









Towne's Harvest Garden

& Community Supported Agriculture Program

Annual Report

2010

Towne's Harvest Garden

Locally, Sustainably and Educationally Grown

MSU Friends of Local Foods







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2010 THG Campus Farm Stand on 7th avenue.

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EXECUTIVE SUMMARY

The **Towne's Harvest Garden (THG)** is a project that was initiated by **MSU Friends of Local Foods** Student Organization. Friends of Local Foods was formed in the fall of 2006 to bring a diverse group of students and faculty together to raise awareness about local foods and to encourage sustainable lifestyles on campus and in the community. Since that first year of production, Towne's Harvest has increasingly become integrated into the curriculum at MSU, and particularly the Sustainable Food & Bioenergy Systems Bachelor's Degree program. Additionally, Towne's Harvest operates as a Community Supported Farm, distributing produce to members, Gallatin Valley Food Bank clients, Bogert farmers' market customers, and the MSU farm stand. The mission of Towne's Harvest is to be a source of locally, sustainably, and educationally grown food for the campus and members of the surrounding community.

During the 2010 season, Alison Harmon of the Department of Health and Human Development supervised two THG managers— a Production Manager and an Operations Manager. The Production Manager (Chaz Holt), hired in 2010 as a full-time classified employee of MSU, was responsible for planning and overseeing all production activities. The Operations Manager (Cotton Sarjahani) focused on accounting, supervision of students and communication with the CSA and community partners. THG Practicum Students were involved in planting, weeding, harvesting, and distribution.

In 2010 the Towne's Harvest budget totaled **$54,078.00** for manager salaries and stipends, seeds, fertilizers, signage, mulch, drip tape and other supplies. Income included the sale of CSA shares ($275-$450 each), a contribution from the Gallatin Valley Food Bank, fundraising efforts by the MSU Friends of Local Foods, an endowed graduate scholarship for the operations manager for the academic year, a grant from the Bozeman Community Food Co-op, and some support from two USDA grants. Total income for 2010 (including $7,500.00 from 2009 farmers' market sales) was **$54,300.00**, for a positive balance of **$222.00**.

Labor was performed by graduate assistants, student interns, students enrolled in courses, and volunteers. Paid managers contributed a total of **1760 hours** of labor while students and interns worked approximately **2276 hours** during the 2010 season. Volunteers contributed an additional **60 hours**.

Towne's Harvest produces a variety of herbs and flowers as well as beans, beets, broccoli, cabbage, carrots, cauliflower, Swiss chard, cucumbers, eggplant, mixed salad greens, Asian greens, kale, kohlrabi, leeks, arugula, melons, onions, parsnips, peas, peppers, potatoes, pumpkins, radishes, spinach, squash, and tomatoes. The total yield for 2010 was approximately **23,497 lbs of produce** which was distributed through a 13-week Community Supported Agriculture Program to 84 individual/family members, staff, and volunteers, and to clients of the Gallatin Valley Food Bank (approximately **4,800 lbs**). Produce was also distributed through farmers' markets in Bozeman and on MSU's campus on Friday afternoons. For members, the weekly distribution was scheduled on Thursday evenings from 4 pm to 6 pm at the MSU Horticulture Farm.

CSA members were given the opportunity to provide feedback by survey twice during the 2010 season, in July and September. Most members responded on the mid-summer survey that they were satisfied with the quality, quantity, and variety of produce they were receiving. Members continue to request more recipes and guidance for using the fresh produce in their weekly share. "Practical Produce" guides, developed by students in the Culinary Marketing Farm to Table class are posted on the Towne's Harvest web site in response to these requests. Several members expressed dissatisfaction at the end of the season with the size of their 2010 CSA share; this concern will be addressed in 2011.

During the 2010 season, the THG operations manager conducted a CSA share 'value assessment' for which each item in the weekly share of produce was carefully weighed and recorded, and its value estimated based on current farmers' market or retail prices for equivalent produce. The price of a small sized share was $275, but its value was estimated to be $284. The large sized share price was $450, with an estimated valued of $488. Both share sizes came with THG tote bags.Part of the mission of Towne's Harvest is to serve as an outdoor classroom and research laboratory. In 2010, Towne's Harvest was significantly integrated into 3 MSU courses; (PSPP 345: *Organic Market Gardening*, HDFN 246:

Towne's Harvest Practicum, & HDFN 445R: *Culinary Marketing Farm to Table*), and in small ways in many additional courses. These key courses generate 150-180 student credit hours per summer.

Towne's Harvest practicum students, inters, managers, and advisors conducted community outreach in the form of presentations and exhibits at a variety of events and conferences from March through October. These included the MSU Health Fair, Bogert weekly farmers' market, an MSU farm stand in July- September, and MSU Catapalooza. In July, members of the administration and MSU staff were invited to the farm for the annual 'President's Lunch' and a tour of the garden. Farm tours and volunteer opportunities were provided throughout the summer for groups such as the Gallatin Valley Botanical Garden staff, the Sustainability Committee of Park City, Utah, and High School Counselors from all over the US. A "President's Work Day" was held on October 1st, during which President Cruzado picked pumpkins and carrots with students, staff, and faculty of the SFBS program.



Presiden't Work Day at Towne's Harvest, October 1, 2010

Towne's Harvest once again had a very productive year, generating approximately **$15,000-$20,000/acre**. This effort continues to produce positive publicity for the collaborating colleges and the university, and our partnership with the Food Bank continues to be an excellent opportunity for MSU to serve the community. he proposed plan of operation for the 2011 season includes a similar organizational structure, with a full time production manager, and a part-time operations manager. A significant percentage of manager time will be spent supervising an increasing number of students completing coursework and internships at THG. We will modestly increase the number of CSA shares for sale to approximately 65 large sized shares, and will experiment with limited selection to one size to eliminate member confusion regarding the share sizes. We will continue to work with the Food Bank to provide the produce most desired by their clients, and continue to decrease the contribution amount. We have budgeted a total of **$69,000.00** for labor expenses, benefits, and supplies for 2011. The THG project is in need of fiscal support from the University to maintain the level of services and coursework offerings, as expenses have increased by approximately $15,000 while production revenue is not likely to increase dramatically.

Improved facilities for teaching, outreach, research, and food distribution food are sorely needed at the MSU Horticulture Farm. The SFBS degree program, for which Towne's Harvest serves as a cornerstone field experience, has grown dramatically since it was first offered as a major in January 2009. We expect that as the number of majors grows (100 are expected by the end of the 4th year), between 20 and 30 students will need to complete a significant field experience at Towne's Harvest each summer.

ABOUT TOWNE'S HARVEST

What is Towne's Harvest?

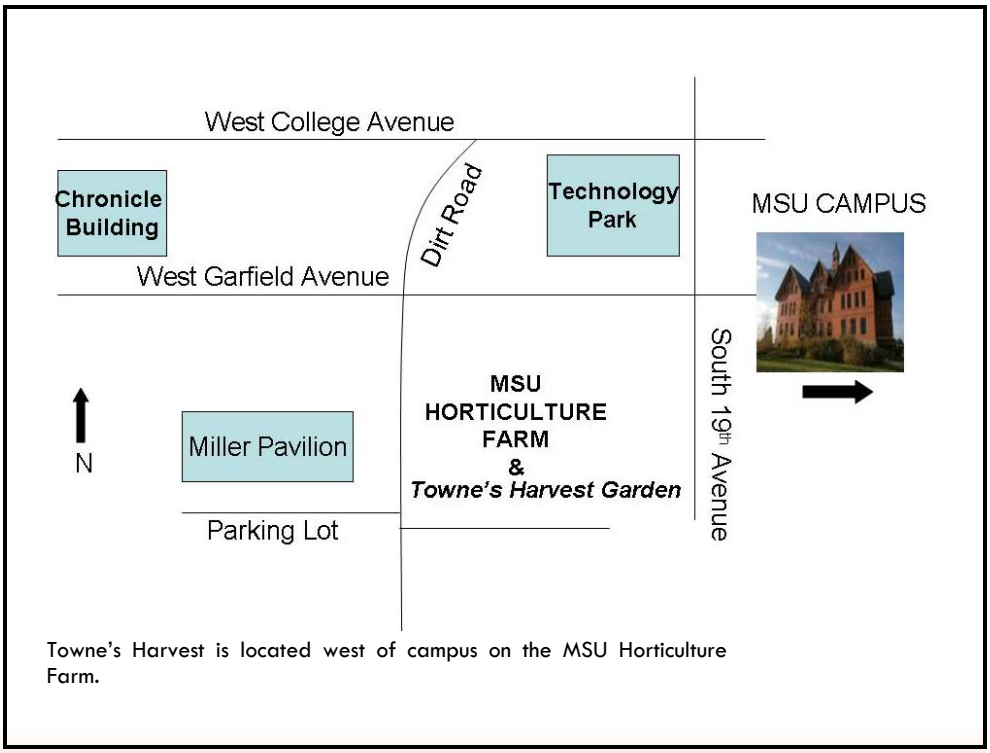
Towne's Harvest Garden is a project that was initiated by MSU Friends of Local Foods Student Organization. Friends of Local Foods was formed in the fall of 2006 to bring a diverse group of students and faculty together to raise awareness about local foods and encourage sustainable lifestyles on campus and in the community. During the summer of 2007, Friends of Local Foods collaborated with the Gallatin Valley Food Bank to support a 2-acre diversified vegetable farm called Towne's Harvest. Towne's Harvest Garden also represents a collaborative effort among students, faculty, and administrators of the MSU Colleges of Agriculture (COA) and Education, Health & Human Development (EHHD) to promote sustainable agriculture and local foods at MSU and in the Gallatin Valley. The garden is located at the MSU Bozeman Area Research and Teaching Farm (on the Horticulture Farm), west of campus. Currently, the primary purpose of Towne's Harvest is serve as an outdoor classroom and cornerstone field experience for students enrolled in the interdisciplinary degree program *Sustainable Food and Bioenergy Systems* undergraduate Degree program and related graduate programs. In addition, Towne's Harvest strives to be a source of locally, sustainably, and educationally grown food for members of the garden, clients of the Gallatin Valley Food Bank, the MSU campus and food service, and members of the surrounding community of Bozeman.

Why Towne's Harvest?

The name of the garden connects the history of the land to the present day. Towne is the surname of one of five farmers who formerly owned land which was eventually deeded to MSU. The land where the Horticulture Farm and the Towne's Harvest Garden is located has been nicknamed Towne's farm for several decades. The piece of land which became the garden actually belonged to E. Broox and the Ella Martin Farm. It was deeded to MSU in 1909. Students, faculty and staff involved in the Towne's Harvest project will continue to be good stewards of the farm so that future generations of Montanans can grow food on this land.

Community Supported Agriculture

CSA is an acronym for Community Supported Agriculture. CSA members pay a set price prior to the growing season for a share of the harvest. By paying ahead, members buy into the local food system and share in the risk of farming. Members in return receive a weekly supply of fresh produce. CSAs are a great way for eaters (members) to build relationships with their produce growers. They know exactly where their food is coming from and can see how it is grown. The superior quality and taste of locally grown and freshly harvested produce is a significant benefit to members who consequently learn how to prepare and consume unique vegetables. Producers benefit from having a more stable source of income, by having capital to spend on supplies before the growing season, and by sharing some of the economic risk of farming with other members of the community. Additional information is provided on the Towne's Harvest Web-site: http://townesharvest.montana.edu



Towne's Harvest is located west of campus on the MSU Horticulture Farm.

MISSION, VISION & VALUES

MSU Friends of Local Foods Mission:

To raise awareness about local foods and encourage sustainable lifestyles on campus and in the community.

The Friends of Local Foods Vision:

- *That students think before they eat and find ways to eat more sustainably.*
- *That the University Food Service offers sustainable food choices in all campus eateries and residence halls.*
- *That there is a sustainable campus garden, "Towne's Harvest," that serves as a model for other institutions and as a place of learning for the community.*
- *That there be coursework that integrates sustainability, agriculture, and nutrition across the disciplines using Towne's Harvest Garden as a classroom.*
- *That students choose MSU as their university on the strength of its sustainable food program.*
- *That students impact the decision making process related to sustainable food systems at MSU.*

Towne's Harvest Garden Mission:

To offer interdisciplinary education opportunities, be an outdoor classroom for SFBS, and a source of locally, sustainably, and educationally grown food for the campus and members of the surrounding community.

The Towne's Harvest Vision:

- *That Towne's Harvest will be a valuable and permanent part of MSU that is enthusiastically supported by the administration.*
- *That Towne's is interdisciplinary center of education for any MSU department and is integrated into MSU as a classroom, research laboratory, and source of good food for the campus community*
- *That Towne's inspires students from diverse backgrounds to become involved in sustainable food production and consumption.*
- *That Towne's continues to diversify crop production to include a large variety of vegetables, fruits, and animals*
- *That Towne's strengthens community food security in Bozeman and the surrounding area, increasing access to fresh nutritious produce for all.*
- *That Friends of Local Foods remains a strong and active supporting student organization.*
- *That Towne's continue to address all aspects of sustainability including ecology, economic viability, and social justice.*



Towne's Harvest
Practicum Students 2010



THE VALUE OF TOWNE'S HARVEST GARDEN

Educational Tool

Towne's Harvest Garden is a valuable resource and educational tool for Montana State University and the greater Bozeman community. The benefits of this student-operated farm are numerous and far-reaching. Towne's Harvest serves as a model for sustainable, small scale agriculture in Montana, supports the growing demand among students and other consumers for locally produced food, and provides an attractive hands-on "classroom" for both current and prospective students across multiple academic disciplines. Additionally, THG can serve as a research laboratory for studying the science of alternative production methods, economic viability, the efficiency of various distribution scenarios, and impacts on individual health, family dynamics, and community food security. As a venue for teaching and research, Towne's Harvest can be the central focus of externally funded projects. Currently, Towne's Harvest is a cornerstone of the new interdisciplinary undergraduate degree program, *Sustainable Food and Bioenergy Systems*. Students enrolled in this degree program spend at least one summer completing the practicum course and taking additional coursework associated with Towne's Harvest Garden. See http://www.sfbs.montana.edu.

Demonstration of Sustainable Agriculture

Towne's Harvest provides a unique opportunity for students, faculty, volunteers and other community members to support small scale producers who practice sustainable agriculture and promote Montana's agricultural heritage. THG farmers produce food naturally using crop rotation, companion planting, and natural pest and weed control. Marketing produce locally dramatically reduces the need for handling, processing and transporting food. This decreases our collective reliance on fossil fuels and other natural resources and ensures quality produce that is nutritious, safe and affordable.

Interdisciplinary Collaboration

Towne's Harvest represents a collaboration between the College of Agriculture and the College of Education, Health, and Human Development. Additionally, the Towne's project has attracted students and faculty from a wide variety of academic disciplines including Architecture, Agroecology, Plant Sciences, Food & Nutrition, Business, Political Science, Engineering and Native American Studies.

Student Recruitment

The interdisciplinary nature of the Towne's Harvest project creates an attractive showcase and is a powerful tool for recruiting students, faculty and staff at MSU and for helping MSU establish its position as a national leader in sustainable agriculture. With demand for sustainable campus-based food options increasing, Towne's Harvest will help ensure that MSU remains in step with current student desires. As stated above, it is already contributing to the *Sustainable Food and Bioenergy Systems* degree program.

Campus & Community Outreach

THG links MSU with the surrounding community by serving as a Community Supported Agriculture farm that provides approximately forty to eighty families from a variety of socio-economic backgrounds with fresh, locally grown produce. The viability of Towne's Harvest Garden relies on community support and participation. THG provides numerous volunteer opportunities, while on-farm CSA distribution enables families to establish close relationships with their food producers. Towne's Harvest also enjoys a strong relationship with the Gallatin Valley Food Bank. Since its initiation, THG has been providing the Gallatin Valley Food Bank with 6-8,000 lbs of food per year. As food insecurity increases in the Gallatin Valley, this relationship with the Food Bank will become increasingly important. In 2010 THG interns sold produce at the Bogert Farmers' Market, the Gallatin Fairground Farmers' Market, and at an MSU campus farm stand held on 7th avenue, south of central campus, in accordance with university policy.

PARTNER ANALYSIS

Student Organizations
- MSU Friends of Local Foods (FLF)
- College of Agriculture Student Council
- Network of Environmentally Conscious Organizations

MSU Administration, Departments, and Faculty
- Office of the President
- College of Agriculture
- Department of Land Resources and Environmental Sciences
- Department of Plant Sciences and Plant Pathology
- College of Education, Health and Human Development
- Department of Health and Human Development

Gallatin Valley Producers
- Cloud 9 Farm
- Gallatin Valley Botanical

MT Agriculture Experiment Station
- Horticulture Farm

MSU University Food Service
- Montana Made Program

Organizations
- Alternative Energy Resources Organization (AERO)
- Bozeman Community Food Co-op
- Gallatin Valley Food Bank
- Livingston Healthcare*
- Montana Senior Farmers Market Nutrition Program
- Montana WIC Farm Direct
- Western Sustainability Exchange

Restaurants
- Montana Aleworks*
- Sola' Café*

* = *Purchased from Towne's Harvest Garden at least once*

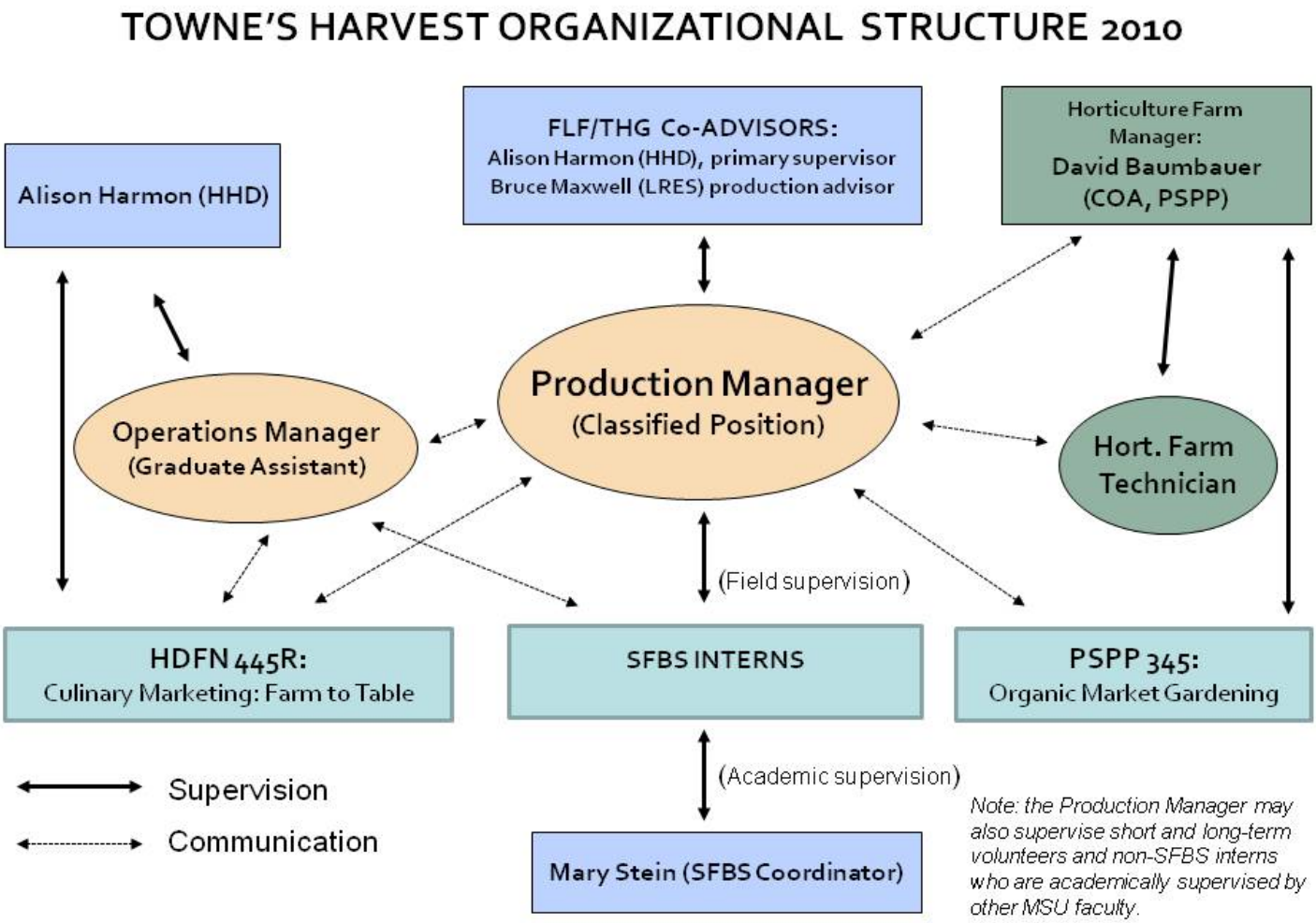
2010 OPERATION AND ORGANIZATIONAL STRUCTURE

Operation

During the summer of 2010, MSU departments and colleges and the Gallatin Valley Food Bank partnered to support Towne's Harvest Garden's 4th season. Produce was distributed through a 13-week Community Supported Agriculture Program to 87 individual members. THG continued its partnership with the Gallatin Valley Food Bank, and also distributed through farmers' markets in Bozeman and on MSU's campus.

Organizational Structure

Alison Harmon of the Department of Health and Human Development supervised one Graduate Assistant as an Operations Manager (Andy Sarjahani) and the Production Manager (Charles Holt). Charles is responsible for overseeing vegetable and over all farm systems production while the Operations Manager focused on project accounting, supervision of practicum students and communication with the CSA and community partners. Students were involved in planting, weeding, harvesting, and distribution.



2010 EXPENDITURES AND INCOME

Total Operating Expenditures to date for 2010 season: $6,829.62*

- Administration: $1,673.76
- Capital Investment**: $1,177.73
- Fuel: $315.68
- Promotion: $1,101.76
- Seeds/Supplies: $2,560.69

** Does not include manager salaries or stipends*
***All but approximately $175.00 was spent on laying hen operation*

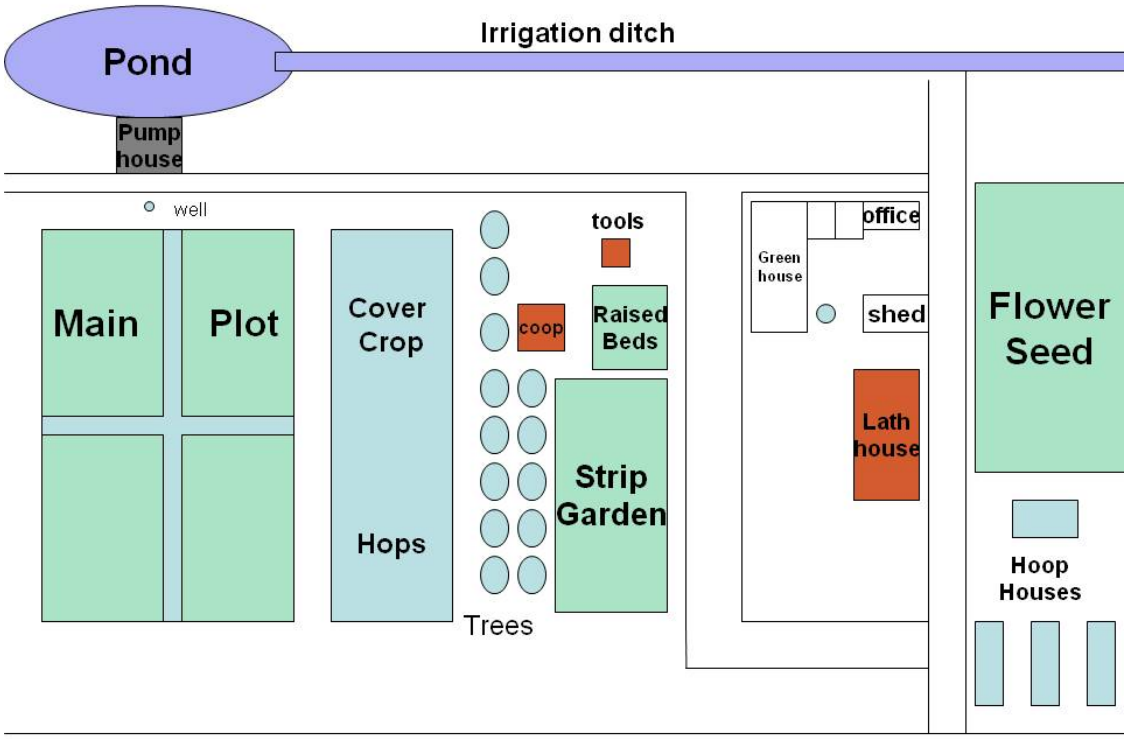
Total Income to date for 2010 season: $38,639.73

- **CSA Shares: $25,497.02 (66% Total Income)**
- Includes 7 Community Shares - 6 Small Shares; 1 Large Share for a total value of $1,650.00 sold at a total of $575.00
- $1,373.02 from Community Food Co-op 4% Day Grant for Community Shares pilot (Towne's Harvest lost $151.98 on Community Shares pilot)
- **Farmers Market/Campus Farmstand: $5,102.71 (13% Total Income)**
- **Gallatin Valley Food Bank: $5,000.00 (13% Total Income)**
- **Miscellaneous Sales*: $3,039.02 (11% Total Income)**

**Miscellaneous Sales include the following: restaurant, raffle, THG merchandise, catering events, CSA member events*

TOWNE'S HARVEST GARDEN LAYOUT

Towne's Harvest production occupied approximately 4 acres of the Horticulture Farm. Garden production occurred in the North Plot, Orchard area, and in four hoop houses. A detailed planting map by row can be found in the Appendix.



TOWNE'S HARVEST GARDEN LAYOUT 2010

2010 CROP LIST

The following herbs, vegetables, and flowers were grown at Towne's Harvest Garden during the 2010 season. For a complete list of all crops and variety names see the Appendix of this report.

Herbs:

Basil
Cilantro
Dill
Fennel
Sage
Parsley
Chives

Flowers:

Cosmos
Iris
Strawflower
Sunflower

Vegetables:

Arugula
Beets
Beans
Bok Choi
Broccoli
Cabbage
Carrots
Cauliflower
Chard
Corn
Cucumbers
Eggplant
Endive
Fava Beans
Greens (Assorted)
Kale
Leeks
Lettuce
Melons
Onions
Peas
Peppers
Potatoes
Pumpkins
Radish
Spinach
Squash
Tomatoes
Turnips
Winter Squash



PRODUCTION SUMMARY

The 2010 Towne's Harvest Garden crop production was successful, despite 6 devastating hail storms as well as a record cold and wet summer. Wet cold weather forced efficiencies in planting including utilizing more transplants and planting into black plastic mulch. June remained cold and wet while July was perfectly warm and dry. This allowed for some of the crops to catch up and produce after hanging tough through the cold June. August rains were considerable well but in a manner that was great for production and limited the need for our drip irrigation. Fall was unusually warm, and was perfect for continued harvests on into mid October.

This year, THG grew its production by almost an additional acre of management and incorporated an annual sustainable 6 block crop rotation plan which included one block in cover crop soil building. We also renovated and corrected the drip irrigation system to be more economically and agronomically efficient. We were able to manage the farm completely with a daily shift of 4 practicum students and the farm manager. With the good work of the students, our over all weed pressure and weed seed bank was kept well in check throughout the entire growing season.

Our tomato production was exceptionally great this season due to the inclusion of new raised bed renovations in hoop house #1. We also chose a well adapted greenhouse storage variety of tomato that produced a bountiful crop. Aphid populations in the field were devastating this season but at times controllable by cultivation, use of plastic mulch, floating row covers, and occasional pyrethrum applications. Field compaction in our root crops block by limited tuber production and resulted in carrot disjointing. We are planning alternate tillage and soil treatments to combat the compacted plow layer. We hope to improve the overall soil structure with the newly constructed 6 block crop rotation and cover cropping inclusion.

THE HARVEST



Produce harvest at THG was done Monday thru Friday, 7 am to noon. We needed to harvest every day because we had food distribution every day of the week except Wednesday. We are also fortunate enough to have continued cold storage on site which allowed us to harvest more than our daily needs at one shift and not compromise quality. The GVFB picked up produce on Monday afternoons. THG attended weekly farmers markets on Tuesday and Fridays and CSA distribution was Thursday.

The cold and wet weather in 2010 also had an impact on harvesting. Students were required to be more conscience of cleanliness due to mud but also allowed for more time in the day to harvest sensitive crops due to cool temperatures. Crops could easily be harvested in advance and stored without sacrificing quality. Improvements in the produce handling facility, such as increased table space and enhanced water drainage, also allowed for crops to be weighed, hydro-cooled and stored efficiently. All food for distribution was washed and packaged in the same manner daily. Future considerations include more efficient method of washing and wash area, incorporating waste water catchment and cleaning area storage, and shelving in the cooler for more efficient bulk storage of produce.

CROP YIELDS

Crop	Total (lbs)
arugula	27
basil, whole plant	150
basil	47.5
beans	988
beets	1352.5*
bok choi	172
broccoli	725.5*
cabbage	746
carrots	860*
cauliflower	60
chard	208
cilantro	25
corn	139 dozen
cucumbers	855
eggplant	76
endive	20
Fava beans	95
kale	165*
kohlrabi	312
leeks	526
lettuce	948
melons	75
mustard greens	20*
onion	945
parsley	38*
peas	80
peppers	70
potatoes	2000
pumpkins	2590
radish	154
salad mix	427
scallions	183
sweet potato	25
spinach	209
summer squash	2387
tomatillos	30
tomatoes	1118
tomatoes, grn	495
turnips	10
winter squash	2635
Total (lbs)	**23,497**

* represents additional crops left in field for season extension





LABOR

For labor calculation purposes, the "season" will be considered May 15th – October 15th or 22 weeks. This includes all preparation, administration and maintenance prior to, during, and following the actual market season.

Production Manager: During the season, averaged approximately 50 hours weekly. Approximately 1100 hours.

Operations Manager: During the season, averaged approximately 30 hours weekly.
Approximately 660 hours.

Interns (non-SFBS students)

Activity	**Total Hours: 519.5**
Season Extension	8% (40)
Planting/Seeding	31% (160.5)
Weeding	30% (155)
Insect Control	2% (10)
Harvest	19% (100)
Chickens	3% (15)
Planning Sessions	7% (39)

Practicum Students

Activity	**Total Hours: 1756.5**
Season Extension	9% (160.5)
Planting/Seeding	28% (500)
Weeding	26% (455)
Insect Control	2% (30)
Harvest	20% (350)
Chickens	2% (40)
Planning Sessions	13% (221)
Total	1756.5

Volunteers:
Organizations: 4-H, Gallatin Valley Food Bank, MSU Friends of Local Foods, MSU Graduate Employee Organization
Total Volunteer Hours: 60

Combined managerial, student, and volunteers hours for the 2010 season was **4096 hours**.

COMMUNITY SUPPORTED AGRICULTURE PROGRAM

Membership
In 2010, Towne's Harvest offered 50 full share equivalents (one small share was counted as half of a full share equivalent) – our largest offering to date. 50.5 shares were actually sold due to unique circumstances. Two prospective CSA members arrived at Towne's Harvest within 10 minutes of one another to claim the last small share available. Both individuals became CSA members and Towne's Harvest utilized extra space at the Horticulture Farm to ensure that everyone received a fair share. 17 Large Shares and 67 Small Shares comprised the 50.5 full share equivalents that Towne's Harvest provided to the Gallatin Valley in 2010. Of the 84 CSA members that were surveyed, 9 CSA members had been with Towne's Harvest since its inception in 2007; 11 CSA members had been with Towne's Harvest since 2008; 31 CSA members had been with Towne's Harvest since 2009; and 31 were first-time members. Complimentary shares were provided to CWJ & Associates for 2009 donations of materials for our cooler, Alison Harmon and David Baumbauer for their contributions to the success of Towne's Harvest. Charles Holt (production manager) and Cotton Sarjahani (operations manager) chose not to receive CSA shares but did glean produce for their respective households as needed. Given the exceptional number of practicum students and interns (20) this past season, Towne's Harvest could not provide complimentary shares for them, but did allow students working a market or distribution to take small amounts of produce as needed following the market or distribution.

Community Shares
This year with a grant from the Bozeman Community Food Co-op, Towne's Harvest Garden was pleased to introduce "Community Shares" to the Gallatin Valley community. Community Shares are subsidized CSA shares offered to individuals and families who otherwise could not afford a Small or Large Share. Community Shares asked applicants to briefly explain their needs without asking for income or other personal specifics. In 2010, there were seven applicants, all of whom received a Community Share. Six of the seven applicants requested small shares. Subsidized shares were based on the participant's stated ability to give, and ranged from $50 to $150.

Season
The 2010 Towne's Harvest CSA season officially commenced on Thursday, June 24th with a CSA member orientation the week prior, on Thursday, June 17th. The CSA season officially ran until Thursday, September 16th for a 13-week CSA season. Due to the unexpected warm weather this fall, CSA members were provided with opportunities on two separate occasions to purchase produce at below wholesale cost.

Share Size
As mentioned previously, Towne's Harvest offered a Small and Large share this season. Small Shares and Large Shares differed in both quantity and produce received. For example, if only small number of cabbages (< 20) were ripe for harvest in a given week, Large Shares were given cabbages to meet Large Share needs, while Small Shares were not. Based on member feedback, this is an approach that will be avoided in the future with CSA members receiving the same type of produce weekly. Large Shares were intended to feed four to six individuals weekly and Small Shares were intended to feed one to three individuals weekly.

Distribution
CSA distributions were on Thursdays from 4pm-6pm at Towne's Harvest every week to avoid confusion and establish consistency. Distributions were in the lath house every week. Members were greeted by a Towne's Harvest representative at a table with a sign-in sheet, information on Towne's Harvest and the Sustainable Food and Bioenergy Systems program, and pastured eggs for sale.

Since Large Shares and Small Shares sometimes had different options, distribution set-up involved two separate pick-up stations – one for Large Shares and one for Small Shares. To avoid confusion, a large whiteboard with Large and Small selections for the week was set up at the lath house entrance and 3-4 Towne's Harvest employees were stationed in various locations to assist and guide members throughout the distribution.

Produce was distributed in various forms, including bunched, bagged, and bulk. All produce was washed, packed, and stored in the cooler immediately following harvest to ensure maximum cleanliness and freshness. Occasionally Towne's Harvest offered "either/or" selections based on availability and distributed in "first come, first serve" fashion. For example, members would have the option of choosing between onions or leeks depending on availability.

Communication

Towne's Harvest sent out a weekly newsletter (email with a link to a PDF file) that provided a glimpse into what was happening at the farm, as well as four recipes for produce items in that week's distribution. If an uncommon crop was offered (i.e. kohlrabi), Towne's Harvest made sure to include at least one recipe for this crop in the newsletter. CSA newsletters always encouraged member feedback to maintain a healthy relationship between Towne's Harvest and its members. All CSA newsletters are available for perusal on the Towne's Harvest website.



CSA DISTRIBUTION DATA

Crop Diversity

arugula
basil
beans
greens
beets
broccoli
cabbage
carrots
cauliflower
cilantro
cucumbers
eggplant
flowers
garlic
garlic scapes
kale
leeks
lettuce
melons
onion
parsley
peas
peppers
potatoes
pumpkins
radishes
salad mix
scallions
shallots
summer squash
Swiss chard
turnips
tomatoes
winter squash
cherry tomatoes
misc herbs
spinach

CSA Value Assessment

	Small	Large
Produce value *	$280	$470
Tote bag	$4	$8
THG pint glass		$10
Total Value	**$284**	**$488**
Purchase Price	$275	$450
CSA savings	$9	$38

**Produce values estimated based upon current farmers market or retail price for equivalent product.*

See appendix for a detailed description of weekly CSA distribution and value calculations.



One table of the 1st CSA distribution, 2010

CSA MEMBER FEEDBACK

Towne's Harvest surveys its members twice each year – once during the middle of the season and once following the season. This year's surveys were given in July and October, respectively. The CSA season formally ended on September 16th, 2010, however CSA members were given two more opportunities in late September and early October to purchase produce at below wholesale rates.

Mid-Season Survey
This survey was administered in person with pen and paper at a CSA distribution. 45 of 87 CSA members responded to this survey. Below are the results of the survey.

Survey Item	Very Unsatisfied	Unsatisfied	Neutral	Satisfied	Very Satisfied
Quality of Produce	5%	0%	0%	20%	75%
Quantity of Produce	2%	0%	21%	41%	36%
Diversity of Produce	4%	4%	20%	42%	29%
Time/Location of Distribution	2%	0%	14%	41%	43%
Customer Service at Distribution	5%	0%	0%	25%	69%
CSA Newsletter	5%	0%	15%	31%	49%
Email communication	5%	2%	12%	32%	49%
Interactions w/ Students	5%	2%	5%	28%	60%
Distribution set-up/ease of navigation	2%	5%	5%	34%	55%

Post-season Survey
This survey was administered electronically through email with questions in the body of the text as well as in Microsoft Word format for participants who wanted to mail an anonymous response to Towne's Harvest. Nine CSA members responded to the email and 3 members responded by hard copy.

Four response opportunities were provided and are listed below.
Responses to survey items included the following at least once:

1. What did you like about your CSA experience with Towne's Harvest Garden this season?
Organization; Friendliness; Everything; Variety of produce; Quantity of produce; Recipe ideas; "U-pick" opportunities; Kid-friendly; Helpful personnel; Separation of large and small shares at distribution; Enthusiasm; Visiting the farm; Produce diversity

2. What did you not like about your CSA experience with Towne's Harvest Garden this season?
Did not last as long as store-bought produce; Better organization; Step selling produce at farmers market and farmstand; Provide small shareholders with same produce as large shareholders; Reminder emails too late; CSA distribution was in a narrow window; Short season; Produce quantity; Distance from Big Sky

3. What can Towne's Harvest do better in the future*?*
Clarify last pick-up date; Need a new building for distributions; Focus on shareholders, more solid green vegetables (i.e. asparagus); Do better with reminder emails; More even distribution of early and late season crops; Create a more detailed and formal contract; Send newsletter earlier; Currently none; Occasional underripe produce

4. Additional Comments
Eggs were too expensive – sell for $3/dozen instead of $4/dozen; More eggs



FOOD BANK PARTNERSHIP

The Gallatin Valley Food Bank partnership continues to be a highlight of the THG project. This partnership is tremendously rewarding for faculty, staff and students involved with the project, while the collaboration also serves as a model for other communities seeking innovative ways to develop community based food security solutions.

In 2010, THG distributed over 4800lbs of produce to the Gallatin Valley Food Bank. This equates to a cost of $1.04 / lb. THG goals for the Food Bank partnerships were to consistently provide fresh, high quality produce at a reasonable rate to the Food Bank. The food bank requested that minimal processing at their end is most helpful, so THG staff provided as much pre bundled/bagged and washed produce as economically possible.

The Food Bank picked up produce on Mondays at 3 PM. The cooler assisted dramatically in completing this harvest while not sacrificing the quality of the product. The food bank appreciated the large diversity of produce we provided, however suggested in coming season we collaborate more on specific high volume crops to address their clientele.

In addition to providing produce to the Food Bank in 2010, THG production manager provided technical advise to other farms providing produce to GVFB. THG production manager also assisted GVFB in designing and installing a new drip irrigation system for their demonstration raised bed gardens. THG hopes to continue and further this sort of valuable assistance to GVFB in the future seasons.

The food bank was able to drop off crates for the upcoming week at the weekly pick-up which allowed THG to pack crates in advance. Crops were weighed and recorded by both THG interns and Food Bank staff.

CROP	
basil	
beans	
beets	
brocolli	
cabbage	
carrots	
cauliflower	
chard	
corn	
cucumbers	
eggplant	
kale	
leeks	
lettuce	
misc	
onion	
parsley	
peas	

peppers	
potatoes	
pumpkins	
radish	
scallions	
spinach	
summer squash	
tomatoes	
winter squash	

Date	**Total**
6/9	17
7/6	68
7/12	146
7/19	100
7/26	189
8/2	250
8/9	232
8/16	265
8/23	255
8/30	640
9/7	700
9/20	450
9/27	545
10/4	688
TOTAL	4800#

FARMER'S MARKETS

Towne's Harvest's primary markets for the 2010 season were Bogert Farmers Market and the Friday Campus Farm stand. Gallatin County Fairgrounds Farmers Market was attended only twice to focus on the Friday Campus Farm stand. Pastured egg sales to CSA members proved to be a profitable venture as well as a demonstration of utilizing vegetable culls to create food and financial profit.

Bogert Farmers Market on Tuesdays (June 1st-September 24th , 5pm-8pm) was the primary farmers market experience for students in 2010. In its second season, the Friday Campus Farmstand (August 6th-October 8th) provided a unique "farm stand" experience for practicum students and interns.

- **Total Farmers Market Sales: $5,102.71***

Average Sale per market: $167.95

** = includes $400.00 from the sale of pastured eggs to CSA members.*

- **Total Markets attended: 28**

o 2 Gallatin Valley Farmers Markets (Saturday, 8am-1pm)
o 10 Campus Farm stands (Friday, 3pm-6pm)
o 16 Bogert Farmers Markets (Tuesday, 5pm-8pm)
o Final farmers market, 2010 season: Friday, October 8th, 2010



TOWNE'S HARVEST 2010 DISTRIBUTION SUMMARY

Project Component	Total lbs
CSA Program	9712
After season CSA sales	1375
Food Bank	4800
Farmer's Market	3500
Chicken Feed	800
Students	400
Other events	1700
Total	28,587 lbs



Our second CSA distribution of the 2010 season

INTEGRATION INTO MSU COURSEWORK

Part of the mission of Towne's Harvest is to serve as an outdoor classroom and research laboratory. Professors can bring classes to the farm for tours or provide volunteer opportunities. Additionally, several related class projects were conducted off-farm in preparation for or following the 2010 season.

PSPP 345: Organic Market Gardening

Students in PSPP 345: Organic Market Gardening participated in the planting of the strip garden, north plot (esp. squash and cucumbers), planted and installed irrigation in the cold frames, and constructed the compost pile.

David Baumbauer
Instructor
Plant Sciences and Plant Pathology

HDFN 246: Towne's Harvest Practicum

In 2010, 20 students were enrolled in the new course: Towne's Harvest Practicum, which for SFBS students replaced what was formerly called the Towne's Harvest internship. This new course added structure, weekly class meetings, and writing assignments to a traditional hands-on internship experience. Field supervision for these students was provided by Chaz Holt and Andy Sarjahani, while academic supervision was provided by Mary Stein, SFBS program coordinator.

Alison Harmon, PhD RD
Associate Professor
Health and Human Development

HDFN 445R: Culinary Marketing: Farm to Table

This course enjoyed its second offering in 2010. Students in HDFN 445R: Culinary Marketing: Farm to Table worked for two mornings per week and many afternoons weeding and harvesting in the garden, rinsing produce, and assisting with CSA distribution and farmers' market sales. Each student developed information pages on particular vegetables that were used as the back page of the weekly THG newsletter for CSA members and for recipients of THG produce at the Gallatin Valley Food Bank. Students completed service learning assignments by assisting with produce display and distribution at the food bank as well. HDFN 445R is an MSU core research course, so each student completed an independent research project. When not at THG, students in this course were developing recipes using THG produce and learning about the science and methods used in food preservation (dehydration, canning, and freezing). The annual president's lunch was prepared and presented by HDFN 445R students. See page 29 of this annual report.

Alison Harmon, PhD RD
Associate Professor
Health and Human Development



2010 Culinary Marketing Farm to Table Class

COMMUNITY OUTREACH, EVENTS, AND TOURS

MSU Health Fair (March 30th-31st)

Towne's Harvest attended the MSU Health Fair in an effort to expose MSU faculty, staff, and students to healthy, fresh, and local produce being grown just up the road by MSU students.

MSU Child Development Center garden (June 2010)

Towne's Harvest practicum students through the SFBS program, planned, organized, and built an educational vegetable garden and compost pile for the MSU CDC on campus.

Noah's Arc Summer Camp tour (July 2nd)

An educational tour was conducted by MSU practicum student Mike Nault, for the students involved with the Noah's Arc Summer Camp through the Salvation Army.

National High School Counselors tour (July 23rd)

50 high school counselors from across the United States spent nearly an hour touring and asking questions regarding Towne's Harvest and the SFBS curriculum as part of an annual meeting held at MSU.

National 4-H Work Day (July 28th)

Leaders from the local 4-H chapter came out for an afternoon to assist THG by weeding and harvesting.

Catapalooza (August 25th-27th)

Towne's Harvest set up a booth to provide information and answer questions about THG, SFBS curriculum, and the MSU Friends of Local Foods student group.

CSA Member Work Day (August 25th)

THG CSA members came out for an afternoon and helped harvest beets, carrots, and green beans to learn a little bit more about how THG works and get to know the staff a little more.

U-Pick Flowers (September 2010)

The month of September, THG offered CSA members, practicum students, and FLF participants the opportunity to harvest their own sunflowers at no cost.

Willow Creek School District produce donation (September 2010)

THG donated produce to the Willow Creek school district for a silent auction held as a fundraiser.

Gallatin Valley Botanical tour of THG (September 3rd)

Gallatin Valley Botanical CSA's Matt and Jacey Rothschiller took their interns and staff to THG for an afternoon to learn about different CSA production, structure and management styles in the Gallatin Valley.

Park City, UT Sustainability Committee (September 9th)

Members of the Park City (Utah) Sustainability Committee toured Towne's Harvest for an afternoon and asked many questions about the balance of ecological, social, and economic sustainability.

MSU GEO Root Vegetable Harvest (September 15th)

The MSU Graduate Employee Organization helped THG harvest root vegetables for the final CSA pick-up of the season.

College of Agriculture Welcome Back Barbecue (September 16th)

THG donated produce to the Ag Student Council to provide salad and burger toppings for the College of Agriculture's annual "Welcome Back Barbecue".

Food Bank Gleaning Day (September 20th)

THG invited employees and volunteers from the Gallatin Valley Food Bank to glean beets, summer squash, winter squash, and kohlrabi as part of "National Gleaning Day".

Culinary Cabaret (October 1st)

THG partnered with MSU Friends of Local Foods for a dinner-theatre themed fundraiser that involved locally produced/prepared food, improv comedy, and live music.

President's Work Day (October 1st)

MSU's President Cruzado came out to Towne's Harvest and harvested produce alongside SFBS students and other members of the MSU community.

"Fill Your Bag" Day (October 1st and 4th)

THG CSA members were invited to come to the farm and take as much "U-pick" produce as they could fit into a bag for $15. This proved to be one of the more popular events of the season.

Montana Fest Dinner (October 6th)

MSU food service procured produce from THG as part of the annual "Montana Fest Dinner" held in the MSU dining halls to celebrate locally grown food.

Big Sky Institute and Ophir School (October 19th)

Students and teachers from the Ophir School in Big Sky toured THG learning about the science behind crop rotations, soil building, and compost.

BORN Montana Harvest Dinner (October 20th)

THG attended the Montana Harvest Dinner along with many other producers and local and regional food advocates from around the Gallatin Valley to participate in a discussion aimed at improving the Gallatin Valley and Montana's food system.





PRESIDENT'S LUNCHEON

Students enrolled in HDFN 445R: *Culinary Marketing: Farm to Table* enjoyed the special challenge of planning, preparing, and serving lunch for the 40 attendees of the 2010 President's lunch. Each main ingredient was obtained from the THG weekly harvest. Flowers decorated the tables. Short presentations were given by THG advisors, THG managers, MSU faculty, SFBS students, and students related to operations and developments at Towne's Harvest, integration with the SFBS curriculum, and future teaching, research and outreach goals. A tour was provided by the production manager following the lunch.

Program :

Overview of Towne's Harvest Garden
SFBS Program Update & Student Success Stories
Community Service Partnership with the Gallatin Valley Food Bank
Research, Grants, and Gifts
Interdisciplinary Challenges & Opportunities
Tour of Towne's Harvest Garden

Today's Menu

Pesto Butter or Honey and Assorted Bread
Beet Carrot Slaw
Mixed Green Salad with Viniagrette
Roasted Vegetable Quinoa
Summer Vegetable Quiche
Swiss Chard Apple Tart
Beet Chocolate Cake
Carrot Cake







Forty faculty, staff, students and administrators attended that 2010 President's Lunch.

PUBLICITY & PROJECT DISSEMINATION

Popular print publications:

- March 2010. SFBS Program featured in *The Prairie Star*, an agriculture magazine reaching over 20,000 Farm & Ranch families in Montana and Wyoming. http://www.theprairiestar.com/articles/2010/03/25/special_section/career%20paths%20feature/career1.txt

- September 2010. SFBS Program featured in Horizon Air magazine in article titled, "Education Specialization: College students embrace innovative new degree programs". Digital edition may be found at: http://horizonair.journalgraphicsdigital.com/Sep10/

Professional Presentations:

- Harmon, A.H. (2010). Invited Keynote. *Food Choices for Health and Sustainability*. Iowa State University. University Extension 41st Edition. Current Issues in Nutrition. Where Does Your Food Come From & Does it Matter? Virtual presentation with live Q&A on November 18, 2010.

- Stein, Mary, "SFBS at MSU: The Role of an Interdisciplinary Education Program in Improving Community Food Systems". Presentation to the U.S. EPA Region 8 Pollution Prevention Roundtable, Bozeman, MT. June, 2010.

- Stein, Mary. "Sustainable Food and Bioenergy Systems Program - An Interdisciplinary Degree Program at Montana State University". Poster Presentation at the National Farm to Cafeteria Conference , Detroit, MI. May , 2010.

- Stein, Mary, "Improving Community Based Food Systems". Presentation to the Western Region RC&D Meeting of the USDA- Natural Resource Conservation Service, Missoula, MT, February , 2010.



Publications:

- Malone K., Harmon A., Dyer W., Maxwell B., & Perillo C. Development and evaluation of an introductory course in sustainable food & bioenergy systems. *In preparation for submission* to the International Journal of Sustainability in Higher Education.

LESSONS LEARNED

Organizational Structure and Instruction:

- *For the 2010 season, a full-time classified staff person was hired to serve as production manager year round. Operations were managed by a graduate assistant during the summer and throughout the school year. Additional funds are needed to support both of these positions in the future, as THG revenues will be insufficient.*
- *The summer practicum should have a maximum enrollment of 20 to 25 students and it should allow for at least 5 students to complete the practicum during the fall semester..*
- *Communication among all SFBS and TGH staff can be improved.*
- *More rigid scheduling assignments should be considered to better manage the large number of practicum students. Teaching needs to be better coordinated, perhaps by a single instructor with 'field assistants'.*
- *For educational purposes, a weekly educational theme should be addressed as well as assigning students individual projects that can take place on the farm— project ideas can be generated in Spring.*

Infrastructure:

- *Having the well and walk in cooler have continued to be important infrastructure components for THG. .*
- *The lath house still needs to be replaced with a more efficient teaching facility and pack/wash house.*
- *We need to install frost free water spigots on the North side of the Hort farm to better facilitate season extended production, provide water for chickens in the winter, and washing produce during fall and spring seasons*
- *Continued improvements in the washing and processing infrastructure are needed, therefore a field washing station has been built to help in keeping the top soil and moisture in the field while improving the harvest and cleanliness quality of the crops .*
- *Acquiring an electric powered farm (golf) cart, bio fuel ready front end loader tractor, and a wind/solar combination of energy generation for power used on the farm would greatly increase the productivity and efficiency of work at THG.*

Production and Harvesting

- *Long-term fertility, crop rotation, pest and weed management plans have been addressed through the implementation of a 6 block-crop rotation and cover crop plan. However, the need for adequate N in this rotation is certainly lacking and should be addressed in some way.*
- *6 Zone—Surface drip irrigation decreased weed pressure and improved the efficiency of irrigation as well as addressed the ease for end of season removal. An improvement on this aspect could be that rows that are intensively cropped could possibly need multiple lines of drip to adequately provide enough water in drier years.*
- *Plastic mulch remains instrumental and necessary with most warm season crop production..*
- *Due to experimentation of season extension and increased infrastructure, a fall CSA share might be offered for the 2011 season..*
- *More focus on pest prevention is needed for flea beetles and aphids on susceptible crops.*
- *Carrots, Onions, Beets, and Lettuce should be planted in higher plant populations with-in the bed for better per sq' yield and weed suppression.*
- *Due to the inherent turnover of staff, maintaining accurate records and data is instrumental in developing successful crop and distribution plans for subsequent year.*

Distribution

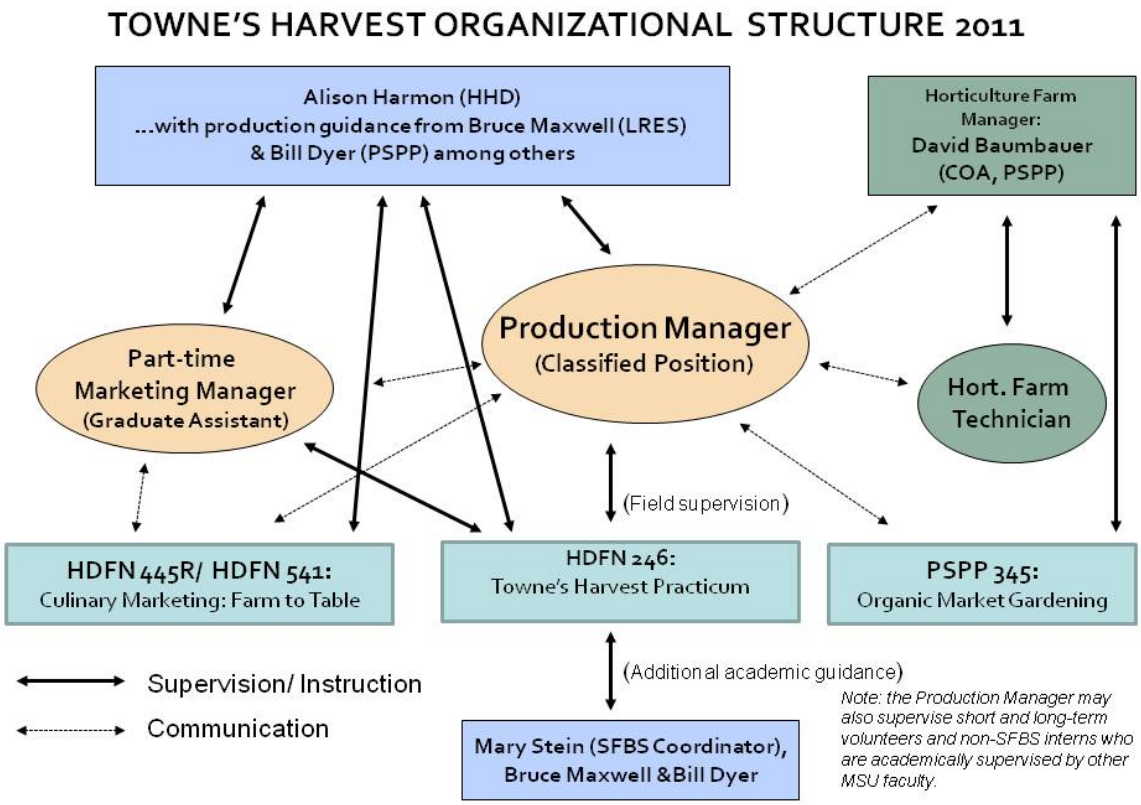
- *A fall share may be possible with season extension; u-pick, or fall canning box etc.*
- *Having small and large size shares continues to create some confusion among CSA members, many complaining that their "small share" wasn't as large as they expected.*
- *Practicum students need to be better educated about the foods they are distributing, taste the produce and have recipe suggestions for CSA members or farmers' market customers. Perhaps utilized advanced culinary marketing students to distribute food information to practicum students.*
- *Electronic communication via the email listserv was less successful than in the previous season. This responsibility should rest firmly with the operations manager rather than a practicum student.*
- *Market displays of produce could be more attractive..*
- *Distributing all CSA shares on the same day was manageable. Pre-sorting and crating part of the large share so that all members choose the same items worked well.*
- *Having a CSA member handbook and better attended orientation with clear instructions would decrease member confusion and help establish reasonable expectations.*
- *Only 3-4 students are needed at farmers' market.*
- *The campus market on 7th avenue was well-attended in August and September. We still need to pursue have the market on central campus.*
- *Should pursue a more significant contract with MSU foodservice to stabilize THG income.*

Outreach

- *Signage in 2010 was good.*
- *Practical produce information was distributed via the web-site, and was helpful to members and food bank clients..*
- *Practicum students should be more involved in outreach projects. Clearly defined outreach goals are still needed at the beginning of the season.*



2011 PROPOSED PLAN OF OPERATION AND ORGANIZATIONAL STRUCTURE



Distribution Plan:

- *100 CSA small family shares*
- *Tuesday Farmers' Market at Bogert Park*
- *Friday Farmers' Market on MSU campus*
- *MSU foodservice sales for fall Onions and Winter Squash*
- *40 CSA fall shares*
- *Participation in the Bozeman Winter Market as produce is available*
- *Bozeman area restaurants as produce is available*

Proposed Weekly Schedule:

- ***Monday**- harvest, PM Food Bank Distribution*
- ***Tuesday**- harvest, preparation, Bogert Farmers Market distribution*
- ***Wednesday**- farm maintenance*
- ***Thursday**– harvest, PM CSA distribution*
- ***Friday**- farm maintenance, Campus Farmstand*
- ***Saturday**- maintenance and as needed, irrigation*



2011 PREDICTED EXPENDITURES AND INCOME

The table on the following page is an illustration of direct expenses and income generated by the Towne's Harvest Garden project. In kind contributions to this project include use supplies at the Plant Growth Center. Rent is paid for use of space at the Plant Growth Center and at the MSU Horticulture Farm. The College of Education Health and Human Development has provided administrative assistance in 2010, financial accounting services, payroll services and publicity, while the College of Agriculture provides web site hosting, office space, and computer resources in the Marsh Lab. Faculty and Staff time has been provided by Alison Harmon, David Baumbauer, Bruce Maxwell, Bernie Schaff, the PGC staff, and the horticulture farm technician. In 2011, new tools will be needed to accommodate the growing number of students enrolled in SFBS, and to replace the use of Hort Farm tools which will be reserved for "certified organic" production.

The table that follows shows actual expenses for the past 4 years, and expected expenses for the 2011 season. The most significant challenge for 2011 will be supporting a year-round 1.0 FTE production manager salary with benefits. The bulk of our CSA income will be directed at supporting the production manager salary. We still anticipate supply costs as well as paying rent for using space and resources at the horticulture farm. The project will not likely be able to support itself entirely in 2011.Support from the university will be needed.

Towne's Harvest Garden Income & Expenses for 2007-2011

EXPENSES CATEGORY	2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Expected
Seeds/supplies	$3,346.26	$3,811.62	$4,203.00	$2,800.00	$5,000.00
Administration/ Communication	$1,370.32	$594.88	$399.50	$1,000.00	$2,000.00
Promotion	$823.77	$8,346.59	$1,879.51	$1,101.00	$1,000.00
Capital Investment/ student projects	$2,878.67	$6,227.86	$2,828.35	$1,177.00	$3,000.00
Hourly Labor	$29,375.30	$39,686.00	$17,052.90	N/A	N/A
Graduate Assistantships	N/A	N/A	$9,000.00	$9,000.00	$9,000.00
Operations Manager Summer Stipend	N/A	N/A	N/A	$8,000.00	$8,000.00
Production Manager Salary	N/A	N/A	N/A	$20,000.00	$28,000.00
Production Manager Benefits	N/A	N/A	N/A	$11,000.00	$13,000.00
TOTAL	**$37,794.32**	**58,666.95**	**$35,363.26**	**$54,078.00**	**$69,000.00**
INCOME CATEGORIES	**2007 Actual**	**2008 Actual**	**2009 Actual**	**2010 Actual**	**2011 Expected**
CSA memberships	$15,000.00	$22,825.00	$20,275.00	$24,700.00	$22,750.00
Gallatin Valley Food Bank Partnership	$8,640.00	$10,000.00	$5,000.00	$5,000.00	$2,436.00
Administrative Support	$9,000.00	$9,500.00	N/A	N/A	$15,000.00
Graduate Stipend supported by Endowment	N/A	N/A	$9,000.00	$9,000.00	N/A
EHHD Supported GRA					$9,000.00
Misc. Grants	$1,170.00[a]	$13,000.00[b]	0.00	$1,100.00[c]	N/A
Friends of Local Foods	$5,000.00	$5,275.00	$5,000.00	$3,000.00	TBD
Previous year's market sales	N/A	N/A	N/A	$7,500.00	$5,000.00
WSARE and/or HEC GRANTS	N/A	N/A	N/A	$4,000.00	TBD
University Foodservice Contract	N/A	N/A	N/A	N/A	$5,000.00
MT Dietetic Internship	N/A	N/A	N/A	N/A	$10,000.00
TOTAL	**$38,810.00**	**$60,600.00**	**$39,275.00**	**$54,300.00**	**$69,186.00**

[a] MT NAPA Community Garden Grant
[b] MT Dept of Ag Growth through Ag Grant for a new well and DVD production
[c] Bozeman Food Co-op 4% grant

TOWNE'S HARVEST ANNUAL TIMELINE

January

- *Finalize and distribute THG Annual Report for previous year*
- *Create crop plan*
- *Order seeds*
- *Finalize spring planting schedule*
- *Finalize proposed labor structure*
- *Organize Distribution plan*

February

- *Plant onions and Leeks in PGC—early Feb*
- *Plant Kale, Bok Choy, Lettuce in PGC—last week of Feb*
- *Advertise summer and fall CSA shares to previous members*

March

- *Plant tomatoes, peppers, eggplants, Brassicas, lettuce in PGC*
- *CSA share sales to general public*
- *Plan for On campus farm stand*
- *Plant cold frames with transplants and spinach, radish, cilantro, arugula—Late March*

April

- *Begin field seeding, radish, spinach, cilantro, fava beans as possible*
- *Finalize distribution plan*
- *Prepare and lay black plastic mulch in rows prescribed*
- *Plant cucurbits, fennel, lettuce, chard, kale, kohlrabi, in PGC*

May

- *Direct plant peas, salad mix, spinach, arugula as possible*
- *Transplant all that is ready and weather permitting-late May*
- *Finalize weekly farm schedule*
- *Post summer events on THG calendar*
- *Summer internships begin after finals week*
- *Campus farm stand sales begin*

June

- *Continue transplanting and direct seed all remaining crops*
- *CSA member orientation event*
- *CSA Distribution commences*
- *Farmer's Market sales begin*



Mary Stein, SFBS coordinator, and Mike Nault, SFBS student.

July

- *CSA member field tour event*
- *Conduct Intern mid-summer survey evaluations*
- *Sustainability Fair in Livingston*
- *THG Advisory Committee Meeting*
- *Plant fall transplants in PGC -late July*
- *Conduct THG CSA mid-summer member survey*

August

- *Annual President's Lunch*
- *MSU Catapalooza Outreach*
- *Plant seed for fall crops—mid Aug*
- *Start On campus Farm Stand*

September

- *Towne's Harvest Garden Harvest Festival Event*
- *Plant Field Cover crops where able*
- *Conduct THG CSA end of season survey*
- *Last summer CSA Distribution*
- *First Fall CSA Distribution*
- *New Fall Practicum class*
- *Plant cold frames with fall crops –early Sept*

October

- *Final farm work*
- *Seed cover crops as able*
- *Last Fall CSA distribution*
- *AERO Annual Meeting*
- *Finish on campus farm stand*

November

- *Montana Organic Association Annual Meeting*
- *Close Farm down for winter*
- *Organize data for Annual Report*



Our lady layers, on the range at THG.

December

- *Revise Outreach materials and brochures for FLF and THG*
- *Annual Fundraising Event*
- *Compilation of annual report*

EXTERNAL FUNDING FOR TOWNE'S HARVEST GARDEN

Future Grants:
A USDA Higher Education Challenge Grant was written in December 2010 and January 2011, and submitted in January 2011 to fund on-going teaching and research at THG in collaboration with faculty and staff at campus farms at WSU and UI. (*Proposal Submitted by PI: Alison Harmon, Co-PIs: Bill Dyer, Cathy Perillo (WSU) and Jodi Johnson-Maynard (U. Idaho), Mary Stein, Chaz Holt, and others).*

Current Grants:
2010. THG received a 4% Day grant from the Bozeman Community Food Co-op in March 2010, and these funds were used to subsidize "community shares" of THG. *(Grant submitted by Sam Robbins, 2008-2010 THG Operations Manager)*
2008-2010: The USDA Western Sustainable Agriculture Research and Education Program (WSARE) has funded the related *Sustainable Food & Bioenergy Systems Internships Development Project.* This $29,983 grant is assisting in the development of the field experience component of a new interdisciplinary SFBS degree program. Towne's Harvest is the site for 200 level internships, and a potential field experience for 400 level interns in the SFBS curriculum. *PI: Bill Dyer; Co-PI: Alison Harmon*.

2008-2011: A USDA CSREES Higher Education Challenge Grant was funded at the level of $490,000. *Development, Integration and Assessment of Food and Agriculture Systems Education* is a joint curriculum development and evaluation project with Washington State University and the University of Idaho. This grant is helping MSU and the other universities develop and evaluate their curricula as well as improve field experiences at campus farms such as Towne's Harvest. *PI: Alison Harmon; Co-PI's: Bill Dyer, Bruce Maxwell, Cathy Perillo (WSU) and Jodi Johnson-Maynard (U. Idaho).*

Past Grants:
2008. MSU Friends of Local Foods received a $1000 grant from the Bozeman United Methodist Church to support offering free CSA shares to 3 families who are also clients of the Gallatin Valley Food Bank (*proposal submitted by Alison Harmon and David Baumbauer*).

2008. A MT Dept of Agriculture "Growth through Agriculture" grant titled *MSU's Towne's Harvest Garden: Infrastructure, Organization, and Marketing Development* supported the installation of a new well to be used with drip irrigation, and the creation of a documentary about Towne's Harvest by MSU film graduate student Jaime Jelenchick, available at http://townesharvest.montana.edu/video.htm.

2007. MSU Friends of Local Foods received a $1000 grant from the Montana Nutrition and Physical Activity 5-A Day Program which was used to pay for a deer fence around the Towne's Harvest Garden's North Plot. *Grant submitted by Rachel Leisso (FLF 2007 Treasurer).*

2007. MSU Friends of Local Foods also received a 4% Friday grant from the Bozeman Community Coop in the amount of $1579.91 which was used as seed money for the 2008 season. *Grant submitted by Kaly Hess (2007 FLF President; 2008 Towne's Harvest Co-Chair).*

TOWNE'S HARVEST ON-GOING GOALS & PROGRESS

Part of the vision for Towne's Harvest is to be integrated with other MSU entities and activities such as; curriculum, teaching and research, student activities, and the University Food Service. The Garden should also be a venue for service to the surrounding community. Future goals include achieving an optimal organizational structure, improving farm infrastructure, expanding the use of Towne's Harvest as an outdoor classroom and research laboratory, continuing a mutually beneficial partnership with the Gallatin Valley Food Bank, and achieving some fiscal stability and security.

1. Farm and Campus-wide Sustainability

One goal of THG is to contribute to the University's sustainability plan and climate change commitment. We are interested in ecological sustainability, economic viability, and social justice. It has been a long-term goal to begin supplying our own institution with produce from THG in a more significant way.

2. Become a Fiscally Secure and Stable Operation

THG did not receive administrative cash support in 2010, and paid "rent" for agricultural experiment station acreage and plant growth center space, what was previously considered an "in-kind" contribution from the MSU College of Agriculture. Additionally, three summer courses (PSPP 345, HDFN 236, and HDFN 445R) are integrated into Towne's Harvest, serving 50-60 students/summer and generating up to 180 student credit hours. Hiring a full-time classified production manager to maintain this project and outdoor classroom was a necessary step to take in 2010, but increases the cost of the operation by approximately 75%. This year round position will likely increase the amount of revenue generated in market sales of produce, through season extension, but a significant portion of the production manager's time is spent instructing students, interns, and other volunteers. Towne's Harvest will require additional support form the university in order to continue to operate beyond 2011.

3. Improve and Develop Towne's Harvest Infrastructure

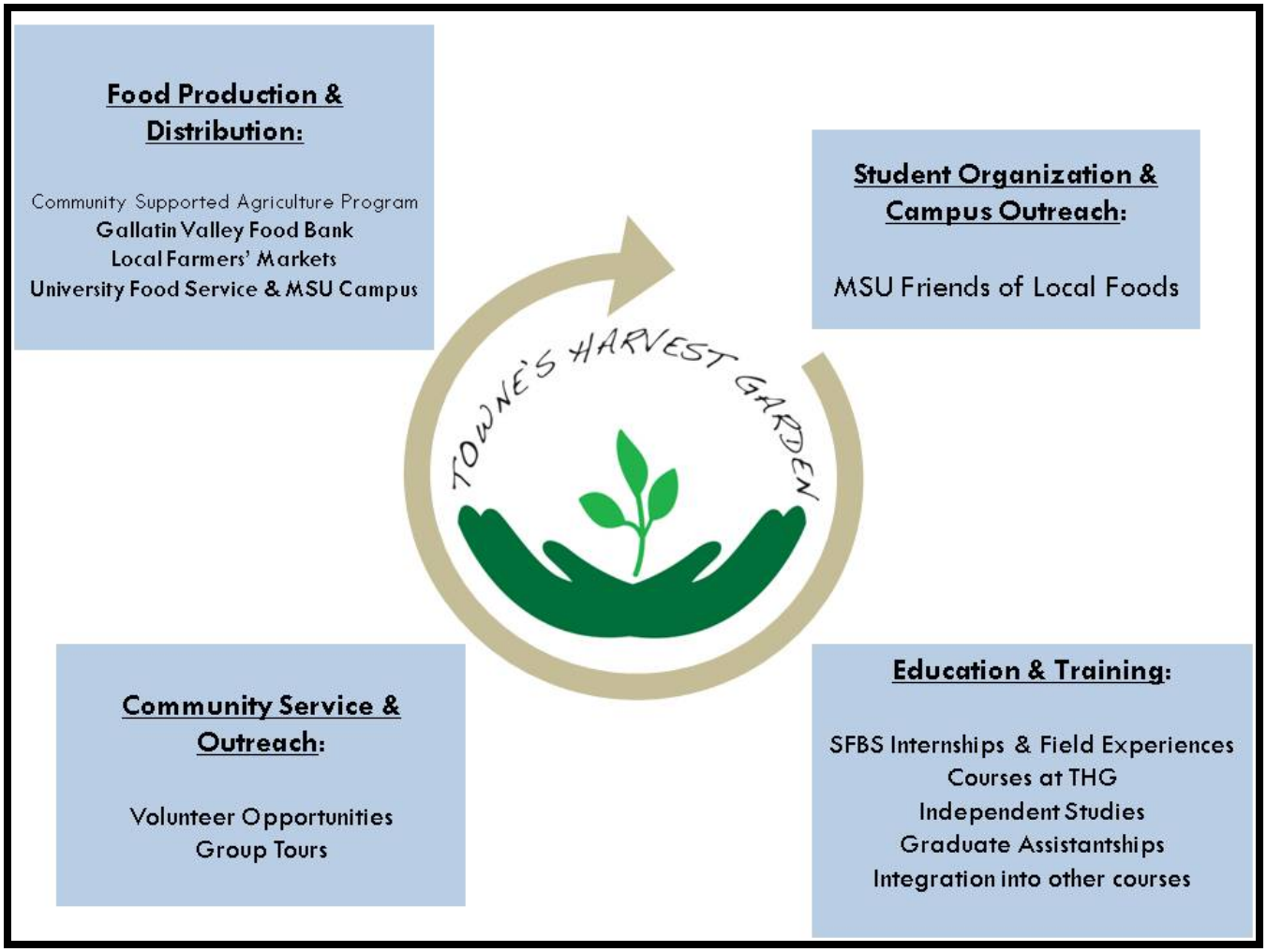
At the end of 2010, a new washing station was installed in the North field (by architecture students and faculty), that can also be used as THG tool storage, and an early season class meeting space, weather permitting during the 2011 season. The installation of a new well in 2009 was a success which continues to provide potable water for drinking, irrigating, and washing. Installing a cold storage unit was also a success for 2009— and continue to be necessary for maintaining the quality of our produce. We will continue experimenting with protected cultivation in hoop houses and other season extension strategies. A future infrastructure wish list continues to include a distribution barn/classroom, an above ground root cellar; and demonstrations of sustainability including a windmill, solar panels, and a composting toilet. In 2010 we purchased a new farmers' market tent and additional marketing materials that served well at events like Catapalooza, and the campus outdoor farmers' market.

4. Continue development as Outdoor Classroom and Research Lab, multi-disciplinary opportunities

The 2010 season offered many opportunities in research, outdoor classroom settings, and inter disciplinary projects. This year Mechanical Engineers, Electrical Engineers, Architects, Art and Designs students, Soils, and SFBS students all took on personal projects that were inter-connected with THG operations. This is only the beginning of what is possible with interdisciplinary opportunities. We hope to further develop our outdoor classroom in the coming seasons by better organizing the structure of the practicum class time as well as take advantage of the new field wash station and student shelter. A goal for future seasons continues to be the expansion of community outreach including more tours and workshops for the public and our CSA members.

5. Continue to Partner Effectively with the Gallatin Valley Food Bank, CSA members and others

We will continue to partner with the Food Bank in multiple ways. In 2010 we offered the Food Bank a more cost effective source of fresh produce and provided the produce they most desired. In 2010 we also offer subsidized shares with a 4% day grant from the Community Food Co-op. Chaz Holt, THG production manager served as a production consultant for the Gallatin Valley Food Bank as needed for the continued development of their on-site production strategies. Students involved in coursework at Towne's Harvest completed service learning projects for the Food Bank (newsletter resources, helping with set up of attractive produce displays, recipe development and useful research projects.) For our CSA members we continue to collect customer satisfaction data and to make improvements based on feedback. Survey results suggest that the majority of members are satisfied with both the quantity and quality of THG produce. However, more members than in the past expressed dissatisfaction with the size of the CSA share in 2010. This concerned will be addressed in 2011.





Andy "Cotton" Sarjahani, Operations Manage & Charles "Chaz" Holt, THG Production Manager, 2010

APPENDIX

2010 Budget Expenses
2010 Budget Income
2010 Crop, Field and Weather Notes
2010 Block and Row Crop Plan and Rotation
2010 Crop Production
2010 CSA Distribution Data
2010 CSA Member Brochure



2010 Towne's Harvest Practicum students

2010 THG EXPENSES
Seeds/Supplies

Vendor	Item	Amount	Date
Johnny's Seed Co.	Seeds	$ 79.45	2/26/2010
Murdoch's	Seeds	$ 102.34	3/24/2010
Johnny's Seed Co.	Seeds/Supplies	$ 451.75	3/24/2010
Holt Heritage Farm & Supply	Seeds	$ 80.00	4/13/2010
Fisher's Garden Store	Seeds	$ 70.60	4/15/2010
Peaceful Valley Farm & Garden Supply	Seeds	$ 316.83	4/21/2010
Mechanical Transplanter Company	Black mulch	$ 92.00	5/11/2010
Gallatin Valley Garden Center	Seeds	$ 46.50	6/2/2010
Owenhouse ACE Hardware	Irrigation supplies	$ 93.05	6/3/2010
Murdoch's	Chicken supplies	$ 55.71	6/7/2010
Owenhouse ACE Hardware	Irrigation supplies	$ 4.37	6/9/2010
Western Pines, LLC	Pole peelings	$ 101.00	6/10/2010
Owenhouse ACE Hardware	Irrigation supplies	$ 67.31	6/16/2010
Murdoch's	Chicken feed	$ 14.49	6/17/2010
Owenhouse ACE Hardware	Irrigation supplies	$ 12.72	6/22/2010
Food Co-op	Salad bags	$ 25.73	6/23/2010
Murdoch's	Grass seed/Chicken feed	$ 65.47	6/28/2010
Roof Basket Works, Inc.	Bushel baskets	$ 72.90	6/29/2010
Murdoch's	Chicken feed	$ 14.49	7/6/2010
Drip Works	Irrigation supplies	$ 92.00	7/6/2010
Owenhouse ACE Hardware	Irrigation supplies	$ 24.97	7/7/2010
Murdoch's	Chicken feed	$ 25.48	7/14/2010
Food Co-op	Salad bags	$ 64.03	7/15/2010
Murdoch's	Chicken feed	$ 28.98	7/25/2010
Murdoch's	Chicken feed	$ 29.98	8/9/2010
McMurray Hatchery	Chicken feed	$ 4.95	8/12/2010
Meat Shoppe	Meat for THG BBQ	$14.87	8/19/2010
Murdoch's	Chicken feed	$ 25.98	8/19/2010
Smith's Market	Food for THG BBQ	$ 22.83	8/19/2010
Johnny's Seed Co.	Seeds	$ 45.80	8/26/2010
Murdoch's	Chicken feed	$ 29.98	8/27/2010
Murdoch's	Chicken feed	$ 26.38	9/9/2010
Murdoch's	Chicken feed	$ 15.49	9/23/2010
Murdoch's	Chicken feed	$ 14.99	10/6/2010
Fedco	Garlic seed	$ 291.50	9/1/2010
	Total:	**$ 2,524.92**	

2010 THG EXPENSES

Administration/Communication

Vendor	Item	Amount		Date
MSU Bookstore	Office supplies	$	13.55	3/31/2010
Wal-Mart	FM Supplies	$	125.98	4/27/2010
UPS Store	Laminating	$	3.98	6/1/2010
PGC	PGC Bill	$	132.48	6/3/2010
Michael's	FM Supplies	$	26.46	6/15/2010
Staples	FM Supplies	$	1.99	6/15/2010
Owenhouse ACE Hardware	FM Supplies	$	12.77	6/15/2010
Staples	FM Supplies	$	41.77	6/15/2010
Office Depot	Office supplies	$	46.98	6/23/2010
Office Depot	FM Supplies	$	15.57	7/14/2010
Montana Party Rental	Tables/Chairs (Pres. Lunch)	$	128.50	7/21/2010
Holiday Station Store	Ice (Pres. Lunch)	$	4.79	7/27/2010
PGC	Hort. Farm Bill	$	1,000.00	7/1/2010
Office Depot	Printer/Supplies	$	73.97	9/22/2010
Murdoch's	Ceramic heater	$	34.99	9/23/2010
Office Depot	Printing paper	$	9.98	11/9/2010
	Total:	**$**	**1,673.76**	

2010 THG EXPENSES

Vendor	Promotion Item	Amount		Date
Bogert Farmers Market	Market dues	$	200.00	1/30/2010
Career Transitions	Gallatin Valley FM dues	$	50.00	2/2/2010
City of Bozeman	Sustainability fair	$	20.00	4/1/2010
University Printing	Food Guides/Annual Report	$	499.00	4/2/2010
Sign-a-Rama	THG Sign	$	80.49	6/4/2010
CWJ Associates	THG Sign	$	135.62	7/7/2010
Reimbursement	THG Sign for CDC garden project	$	24.10	7/23/2010
Insty Prints	THG Info. Cards	$	50.05	8/5/2010
Winter Farmers Market	Dues	$	25.00	10/9/2010
BORN Harvest Dinner	Ticket	$	17.50	10/20/2010
	Total:	**$**	**1,101.76**	

2010 THG EXPENSES

Capital Investment

Vendor	Item	Amount	Date
Murdoch's	Chicken coop supplies	$ 359.63	5/3/2010
Lowe's	Chicken coop/Handwashing stat	$ 161.70	5/7/2010
Lowe's	Produce washing station	$ 87.51	5/12/2010
McMurray Hatchery	Laying hens	$ 152.79	5/14/2010
Hutterites	Laying Hens	$ 55.18	5/17/2010
Lowe's	Chicken coop supplies	$ 9.84	5/19/2010
Lowe's	Chicken coop supplies	$ 78.50	5/19/2010
McMurray Hatchery	Laying hens	$ 111.57	8/12/2010
Target	Tent for farm stand	$ 79.99	8/28/2010
Owenhouse Ace	Winter supplies for chickens	$ 26.06	8/30/2010
Kenyon Noble	Winter supplies for chickens	$ 54.96	9/23/2010
	Total:	**$ 1,177.73**	

2010 THG EXPENSES

Gas/Cell phone

Vendor	Item	Amount	Date
Holiday Station Store	Gas	$ 32.00	5/12/2010
Wilsal Gas Station	Gas	$ 41.00	5/17/2010
Reimbursement	Chaz - cell phone minutes	$ 100.00	5/20/2010
?	Gas	$ 15.91	?
Casey's Corner	Gas	$ 15.01	5/31/2010
Casey's Corner	Gas	$ 20.00	6/4/2010
Casey's Corner	Gas	$ 15.99	6/10/2010
Thriftway	Gas	$ 30.25	6/10/2010
Holiday Station Store	Gas	$ 15.06	7/21/2010
Casey's Corner	Gas	$ 15.15	8/31/2010
Exxon	Gas	$ 15.31	9/23/2010
	Total:	$ 315.68	

2010 THG INCOME

	CSA and Community Shares		Gallatin Valley Food Bank		Farmers Market		Misc. Sales		
	Amount	Date	Amount	Date	Amount	Date	Amount	Source	Date
	$ 825.00	2/19/2010	$ 5,000.00	6/23/2010	$ 68.00	12/2/2009	$ 150.00	DVD sales	1/4/2010
	$ 5,000.00	2/26/2010			$ 243.25	6/2/2010	$ 10.00	CSA Raffle	2/9/2010
	$ 4,075.00	3/8/2010			$ 225.00	6/9/2010	$ 80.00	CSA Raffle	2/19/2010
	$ 1,375.00	3/25/2010			$ 135.00	6/17/2010	$ 40.00	CSA Raffle	2/26/2010
	$ 5,750.00	3/29/2010			$ 208.00	7/14/2010	$ 100.00	CSA Raffle	3/8/2010
	$ 825.00	4/1/2010			$ 275.25	7/21/2010	$ 250.00	FLF Food Fair	3/17/2010
	$ 1,375.00	4/20/2010			$ 352.25	7/28/2010	$ 20.00	CSA Raffle	3/25/2010
	$ 725.00	4/27/2010			$ 181.50	8/2/2010	$ 20.00	CSA Raffle	3/29/2010
	$ 275.00	4/30/2010			$ 182.00	8/4/2010	$ 185.00	FLF Reimbursement	4/7/2010
	$ 375.00	5/11/2010			$ 536.50	8/11/2010	$ 1,373.02	Co-op 4% Day	4/20/2010
	$ 1,275.00	5/25/2010			$ 543.50	8/23/2010	$ 25.00	Local Food Guide	4/20/2010
	$ 462.50	5/27/2010			$ 361.00	8/28/2010	$ 30.00	CSA Raffle	4/27/2010
	$ 137.50	5/28/2010			$ 669.80	9/10/2010	$ 420.00	FLF seed reimburse	4/27/2010
	$ 275.00	6/17/2010			$ 758.50	9/22/2010	$ 71.00	Ale Works	6/21/2010
	$ 275.00	6/21/2010					$ 40.00	MSU Bookstore (FLF)	7/12/2010
	$ 1,100.00	6/25/2010					$ 482.00	Stewbird/Fall Box/Winter Market	10/11/2010
							$ 348.00	"Fill Your Bag Day"	10/18/2010
							$ 201.16	WIC + Remaining cashbox	10/28/2010
							$ 278.00	Sola/WSE/Sr. Coupons	11/9/2010
							$ 76.00	WIC Reimbursement	11/12/2010
Totals:	$ 24,125.00		$ 5,000.00		$ 4,739.55		$ 4,199.18		
Totals (2009):	$ 20,275.00		$ 5,000.00		N/A		N/A		
Combined Total:	**$38,063.73**								

2010 THG
Crop, Field, and Weather Notes

Arugula. The field grown arugula this season was especially hard hit by flea beetles. Floating row covers were not enough protection to keep mature leaves from being damaged. The best possible answer for coming seasons are to plant extremely early and extremely late, or not at all in the field. We had tremendous success growing in hoop houses. This may need to be a focus for the future.

Basil. Good success again. We ended up harvesting whole plants after mid season due to very successful sequential planting and having plenty to go around. Both hoop house and field grown did well, however the under cover crops did the best as they were spared from the 6 hail storms the field suffered.

Beans. All varieties of green beans did well. However the purple variety produced the least. We had yellow, purple, green and hert cot vert varieties of snap beans. The hardest part of the beans were the harvest. We did not pick as regular as we should have to yield all that was possible. As many beans were plowed in as harvested.

Bok Choi. This crop turned out to be very successful by planting early in the cold frames. Planted in the field it was a total loss to flea beetles. Both early spring and late fall plantings in cold frames are the only way to attempt to grow this crop.

Beets. Beets were again very successful. The only failure this season was not planting the crop in higher populations. In the coming seasons it would be best to succession plant the same amount of beds but in 4 to 5 rows per bed rather than 3.

Broccoli. Great crops all around. We had 3 separate varieties and planted 3 separate ways. Early plantings of marathon into black plastic did very well. The second planting of broccoli, arcadia, were planted as normal into direct soil. These did well also except suffering minimal flea beetle damage. The third planting was done in late July for a fall harvest. This also achieved success however we did not harvest this crop as we did not have a market.

Cabbage. Not the most successful yield this year. I believe it to be lacking N and poor variety selection. We did a good job in timing our BT sprays for cabbage worms but the overall pounds harvested were not the greatest. In future plantings I will likely select short day storage varieties.

Carrots. The carrot crop description is similar to the beets. We did not plant in very high densities or as many rows as in previous years. That said however the crop did produce very well in a per square foot basis. The one flaw in this crop our staggered harvest practices in such a high moisture year. The end of our season harvest the carrots began to expand and split due to excessive rain and perfect growing conditions which allowed them to continue to over mature. This was un anticipated and very good to know for the future. We also plan to create better storage facilities for excessive harvest times.

Chard. Our Swiss chard did very well as to be expected. The most consistent problem we had with chard was our extreme hail storms. We had 6 devastating hail storms, each time setting the total

crop backs a week for harvest potential.

Cilantro. Great crop in the field and in the hoop houses. I cannot figure out how to produce Cilantro in the season of fresh tomatoes.

Corn. Sweet corn did very well this season despite the cold spring. We planted 66 day 72 day and 88 day corn at that same time and it worked perfectly. The latest variety only produced because we had an extremely mild fall. Our yields were great, our sales however were not.

Cucumbers. We had pickling, slicing and lemon varietites. All produced fairly well except for the hail storms and cooler wet spring. The month of July they all did exceptionally well but as more and more hail storms came through the quality of the produce suffered

Eggplant. I will plant more egg plant next season in the hoop houses. They all produced moderately but mostly because I did not plant them early enough or in enough quantities.

Endive. This was planted in small quantities to test its productivity in the field as well as markets. Both were found to be useful.

Fava Beans. Were one of the first things planted in late April but then roto-tilled over when it was assumed they were not going to produce. However they actually made it to production even through the mistaken renovation. They produced very well but the market place is questionable.

Fennel. Did very well.

Red Kale. Our red kale in the hoop houses raised beds were one of the first crops planted and one of the last crops still able to harvest good quality from. None was planted in the field.
Kale, the blue kale was all planted in the field and produced well. This crop suffered from high numbers of aphids in the fall and also suffered from the large amount of hail over the summer. Over all yields were low due to these two occurrences.

Kohlrabi. Both purple and white did Ok. They did not grow to the fullest maturity in good time, I believe being due to a lack of N or simple impatience on our part in harvesting.

Leeks. We planted a large number of leeks this season where about half produced to the fullest maturity size. I believe we will cut this number in half next season and do better irrigation and fertility to increase this production.

Lettuce. Did not produce very well over all. All the head lettuce was small and as stated on all other leafy greens this crop also suffered from the large amount of hail. We will certainly need to provide more N and possibly transplant more head lettuce earlier in the season to attempt to gain the larger possible yields.

Melons. Produced but as expected not in a marketable volume. We will again attempt this crop in hopes of more heat units this coming season.

Mustard Greens. When grown under cover and planted for fall seasons this crop did very well. When planted in the field and early spring this crop suffered from flea beetles.

Onion. Did very well however I believe with the addition of N they would have been much larger and matured more quickly. The late maturity could have also been due to the cool wet August.

Parsley. Planted in large quantities and grew exceptionally well. We didn't even remotely have a market to address the volume of flat leaf parsley we had in production. 90% went to waste.

Pea. Did poorly. I don't exactly have a good explanation as to why. The entire valley suffered in pea crops this season to some extent so it was almost certainly an environmental factor causing poor yields.

Peppers. Did poorly. We didn't get the transplants started early enough in the PGC nor did we protect them well enough in the field after planting. The peppers in the hoop houses produced fairly well. I believe having large plants to transplant into the field along with floating row covers at night in early season we can again have good yields.

Potatoes. Did not produce well at all on a per plant basis. This crop suffered many issues due mostly to poor management. We used the experimental planter that ridged the potatoes at planting there fore we did not continue to hill the plants as the season. We also decided not to drip irrigate this crop due to the large amount of rainfall and no signs of plant stress during the growing season. The last mistake on this crop was the timing of harvest was done too soon due to the need for addressing our markets. Most of the plants were not fully mature when we dug the potatoes causing the harvested crop to be green. We also found that without having drip irrigation, hilling potatoes turned out to be more detrimental to yield than not. Many corrections will need to be made to this crop next season. Our overall yield was substantial however only because we planted so many. The per plant yield was horrible.

Pumpkins. This season did very well. Despite the defoliation from all the hail storms our pumpkins still seemed to produce approximately 4 or more quality size fruits per vine. We were un able to sell all of our harvest.

Radish. This crop is and will likely always be a great yielding and reliable producing crop. We planted 2 successions in the spring and 2 in the fall where both were very good.

Salad mix. Did very well all months of the season and sold very well at all times

Scallions. Great crop to have and plan for more in the future

Sweet potatoes. Produced fingerlings in very very small quantities. Mostly due to the lacking heat units this season. We will attempt this crop again by betting on a warmer 2011

Spinach. Did exceptionally well in all months of the season except august. The only failure in spinach this season was due to the hail damage.

Summer Squash. Did not do as well as could be for a number of reasons. The two most dominate issues with this crop were cooler spring and summer weather as well as the 6 hail storms. Both caused poor flowering and fruiting over the entire season.

Sunflower stems. We had a great stand of volunteer and hybrid sunflowers this season. We allowed u-pick for 4 weeks on the farm with CSA members and left the remaining for bird food and cover.

Tomatoes. Our hoop house production was focused on a greenhouse variety (arbason) which proved to be exceptional. Our field production was mostly heirlooms and also did very well by the end of the season. Our only problem was having a good fall season market to sell the extra good production.

Tomatillos. Everything we harvested was from volunteer plants around the farm.

Turnips. We had 100% loss in the field due to flea beetle damage. I was able to plant purple top turnips in raised beds mid July for a fall crop without much damage.

Winter squash. We had good yields from acorn, buttercup, and hubbard varieties this season but horrible yields from butternut. All crops suffered from hail damage but seemed to produce through the damage for the most part.

Production and Weather summary details:

May 6th – 3" snow (22L and 38H)

May and June we received approximately 6+ inches rain
May 30th – began produce sales
June 1st - Rain (45L and 60H)
June 11th – light snow (33L and 65H)
June 15 – 70 degrees, most planting was completed and primary harvesting beginning
June 23rd – 75 degrees, devastating hail storm
June 30th – 88 degrees, record setting hail storm
July – whole month was in the 80s and 90s with no precipitation
July 28th – most spring crops were completed, and most abundant over all crop yeilds began, started planting crops for fall markets
August 2nd – light hail storm (45L and 88H)
August 9th – Rain and hail (45L and 65H)
August 23rd – rain (39L and 45H), no drip irrigation was needed for 2 weeks

August, approximately 3 inches of rain
September 2nd – Rain (31L and 65H)
September 9th – Heavy Rain
September 14th – Heavy hail storm, consistent cold temperatures
September 23rd – began harvesting July planted fall crops, also began planting more leafy greens for late fall markets
September 27th – began field clean up and finishing up field work
October 11th, first total killing frost (24L and 45H)
October 20th – last produce sales of the season

2010 THG BLOCK AND ROW CROP PLAN ROTATION

2010 "Plan"	160'				South	160'				
	Block 1	Row	Crop			**Block**	Row	Crop		
	5/14	1	4 row lettuce	plastic	done 7/30	4/20	1	2 row snappeas		
	5/17	2	2 row broccoli	plastic		4/20	2	2 row snappeas		
	5/12	3	cilantro 4 rows			6/9	3	2 row snap beans	yellow	
	4/20	4	2 row spinach - replanted to broccoli 7/24			6/9	4	2 row snap beans	green	
	5/31	5	Fava Bean / 4 row radish			5/31	5	offset 2 row S. Squash		plastic
	5/17	6	2 row Broccoli			5/31	6	offset 2 row S. Squash		plastic
	5/18	7	3 row cabbage			6/3	7	cucumber		plastic
	5/27	8	3 row kholrabi, dill, cabbage			6/3	8	cucumber		plastic
	5/18	9	4 row lettuce salad mix			6/14	9	Basil		plastic
	6/22	10	Beets / arugula too damaged			6/9	10	2 row snap beans	purple	
	6/9	11	4 row sorrel/mache/endive/spinach			6/3	11	5 row Bunching Onions		
	5/14	12	2 row chard			5/18	12	4 row leeks		
	4/20	13	2 row spinach - replanted to kohlrabi 7/24			5/19	13	5 row Onions		plastic
	5/17	14	2 row Kale 1/2 - 2 row caulifower 1/2			5/18	14	4 row Leeks		
	6/9	15	3 row Broccoli/Kholrabi		plastic	6/3	15	4 row Onions		plastic
WELL			160'					160'		
	Block 3	Row	Crop			**Block**	Row	Crop		
	6/14	1	1 row Tomato 2'	plastic	80 plants	**5/15**	1	2 row hilled potatoes		
	6/14	2	1 row Tomato 2'	plastic	80 plants	5/15	2	2 row hilled potatoes - and again 6/21 w leftovers		
	6/14	3	2 row pepper	plastic		5/15	3	2 row hilled potatoes - inter cropped w radish 6/21		
	6/14	4	1 row melons	plastic		5/15	4	2 row hilled potatoes		
	6/22	5	arugula FAILURE			5/17	5	3 row Carrots and 1/4 row potatoes		
	5/31	6	4 row dill, parsley			5/17	6	3 row Carrots		
	6/9	7	3 row lettuce			5/17	7	3 row Carrots		
	6/14	8	2 row beans	green		5/17	8	3 row Beets		
	6/14	9	2 row beans	green		5/17	9	2 row Turnips FAILURE - replanted to beets		
	6/14	10	2 row beans	purple		5/17	10	2 row Turnips FAILURE - replanted to beets		
	6/9	11	3 row Cabbage/Bok Choi			5/17	11	1 row radish, 2 row carrots		
	6/14	12	HerCot Vert Beans			5/17	12	2 row beets		
	6/14	13	4 row lettuce salad mix			5/17	13	3 row carrots		
	6/14	14	Summer Squash				14	space utilized in potatoe plantings		
	6/9	15	1 row Edomome Soy Beans				15	space utilized in potatoe plantings		
	160'					160'				
	Block 5	Row	Crop			**Block**	Row	Crop		
	5/31	1	1 row sweet potatoes	plastic						
	6/3	2	winter squ	plastic	acorn					
	6/3	3	winter squ	plastic	butternut			Cover Crop with buckwheat and spring pea in June		
	6/11	4	winter squ	plastic	hubbard			Followed by winter pea and winter wheat in September		
	6/11	5	winter squ	plastic	buttercup					
	5/31	6	1 row pumpkin	plastic				Summer cover plantings:		buckwheat only
	6/9	7	2 row sweet corn	fleet 66 day				planted 6/25		buckwheat w/yellow clover
	6/9	8	2 row sweet corn	xtra t 71 day						buckwheat w/spring lentil
	6/9	9	2 row sweet corn	Brocade 83 day						buckwheat w/winter pea
		10	1 row Painted Maize Corn							
	6/14	11	2 row potato							
	6/14	12	2 row potato							
			Karin Neff Research plot							
			8 rows by 400', tomato, corn, spinach, brocc							
					North					

THG annual report crop and CSA data

Crop Harvest		May 20th to October 31st (with approx. 1000#s remaining crop in field)	**Average Season Crop Values**
arugula	27		$8/lb
basil	47.5		$12/#
basil, whole plant	153		
beans	988		$3/#
Bok Choi	172		$2 each
beets	1352.5	(approx half with out greens and approx 200#s left in field for late harvest)	$2/#
brocolli	725.5		$3#
cabbage	745.5		$2 each
carrots	857	(over half without greens and approximatly 200#s left in field for late harvest)	$2/#
cauliflower	60		$4/#
Chives	64 bunches		$10/#
chard	207.5		$2/bundle of 10 stems
cilantro	89 bunches		$2/oz
corn	139 dozen = 1668 each = approx 1800#s		$8/doz
cucumbers	854.5		$2/#
Dill	58 bunch and	16 #s	$2/#
eggplant	76		$4/lb
endive	20		$2 each
Fava Beans	95		$3/#
fennel	120		$3 each
Red Kale	27.5		$2/bundle of 10 stems
kale	133		$2/bundle of 10 stems
Kohlrabi	312		$2 each
leeks	526		.50 each
lettuce	947.5		$2 each
melons	75		$2 each
Mustard Greens	20		$2/bundle of 10 stems
onion	943.5		$1 each
parsley	46 bunch	38 #s	
peas	80		
peppers	70		
potaotes	1570		
pumpkins	2596	approx 500#s left in field for u pick	
radish	153.5		
sage	24 bunch		
salad mix	427		
scallions	183		
sweet potatoes	24		
spinach	209.25		
summer squash	2387		
sunflower stems	250	(+ approximatly 200 u pick stems)	
tomatoes	1118		
tomatoes, green	495		
Tomatillos	30		
turnips	10		
winter squash	2635		
eggs	1400 over 3 months		

Miscellaneous Information

crop feed waste	1000#	Aug 1st to Sept 1st
student gift produce	400# in the month of August	

Average crop production value per acre = $12,000

Approximatly 200#s crop waste from 6 devestating Hail storms, valued at $800

Weekly CSA distribution **CSA weekly total pounds**

24-Jun						
Large		**17 shares**		**Small**		**67 shares**
Cut Flowers		3 stems		Salad or Chopped Greens		1 bag
Choice of Herbs		1		Choice of Herbs		1
Cabbage or Chard	1#	1		Spinach or Kale		1 bag
Salad Mix	1/2#	1 bag				
Chopped Braising Gre	1/2#	1 bag				
Radish or Kale	1/2#	1 bundle				
	4#'s	$15		1 #		$9
	68			67		135

1-Jul						
Large		**17 shares**		**Small**		**67 shares**
Spinach		2 bags		Spinach		1 bag
Salad Mix		1 bag		Salad Mix		1 bag
Broccoli		1 head		Herb choice		1 bag
Basil		1 bag		Cabbage/Bok Choi		1
Radish		1 bunch		Townes Bag		1
Green Onions		1 bundle				
Townes Bags		2				
Townes Pint Glass		1				
	3#	$39		2#		$21
	51			134		185

8-Jul						2 comps
Large		**17 shares**		**Small**		**67 shares**
Lettuce		2 head		Lettuce		1
Salad Mix		large bag		Salad Mix		small bag
Green Onion		1 bunch		Kale or Chard choice		1 bunch
Kale or Chard choice		1 bunch		Baby Beets		1 bunch
Baby Beets		1 bunch		Basil		1 bag
Basil		1		Spinach		1 bag
Spinach		1 bag		Green onion		1 bunch
Radish		1 bunch				
Cabbage		1				
	4.5#	$23		3#		$17
	76.5			201		278

15-Jul		2 comps				2 comps
Large		**17 shares**		**Small**		**67 shares**
Cilantro		1 bag		Cilantro		1 bag
Lettuce		1		Lettuce		1
Salad Mix		1		Salad Mix		1
Spinach		1		Spinach		1
Basil		1		Basil		1
Chard/Kale combo		1		Chard/Kale combo		1
Green onion		1		Green onion		1
Broccoli		1				
Radish		1				
Summer Squash		1				
Kohlrabi		1				
	5.5#	$30		3#		$20
	93.5			201		294

22-Jul		3 Comps				2 comps
Large		**17 shares**		**Small**		**67 shares**
Onions		1		Onions		1
Lettuce		2		Lettuce		1
Salad		large		Salad		small
Spinach		1		Spinach		1
Kohlrabi		1		Kohlrabi		1
Beets		1		Beets		1
Peas		1		Peas		1
Chard		1		parsley		1 bundle
Squash		1				
Parsley		1 bundle				

Basil, whole plant	1				
8#	$40		6#	$20	
136			402		538

29-Jul	2 comps		1 comp
Large	**17 shares**	**Small**	**67 shares**
Salad	1	Salad	1
Lettuce	2	Lettuce	2
Basil	1	Basil	1
Broccoli	1	Broccoli	1
Squash	2	Squash	2
Beets	2	Beets	2
Green onion	1	Green onion	1
Bulb onion	1		
Kale	1		
Parsley	1		
Peas	1		
Fennel	1		
9.5#	$33	7#	$21
161.5		469	631

5-Aug	2 comps		1 comp
Large	**17 shares**	**Small**	**67 shares**
Salad	1	Salad	1
squash	4	squash	2
Fava Beans	1/2#	Fava Beans	1/2#
Kohlrabi	3	Kohlrabi	3
Green Onion	1	Green Onion	1
Dill	2	Dill	2
Basil, whole plant	1	Basil, whole plant	1
Carrots	1#	Carrots	1/2#
Endive	1		
Peas	1#		
Red Cabbage	1		
10#	$35	7#	$20
170		469	639

12-Aug	2 comps		1 comp
Large	**17 shares**	**Small**	**67 shares**
Squash	4	Squash	4
Broccoli	1	Broccoli	1
Green Beans	1	Green Beans	1#
Fennel	1	Fennel	1
Beets	2	Beets	2
Parsley	1	Parsley	1
Carrots	1	Carrots	1/2#
Basil	1	Basil	1
Kale	1		
Cucumber	2		
Tomato/pepper mix	1		
Sunflowers	3		
11#	$32	8#	$21
187		536	723

19-Aug			
Large	**17 shares**	**Small**	**67 shares**
Squash	4	Squash	3
Beets	2#	Beets	2#
Red and White Onion	2	Red and White Onion	2
Leeks	3	Leeks	3
Carrots	1#	Carrots	1#
New Potatoes	2#	New Potatoes	2#
Green Beans	2#	Green Beans	1#
Parsley or Basil	1	Parsley or Basil	1
Cucumbers	3	Sunflowers	2
Spinach	1		
Sorrel	1		
Chard/Kale Combo	1		

Sunflowers	2 stems					
Green Tomatoes	2					
	16#	$42		10#	$24	
	272			670		942

26-Aug	1 comp			1 comp	
Large	**17 shares**		**Small**	**67 shares**	
Green Beans	3#		Green Beans	1.5#	
Carrots w/out greens	5		Carrots w/out greens	5	
Onions	2		Onions	2	
Basil	1		Basil	1	
S. Squash	4		S. Squash	4	
Tomatoes	2		Tomatoes	2	
Potatoes	2#		Potatoes	2#	
Cucumbers	2		Cucumbers	2	
Kale	1		Kale	1	
Sunflowers	U pick		Sunflowers	U pick	
Leeks	4		Cabbage	1	
Bok Choi	1				
Beets	3				
Cherry Tomatoes	1 box				
	18#	$46		12#	$26
	306			804	1110

2-Sep					
Large	**17 shares**		**Small**	**67 shares**	
Tomatoes	1		Tomatoes	1	
Pepper	1 box		Squash	4	
Squash	4		Chard	1	
Chard	1		Beets	4	
Beets	4		Leeks	4	
Leeks	4		Onions	2#	
Onions	2#		Parsley	1	
Parsley	1		Green Beans	1	
Green Beans	1		Cucumbers	3	
Cucumbers	3		Dill	2	
Dill	2		Sunflowers	U pick	
Sunflowers	U pick				
Fennel	1				
Arugula	1				
Pumpkins	1				
Bok Choi	1				
					$24
	19#	$40		12#	
	323			804	1127

9-Sep	2 comps			1 comp	
Large	**17 shares**		**Small**	**67 shares**	
Beets	3		Beets	3	
Onions	3		Onions	3	
Leeks	2		Leeks	2	
Green Beans	1#		Green Beans	1#	
S. Squash	4		S. Squash	3	
Winter Squash	1		Winter Squash	1	
Tomatoes	2		Tomatoes	1	
Broccoli	2		Broccoli	1	
Sweet Corn	4		Sweet Corn	3	
Carrots	6		Carrots	6	
Cucumbers	4		Cucumbers	4	
Cabbage	1		Cabbage	1	
Potatoes	3#		Potatoes	2#	
Green Tomatoes	3		Green Tomatoes	3	
Peppers	1 box				
Pok Choy	1				
	24#	$45		20#	$27
	408			1340	1748

16-Sep			
Large	**17 shares**	**Small**	**67 shares**
Cabbage or Broccoli	1	Cabbage or Broccoli	1

Carrots		3
Leeks		3
Onions		2
W. Squash		2
S. Squash		4
Cucumbers		4
Peppers		2
Tomato		2
Pok Choy		1
Potatoes	2#	
Green Beans	1#	
Kale		1
Cherry Tomatoes	1box	
Basil		1
Muskmelon		1
Sweet Corn		$6
Sunflowers	U-pick	
	21#	$48
	357	
		$468

Carrots		3
Leeks		3
Onions		2
W. Squash		1
S. Squash		4
Peppers		2
Tomato		2
Pok Choy		1
Potatoes	2#	
Green Beans	1#	
Kale		1
Sunflowers	U-pick	
	15#	$30
	1005	
		$280

1362

9,712 LBS

Eggs on a 12 week average, from 30 adult laying hens
17 eggs per day gathered * 7 = 119 * 12 wks = 1428 eggs = 119 dozen
roughly 8 to10 dozen sold per week = $384 to $480
difference in loss went to breakage and staff

October 1st
Fall Box pick offered to members
24 boxes were sold $25 each
32 adult chickens were processed for meat and sold to 20 members $5 each

Pumpkins			Beets		Parsley	
winter squash			Cabbage		Onions	
Indian Corn			Sage		Sweet Corn	

15-Oct
$10 fill your bag day to members
25 members took advantage

Who We Are

The **Towne's Harvest Garden** is a project of the **MSU Friends of Local Foods** Student Organization.

Friends of Local Foods was formed in the fall of 2006 to bring a diverse group of students and faculty together to raise awareness about local foods and encourage sustainable lifestyles on campus and in the community.

Our vision includes the following:

- That Towne's Harvest will be a valuable and permanent part of MSU that is enthusiastically supported by the administration.
- That production, distribution and consumption of Towne's produce is sustainable.
- That Towne's is integrated into MSU as a classroom, research laboratory, and source of good food for the campus community.
- That Towne's inspires students from diverse backgrounds to become involved in sustainable food production and consumption.
- That Towne's strengthens community food security in Bozeman and the surrounding area, increasing access to fresh nutritious produce for all.
- That Towne's is a fiscally self-reliant operation.

Summer 2010

2010 will be our fourth season at Towne's Harvest producing locally, sustainably, and educationally grown food for the campus and members of the surrounding community. There are two summer courses and several student interns excited to take part in the production and distribution of Towne's Harvest Produce.



Our CSA Program: what it is and how it works...

CSA is an acronym for Community Supported Agriculture. CSA members pay a set price prior to the growing season and, in this way, help share the risk of farming. Members in return receive a share of the garden's harvest each week. CSAs are a great way build relationships with your produce growers: you know exactly where your food is coming from and can see how it is grown. In this case, your purchase of a share in this CSA will also support student educational opportunities and interest in local and sustainable food production.

Towne's Harvest Garden offers a 13 week CSA program from **June 24 to Sept 16**. We are offering two share sizes, a large and small size. The large share will provide weekly produce for 4-5 people, and the small share will be sized for 2 people. There are a total of 40 memberships available. Shares will include numerous types of produce including peppers, potatoes, carrots, cilantro, basil, parsley, onions, tomatoes, green beans, peas, broccoli, salad mix squash and more!

In addition to a weekly bag of fresh produce, your CSA membership will include a reusable bag and weekly newsletter with information about the farm, nutrition facts about the vegetables in the share, and recipes. The produce will be available for pick-up at the farm **Thursdays 4-6pm**.

Members and others in the community are very welcome to visit Towne's Harvest or come to volunteer events. The events will be announced in the newsletter and on our Website:

www.townesharvest.montana.edu

Duration of CSA Program 2010:

June 24 — September 16

Cost for entire season:

$450 Large or $275 Small

TOWNE'S HARVEST GARDEN

Locally, Sustainably and Educationally Grown

MSU Friends of Local Foods

Why Towne's Harvest?

The name of the garden connects the history of the land to the present. Towne is the surname of one of five farmers who formerly owned land which was eventually deeded to MSU. The land where the Horticulture Farm and the Towne's Harvest Garden is located has been nicknamed Towne's farm for several decades.

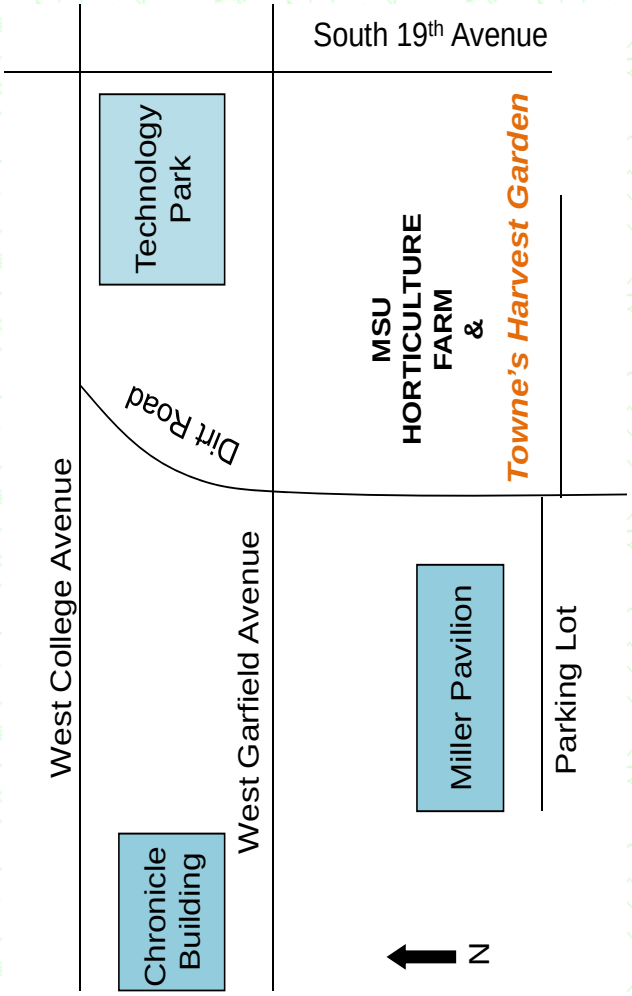
The piece of land which became the garden actually belonged to E. Broox and the Ella Martin Farm. It was deeded to MSU in 1909.

As a student group and a part of MSU, we will continue to be good stewards of the farm so that future generations of Montanans can grow food on this land!



Where is the Towne's Harvest Garden?

Towne's Harvest Garden is a 3-acre diversified vegetable plot located at the MSU Horticulture Farm. Look for the Montana Agriculture Experiment Station sign on West College Street between the Advanced Technology Park and the Chronicle Building. Turn south on the gravel road, and cross Garfield Street. The garden is on the east side of road across from the Miller Pavilion.



2010 CSA Shares

Produce: salad mix, onions, squash, spinach, beets, tomatoes, lettuce, carrots, green beans, cucumbers, fresh herbs, broccoli, peas, peppers, garlic and more.

Also included: reusable tote bag, recipe resource and weekly newsletter.

June 24 - September 16

13 weeks of fresh locally, sustainably and educationally grown produce:

Large Share $450
Sized to provide a weeks worth of produce for a family of four or five.

Small Share $275
Sized to provide a weeks worth of produce for two people or families w/ small children

To become a CSA member:

Complete member agreement available at : http://townesharvest.montana.edu/about.htm

Mail member agreement and check payable to Towne's Harvest Garden to :

Towne's Harvest Garden
Montana State University /HHD
121 PE Complex
Bozeman, MT 59717

For more in formation:

Web-site:
www.townesharvest.montana.edu

email:
townes.harvest@gmail.com

TOWNE'S HARVEST GARDEN

&

COMMUNITY SUPPORTED AGRICULTURE PROGRAM 2010



Locally, sustainably and educationally grown!