful of the land and conscious of potential impacts on natural resources. It is also determined that whatever the effect may be on others through generally accepted agricultural practices is offset and ameliorated by the benefits of local agriculture and farming to the neighborhood and to the people of the Town of Mansfield.

Section 4. Definitions.
The terms "agriculture and "farming" shall have all those meanings set forth in section 1-1(q), as amended, of the Connecticut General Statutes.

Section 5. Right to Farm.

Notwithstanding any general statute or municipal ordinance or regulation pertaining to nuisances to the contrary, no agricultural or farming operation, place, establishment or facility within the Town of Mansfield, or any of its appurtenances, or the operation thereof shall be deemed to constitute a nuisance, either public or private, due to alleged objectionable (1) odor from livestock, manure, fertilizer or feed, (2) noise from livestock or farm equipment used in normal, generally accepted farming procedures, (3) dust created during plowing or cultivation operations, (4) use of chemicals, provided such chemicals and the method of their application conform to practices approved by the Connecticut Commissioner of Energy and Environmental Protection

or, where applicable, the Commissioner of Public Health, or (5) water pollution from livestock or crop production activities, except the pollution of public or private drinking water supplies, provided such activities conform to acceptable management practices for pollution control approved by the Commissioner of Energy and Environmental Protection; provided such agricultural or farming operation, place, establishment or facility has been in operation for one year or more and has not been substantially changed, and such operation follows generally accepted agricultural practices. Inspection and approval of the agricultural or farming operation, place, establishment, or facility by the Commissioner of Agriculture or his designee shall be prima facie evidence that such operation follows generally accepted agricultural practices.

Section 6. Exceptions.

The provisions of this chapter shall not apply whenever a nuisance results from willful or reckless misconduct in the operation of any such agricultural or farming operation, place, establishment or facility, or any of its appurtenances.

Town of Mansfield
Code of Ordinances
"An Ordinance Regarding Farm Tax Abatements"
Adopted July 23, 2012
Effective

Section 1. Title.
This chapter shall be known and may be cited as the "Farm Tax Abatements Ordinance."

Section 2. Legislative Authority.
This chapter is enacted pursuant to sections 7-148 and 12-81m of the Connecticut general Statutes.

Section 3. Findings and Purpose.
The Town Council of the Town of Mansfield believes that agriculture and farming are vitally important to the quality of life, environment, and economy of the Town of Mansfield, and wishes to encourage farming in the Town.

Connecticut General Statutes §12-81m allows towns to abate up to fifty percent of the property taxes on any dairy farm, fruit orchard, vegetable farm, nursery, or nontraditional farm, including a vineyard for growing of grapes for wine, and to recapture abated taxes in certain circumstances in the event of a sale of the property.

The Town Council wishes to establish a mechanism whereby such tax relief may be granted to dairy farms, fruit orchards, vegetable farms, nurseries, or vineyards for growing of grapes for wine, as provided by law

Section 4. Property Tax Abatement.
Upon approval by the Tax Assessor and affirmative vote by the Town Council, the Town may abate up to fifty percent (50%) of the property taxes for any such dairy farm, fruit orchard, vegetable farm, nursery or vineyard.

a. Any abatement shall continue in force for five years, or until such time as the dairy farm, fruit orchard, vegetable farm, nursery, or vineyard for growing of grapes for wine is sold, or until such time as the property ceases to be a dairy farm, fruit orchard, vegetable farm, nursery, or vineyard for growing of grapes for wine, or if any such business is deemed ineligible for an abatement based on a determination by the Tax Assessor that the beneficiary of the abatement has failed to show that they have derived at least fifteen thousand dollars in gross sales from such business or incurred at least fifteen thousand dollars in expenses related to such operation, with respect to the most recently completed taxable year of such business. Otherwise, any such abatement may be renewed for an additional five years by vote of the Town Council based on a proper reapplication made to the Office of the Tax Assessor at or near the end of the preceding five year term pursuant to the requirements for any initial application as set forth in this chapter.

b. The property owner receiving the abatement must notify the Tax Assessor and Town Council in writing within thirty (30) days of the sale of the property or the cessation of operations as a dairy farm, fruit orchard, vegetable farm, nursery, or vineyard for growing of grapes for wine.

Section 5. Application for Property Tax Abatement.

The Town of Mansfield may abate property taxes on dairy farms, fruit orchards, vegetable farms, nurseries, or vineyard for growing of grapes for wine, and recapture taxes so abated in the event of sale, in accordance with the following procedures and requirements:

a. Any action by the Town concerning the abatement of property taxes for dairy farms, fruit orchards, vegetable farms, nurseries, or vineyard for growing of grapes for wine, or the recapture of any taxes so abated, shall be done pursuant to Connecticut General Statutes §12-81m, as such statute may be amended from time to time.

b. Any request for an abatement must be made by application to the Office of the Tax Assessor of the Town of Mansfield by the record owner of the property, or a tenant with a signed, recorded lease of at least three years, which lease requires the tenant to pay all taxes on any dairy farm, fruit orchard, vegetable farm, nursery, or vineyard for growing of grapes for wine, as part of the lease.

c. In order for an abatement to apply for the tax year beginning July 1, 2013, the application must be submitted no later than October 1, 2012. For any tax year thereafter, the application must be submitted by October 1 of the preceding year.

d. An abatement is only available for dairy farms, fruit orchards, vegetable farms, nurseries, or a vineyard for growing of grapes for wine. The applicant must provide the Assessor with evidence to support the status of the property as a dairy farm, fruit orchard, vegetable farm, nursery, or a vineyard for growing of grapes for wine. In determining whether a property is a dairy farm, fruit orchard, vegetable farm, nursery, or a vineyard for growing of grapes for wine, the Assessor shall take into account, among other factors: the acreage of the property; the number and types of livestock, vegetable production, fruit trees or bushes on the farm; the quantities of milk or fruit sold by the facility; the gross income of the farm derived from dairy, nursery, vegetable, or orchard related activities; the gross income derived from other types of activities; and, in the case of a dairy farm, evidence of Dairy Farm or Milk Producing Permit or Dairy Plant or Milk Dealer Permit, as provided by Connecticut General Statutes § 22-173. All residences and building lots are excluded, but any building for seasonal residential use by workers in an orchard which is adjacent to the fruit orchard itself shall be included.

e. In addition to the aforementioned evidence that must be submitted to the Assessor, the applicant must also provide a notarized affidavit certifying that the applicant derived at least fifteen thousand dollars in gross sales from such eligible business or incurred at least fifteen thousand dollars in expenses related to such operation, with respect to the most recently completed taxable year of such business. For purposes of this Chapter, such eligible business" shall cumulatively include all properties upon which an individual entity is doing

business as a dairy farm, fruit orchard, vegetable farm, nursery, or a vineyard for growing grapes for wine, otherwise, any such abatement shall be denied.

Subsequently, in order to retain any such abatement, within thirty days of each annual assessment date in the Town of Mansfield, the applicant must provide such notarized affidavit certifying that the applicant derived at least fifteen thousand dollars in gross sales from such business or incurred at least fifteen thousand dollars in expenses related to such operation, with respect to the most recently completed taxable year of such business. Otherwise, any such abatement shall be terminated by the Assessor with notice to the Town Council.

Section 6. Recapture.

Upon sale of the property, and subject to the authority of the Town Council per this chapter to waive any such payment, the property owner must pay to the Town a percentage of the original amount of the taxes abated, pursuant to the following schedule:

Number of Years Sale Follows Abatement Percentage of Original Amount of Taxes Abated for Given Tax Year Which Must be Paid

More than 10 years, 0%
Between 9 and 10 10%
Between 8 and 9 20%
Between 7 and 8 30%
Between 6 and 7 40%
Between 5 and 6 50%
Between 4 and 5 60%
Between 3 and 4 70%
Between 2 and 3 80%
Between 1 and 2 90%
Between 0 and 1 100%

a. Upon affirmative vote by the Town Council, the Town may waive any of the amounts which would otherwise be owed pursuant to the foregoing recapture provision if the property continues to be used as "farm land," "forest land," or "open space," as those terms are defined in Section 12-107b of the Connecticut General Statutes, after the sale of the property.

b. The taxes owed to the Town pursuant to the recapture provisions of this chapter shall be due and payable by the record property owner/grantor to the Town Clerk of Mansfield at the time of recording of her/his deed or other instrument of conveyance. Such revenue received by the Town Clerk shall become part of the general revenue of the Town. No deed or other instrument or conveyance which is subject to the recapture of tax, as set forth herein, shall be recorded by the Town Clerk unless the funds due under the recapture provisions herein have been paid, or the obligation has been waived pursuant to the immediately preceding subsection herein.

c. The Tax Assessor shall file, not later than 30 days after abatement is approved by the Town Council, with the Town Clerk, a certificate for any such dairy farm, fruit orchard,

vegetable farm, nursery, or vineyard land that has been approved for a tax abatement, which certificate shall set forth the date of initial abatement and the obligation to pay the recapture funds as set forth herein. Said certificate shall be recorded in the land records of the Town of Mansfield.

Section 7. Right of Appeal.

Any person claiming to be aggrieved by any action or inaction of the Tax Assessor of the Town of Mansfield regarding this chapter may appeal to the Board of Assessment Appeals of the Town of Mansfield in the manner set forth in Connecticut General Statutes section 12-111, as amended. Appeals from any decision of the Board of Tax Review may be taken to the Superior Court for the Judicial District of Tolland pursuant to Connecticut General Statutes section 12-117a, as amended.

Section 8. Effective Date.

Following its adoption by the Town Council, this Ordinance shall become effective on the twenty-first day after publication in a newspaper having circulation in the Town.

Town of Mansfield
Code of Ordinances
"An Ordinance Providing an Additional Property Tax Exemption for Farm Machinery"
Adopted July 23, 2012
Effective

Section 1. Title.
This Ordinance shall be known and may be cited as "An Ordinance Providing an Additional Property Tax Exemption for Farm Machinery."

Section 2. Legislative Authority.
This Ordinance is enacted pursuant to the provisions of Section 12-91(b) of the Connecticut General Statutes, as it may be amended from time-to-time.

Section 3. Findings and Purpose.
The Town Council of the Town of Mansfield finds that the preservation of farming and farmland is vitally important to retaining Mansfield's rural character and quality of life, as well as promoting economic and environmental sustainability. Therefore, pursuant to *Connecticut General Statutes* § 12-91(b), as amended, the Town of Mansfield seeks to protect, preserve and promote the health, welfare and quality of life of its people by providing an additional tax exemption for farm machinery.

Section 4. Applicability and Benefits.
(a) For a farmer who qualifies for the farm machinery exemption under **Connecticut General Statutes § 12-91**(a), any farm machinery as defined in said subsection 12-91(a) to the extent of an additional assessed value of one hundred thousand dollars ($100,000,00), subject to the same limitations as the exemption provided under said subsection (a), and further subject to the application and qualification process provided in subsection (b), below, shall be exempt from taxation to that extent..

(b) Annually, within thirty days after the assessment date, each individual farmer, group of farmers, partnership or corporation shall make written application to the Assessor for the exemption provided in subsection (a) of this section, including therewith a notarized affidavit certifying that such farmer, individually or as part of a group, partnership or corporation, derived at least fifteen thousand dollars in gross sales from such farming operation or incurred at least fifteen thousand dollars in expenses related to such farming operation, with respect to the most recently completed taxable year of such farmer prior to the commencement of the assessment year for which such application is made, on forms prescribed by the Commissioner of Agriculture. Failure to file such application in said manner and form within the time limit prescribed shall be considered a waiver of the right to such exemption for the assessment year. Any person aggrieved by any action of the Assessor shall have the rights and remedies for appeal and relief as are provided in the general statutes for taxpayers claiming to be aggrieved by the doings of the Assessor.

Town of Mansfield
Code of Ordinances
"An Ordinance Providing a Property Tax Exemption for Farm Buildings"
Adopted July 23, 2012
Effective

Section 1. Title.
This Ordinance shall be known and may be cited as "An Ordinance Providing a Property Tax Exemption for Farm Buildings."

Section 2. Legislative Authority.
This Ordinance is enacted pursuant to the provisions of Section 12-91(c) of the Connecticut General Statutes, as it may be amended from time-to-time.

Section 3. Findings and Purpose.
The Town Council of the Town of Mansfield finds that the preservation of farming and farmland is vitally important to retaining Mansfield's rural character and quality of life, as well as promoting economic and environmental sustainability. Therefore, pursuant to *Connecticut General Statutes* § 12-91(c), as amended, the Town of Mansfield seeks to protect, preserve and promote the health, welfare and quality of life of its people by providing a tax exemption for certain farm buildings.

Section 4. Applicability and Benefits.
(a) For a farmer who qualifies for the farm machinery exemption under **Connecticut General Statutes § 12-91**(a), any building used actually and exclusively in farming, as "farming" is defined in Section 1-1 of the Connecticut General Statutes, except for any building used to provide housing for seasonal employees of such farmer, upon proper application being made in accordance with this section, shall be exempt from property tax to the extent of an assessed value of one hundred thousand dollars.

(b) This exemption shall not apply to any residence of any farmer.

(c) Annually, within thirty days after the assessment date, each individual farmer, group of farmers, partnership or corporation shall make written application to the Assessor for the exemption provided in subsection (a) of this section, including therewith a notarized affidavit certifying that such farmer, individually or as part of a group, partnership or corporation, derived at least fifteen thousand dollars in gross sales from such farming operation or incurred at least fifteen thousand dollars in expenses related to such farming operation, with respect to the most recently completed taxable year of such farmer prior to the commencement of the assessment year for which such application is made, on forms prescribed by the Commissioner of Agriculture. Failure to file such application in said manner and form within the time limit prescribed shall be considered a waiver of the right to such exemption for the assessment year. Any person aggrieved by any action of the Assessor shall have the rights and remedies for appeal and relief as are provided in the general statutes for taxpayers claiming to be aggrieved by the doings of the Assessor.

Appendix J:
Mansfield Farmer Survey

Mansfield Farmer Survey

Mansfield Farmers were invited to complete a survey to update the Town's understanding of current agricultural Production in Mansfield. A link to the electronic survey was sent to each Mansfield producer in an email from Jennifer Kaufman, Mansfield's Natural Resources and Sustainability Coordinator.

How many acres do you farm?

Survey respondents reported a total of 1,074 acres farmed with the smallest farm at 3.24 acres and the largest farm at 700 acres. The median farm size was 90.75 acres.

What mix of products did you produce last year (2012)?

Survey respondents reported a broad range of products produced, including

Annuals	Hanging Baskets	Nursery Stock
Apples	Hay	Peaches
Asparagus	Herbs	Pears
Berries	Honey	Perennials
Blueberries	Horse Boarding	Raspberries
Cover Crops	Jam	Rhubarb
Eggs	Lumber	Shrubs
Fire Wood	Milk	Vegetables
Flowers	Mums	

Approximately how much revenue did you earn overall from your farm operation in 2012?

Categories	# of Respondents
Less than $1,000	1
$1,000 to 2,499	0
$2,500 - $4,999	1
$5,000 - $9,999	0
$10,000 – 24,999	1
$25,000 – 49,999	0
Over $50,000	1
No Response	2

What sales channels did you sell through in 2012?

Categories	# of Respondents
Farmstand	2
Farmers' market	0
U-pick	0
CSA	0
Direct to restaurants or retailers	2
Wholesale to aggregators or distributors	2
Other (please describe):	1 Donated to Soup Kitchen

What mix of products do you expect to produce this year (2013) and approximately how much of each? What sales channels do you expect to sell through in 2013?

Respondents plant to produce a similar mix of products and use the same sales channels. Information about volume of products was not provided.

Are you planning to expand, contract, or maintain the size of your farm operation over the next five years?

Categories	# of Respondents
Expand	2
Maintain Current Size	2
Contract	2

How many people are employed by your farm (including yourself)?

Survey respondents reported a total of 21 full-time employees (with 20 reported by one operation) and 9 part-time employees. Three (half) of the respondents reported no employees.

Appendix K:
Relevant Partners and Projects

Relevant Partners and Projects

The following is a summary of some of the regional and state-wide projects and partners relevant to the goals and strategies proposed in the Agriculture Strategy Report. This is not an inclusive list of all organizations and projects related to agriculture in the state but further information on those referenced in the report.

Buy Connecticut Grown

Buy Connecticut Grown (www.buyctgrown.com) is a collaboration of CT NOFA, City Seed, American Farmland Trust, Connecticut Grown (Connecticut Department of Agriculture), University of Connecticut and the Connecticut Farm Bureau. These organizations have gotten together to create a one-stop place for identifying the availability of Connecticut-grown agricultural products and resources for new and existing farmers markets. The site identifies all Connecticut-gown products and what is in season. It allows any producer of Connecticut-grown products to add their business to the listing for free. Once a producer registers their business will be added to the website, including contact information, locations, products and a map showing the location. Businesses can choose a paid membership which includes photos of your operation and a rotating picture with your business name on the website.

Farm map

Another marketing tool with free membership is the Connecticut Farm Map which is a guide to Connecticut's agricultural destinations. The Map identifies and locates agricultural destinations by commodity including: agri-tourism, Christmas trees, farmers markets, farm stand, honey, ice cream, livestock/equine, maple syrup, nursery/greenhouse, orchards, pick-your-own, seafood and wineries.

Regional Agricultural Councils

In 2011, the Connecticut Legislature passed HB 5472, An Act Authorizing Local and Regional Agricultural Councils. The first regional agricultural council was established this spring when the board of the Lower Connecticut River Valley Council of Governments (RiverCOG) voted to create a Regional Agriculture Council to support farming in Middlesex County and promote agriculture-friendly land use and municipal policies. The goals of the regional commission will be similar to a municipal agriculture commission, but allow for the group of 17 communities to "address and resolve some of the bigger concerns of agriculture" as a group rather than duplicate efforts and attempt to align 17 municipal commissions.[i]

Governor's Council for Agricultural Development

The Governor's Council for Agricultural Development is developing a state-wide agricultural strategy plan, *Grow Connecticut Farms* with the overall goal of, creating a roadmap for a richer, more vibrant and more viable agricultural sector in Connecticut.[ii]

The seven 2012 recommendations from the Governor's for Agricultural Development include:

- Study infrastructure gaps and opportunities for the aggregation, light processing, and distribution of Connecticut Grown products.
- Develop and Invest in a comprehensive marketing strategy for Connecticut agriculture.
- Create an agriculture-friendly energy policy that includes agricultural net metering for power production and transmission, and qualification of agricultural anaerobic digestion projects for zero-emissions renewable energy credits.
- Strengthen the state Department of Agriculture and improve coordination among all agencies regulating agricultural businesses.
- Perform a comprehensive review of agricultural labor issues and develop initiatives that provide an adequate workforce for Connecticut farm businesses.
- Increase weight limits on truck loads to be consistent with surrounding states.
- Establish a bridge between the state departments of Agriculture and Education through a dedicated agricultural education coordinator, and develop ways to integrate agriculture into Connecticut's K-12 curriculum.

There are additional recommendations that were made to the Governor's Council and included in the first annual report under appendix 14, *Draft Recommendations for Consideration*. Several of these recommendations are highly relevant to Mansfield's goals and strategies and should be followed, including:

- Earmark state and federal funding to develop a food science program and facility at UConn (Food Innovation Center).
- Create a regulatory environment that promotes energy diversification, efficiency, and resiliency for agriculture.
- Commission a study for the feasibility of a Connecticut Agricultural COOP/Processing Center.
- Hold "on farm" legislative picnics/forums which includes a tour, food and educational presentations for legislators and their families.
- Create an Agriculture Education Matching Program under the Agriculture Viability Grants to be used to educate public about the benefits of CT grown.

The first annual report is available at:
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/grow_ct_farms_3_6_2013_low.pdf

The Draft Recommendations for Consideration are available at:
http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/14_Draft_Recommendations_for_Consideration.pdf

Working Lands Alliance

The Working Lands Alliance (WLA), a project of American Farmland Trust, is a broad-based statewide coalition that, through "fierce cooperation," champions policy and education initiatives to protect Connecticut's productive farmland and advance agricultural viability. WLA has been involved in significant legislative achievements towards this vision and has a long term goal for Connecticut's agricultural community to have land base of over 150,000 permanently protected acres of farmland from which it can operate. WLA strategic goals for 2013 include:

- Advocate for farmland preservation
- Continue to pursue the permanent protection of state-held agricultural lands
- Educate the public about the economic, environmental and cultural importance of farming and agriculture in CT (Includes the Nutmegger Cheese and Wine Festival)
- Promote the long-term viability of farming, recognizing that the economic sustainability of our farm businesses is vitally important to the stability of our farmland base

The Last Green Valley

The Last Green Valley, Inc. (TLGV) is the popular name for the Quinebaug and Shetucket Rivers Valley National Heritage Corridor (designated by Congress in 1994) and the name of the non-profit organization that manages the corridor. Mansfield is one of 35 towns making up the "last green valley" in Massachusetts and Connecticut. In 2011, TLGV developed a regional plan, *Growing Green* to, "optimize the successful expansion of the agricultural economy in the region and to provide a reliable local/regional food system for residents in Southern New England."[iii] Like the *Grow Connecticut Farms* statewide strategic plan, this plan addresses many of the same challenges and opportunities prioritized in Mansfield at a regional level.

The primary strategies put forth in *Growing Green*, include:

- Protect land that is currently farmed or identified as valuable for farming, because of its soils or other characteristics and maximize its use for agricultural purposes.
- Protect large blocks of unfragmented forest land and implement appropriate forest management.
- Ensure that farmers have sufficient knowledge, tools, infrastructure and workforce to succeed.
- Expand the markets, products and processing available to farmers and end-users.
- Advocate the use of local foods by local restaurants, grocery stores and institutions, including schools and hospitals.
- Educate residents of TLGV and the surrounding region about the significant value of local foods and their production. Facilitate easy access to those foods.
- Encourage the adoption and enforcement of state and regional food safety policies.

- Educate municipal officials about the value of working lands and encourage support of agricultural operations through their fiscal and land use policies.
- Promote scientifically-based green and renewable energy sources and energy conservation as an integral part of agricultural operations.
- Assist growers with the implementation of practices that are compatible with the environment.
- Encourage the start of new agricultural operations and the continuation of existing farms by new generations.
- Promote agritourism and agritainment.
- Coordinate the implementation of the Connecticut and Massachusetts Heritage Areas Legislation, as defined by PA 09-221 and MA Chapter 272 of 2010, with all state agencies, boards, committees and commissions for planning and projects.

In addition to their regional plan, TLGV has launched a new website designed to assist agricultural businesses in the region, www.AgInfoTLGV.org. The website aggregates news and events, funding opportunities and resources for the region. The website also includes business development resources, information relative to specific commodities and agricultural enterprise types as well as facts and figures related to agriculture in The Last Green Valley. Many of these resources are applicable to Mansfield farmers.

The Last Green Valley is also currently offering the "MBAg: Mastering the Business for Agriculture." A course for established farm businesses to increase increase profitability. They also offer the "Advanced MBAg" for longer established farms that are working to implement a written business plan. These are free resources matching agriculture businesses with the technical resources they most need to make progress towards business goals. More information is available at: http://aginfotlgv.org/mbag-program/mbag-program.php

AGvocate

The AGvocate Program, supported by the Connecticut Department of Agriculture, provides Northeast Connecticut Towns technical assistance to initiate Agriculture Commissions; review and implement tax reduction options; plan for farmland protection, encourage buy local opportunities, explore methods to promote local farms; include agriculture in town plans; and pass right-to-farm ordinances. The AGvocate program received a 2013 Agricultural Viability Grant to continue its outreach and education program, develop and implement a train-the-trainer program to extend its outreach efforts and develop ways to aggregate and share information and resources for Agriculture Commissions including work with multiple stakeholders to jointly market and distribute resources for producers in the region. This work will also include two state-wide consortiums that provide education and workshops and networking opportunities.[iv]

http://aginfotlgv.org/agvocate_program/

Connecticut Department of Agriculture Relevant Resources

CT Grown Joint Venture Program is a competitive grant program. This popular program offers matching funds for marketing projects that use the CT Grown logo or slogan. Eligible projects include signage, advertisements, billboards, brochures, websites, etc. This competitive program is open to producers and agricultural non-profits.
http://www.ct.gov/doag/cwp/view.asp?a=3260&q=430390

Agriculture Viability Grant Program - 2013 info and application at
http://www.ct.gov/doag/lib/doag/marketing_files/ag_viability_application_and_eval_13.pdf

Agriculture Viability Grants are available to farmers, non-profits and municipalities who are planning activities that will promote agriculture sustainability and/or increase the economic viability of one or many farm businesses. **2013 grant proposals are due 11/8/13.**

The goals of the Agriculture Viability Grant Program are:

- to provide a cash match for capital projects that are defined as fixed assets and have a life of ten years or more; including projects in conjunction with farmers markets, processing facilities and storage facilities.
- to develop and implement local or regional agriculture-friendly land use regulations.
- to develop and implement local or regional farmland protection strategies.
- to develop and implement plans that sustain and promote local or regional agriculture.
- to fund theproductionofoutreachmaterialsandprovideeducationalworkshopstoinform
- municipalities of agriculture-friendly strategies, resources, and programs.
- to fund advertising for local or regional agriculture.
- to provide a 50% cash match to approved applicants.
- to provide a 60% cash match to approved registered non-profit applicants

Farm Transition Grant Program (FTG)

http://www.ct.gov/doag/cwp/view.asp?a=3260&q=398988

FTG is a competitive matching grant program. The purpose of the program is to strengthen the economic viability of Connecticut farmers and agricultural cooperatives. Producers and agriculture cooperatives may apply for this grant and may receive up to $49,999 matching:

- to provide support to farmers seeking to enhance their agricultural operation and marketing strategies to increase profits to assist farmers seeking to diversify, transition into new production areas, and/or expand existing production.
- to support educational activities aimed at helping farmers diversify or transition toward new products or new market areas.
- to support educational activities that will advance agricultural practices and assist beginning and/or new farmers.
- to provide a 50% cash match to approved applicants

Farm Viability Grant for Municipalities and Agricultural Non Profits
http://www.ct.gov/doag/cwp/view.asp?a=3260&q=419410

The purpose of the Farm Viability Program is:
to provide a cash match for capital projects that are defined as fixed assets and have a life of ten

- years or more; including projects in conjunction with farmers markets, processing facilities and storage facilities.
- to develop and implement local or regional agriculture-friendly land use regulations
- to develop and implement local or regional farmland protection strategies
- to fund the production of outreach materials and provide educational workshops to inform
- municipalities of agriculture-friendly strategies, resources, and programs
- to fund advertising for local or regional agriculture.
- to provide a 50% cash match to approved applicants.
- to provide a 60% cash match to approved registered non -profit applicants

Farm Reinvestment Program

The purpose of the Department of Agriculture's **Farm Reinvestment Grant Program (FRG)** is to insure the viability of agriculture in our state. By providing money for capital enhancement to farms, it is the department's hope to help preserve Connecticut's agricultural base and improve farm production.

The focus of the FRP is to provide seed money to enhance existing agricultural operations and to provide a stimulus to the local and state economies. This will be accomplished by increased building of agricultural production facilities, thus creating some construction-related jobs. Most important, the completed projects should dramatically improve the operation's cash flow which would further strengthen the economy, create new jobs, and even municipal grand list growth. This program is designed to help farmers diversify into other production areas and expand existing production facilities via capital improvements. For more information contact: Ronald Olsen (860) 713-2503 or email at ronald.olsen@ct.gov

Farmland Restoration Program

http://www.ct.gov/doag/cwp/view.asp?a=3260&Q=498322&PM=1

The main objective of this voluntary program is to increase the State's resource base for food and fiber production agriculture focusing primarily on prime and important farmland soils, in accordance with a Farmland Restoration Program Plan (FLRP Plan). Each farm can qualify for up to $20,000. It is expected 250 farms can be served with the current available resources.

Priority of applications to the program will be as follows:
Human food production agriculture will be considered the highest priority, including fruit production
2. Livestock, livestock feed and livestock support production will be considered second.
3. Other agricultural uses may be considered based on land use, food production and acreage to be restored.

Types of restoration activities funded by the Farmland Restoration Program:

- Reclamation of grown over pastures, meadows and cropland including the removal of invasive plants and hedge row management;
- Clearing and removal of trees, stumps, stones and brush to create or restore agricultural use;
- Installation of fencing to keep livestock in reclaimed pasture areas and/or out of riparian areas;
- Installation of wildlife management fencing to protect crop fields on FLRP area(s);
- Restoration of water runoff and drainage of crop fields to improve cropland areas and restore water run off pattern sand water conservation;
- Renovation of farm ponds including farm pond management /irrigation and irrigation wells incidental to the restored areas;
- Replanting of vegetation on erosion prone land & along stream banks related to agricultural lands;
- Restoration of shellfish beds or aquaculture ponds;
- Enhancement of farm roads which service restoration areas

Organic Certification Cost Share Grant Program

http://www.ct.gov/doag/cwp/view.asp?a=3243&Q=465932

The Connecticut Department of Agriculture (CT DoAG) receives a grant on a yearly basis from the USDA-National Organic Program (NOP). Through this grant, our agency can reimburse Connecticut's Certified Organic Growers & Processors for a portion of their certification fee. *The amount reimbursed will be 75% (up to $750.00) of the certification cost.*

Good Agricultural Practices (GAP) and Good Handling Practices (GHP) Audit Programs

http://www.ct.gov/doag/cwp/view.asp?a=3243&Q=465924&PM=1

CT DoAG is licensed to perform 3rd party audits. For education and training, contact University of Connecticut, Cooperative Extension Educator, Diane Hirsch, Diane.Hirsch@uconn.edu, (203) 407-3163. Diane can provide assistance and materials to prepare for a Third Party Food Safety Audit.

Farmland Preservation Program

http://www.ct.gov/doag/cwp/view.asp?a=3260&q=399016

The Department of Agriculture preserves farmland by acquiring development rights to agricultural properties. The farms remain in private ownership and continue to pay local property taxes. A permanent restriction on nonagricultural uses is placed on these properties.

A goal of preserving 130,000 acres, with 85,000 acres of cropland continues to be in effect for the Department of Agriculture. As of December 8, 2008, the Farmland Preservation Program has preserved 34,500 acres on the 254 farms constituting approximately 26% of the 130,000 acre goal. More than half of these acres are classified as prime and important farmland soils.

Environmental Assistance Program

http://www.ct.gov/doag/cwp/view.asp?a=3260&q=398986

Connecticut is able to offer technical and financial support to farm businesses in their farm waste efforts through the "Partnership for Assistance on Agricultural Waste Management Systems" (the "Partnership"). This partnership consists of the following cooperators: USDA Natural Resources Conservation Service (NRCS), USDA Farm Service Agency, University of Connecticut Cooperative Extension System, Connecticut Conservation Districts, the Connecticut Department of Environmental Protection and the Connecticut Department of Agriculture.

Through this partnership, a farm business may obtain waste management planning, structure design and qualify for financial assistance as well as help in procuring required permits.
In cooperation with the "Partnership", the USDA Environmental Quality Incentive Program (EQIP) provides cost sharing for agricultural improvements that will help meet water quality and other environmental objectives. Based on state priorities, EQIP offers 5 to 10 year contracts that provide incentive payments and cost sharing for conservation practices. Cost sharing may pay up to 75% of the cost of structures and up to 100% of certain management practices. Applications will be ranked and reviewed by the NRCS. All EQIP funding projects must meet NRCS technical standards.

Another source of financing within the "Partnership" is sometimes available through the Connecticut Department of Agriculture's Environmental Assistance Program (EAP) for Connecticut farmers. This program allows for the Connecticut Commissioner of Agriculture to reimburse any farmer for part of the costs that qualify under the EAP in order to maintain compliance with Connecticut Department of Environmental Protection approved agricultural waste management plan.

[i] Keedle, Jayne. "First Regional Agriculture Council Formed." The Lymes Patch. May 4, 2013. http://thelymes.patch.com/groups/going-green/p/first-regional-agriculture-council-formed

[ii] Grow Connecticut Farms: Developing , Diversifying and Promoting Agriculture. First Annual Report: December 2012. Governor's Council for Agricultural Development. http://www.ct.gov/doag/lib/doag/boards_commissions_councils/gcf/grow_ct_farms_3_6_2013_low.pdf

[iii] The Last Green Valley. "Green and Growing. A Call to Action: A Comprehensive Regional Plan to Sustain and Expand Food, Fiber, and Forest Production and Related Agricultural Economies in The Last Green Valley." 2011. Page 7.

[iv] Phone Interview. John Guszkowski, AGvocate. 4/1/13.

Appendix L:
Case Studies

Case studies

Examples of New England communities that have an agricultural identity

Below are examples of three New England communities that have been successful at making, or keeping, agriculture central to their identity whether it be through a concentration of one type of commodity, being known as "farm-friendly," developing shared agricultural infrastructure or focusing on a local food economy. The first, Fairfield, VT, is the least like Mansfield, with a concentration of dairy farms but illustrates one path towards an agricultural identity. The second example, Lebanon, CT, is the "Farm Friendly" community on the tip of everyone's tongue in Connecticut. And the third example, Hardwick, VT, is an example of a community that has become know for its value-added agriculture infrastructure and concentration of agricultural entrepreneurs.

The table below provides summary agricultural statistics comparing Mansfield with the three other agricultural communities.

	Mansfield	Fairfield, VT	Lebanon, CT	Hardwick, VT
Population	13,653*	1,891	7,308	3,010
Total Number of Farms	19	50	91	33
Farms per Capita	0.0014	0.026	0.012	0.011
% Primary Occupation Farming	26%	72%	66%	61%
% of operations with sales over $50,000	37%	54%	18%	30%
% of Population employed in agriculture	1.36%	12.79%	3.94%	5.29%

*Population living in households.

Lebanon, CT – Known as Farm-Friendly throughout the state

Lebanon, CT, is the first town that everyone mentions when you ask about "farm-friendly" communities in Connecticut. With a population of 7,308, Lebanon supports 91 farms, 66% of which support farming as the primary occupation. 38% of Lebanon's land area is prime agricultural soils and 7,063 or 20% of the land area is in agricultural fields. The land in agricultural fields has only decreased by 509 acres or 7% since 1985. While the Town of Lebanon has always had a strong agricultural base, in the early 2000s the Town was dealing with an influx of new people and a rise in sub-divisions. The town made the decision to hire a planner that understood the full range of benefits that agriculture

provides the community. The Planner, Phil Chester, worked with the key people at the center of Town government and helped the town develop the attitude, "We are agriculture." Having a large agriculture base has been an advantage in developing Lebanon's farm-friendly identity, but there are many things the Town has done to support and promote agriculture in the community and as the community's identity. Some of the key initiatives and activities the Phil Chester and Joyce Okonuk, First Selectman identified include[1]:

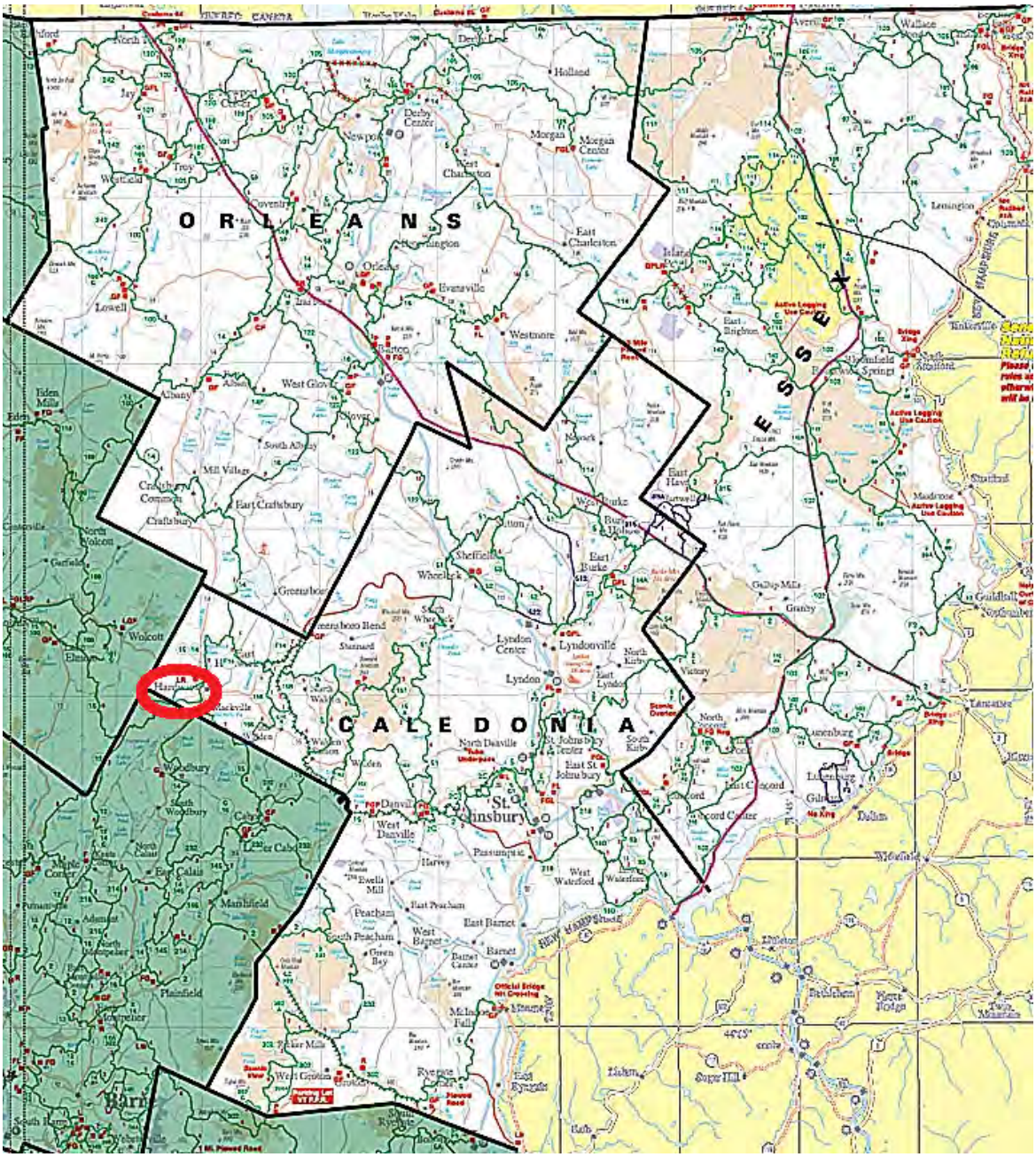
- Designate a staff person to focus on agriculture; key spokesperson for land use
- Put money behind agriculture (Lebanon has a budget line item for farmland preservation)
- Take advantage of grants (Lebanon applies for an Agriculture Viability Grant annually)
- Give out small grants to producers for starting a CSA or developing signage
- Survey residents on attitudes toward agriculture
- Cost of Community Services Study (Lebanon identified parcels that could become subdivisions and did the build-out analysis with a COCS study. The study found that for every $1 in taxes received from houses the Town is spending $1.12 versus $0.17 for open space. This shows the financial incentive for keeping land undeveloped for the Town. "We had to repeatedly bat down the stigma that farmers are getting a tax break.")
- Fully integrate agriculture throughout the entire Plan of Conservation and Development (POCD)(Lebanon looks to the POCD to support, highlight and celebrate agriculture at every opportunity.)
- Require all new employees, board and commission members to read the POCD
- Shared understanding of the value of agriculture across all Town boards and commissions
- Town-sponsored and run farmers market
- Town-sponsored events for farmers
- Send a letter to anyone with more than 5 acres about conserving property
- Town-sponsored events and resources for preservation (Lebanon pays for land appraisals and surveys and provides access to an attorney for tax advice for people who are considering conserving their land.)
- "Farmland Preservation Recognition Night" – Honor and celebrate individuals and families that have preserved farmland. The event featured locally produced foods and the presentation of a plaque honoring the families.
- Town entry signs – "Preserving our History and Agriculture"
- "Lebanon, CT. Farm Country" Bumper Stickers

[1] Developed from phone interviews: Phil Chester, Town Planner, Lebanon; 3/28/13. Phil Chester & Joyce Okonuk, First Selectman, Lebanon; 4/22/13.

Hardwick, VT – "The Town that Agriculture Saved"

With a population of 3,010, and 33 farms, Hardwick, VT is known by many as an agricultural mecca. The small town, shown below in red, is located in the southern part of Vermont's 'Northeast Kingdom', a region that is one of the most rural areas in New England. Hardwick is sometimes referred to as the gateway to the Northeast Kingdom. The region's economy is dominated by agricultural activities such as dairy farming and logging.

Figure 1. Map of Vermont's Northeast Kingdom, with Hardwick circled in red. (from: http://www.vtvast.org/VAST/Trails/Trail-Conditions/Northeast-Kingdom-Trail-Conditions/NEKmap.html)



The agricultural success in Hardwick can be specifically attributed to the efforts of likeminded local and regional entrepreneurs and farmers who spent many years meeting and collaborating to discuss ways of mutually benefitting each other's existing businesses or business aspiration, in order to create an agricultural economy. The town of Hardwick itself has had little involvement in the process. Some of the successful agricultural businesses in the town include High Mowing Organic Seeds, Vermont Seed, Jasper Hill Farm, Vermont Natural Coatings, and others. These businesses have been successful in supporting each other to create a marketing buzz that has even been written about in the New York Times.[2] Only 5% of the Hardwick population is employed in agriculture, and agricultural related activities represent 6% of the total industry in the town, showing that agriculture is not the driving economic force in the town, but has been shown to be an important element, that has acted as a multiplier to bring tourism to the region.

The overall success of these entrepreneurs led to further agricultural developments in Hardwick. The Center for an Agricultural Economy (CAE) is a non-profit organization that was created as an umbrella organization to further promote the existing agricultural activity. The organization supports community gardening and access to local food; hosts local food related events and farmers markets; helps bridge the financial gap for fledgling farms; conducts food systems research; and has created a successful agri-tourism program in Hardwick. The non-profit organization helps to educate the community about local food, creating a mutually beneficial relationship and partnership between the for-profit agriculture businesses, and the non-profit agriculture education center.

In 2011 CAE acquired the Vermont Food Venture Center, a multi-use food processing facility with business incubation and support services for value-added food producers looking to scale up production. According to the CAE website, "The mission of the Vermont Food Venture Center (VFVC) is to provide professional food processing opportunities to regional agricultural producers in a way that increases the value of that agricultural production, adds living wage jobs, strengthens Vermont's local food network, and further integrates the agricultural economy into the life of the Hardwick community."[3] The VFVC is available 24 hours a day, and seven days a week, for producers to utilize the facility. This facility further promotes the local food related businesses – both existing and emerging. Users travel from as far away as Rhode Island but the facility is anchored by local users. For more information on CAE and the Food Venture Center, visit: http://www.hardwickagriculture.org/.

The VFVC is organized into three production areas designed for maximum flexibility and are fully equipped with kitchen utensils and stainless steel work tables. Current product capabilities at the VFVC include: jams, jellies, and marmalades; salsa, sauces, dressings, marinades, mustards, chutneys and other condiments; breads, cakes, pastries, baked goods, pizza, pie, and candies; and juices, beverages, assorted maple products and more. [4]

---

[2] Burros, Marion. "Uniting Around Food to Save an Ailing Town". New York Times. October 7, 2008. http://www.nytimes.com/2008/10/08/dining/08verm.html?pagewanted=all&_r=0

[3] The Center for an Agricultural Economy. http://www.hardwickagriculture.org/vfvc.html.

[4] Vermont Food Venture Center. http://www.hardwickagriculture.org/vfvc.html

Fairfield, VT – Concentration of dairy farms

Fairfield, VT, a town with a population of 1,891 and 50 farms has a concentration of dairy farms. 72% of these farms support farming as the primary occupation and 55% have operations with sales more than $50,000. According to the US Census, agriculture, forestry, fishing and hunting make up approximately 20% of industry in the town, and agricultural related employment makes up almost 20% of all employment, which makes agricultural related activities the economic driver in Fairfield. Agricultural land in Fairfield is primarily used for growing hay, corn, and pasture for dairy farms, but also for sustaining maple trees for maple syrup production. Dairy farming is the predominant form of agriculture and traditionally has been a multi-generational family business for many farmers in the area.

Over the last 20 years the number of farms in Franklin County, in which Fairfield is located, decreased from 786 in 1987 to 740 in 2007, a 9% decrease. During this same time frame, the total number of county acres in agriculture decreased by 8% and the average size of farms decreased from 273 acres in 1987 to 243 acres in 2007, a 9% decrease. This changes over the past 20 years show that the number of farms, the total acres in farms, and the total land in farms have all decreased by a similar percentage. The decrease may be due to development or farmland going out of operation.[5] The statewide trend in agriculture is that farms are getting larger as the number of farms decreases, but this does not appear to be the case in Franklin County.

Fairfield, VT Farms Data

	2007	2002	1997	1992	1987
Farms (number)	740	770	740	728	786
Land in farms (acres)	180,006	190,115	190,215	203,503	214,344
Land in farms, average size of farm, (acres)	243	247	257	280	273

[5] USDA Census of Agriculture. 1987 – 2007.
http://www.agcensus.usda.gov/Publications/1997/Farm_Numbers_and_Land_in_Farms/