

# Towne's Harvest Garden

*& Community Supported Agriculture Program*



## Annual Report

2009



*Locally, Sustainably and Educationally Grown*  
*MSU Friends of Local Foods*



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**Special thanks to:**

Karin Neff, Mary Stein, Sarah Payton, Jennifer Nerison, Cathy Zabinsky, Claine Jones, Bernard Schaff, Pete Fay, Gallatin Valley Gardeners, and Ian Black.

**For more information about Towne's Harvest, please visit: <http://www.townesharvest.montana.edu>**

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Community Supported Agriculture Program**  
Annual Report  
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*Locally, Sustainably and Educationally Grown  
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Towne's Harvest Raised Beds in Mid-July



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## EXECUTIVE SUMMARY

The **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 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. Additionally, Towne's Harvest operates as a Community Supported Farm, distributing produce to members, Gallatin Valley Food Bank clients, and Bozeman farmers' market customers. 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 most recent season, David Baumbauer, Horticulture Farm Manager, and Alison Harmon of the Department of Health and Human Development supervised two Graduate Assistants— a Production Manager and an Operations Manager. The Production Manager (Kris Fitzgerald) was responsible for overseeing vegetable and crop production and the Operations Manager (Sam Robbins) focused on project oversight, supervision of interns and communication with the CSA and community partners. Student interns were involved in planting, weeding, harvesting, and distribution.

In 2009 the Towne's Harvest budget totaled **\$35,363.26** for manager labor, 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, and an endowed graduate scholarship for the operations manager for the academic year. Total income for 2009 (not including farmers' market sales which will be applied to 2010) was **\$39,000.00**, for a positive balance of **\$3,636.74**.

Labor was performed by graduate assistants, student interns, students enrolled in courses, and volunteers. Paid managers contributed a total of **1532 hours** of labor while students interns worked approximately **1852 hours** during the 2009 season.

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 2009 was approximately **22,000 lbs of produce** which was distributed through a 13-week Community Supported Agriculture Program to 73 individual/family members, staff, and volunteers, and to clients of the Gallatin Valley Food Bank (approximately **8,000 lbs**). Produce was also distributed through farmers' markets in Bozeman and on MSU's campus. For members, the weekly distribution was scheduled on Thursday evenings from 4 pm to 6 pm at the MSU Horticulture Farm.

This year, THG incorporated several new techniques that required adaptation and innovation. A new sub-surface drip irrigation system was established, allowing the project to refrain from utilizing surface water for irrigation. Overall, the irrigation system was successful, notably reducing weed pressure in the late summer and decreasing the challenges associated with excessively muddy fields.

CSA members were given the opportunity to provide feedback by survey twice during the 2009 season, in July and September. Most members responded on the mid-summer survey that they were highly satisfied with the quality, quantity, and variety of produce they were receiving. Members requested more recipes and guidance for using the fresh produce in their weekly share. Notable comments on the end of season survey included: general thanks and appreciation, noticeable increase in quality for this year as compared to the previous year, and several comments stating that even the small share sizes were potentially more than members could consume in a week.

During the 2009 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 \$334. The large sized share price was \$450, with an estimated valued of \$554. Both share sizes came with THG tote bags and a copy of the 2009 edition of the Montana Food Guide (developed by MSU students in Alison Harmon's HDFN 351: *Nutrition & Society*).

Part of the mission of Towne's Harvest is to serve as an outdoor classroom and research laboratory. In 2009, Towne's Harvest was integrated in some way into nine MSU courses; (PSPP 345: *Organic Market Gardening*, HDFN 221: *Human Nutrition*, HDFN 321: *Nutrition in the Lifecycle*, HDFN 445R: *Culinary Marketing Farm to Table*, HDFN 351: *Nutrition and Society*, LRES 201: *Soil Resource*, LRES Capstone, PSPP 432: *Advanced Landscape Design*, and ARCH 525-05: *Special Design Topic.*), as well as a graduate level Independent Study and 10 or more SFBS and other undergraduate internships.

Towne's Harvest interns and advisors conducted community outreach in the form of presentations and exhibits at a variety of events and conferences from May through October. These included the Bogert weekly farmers' market, the Gallatin Fairgrounds farmers' market, a MSU campus market in September, MSU Catapalooza, and Bioneers. 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 Montana Conservation Corps, Montana 4-H Congress, Park County 4-H, and supporters of the Gallatin Valley Food Bank.

Towne's Harvest 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. One major improvement this year was the addition of a cold storage unit which improved the quality of produce and allowed for more flexible harvesting schedules.

The proposed plan of operation for the 2010 season includes hiring a full-time (.75 FTE) year round production manager who will likely have 20 or more SFBS students to teach and supervise. We will modestly increase the number of CSA shares for sale to approximately 50 "full share equivalents", once again offered in a small and large sizes. We will continue to work with the Food Bank to provide the produce most desired by their clients. We have budgeted a total of **\$54,500.00** for labor expenses, benefits, and supplies for 2009.

Recommended improvements include creating a year round organizational structure for preserving the institutional memory of the project, continuing to develop more effective data collection systems; improving production efficiency; extending our growing season in a variety of ways; continuing to improve farm infrastructure and conducting more community outreach events at the farm.

The student organization MSU Friends of Local Foods has been growing due to the increasing number of courses that integrate Towne's Harvest and sustainable food content, as well as the increasing number of students enrolled in the new Sustainable Food and Bioenergy Systems Degree Program. The annual Local Food Fair, co-sponsored by MSU Friends of Local Foods and the University Foodservice Montana Made Program, is an excellent opportunity for outreach. Attendees at the fair have grown from 200 in 2007 to about 600 in 2009. The 2010 fair is expected to be the biggest yet, with USDA Deputy Secretary Kathleen Merrigan to provide a keynote address as part of the SFBS Seminar Series.



# ABOUT TOWNE'S HARVEST

## What is Towne's Harvest?

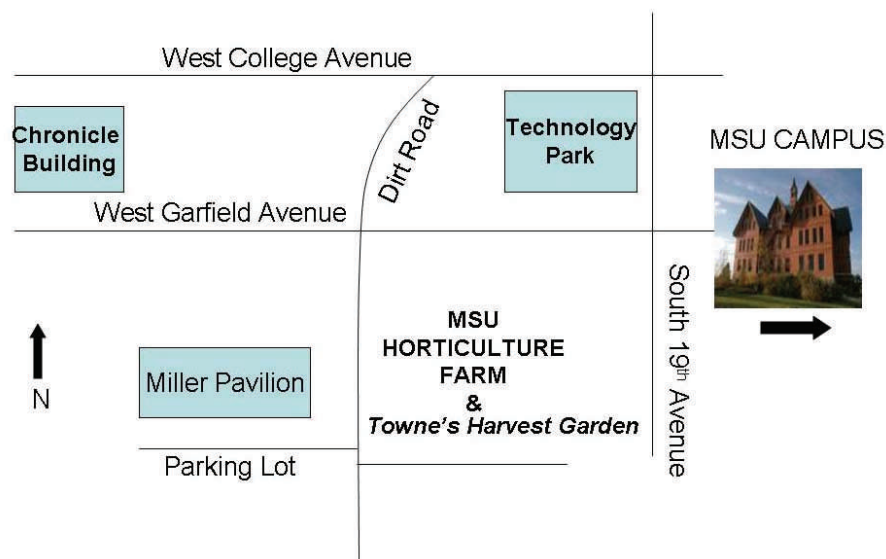
Towne's Harvest Garden is a project that was initiated by MSU Friends of Local Foods Student Organization. Friends of Local Foods was formed in the fall of 2006 to bring a diverse group of students and faculty together to raise awareness about local foods and encourage sustainable lifestyles on campus 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. The primary purpose of Towne's Harvest is 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. As a student group and part of MSU, Friends of Local Foods 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 be 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 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 Friends of Local Foods remains a strong and active supporting student organization.*
- *That Towne's is a fiscally self-reliant operation.*



Towne's Harvest Interns 2009



## 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 sustainability, 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 internship experiences and taking 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 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 new *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. In both 2007 and 2008 THG provided approximately 6,000 lbs. of produce to food insecure families in the Bozeman area. In 2009, THG provided nearly 8,000 lbs for distribution by the Gallatin Valley Food Bank. As food insecurity increases in the Gallatin Valley, this relationship with the Food Bank will become increasingly important. In 2009 THG interns sold produce at the Bogert Farmers' Market, the Gallatin Fairground Farmers' Market, and for the first time, at an MSU campus farmstand held in the courtyard adjacent to the SUB and within the SUB in September.

## PARTNER ANALYSIS

The following entities are directly involved with the success and operation of Towne's Harvest:

- ***Student Organizations***
  - ◆ *MSU Friends of Local Foods (FLF)*
  - ◆ *Network of Environmentally Conscious Organizations (NECO)*
- ***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*
  - ◆ *Sustainable Food and Bioenergy Systems Degree Program*
- ***MT Ag Experiment Station***
  - ◆ *Horticulture Farm*
- ***MSU University Food Service***
  - ◆ *Montana Made Program*
- ***Gallatin Valley Food Bank***



Tomato plants in the south plot at Towne's Harvest.

## 2009 OPERATION AND ORGANIZATIONAL STRUCTURE

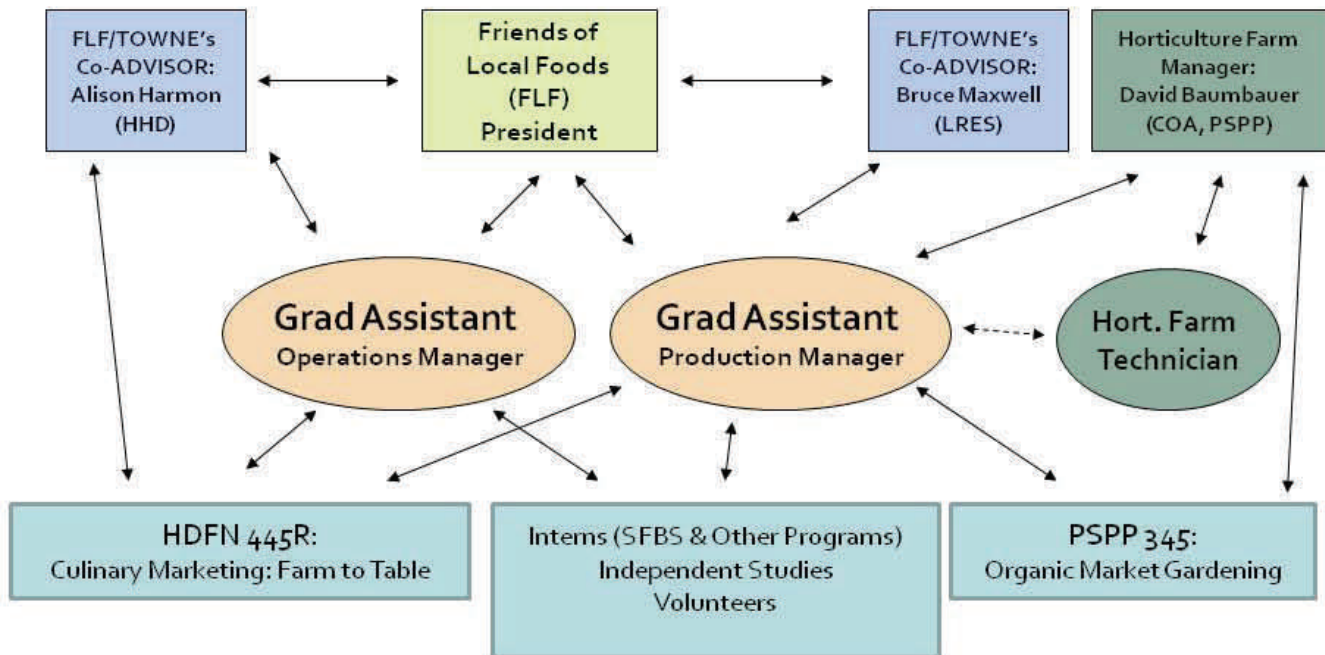
### Operation

During the summer of 2009, MSU Friends of Local Foods, MSU departments and colleges, and the Gallatin Valley Food Bank partnered to support Towne's Harvest Garden's third season. Produce was distributed through a 13-week Community Supported Agriculture Program to 73 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

David Baumbauer, Horticulture Farm Manager, and Alison Harmon of the Department of Health and Human Development supervised two Graduate Assistants—a Production Manager and an Operations Manager. The Production Manager (Kris Fitzgerald) was responsible for overseeing vegetable and crop production and the Operations Manager (Sam Robbins) focused on project oversight, supervision of interns and communication with the CSA and community partners. Interns were involved in planting, weeding, harvesting, and distribution.

TOWNE'S HARVEST ORGANIZATIONAL STRUCTURE 2009





## 2009 EXPENDITURES AND INCOME

### Expenditures

In 2009, Towne's Harvest Garden summer expenditures totaled \$26,363.26. The primary expenditure was labor, which accounted for 65% of the total budget. The Graduate Assistants' salaries totaled \$17,052. Annual supply costs totaled \$4203.00, (16%) while capital investments were \$2,828.35 (11%). Marketing costs totaled \$2,279.01 (9%).

In 2009, the noteworthy change in expenditures is in regards to labor. In 2007, 2008 and 2009 labor is the most significant expenditure: 77%, 67% and 65% respectively. However, in 2009, due to the incorporation of SFBS interns, the project spent less than half of what it has in the past on labor. Annual labor costs: 2007: \$29,375.30; 2008:\$39,678.60; 2009: \$17,052.90. This change is allowing THG operations to become more fiscally self-reliant.

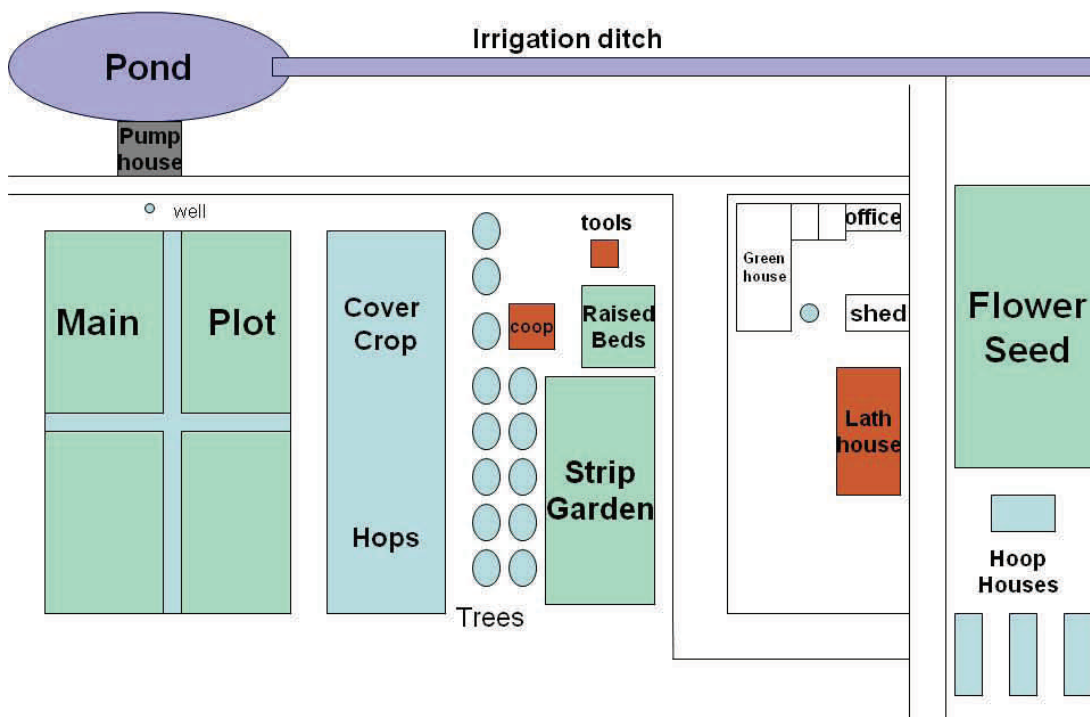
### Income

In 2009, summer income for Towne's Harvest Garden totaled \$30,275.00. The CSA program continues to be the main source of income, contributing \$20,275 (67%) of the project revenue. Contributions from the Gallatin Valley Food Bank totaled \$5,000 (17%). MSU Friends of Local Foods contributed another \$5,000 (17%). Farmers' markets sales during the 2009 season totaled \$7517 to be applied to the 2010 season. Other sources of income included a sale to MSU Food service for \$183.

Compared to years past, 2009 income sources included fewer MSU and non-MSU sources. Grants from non-MSU and MSU sources accounted for approximately 35% (\$21, 500) of income in 2008. In 2009, no grant contributions were included in the THG budget. Market sales have fluctuated over the past 3 years, with the greatest sales in the current year: \$5000 (2007 estimate), \$1300 (2008), \$7517 (2009).

## TOWNE'S HARVEST GARDEN LAYOUT

Towne's Harvest production occupied approximately 3 acres of the Horticulture Farm. Garden production occurred in the North Plot, Strip Garden, Raised Beds, and in three hoop houses. A detailed planting map by row can be found in the Appendix.



TOWNE'S HARVEST GARDEN LAYOUT 2009

## 2009 CROP LIST

The following herbs, vegetables, and flowers were grown at Towne's Harvest Garden during the 2009 season. For a complete list of all crops and variety names see the Appendix of this report.

### **Herbs:**

Basil  
Cilantro  
Dill  
Oregano  
Sage  
Parsley  
Chives

### **Flowers:**

Bachelor's Button  
Cosmos  
Larkspur  
Marigold  
Statice  
Strawflower  
Sunflower  
Zinnea

### **Vegetables & Fruit:**

Beets  
Beans  
Broccoli  
Cabbage  
Carrots  
Cauliflower  
Chard  
Corn  
Cucumbers  
Eggplant  
Greens (Assorted)  
Kale  
Lettuce  
Melons  
Onions  
Peas  
Peppers  
Potatoes  
Pumpkins  
Radish  
Spinach  
Squash  
Tomatoes  
Tomatillos  
Turnips



## PRODUCTION SUMMARY

The 2009 Towne's Harvest Garden crop production was comparatively successful. A relatively dry spring allowed for early planting. The summer months were free of major storm events and mild fall temperatures extended the growing season into late September.

This year, THG incorporated several new techniques that required adaptation and innovation. A new sub-surface drip irrigation system was established, allowing the project to refrain from utilizing surface water for irrigation. Overall, the irrigation system was successful, notably reducing weed pressure in the late summer and decreasing the challenges associated with excessively muddy fields.

Other improvements included an early, efficient application of fertilizer and use of plastic mulch on garden. Plastic mulch was utilized for tomatoes, peppers, cucumbers, squash, and some corn and onions. Two additional hoop houses were improved to promote early season and protected cultivation.

## THE HARVEST

The harvest was split between several days in order to reduce crop loss, distribute labor needs and accommodate Food Bank, market and CSA schedules. The GVFB picked up produce on Monday afternoons. THG attended weekly farmers markets on Tuesday and Saturday and CSA distribution was Thursday.

Harvest duties were coordinated by the Production Manager and conducted by interns and students. Early season harvest activities were largely completed on Monday and Thursday. In the late summer, Monday, Tuesday, Wednesday and Thursday were largely devoted to harvesting.

A notable change in 2009 included the addition of a cooler which dramatically increased the flexibility in harvesting and labor scheduling. 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. Food Bank crops were rinsed in the same manner as other crops, but often not bunched or bagged in individual allotments. Future considerations include increased produce hydro-cooling and rinsing capacity, and purchasing durable containers and root washing improvements.



## CROP YIELDS

<b>Crop</b>	<b>Total (lbs)</b>		
arugula	60	radish	118
asparagus	0.5	salad mix	130
basil	50	scallions	143
beans	517	shallots	18
beet greens	8	spinach	124
beets	2382	summer squash	2870
broccoli	389	tomatoes	475
cabbage	1134	turnips	125
carrots	2120	winter squash	1541
cauliflower	216		
chard	76	<b>Total (lbs)</b>	<b>22052</b>
cilantro	6		
corn	76		
cucumbers	1768		
eggplant	113		
garlic	108		
irises	100 stems		
kale	174		
leeks	441		
lettuce	1339		
melons	200		
onion	506		
parsley	5		
peas	227		
peppers	395		
potatoes	1680		
pumpkins	2500		





# LABOR

## Graduate Assistants and Interns

In 2009, between May and September two Graduate Assistants and eleven interns performed 3384 hours of labor. Faculty Advisors, PGC staff, Friends of Local Food members and volunteers provided additional hours.

## Graduate Assistants

Two Graduate Assistants jointly managed the THG project in 2009. The Production Manager was hired in April and was responsible for overseeing vegetable and crop production, including seeding, planting, maintenance and harvesting. The Operations Manager focused on project oversight including financial accounting, coordinating and supervising interns and volunteers as well as communications with community partners and the CSA. The Operations Manager spent approximately 50% of time on production related tasks.

## Interns

The number and commitment level of the THG Interns was instrumental to the success of the 2009 THG project. Interns were involved in all aspects of the project: planting, weeding, harvesting, and distribution. Interns primarily worked part-time May through the end of August, with daily hours generally ranging from 2 - 5 hours, and approximately 10 hours per week. A weekly master schedule was determined at the start of the season to distribute collective hours according to the needs of the farm.

## Courses and Volunteers

Several individuals, community groups and MSU courses contributed labor in 2009. Market Gardening (PSPP 345) was instrumental in early season tasks such as transplanting and seeding. Culinary Marketing: Farm to Table (HDFN 445) students helped with weeding, harvesting and distribution. Friends of Local Foods volunteers assisted with distribution and market sales. PGC and Horticulture Farm staff offered crucial assistance in various aspects of production, particularly in regard to infrastructure and facility maintenance. Community groups such as Montana Conservation Corps (MCC) assisted with specific projects, particularly when the farm needed several hands to complete a large project.

## Labor Hours

*May through October 2009*

Employee / Volunteer	Hours
Graduate Assistants	1532
Interns	1852
<b>Total</b>	<b>3384</b>

## Distribution of labor hours

*Intern hours*

Activity	hours
greenhouse	50
raised beds	35
planting /seeding	134
weeding	360
irrigation	38
prep	187
harvest	555
distribution	179
market	314
<b>Total</b>	<b>1852</b>

# COMMUNITY SUPPORTED AGRICULTURE PROGRAM

## Membership

In 2009, the THG CSA was pleased to offer memberships to 73 community members. Twenty-five members were returning: 13 were members since 2007, 12 were members since 2008. The CSA continues to draw a large number of MSU faculty, staff and students. Complimentary shares were given to Chris Livingston for his work on the Horticulture Farm Pole Barn project, to Gallatin Insulation and CWJ & Associates for their assistance with construction of the cooler, as well as Alison Harmon, David Baumbauer, Kristine Fitzgerald and Sam Robbins. Student Interns who worked more than 7 hours per week were also compensated with a complementary share. The average number of shares per week was approximately 85.

## Season

The 2009 THG CSA began June 18 with an orientation meeting and extended 13 weeks until September 17. Weekly attendance and items distributed items can be found in the Appendix.

## Share Size

In 2009, THG offered two share sizes. The large share (Grande) was equivalent to the 'full share' provided in previous years, and intended to feed a family of four. The small share (Venti) was offered to meet the needs of couples or smaller families. In previous years, individuals who were interested in smaller shares would often split shares with other members. This caused some confusion which was alleviated by offering two share sizes. A vast majority of the 2009 CSA members were Venti or small shares (90%). A majority of members reported satisfaction with the two share sizes, (see CSA member feedback).

## Distribution

Weekly distribution was scheduled from 4 – 6 pm on Thursdays at the MSU Horticulture Farm. Distribution was set up 'market style' in the shade of the lath house. A sign-in sheet and newsletter sample were present at the welcoming table, as well as a list of crops for the week. Each item was labeled with the individual distribution amount. The distribution was staffed by several THG Interns and students who were available to answer questions and offer assistance. Members were free to tour the farm during distribution.

This year, THG focused on quality in crop preparation and presentation. Tables were arranged to facilitate flow and movement through the area while creating an inviting atmosphere. Market baskets and bins were used. Produce was thoroughly rinsed, stored in the cooler, and replenished as necessary to maximize safety, freshness and overall quality.

Offering differing share sizes required some learning and adjustment by THG staff as well as CSA members during distribution. The process was streamlined by having the Grande receive the same share items as the Venti, plus a collection of pre-sorted items offered in a crate. Having a small number of Grande shares was helpful, as often certain crops were not available in the quantity needed to offer all members simultaneously.

Items were washed and pre-bagged or pre-bunched. Bunched items included scallions, broccoli, herbs and flowers. Produce ties were used with head lettuce. Salad mix, peas, potatoes and green beans were pre-bagged by weight. Potatoes were weighed by members on one occasion. Carrots and beets were presented loose and members were able to choose the designated number of items. Squash, cucumbers, tomatoes, leeks and onions were labeled with the designated number per share. Often items such as cucumbers were separated into small and large and members were instructed to take the appropriate number of each. This year THG offered either / or options if there was not the necessary number for each crop. For instance, members could choose an eggplant or a cabbage.

## Communication

In 2009, CSA member communication shifted to a web-based format to reduce paper waste. A CSA listserv was established as memberships were purchased. This listserv was utilized to distribute weekly newsletters and other communication. The newsletter was emailed on Thursday to act as a reminder for the weekly distribution. Additionally, newsletters were posted and continue to be archived on the THG website.

## CSA DISTRIBUTION DATA

CROP	Total (V)	Total (G)
arugula	0.25 #	1.25 #
basil	2 #	2.5 #
beans	1.5 #	3.5 #
greens	.25 #	.25 ##
beets	35 ct	55 ct
broccoli	2 ct	5 ct
cabbage	4 ct	9 ct
carrots	50 ct	75 ct
cauliflower	1 ct	3 ct
cilantro	2 b	2 b
cucumbers	18 ct	25 ct
eggplant	4 ct	6 ct
flowers	2 bouquets	2 bouquets
garlic	3 ct	7 ct
garlic scapes	2 ct	2 ct
kale	5 bunches	10 bunches
leeks	9 ct	23 ct
lettuce	12 ct	20 ct
melons	2 ct	2 ct
onion	4 ct	11 ct
parsley	3 bunches	3 bunches
peas	1.8 #	2.6 #
peppers	20 ct	27 ct
potatoes	10.75#	20 #
pumpkins	1 ct	1 ct
radishes	2 b	2 b
salad mix	1.75 #	3 #
scallions	4 bunches	8 bunches
shallots	6 ct	9 ct
summer squash	18 ct	28 ct
Swiss chard	2 bunches	3 bunches
turnips	3 ct	4 ct
tomatoes	5 #	8 #
winter squash	3 ct	11 ct
cherry tomatoes		.5 #
misc herbs		3 bunches
spinach		2 #

### CSA Value Assessment

	Venti	Grande
Produce value *	\$310	\$528
Tote bag	\$4	\$8
MT Food Guide	\$20	\$20
<b>Total Value</b>	<b>\$334</b>	<b>\$554</b>
Purchase Price	\$275	\$450
CSA savings	\$59	\$96

*\*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.



Interns help Kris Fitzgerald, Production Manager, arrange produce for CSA members

## CSA MEMBER FEEDBACK

### **Mid-Summer Survey**

CSA members were given the opportunity to provide feedback on a survey twice during the 2009 season, once in July and once in September. At mid-summer, members were asked how they felt about the quality of produce and their satisfaction with THG customer service and communication.

Fifty-eight members responded to this survey. Regarding quality, 74% reported being always satisfied; 24% satisfied most of the time; 2% sometimes satisfied. Comments included concerns about the quality control and storage longevity of lettuce. In terms of customer service, 98% of members were always satisfied; 2% satisfied most of the time. Most comments in this area referred to organizing and clarifying distribution of the two share sizes. In terms of communication, 86% were always satisfied; 14% were satisfied most of the time. Members made comments requesting more recipes and more information on how to prepare distributed produce.

### **End of the Summer Survey**

At the end of the summer, CSA members were once again asked to provide feedback by rating satisfaction and answering several specific questions. Sixty members provided feedback on this survey. Using a 5 point scale, members were first asked to rate their satisfaction with quantity, quality, customer service, distribution style and communication. Survey results indicated a vast majority of the respondents were satisfied with the quantity, with 88% rating quantity at a 4 or 5. This category received the survey's only dissatisfied scores: four Venti members (8%) rated quantity at a two or below. Quality ratings were the highest, with 93% of respondents rating quality at 4 or above. 77% of members were satisfied with variety; this category received the most moderate scores with 12 individuals rating variety at 3. 92% of members rated the market style distribution at a four or above. Most members were satisfied with customer service and communication; in both categories, 93% of members rated each at four or above.

The survey specifically requested for feedback on the two share sizes. Nearly all respondents stated that they were pleased with having a choice in share size and did not recommend any changes. One Venti member stated they wished to receive the same items as the Grande share, only in smaller portions. One Venti member suggested offering different-sized shares on different days.

Members were asked if they were planning on purchasing a share for the 2010 season. 46 of 60 respondents stated yes. Of the 14 who indicated they would not be purchasing a 2010 share, four stated they would not be living in the Bozeman area, two would be starting their own gardens, and one Grande member would purchase a smaller share. Two Venti members indicated they thought it was not cost effective and two would not be returning because they were dissatisfied with the quantity.

Notable comments included: general thanks and appreciation, noticeable increase in quality for this year as compared to the previous year, and several comments stating that even the small share sizes were potentially more than members could consume in a week.

### **THG Research Questions**

Two additional research questions were addressed in conjunction with the Mid-Season Member Feedback Survey. On the topic of food waste, 92% of members responded that are using 75-100% of their weekly share. Food items least likely to be used include kale, Swiss chard, and beet greens. Most likely to be used were basil, broccoli, lettuce, green onions, salad mix, squash, cauliflower, and scallions. The most popular responses given for why an item isn't used were "did not like the item", "not enough time", "not knowing what to do with the item". The response "the item was a low quality" was not selected by any members. Participants were interested in a "share table" for leaving produce they did not intend to use, and for taking additional items of interest. Other ways to help members maximize use of their share



### **CSA member feedback cont.**

included cooking workshops, gardening workshops, and more flexibility with the share—(members choosing the items they prefer). The most common suggestion was to provide more recipes.

On the topic of family food culture, THG members are very likely to try new recipes, include fresh produce in their meals, prepare eat dinners together as a family, and include children in food preparation. About one-third of members living with families responded that they are more likely to prepare food and eat together as a family since becoming CSA members. Two-thirds stated that they are more likely to include fresh produce in meals since becoming CSA members. This is an impressive and encouraging result in light of current recommendations for consumption of fresh produce and the failure of most Americans to follow recommendations (5-9 servings recommended per day).

The end of season CSA member survey sought to learn how CSA membership had changed food purchasing and consumption habits. Of the 60 members surveyed 6 members did not answer this question, and six stated that the CSA membership had not affected their families eating or purchasing habits. The remaining 38 members indicated that a CSA membership had changed either food purchasing or consumption habits. Responses included: increased vegetable consumption, increased tendency to try new foods or recipes, eating more 'healthy', easier or reduced time spent shopping. A few members noted an increase in their children's consumption of vegetables, being inspired to grow a garden and being more generous with others.



Even small CSA members know where their food comes from.

## 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 2009, THG distributed 7940 lbs of produce to the Gallatin Valley Food Bank. This equates to a cost of \$0.63 / 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 specified preferences for particular crops which were incorporated into the crop planting plan.

The Food Bank picked up produce on Mondays at 3 PM. Completing the Food Bank harvest by this time was challenging for THG and required planning and foresight in scheduling. The cooler assisted dramatically in completing this harvest while not sacrificing the quality of the product.

In years past, the Food Bank required minimal rinsing of vegetables. Although this saves tremendous labor, unappealing, dirty vegetables are utilized less by food bank clients. In 2009, all crops were rinsed to the same standards, regardless of distribution location. To address time constraints later in the season, carrots and beets destined for the food bank were topped but still rinsed thoroughly.

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.

### ***Food Bank Crop Totals***

<b>CROP</b>	<b>lbs</b>
basil	1
beans	123
beets	1311
broccoli	34
cabbage	220
carrots	741
cauliflower	6
chard	3
corn	34
cucumbers	798
eggplant	2
kale	21
leeks	27
lettuce	836
misc	100
onion	86
parsley	2
peas	22
peppers	58
potatoes	493
pumpkins	850
radish	44
scallions	8
spinach	10
summer squash	1439
tomatoes	13
winter squash	660
<b>TOTAL</b>	<b>7940</b>

### ***Food Bank Approximate Weekly Totals***

<b>Date</b>	<b>Total</b>
6/29	69
7/6	63
7/13	164
7/20	281
7/27	222
8/3	523
8/10	776
8/17	752
8/24	738
8/31	1305
9/8	824
9/14	975
9/24	260
9/29	450
10/15	500

## FARMER'S MARKETS

Towne's Harvest routinely attended both the Bogart Farmer's Market as well as the Gallatin Valley Farmer's Market. 2009 Income from market sales increased from previous years to \$7450, 23% of total income.

Farmer's Markets are greatly enjoyed by students and interns, providing an important balance to the challenging and tedious activities on the farm. Individuals who attend markets are commonly inspired and energized by interactions with community members.

In 2009, THG goals were to establish a consistent presence at the Bozeman Farmer's Markets, increase visibility for the project and supplement income for 2010 operating expenses. Many members of the THG team contributed to efforts to improve the presentation of the stand and increase the marketing of THG as an educational farm. Two large signs were incorporated as well as several baskets, bins, and table cloths.

THG also focused effort on retaining detailed and accurate records. A system was created that tracked the items that were taken to market, the designated price, and rate of sales. See the Appendix for detailed description of market sales.

### ***MSU Campus Farmer's Market***

With the assistance of MT Made Program Coordinator, Lyra Leigh-Nedbor and cooperation of MSU Food Service, THG conducted three farmers markets on campus in the fall of 2009. The first market was located in the courtyard adjacent to the SUB, near Reid Hall and the flag pole. The second and third markets were located in the SUB near the Ask-Us-Desk. All markets were well attended and profitable for THG. Campus markets not only provide a valuable service to the MSU campus community but also increase visibility for the THG among the student population. THG interns and students were delighted to be able to share the fruits of their labor with their fellow MSU students, faculty, and staff.

### ***Market Income***

<b>Market Date</b>	<b>Income \$</b>	8/8/2009	149
6/2/2009	39	8/11/2009	369
6/9/2009	37	8/15/2009	288
6/13/2009	84	8/18/2009	265
6/20/2009	104	8/22/2009	400
6/27/2009	93	8/25/2009	215
6/30/2009	70	9/1/2009	257
7/7/2009	129	9/8/2009	483
7/11/2009	118	9/15/2009	497
7/14/2009	247	9/18/2009	494
7/21/2009	518	9/22/2009	414
7/24/2009	306	9/25/2009	282
7/28/2009	570	Sr FMNP	
8/1/2009	389	coupons	58
8/4/2009	575	<b>TOTAL</b>	<b>\$7450</b>



# TOWNE'S HARVEST 2009 DISTRIBUTION SUMMARY

Project Aspect	Total lbs
CSA Program	8956
Food Bank	7940
Farmer's Market	5000
Other events	150
<b>Total</b>	<b>20,046 lbs</b>



Interns and Culinary Marketing students sell produce at Bogert Farmers' Market.



## 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 2009 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 351: Nutrition and Society**

In 2008, students in HDFN 351: *Nutrition and Society* completed a service learning project related to Towne's Harvest Garden and CSA. Each of 30 students made a contribution to *The Montana Food Guide*. The book is a resource for helping Montanans find local food, plan and prepare meals using local foods, and eat a nutritious balanced diet year round. Recipes are included. The 2009 edition of this resource was provided to each THG CSA member at the beginning of the season.

Alison Harmon, PhD RD  
Assistant Professor  
Health and Human Development

### **HDFN 445R: Culinary Marketing: Farm to Table**

This is a new course, offered for the first time in Summer 2009. 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. Two students completed projects related to the THG mid-season member satisfaction survey. The topics were share utilization and family food culture. Students' research posters describing these projects can be found in the Appendix. When not at THG, students in this course worked in the Herrick Hall Foods Lab to develop recipes using THG produce and to learn 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  
Assistant Professor  
Health and Human Development



### **LRES Capstone**

LRES 441 Field Experiences 1, LRES 442R Field Experiences 2. The 2009 Land Resources and Environmental Science 2-semester capstone class conducted on-farm research projects in Towne's Harvest Garden. Interdisciplinary groups developed research questions designed to address the efficacy of intercropping, alternative pest management in leafy greens, and mulching effects on crop growth rates, soil moisture, and nitrogen dynamics. During the first semester, students listened to THG managers concerns regarding management challenges, and then designed research projects to address those challenges. In the summer, students set up experiments in the garden, and collected data during the growing season and during and after harvest. A final presentation and report was prepared that includes the results of all of the projects and recommendations for future research projects and management implications.

Cathy Zabinski PhD & Karin Neff (TA)  
Professor, Mycorrhizal Ecology  
Land Resources and Environmental Science

### **PSPP 432: Advanced Landscape Design**

The Advanced Landscape Design course PSPP432 designed master plans for the MSU Horticultural Farm this past fall which integrated current needs and long-term goals of Towne's Harvest, outdoor teaching space and re-designed garden plots for all farm users.

Page Huyette  
Adjunct Assistant Instructor  
Plant Sciences & Plant Pathology

### **ARCH 525-05 Special Design Topic: The Cooked and the Raw**

This elective course, offered through the School of Architecture in Spring 2009, examined two forms of construction documentation; the traditional construction document that over the past century has become our accepted industry standard (*the 'cooked'*) and a new document type; a digital construction environment used as a platform for building data and information exchange utilizing building information modeling [BIM] as a central vehicle for data collection and dissemination (*the 'raw'*). As a test for these two forms of documentation, School of Architecture and School of Engineering students designed a washing, storage and distributing barn for the MSU Horticulture Farm and the Towne's Harvest Garden/Community Supported Agriculture program that hopefully will result in the construction by students in the summer of 2010 or 2011. The proposed barn is approximately 1450 square feet and accommodates the washing, storing and distributing of produce associated with the THG/CSA. The barn also serves as a classroom for summer classes in PSPP and HDFN and stores HDFN materials, farm implements and a tractor.



Christopher Livingston  
Assistant Professor  
School of Architecture

### **HDFN 570: Independent Problems (Summer 2009)**

Jennifer Nerison, under the direction of Alison Harmon, developed tools for accounting and established, tested, and revised a record keeping system for THG farmers' market operations.

Other courses using Towne's Harvest for service learning opportunities or class activities include: HDFN 221, Human Nutrition, HDFN 321, Lifecycle Nutrition, and LRES 201 Soil Resource.

# COMMUNITY OUTREACH, EVENTS, AND TOURS

## Events

### **Community Farmers' Markets**

THG attended the Bogert Farmers' Market Tuesday afternoons as well as the Gallatin Valley Farmers Market on Saturdays. While selling vegetables, students from HDFN 445 and THG interns greatly enjoyed interacting with community members and other producers.

### **MSU Campus Farmer's Market**

In September 2009, THG conducted three farmer's markets on the MSU campus. Students, faculty and staff were able to purchase fresh vegetables and learn about the THG project. The markets were very well attended and greeted with enthusiasm by THG interns and the campus community.

### **CSA Member Open House**

June 18th a new member open house and orientation was held at the THG farm. Student interns lead new members on tours of the facility and answered questions regarding the CSA program.

### **President's Luncheon**

On July 24th, President Gamble, deans, department heads, representatives from the MSU Foundation, faculty from LRES, HHD, and PSPP and student interns were invited to the farm for a local foods luncheon followed by a tour of the farm and garden project.

### **Catapalooza**

On August 26 & 27th, THG faculty, staff and interns promoted the project and the SFBS program at the new student orientation festival.

### **Montana Made Meals**

October 7, THG celebrated the end of the season by supporting MSU Foodservice's MT Made program. The meal featured THG winter squash.

## **Visitors and Tours**

### *Montana Conservation Corps*

MCC crews visited THG three times in the summer of 2009 to conduct community service work projects. MCC crews assisted in building a compost sifter as well as a large scale compost pile. The crew also assisted in various weeding and harvesting projects.

### *Montana 4-H Congress—July 8th*

Exploring the diversity of MSU agricultural resources, members of the Montana 4-H congress visited Towne's Harvest for a tour of the gardens

### *Park County 4-H*

Youth members of the Park county 4-H program visited THG for a tour as they researched establishing an onsite garden in Livingston.

### *Food Bank*

Groups and individuals associated with the Gallatin Valley Food Bank visited the farm and participated in volunteer activities throughout the season.



## PRESIDENT'S LUNCHEON

Students enrolled in the first offering of HDFN 445R: *Culinary Marketing: Farm to Table* enjoyed the special challenge of planning, preparing, and serving lunch for the 40 attendees of the 2009 President's lunch. Each main ingredient was obtained from the THG weekly harvest. Jars of root vegetables decorated the tables. Short presentations were given by THG advisors, THG managers, MSU faculty, interns, 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

Introduction to Towne's Harvest  
Food Production & Community Supported Agriculture Program  
Partnership with Gallatin Valley Food Bank  
New Degree Program: Sustainable Food & Bioenergy Systems  
Coursework at Towne's Harvest  
Research and Funding Goals  
Tour of Towne's Harvest Garden

### Menu

Assorted Bread with Herbed Butter  
Carrots with Spicy Spinach Dip  
Mixed Green Salad with Roasted Garlic Balsamic Dressing  
Sesame Greens  
Roasted Early Summer Vegetables, Pickled Beets  
Deviled Eggs  
Pesto Tortellini  
Cheesy Spinach Bars  
Chocolate Zucchini Cake or Carrot Cake



Forty faculty, staff, students and administrators attended that 2009 President's Lunch.



## PUBLICITY & PROJECT DISSEMINATION

### Radio Programs:

- Real Time w/ George Cole. Yellowstone Public Radio. *The Politics of Food with Alison Harmon & Jamie Jelenchick*. Aired: Monday, May 25, 2009, 6:30pm. Archived at <http://www.ypradio.org/programs/local/realtime.html>
- Health Matters w/ Rachel Rockefeller. *Local Food & Health with Alison Harmon*. Yellowstone Public Radio. Aired: Wednesday April 29, 2009, 7pm. Archived at [http://www.ypradio.org/programs/local/health\\_matters.html](http://www.ypradio.org/programs/local/health_matters.html).

### Television:

- Montana Ag Live. Montana PBS. *The Local Food Economy with Alison Harmon* (No. 3103). Aired April 5, 2009, 7pm. <http://www.montanapbs.org/MontanaAgLive/episode3103/>

### Newspaper & Newsletters:

- Lauren Russel. *New food major sprouts campus produce stand*. Bozeman Daily Chronicle. Wednesday, September 9, 2009.
- Anne Pettinger, MSU News Service. *Veggies grown at MSU, sold at MSU*. September 8, 2009
- Mary Stein. *Sustainable Food and Bioenergy Systems Program at MSU Off and Running!* AERO Sun Times, The Newsletter of the Alternative Energy Resources Organization. Vol. 36 No. 2. July 2009

### Internet:

- Jelenchick, J. (Producer/Film Artist-Partnership Productions) & Harmon, A.H. (Advisor) (2009). *Planting Seeds: Towne's Harvest Garden at MSU*. [DVD/Video] Available at <http://townesharvest.montana.edu/video.htm>.
- Elizabeth Redden. *Green Revolution*. Inside Higher Ed. April 23, 2009. <http://www.insidehighered.com/news/2009/04/23/agriculture>.
- Blythe Copeland. *10 of the Best College Environmental Programs in the U.S.* Tree Hugger. <http://www.treehugger.com/files/2009/08/10-of-the-best-college-environmental-programs-in-the-us.php>. August 18, 2009
- Sarah Kliff/ Kaplan College Guide. *Green Degrees in Bloom*. <http://www.newsweek.com/id/210906>. August 12, 2009.

### Professional Presentations:

- Harmon, A.H. (2009). *Sustainable Food & Bioenergy Systems: Interdisciplinary Education at Montana State University*. Oral presentation for the Agriculture Food and Human Values Society and Association for the Study of Food and Society Joint Annual Meetings, State College, PA. May 30, 2009.
- Harmon, A.H. (2009). Speaker. *Are You Doing Food Justice? Towne's Harvest Garden at MSU*. Fall 2009 Aspen Pointe Speakers Series. Bozeman MT. September 17, 2009.
- Harmon, A.H. Speaker. *Sustainable Food Initiatives at MSU*. MSU Food and Nutrition Extension Update, Bozeman MT. May 5, 2009.

### Publications:

- Wharton, C., & Harmon A.H. (2009) University engagement through local food enterprise: Community supported agriculture on campus. *Journal of Hunger and Environmental Nutrition* 4(2), 112-128.
- Harmon A.H. (ed.) (2008 & 2009). *The Montana Food Guide... A Companion Resource for Seekers of Locally, Sustainably & Educationally Grown Foods*. Developed as a service learning project by the students of MSU's HDFN 351: *Nutrition and Society*, in collaboration with MSU Friends of Local Foods. Montana State University, Bozeman MT. 120 pages.
- MSU Points of Excellence 2009. *In 2009 MSU added a Sustainable Food and Bioenergy Systems degree program, which brings together coursework in plant sciences, agriculture, food and nutrition, and ecology*. P.4

## LESSONS LEARNED

In 2008 Towne's Harvest generated approximately \$17,000/acre (a \$2,000 increase in sales in comparison to 2007 due to the increased number of CSA shares sold.), not including funds obtained through grants or administrative support. Positive publicity continues to be an important benefit of the program. Partnership with the Gallatin Valley Food Bank remains a strong part of the project. The following is a summary of Lessons Learned from the 2008 season.

### **Organizational Structure:**

- *The 2009 organizational structure was successful, however, in order to increase the long-term effectiveness and institutional memory, a full-time year round production manager is needed. Operations could continue to be assistant by a graduated student.*
- *The addition of SFBS interns was critically important for having sufficient labor.*
- *Communication among advisors and THG staff continues to be an area needing more organization and improvement.*
- *PSPP 345 and HDFN 445 offer a valuable contribution to THG in the form of labor as well as providing a more well-rounded experience for student interns.*
- *With a greater number of interns on the farm, there is a need for better coordination of schedules and common meeting times for updates, communication, and trainings.*

### **Infrastructure:**

- *The presence of a new cold storage facility drastically improved the quality of produce, reduced crop waste and allow for a more flexible harvest schedule.*
- *Using the lath house for distribution allowed for a more inviting market style distribution.*
- *The new well provided water of acceptable quality for drinking, irrigating, and washing.*
- *Continued improvements in the washing and processing infrastructure are needed.*
- *An improved distribution and teaching area is still desired.*
- *A root cellar would be a good addition to THG infrastructure.*

### **Production and Harvesting**

- *Long-term fertility, crop rotation, pest and weed management plans are needed.*
- *Subsurface drip irrigation decreased weed pressure and improved the efficiency of irrigation, however maintenance and the end of season removal was labor intensive.*
- *Plastic mulch was instrumental in the success of cucumbers, squash, tomatoes and peppers.*
- *Season extension could be a viable, profitable and exciting addition to the project.*
- *More durable containers are needed for harvesting and crop storage.*
- *Fall clean-up is an area needing more coordinated attention in the future.*
- *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**

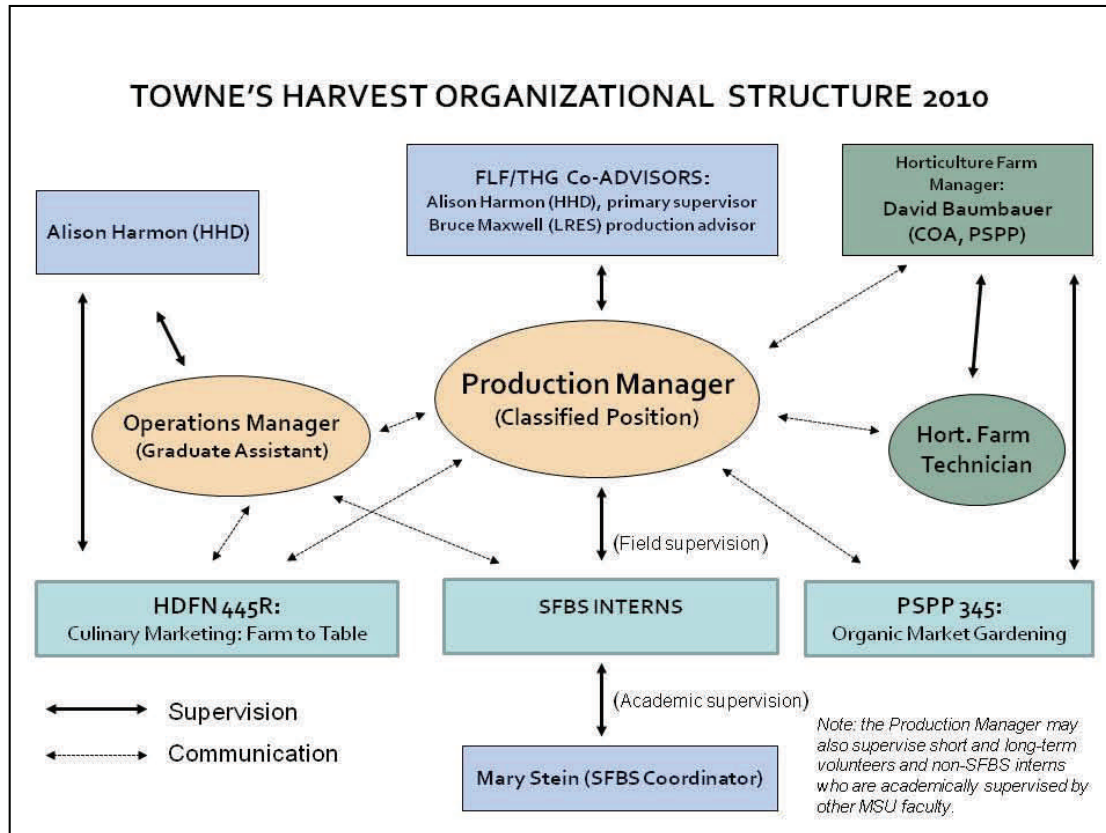
- *Providing members with tote bags was an improvement and helped minimize the use of plastic bags.*
- *Having small and large size shares was manageable and contributed substantially to CSA share sales.*
- *Electronic communication via the email listserv and digital newsletters was successful.*
- *Market displays of produce were more attractive and likely increased market sales.*
- *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.*
- *We should continue enforcing the parking policy (park near Miller Pavilion, do not drive into the farm area).*
- *Having a CSA member handbook with clear instructions would decrease member confusion and help establish reasonable expectations.*
- *Campus markets in September were very successful, and appreciated by MSU staff and students. We need to pursue holding an outdoor market on campus for two months of the season.*

## **Outreach**

- *Improved signage for 2009 was a positive improvement.*
- *CSA members value the newsletter for recipes and crop information, but continue to request simple ways to use the fresh produce in their share.*
- *Having a year round production manager will allow for more focus on outreach activities.*
- *Clearly defined outreach goals should be established pre-season and events should be planned in advance with the appropriate MSU staff.*



## 2010 PROPOSED PLAN OF OPERATION AND ORGANIZATIONAL STRUCTURE



### Distribution Plan:

- 50 CSA members
- 25 Food Bank Shares (comprised of most commonly desired vegetables)
- 6-10 shares subsidized by a Community Food Co-op 4% grant
- Tuesday Farmers' Market at Bogert Park
- Saturday Farmers' Market at Gallatin Fairgrounds
- MSU Campus farmstand (Fridays in August and September)
- Participation in the Bozeman Winter Market 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; harvest for Saturday Farmers' Market
- **Saturday-** Gallatin Fairgrounds Farmers' Market, maintenance as needed, irrigation





## 2010 PREDICTED EXPENDITURES AND INCOME

The table below is an illustration of direct expenses and income generated by the Towne's Harvest Garden project. In kind contributions to this project include use of the Plant Growth Center greenhouses, and associated supplies including soil, trays, pots, ID tags, pest control, storage for seeds and supplies, cold storage, and use of the growth chamber. At the horticulture farm, supported by the College of Agriculture and the Montana Agricultural Experiment Station, the project uses land, electricity, water, greenhouses and cold frames, irrigation equipment, the pump, tractor, truck, fencing, tools, fuel, fertilizer and storage space. The College of Agriculture and the College of Education Health and Human Development have provided administrative assistance, financial accounting services, publicity, payroll services, web site hosting, workers' compensation insurance, office space, computer resources, printing, copies, and mailings. Faculty and Staff time has been provided by David Baumbauer, Bruce Maxwell, Alison Harmon, Bernie Schaff, the PGC staff, and the horticulture farm technician.

The table that follows shows actual expenses for the past 3 years, and expected expenses for the 2010 season. The more significant difference for 2010 is the hiring and supporting of a .75 FTE year round production manager who will be eligible for university 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 has become more fiscally self-reliant in the past 2 years and has not requested any cash support from administrators.

### Towne's Harvest Garden Income & Expenses for 2007-2010

<b>EXPENSES CATEGORY</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Expected</b>
Seeds/supplies	\$3,346.26	\$3,811.62	\$4,203.00	\$5,000.00
Administration/ Communication	\$1,370.32	\$594.88	\$399.50	\$1,000.00
Promotion	\$823.77	\$8,346.59	\$1,879.51	\$500.00
Capital Investment	\$2,878.67	\$6,227.86	\$2,828.35	TBD
Labor	\$29,375.30	\$39,686.00	\$17,052.90	N/A
Graduate Assistantships	N/A	N/A	\$9,000.00	\$9,000.00
Operations Manager Summer Stipend	N/A	N/A	N/A	\$8,000.00
Production Manager Salary	N/A	N/A	N/A	\$20,000.00
Production Manager Benefits	N/A	N/A	N/A	\$11,000.00
<b>TOTAL</b>	<b>\$37,794.32</b>	<b>58,666.95</b>	<b>\$35,363.26</b>	<b>\$54,500.00</b>
<b>INCOME CATEGORIES</b>	<b>2007 Actual</b>	<b>2008 Actual</b>	<b>2009 Actual</b>	<b>2010 Expected</b>
CSA memberships	\$15,000.00	\$22,825.00	\$20,275.00	\$24,500.00*
Gallatin Valley Food Bank Part- nership	\$8,640.00	\$10,000.00	\$5,000.00	\$5,000.00
Administrative Support	\$9,000.00	\$9,500.00	N/A	N/A
Graduate Stipend supported by Endowment	N/A	N/A	\$9,000.00	\$9,000.00
Grants	\$1,170.00	\$13,000.00*	0.00	\$1,500.00
Friends of Local Foods	\$5,000.00	\$5,275.00	\$5,000.00	\$3,000.00
Previous year's market sales	N/A	N/A	N/A	\$7,500.00
Potential contribution from WSARE and HEC GRANTS	N/A	N/A	N/A	\$4,000.00
<b>TOTAL</b>	<b>\$38,810.00</b>	<b>\$60,600.00</b>	<b>\$39,275.00</b>	<b>\$54,500.00</b>
		* includes \$6,000 for a new well, and \$6,000 for DVD produc- tion		*Depends on # small vs. large share sales

## TOWNE'S HARVEST ANNUAL TIMELINE

### January

- *Finalize and distribute THG Annual Report for previous year*
- *Student recruitment through FLF activities*
- *Create crop plan*
- *Order seeds*
- *Finalize spring planting schedule*
- *Finalize proposed labor structure*
- *Advertise and recruit for student positions*

### February

- *Plant onions, leeks*
- *Create watering schedule*
- *Advertise CSA shares to previous members*

### March

- *Plant tomatoes, basil, peppers, eggplants, tomatillos, Brassicas*
- *CSA share sales to general public*
- *Student recruitment for Intern positions and summer courses*
- *Reserve Farmer's Market space*

### April

- *Begin field seeding as possible*
- *Deadline for CSA share purchase*
- *Erect deer fence*
- *Finalize distribution plan*
- *Plant winter squash, summer squash, fennel, kohlrabi*

### May

- *Direct plant peas, Brassicas, kale*
- *Transplant onions*
- *Finalize weekly farm schedule*
- *Post summer events on THG calendar*
- *Summer internships begin after finals week*
- *PSPP Market Gardening course begins*
- *Transplant and direct seed raised beds*

### June

- *Continue transplanting and direct seed*
- *CSA member orientation event*
- *Volunteer day for transplanting*
- *Post volunteer opportunities on website*
- *CSA Distribution commences*
- *Farmer's Market sales begin*



Mary Stein, SFBS coordinator, was the academic supervisor for THG interns.

## July

- *CSA member event*
- *Conduct Intern and Coordinator mid-summer performance evaluations*
- *Sustainability Fair in Livingston*
- *Annual Towne's Harvest Field Day at farm*
- *THG Advisory Committee Meeting*
- *Conduct THG CSA mid-summer member survey*

## August

- *Annual President's Lunch*
- *MSU Catapalooza Outreach*

## September

- *Towne's Harvest Garden Harvest Festival Event*
- *MSU Farmer's Markets*
- *Conduct THG CSA end of season survey*
- *Last CSA Distribution*
- *Glean fields*
- *Garden Internship finish*
- *THG Advisory Committee Meeting*

## October

- *Final garden work, turn in fields for winter*
- *Seed cover crops as desired*
- *Compile data for THG annual report*
- *AERO Annual Meeting*

## November

- *Recruit FLF members*
- *Montana Organic Association Annual Meeting*
- *Organize data for Annual Report*

## December

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



David Baumbauer manages the MSU Horticulture Farm.



## EXTERNAL FUNDING FOR TOWNE'S HARVEST GARDEN

### Future Grants:

2010. A proposal was submitted to the Bozeman Community Food Coop for 4% Friday in 2008. This grant was awarded and will be available for use after our designated 4% day in March 2010. The funds will be used to offer a subsidized share price for 5 or more CSA members during the 2010 season. *(Grant submitted by Sam Robbins, 2008-2010 THG Operations Manager)*

### Current Grants:

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, becoming a fiscally self-reliant operation, improving farm infrastructure, expanding the use of Towne's Harvest as an outdoor classroom and research laboratory, and continuing a mutually beneficial partnership with the Gallatin Valley Food Bank.

### **1. Achieve an Optimal Organizational Structure**

Our organizational structure for 2009 involved two graduate students who served as operations and production managers respectively. This worked well, but we desperately need to begin developing an institutional memory for this project and increased accountability for end of season clean-up, planning for the next season, and beginning planting. With the addition of SFBS interns, labor has become much less of an issue, but supervision a greater one. A full-time production manager who is experienced at working with interns and delegating responsibility is desired. Integrating an additional course (HDFN 445R, Culinary Marketing Farm to Table) into THG operations was a positive experience and allowed for more faculty oversight of distribution activities. In general, interns earning course credit are more committed to the mission of the project than are those being paid hourly.

### **2. Become a Fiscally Self-Reliant Operation**

2009 was the first season in which we did not request cash support from administrators. The project has become somewhat more fiscally self-reliant, although we continue to rely extensively on in-kind contributions from both collaborating colleges as well as the Agricultural Experiment Station. In turn we have provided the university with tuition dollars paid for courses taught at Towne's Harvest and for internship credits. We define self-reliance as an enterprise that can support its own basic operations, but that seeks funds from MSU or external funders for specific projects or improvements. We continue to improve balancing income from CSA share sales and expenses. Hiring a production manager will require most of the THG predicted income for 2010, but a year round manager will likely be able to increase production and revenues in a variety of ways.

### **3. Improve and Develop Towne's Harvest Infrastructure**

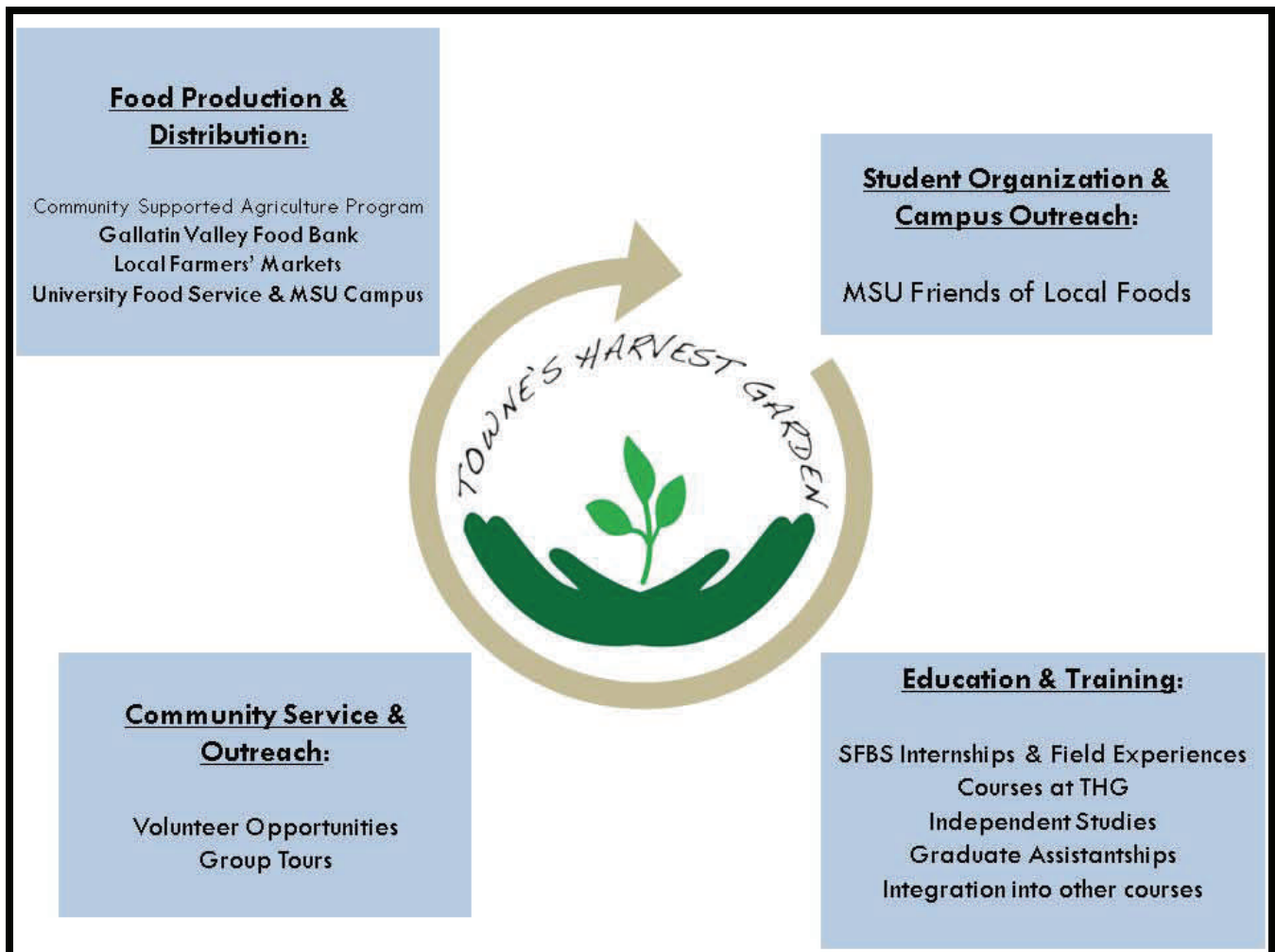
The installation of a new well in 2009 was a success which provided potable water for drinking, irrigating, and washing. Installing a cold storage unit was also a success for 2009— improving the quality of our produce and creating the possibility of more flexible harvesting schedules. We will continue experimenting with protected cultivation in hoop houses and other season extension strategies. A future infrastructure wish list continues to include an improved washing station and distribution barn/classroom, a root cellar; and demonstrations of sustainability including a windmill, solar panels, and a composting toilet. In 2009 we purchased a farmers' market tent that served well at events like Catapalooza, and the campus outdoor farmers' market.

### **4. Expand use as Outdoor Classroom and Research Laboratory**

The first class of SFBS interns made a great contribution to THG. The number of interns at the farm will continue to grow in the coming years. Student enrollment in courses taught at THG has increased, as has the number of courses taught. Other courses have integrated Towne's Harvest into classes, lesson, and projects. Graduate students have completed important and useful independent studies. There are many more possibilities for integrative research at Towne's Harvest. A goal for future seasons continues to be the expansion of community outreach including more tours and workshops.

## **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 2009 we offered the Food Bank a more cost effective source of fresh produce and provide the produce they most desired. In 2010 we may be able to offer subsidized shares with a 4% day grant from the Community Food Co-op. Additionally, the Food Bank has been successful at developing their own raised beds for producing vegetables and conducting client education. 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 vast majority of members are satisfied with both the quantity and quality of THG produce. We were able to sell MSU foodservice vegetables for the all Montana Meal held in September of 2009, and hope to continue partnering on future special events.







Kris Fitzgerald, THG Production Manager, 2009




Sam Robbins, THG Operations Manager, 2009





# **APPENDIX**

**2009 Budget Expenses**  
**Planting Map & LRES Capstone Experimental Design**  
**Planting Schedule**  
**2009 Crop Notes**  
**2009 CSA Member Brochure**  
**CSA Distribution Log**  
**CSA Weekly Distribution Data**  
**CSA Value by Crop**  
**CSA Weekly Attendance**  
**Food Bank Distribution Log**  
**Food Bank Weekly Distribution Data and Totals**  
**Marketing Plan for 2009 Farmers' Market Operations**  
**Farmers' Market Log**  
**Farmers' Market Produce Prices**  
**Farmers' Market Income Comparisons**  
**Internship Application**  
**Intern Agreement Form**  
**Intern Hours Record**  
**'Towne's Weekly' Newsletter Samples**  
**Culinary Marketing Student Research Posters**





## THG BUDGET 20009

<b>Expenditures by category</b>		%
<b>supplies</b>		
seeds	\$ 552.51	
fertilizer	\$ 2,035.48	
pest mgmt	\$ 23.50	
fuel	\$ -	
market	\$ 345.96	
general	\$ 1,246.19	
total	\$ 4,203.64	16%
<b>Capital Inv</b>		
Supplies	\$ 375.96	
irrigation	\$ 222.88	
cooler	\$ 2,229.51	
	\$ 2,828.35	11%
<b>Admin</b>		
supplies	\$ 204.05	
conferences	\$ 195.00	
	\$ 399.50	1%
<b>Promotional</b>		
food guides	\$ 1,000.00	
signs/ supplies	\$ 91.96	
labor/ gifts	\$ 667.80	
President's luncheon	\$ 119.75	
	\$ 1,879.51	9%
<b>Labor</b>	\$ 17,052.90	65%
<b>total exp</b>	\$ 26,363.90	

### THG Planting MAP and LRES Capstone Experimental Design

Sunflower
cukes / squash
cukes / squash
cukes / squash
winter squash
winter squash
melons
summer squash
summer squash
tomatoes
tomatoes
tomatoes
tomatoes
tomatoes
tomatoes
tomatoes
tomatoes
peppers
peppers
peppers
peppers

lettuce
experimental arugula
cauliflower
cabbage
cabbage
chard
lettuce
lettuce
pac choi
arugula
arugula
hebs
basil
basil
spinach
spinach
experimental pac choi
lettuce
lettuce

beets
beets
beets
beets
potatoes
potatoes
potatoes
carrots
carrots
carrots
carrots
carrots
carrots
turnip
radish
onion
onion
onion
onion
leeks
leeks
leeks

corn and clover
corn and clover
corn and clover
broccoli
broccoli
broccoli
unfertilized broccoli
peas
peas
peas
peas
peas
peas
beans
beans
beans
beans and potatoes
beans and potatoes
potatoes
potatoes

WELL

- control
- canola
- collards

- living mulch
- dead mulch
- weeded control

- intercropping experiment



Crop	Beds Needed	Appx Time to Maturity (months)	Appx Planting Date	Appx Harvest Date	Appx succession planting date
<b>FRUITS</b>					
Peppers	3 (+)	2.-3	early march	may-june	
Tomatoes	6	2.-3	mid march	june-july	
Eggplant	1	2.-3	early march	june-july	
Cucumbers	2	2-2.5	early may	june-july	
Melons	4	2.5-3.5	early may	may-july	
Winter Squash	6	2.-4	early may	june-august	
Pumpkins		3.-4	early may	august-september	
Summer Squash	2	1.5-2	early june	june-august	
Tomatillo	0.5		mid march	june-july	
	<b>24.5 (+)</b>				
<b>LEAVES</b>					
Cabbage	2		2 some early m	may-june	
Cauliflower	1	2-2.5	some early m	may-june-july	
Kale	1	2-2.5	late may	july-september	every 2 weeks till july, again in early sept?
Swiss Chard	1	1.-2	late may	june-august	every 2 weeks until july
Misc. Greens	3.5		1.5 late may	july	every 2 weeks until july
Lettuce	9	1-1.5	late may	june-july	every 2 weeks
Spinach	3	1.5-2.5	late may	june-august	every 2 weeks till july, again in early sept?
Herbs	2		mid march	july-september	
Basil	2 (+)	2.-3	mid march	june	
	<b>24.5 (+)</b>				
<b>ROOTS</b>					
Onion	3 (+)	2.5-4.5	mid february	june-september	
Fennel	1		3 late may	august	
Turnip	1		2 late may	july	
Radish	1		1 late may	june	every 2 weeks till july, again in early sept?
Beets	6		2 late may	july	every 3 weeks till mid july
Carrot	7.5	2-2.5	late may	july-august	late june
Leek	1 (+)		early march	july?	
Potatoes	5		late may	august?	
	<b>25.5 (+)</b>				
<b>LEGUMES</b>					
Sunflower		1	2-4.5	mid march	june-august
Flowers	3 (+)		2-4.5	mid march	june-august
Corn	7	2.-3	late may	august-september	
Beans	4.5		2 late may	july	every 2 weeks until early july
Peas	5.5		2 late may	july	
Broccoli	4 (+)	2.-3	some early m	may-june-july	
	<b>25 (+)</b>				

**Crop Notes**  
Towne's Harvest Garden  
2009 Growing Season

<b><u>Crop</u></b>	<b><u>Notes</u></b>	<b><u>Recommendations</u></b>
<b>Arugula</b>	Hit hard by flea beetles. Row cover was effective but needed to be put on earlier. Sold well at markets in small 1/4# bags. Good to add to salad mix.	Immediately cover with row cover after seeding. Successional plantings to avoid harvesting when bitter.
<b>Basil</b>	High yields in greenhouse, field and strip. Liked by markets and CSA. Harvest entire plants, washed roots, put in water and kept in cooler. Stayed live and healthy for days.	Plant less if harvesting regularly. Have a late planting that is harvested as entire plants to distribute with tomatoes and garlic.
<b>Beets</b>	Large yields, lots to both food bank and CSA. Better sold at market as bunches of 4-5. Cutting tops in field saves lots of time/improves storing quality. Seeded heavy, thinned throughout early season and sold as bunches of baby beets with tops. Golden beets had poor germination but people like them. Large yields relative to labor.	Bunches to market- 8-10 baby, 4-5 large. Seed golden beets heavily and plant more Golden and Chioggia for bunches. Cut tops in field for FB and CSA...Spray wash.
<b>Broccoli</b>	Seedling hit hard by flea beetles in the field. Application of Pyganic was successful. Sold well at market and was liked by both CSA and FB. Successional planting would be great for later season harvest. Varieties were mixed in field so it wasn't clear when a row was mature... therefore some slower plants were forgotten/went to seed.	Organize field planting by DTM of varieties. Plant early planting in strip/raised beds under row cover. Plant early varieties in the strip as indicators to when field planting is coming on. Row cover seedlings as soon as they are transplanted to protect from flea beetles. Make sure it is removed before crowns start to form... moisture on row cover will cause rot.
<b>Cabbage</b>	Well liked at all distribution points. Lots of weight to the FB. Some cabbage worm damage later in season, more to green than red.	Plant more red than green. Successional plantings, including a late seeding of storage varieties.

## Crop Notes

Towne's Harvest Garden

2009 Growing Season

<b>Carrots</b>	Great at all distributions. Didn't have any to offer till late in the season. Sub-surface drip (SSD) made for poor germination, as well as improper use of the earth way. SSD did help keep weed germination/pressure low once plants were established. Sold smaller as bunches, larger in bulk. Topping in field saved lots of labor and improves product quality but also accounts for a 30% loss in weight.	Surface drip until germinated, seed slowly and carefully to ensure an even stand. Sell at market early as bunches, top in field and spray wash for CSA and FB. Plant early in raised bed, high demand early season. Organize field plantings by DTM, lost some smaller ones due to splitting.
<b>Cauliflower</b>	Field planting did well. Early plantings in cold frames and raised beds were too small to distribute fairly throughout the members. Liked by members in the "either/or" choice (broc/caul/cabb).	Make sure early plantings are large enough to distribute. Don't plant in cold frames... wasn't desired enough to take up that valuable space. Watch field planting carefully once they start to mature to catch before they yellow.
<b>Cilantro</b>	Liked by CSA and was in demand at market. We didn't have any early. Direct seeded later planting in raised bed.	Transplants for early, direct seed second planting. Time harvest with tomato distribution. Avoid field planting... goes to seed to quickly. Needs to be harvested often.
<b>Corn</b>	Poor germination due to sub surface drip. Didn't get great yields with plants that did germinate. Small patch of corn planted into plastic did very well, strip garden did well. Transplants did very well, but did not have many. What corn did mature was delicious, just not much of it.	Only plant varieties with the shortest growing season. Direct seed into plastic or transplant into plastic.
<b>Cucumbers</b>	Huge yields, lots of weight to food bank. Did very well on plastic. Harvested from plants that were direct seeded into plastic on June 4th.	Direct seed short season varieties into plastic by beginning of June. Transplants into cold frames for early market.

## Crop Notes

Towne's Harvest Garden

2009 Growing Season

<b>Eggplant</b>	Fruits hit hard by earwigs in all greenhouses and in the strip garden... past the point of distribution. Many of the transplants were eaten by rodents in the cold frame prior to transplanting so their were no field eggplants. Liked at market.	Earwig control? Not totally worth greenhouse space, without a solution to earwig problem. Bell varieties were more popular at market.
<b>Flowers</b>	Did not put much effort into flower marketing. Lots of labor to make bunches, especially for CSA. Sunflowers were easier to harvest and distribute.	Perhaps have flowers pick-your-own for CSA members. An intern may be able to put effort into the marketing and take control of the entire crop.
<b>Kale</b>	Liked at market and at CSA. Hard to keep from wilting without ice. Plant less and harvest more intensively. Green held up much better than red. Red suffered more flea beetle and hail damage.	Plant mostly/only green. Plant less and harvest intensively once a week. Submerge in ice bath or pack with ice to prevent wilting.
<b>Leeks</b>	Planted way more than needed. Distributed most of the season, people liked them but had more than they knew what to do with. Lots of labor for processing.	Plant less. Trimming roots and leaves in field seemed to speed processing up.
<b>Lettuce</b>	Huge amount produced. Many heads came on all at once. We were bringing to market, sending lots to FB and distributing at least two heads to the CSA for a few weeks straight. Too much for many CSA members to use. On hot days had to submerge in H2O in field to prevent from wilting. Butter crunch was in demand at market and liked by some CSA members but also suffered from rot inside the head.	Time seedings and plantings better with DTM and # of plants needed at time of harvest. Immediately submerge in H2O, let drain and bag for best post harvest quality.



## Crop Notes

Towne's Harvest Garden

2009 Growing Season

<b>Melons</b>	Sun Jewel produced a lot at the end of the season. People liked them and were excited but it seemed a little late for melons. Cantaloupe produced a little, watermelons didn't produce at all.	Put effort into growing Sun Jewels large and productive, and try to get to market early with them. Plastic and row cover...maybe try some in green house.
<b>Onions</b>	Great success on plastic with little or no weeding and larger onions produced. Hard to hoe/too labor intensive to weed when not in plastic.	Grow all onions in plastic. Keep track of varieties in field.
<b>Onions- Bunchi</b>	Planted scallions in bunch of 5-8, harvested entire bunch at one time. Distributed a lot to market and CSA, well like by both. Lots of labor into cleaning and bunching and not a lot of money made per bunch.	Grow in plastic, in bunches.
<b>Peas</b>	Poor germination, reseeded and still had success. Crop came on late but a cooler season produced lots of peas. Varieties in field were not clearly defined so took some effort to distinguish type of pea. Bagged peas in 1/4# bags for CSA distribution. Took extra time but was worth it to not weigh out at distribution. People at market liked small bags.	Clearly separate varieties in field. Use an inoculants for better germination rate. Don't plant in raised beds, waste of valuable space when peas can be planted in the ground early.
<b>Peppers- Sweet</b>	Not great varieties grown. Lots of Antohi Romanian, which produced an abundant amount of fruit but not all ripened...great flavor when red but not very palatable when pale yellow, (78 days to red). Fruits in cold frames did not size up well. Perhaps a fertility issue. Also may have got hit by a late cold snap. Transplants were also VERY large and old by the time they were planted. This could have stunted their growth while they recovered from the stress.	Plant more bell peppers, Ace and Yankee Bell. These are good/sell well as greens (50-ish days) and are worth more as reds (70 days.) Don't harvest Antohi Ramanians as yellow... much sweeter even just as they start to break colors. Time seeding better so that plants will be in prime condition when it is safe to transplant them. Put more effort into cold frame pepper to get to market early/get a good price.

## Crop Notes

### Towne's Harvest Garden 2009 Growing Season

<b>Peppers- Hot</b>	Lots of production. Too many plants grown. Lots of labor to pick so many small fruits. Sold well at market as 3/\$1.00. Distributed at CSA as "take what you will use." Some people loved them, some people would never use them. Ristras and jalapeños sold well, Hungarian hot wax never got hot.	Don't take up cold frame space with them... not in high enough demand. Grow smaller amounts each variety. People seemed to really like the Anchos at CSA and markets...should be sold/distributed separately from other hot peppers since they have a different use.
<b>Radishes</b>	Large yields both in raised beds and in field. Too large of a field planting to harvest at once. Sold well and liked at distribution as bunched of 5-6. For large harvests and distributions tops were cut in field, and distributed in bulk or put in bags (8-10 each). Flea beetles damages tops part-way through season, made them un-marketable with tops.	Early season, harvest with tops. Always sell as bunches with tops at markets. Row cover plantings that will be harvested with tops, to protect against flea beetle damage. Save labor by cutting tops for FB and CSA. Plant no more than a 1/4 row at a time. Reseed 3-4 times throughout season. Mixed varieties (Easter egg, icicle, etc.) looked great in bags.
<b>Salad Mix</b>	Well liked by CSA and market. Sold/distributed in 1/2# clear bags...looked nice and sold well. Raised beds produced well and were easy to keep maintained. Field planting needed to be organized/timed better.	Need a bigger wash tub, sink was not efficient. Time field plantings for harvest throughout the summer. Washing machine for drying?
<b>Spinach</b>	Well liked by all markets. Early season planting in raised beds. Sent a fair amount to food bank. Demand for spinach at end of season but not much to offer. Savoy leaf varieties held up better post-washing.	Successional plantings. Early/late planting under row cover in raised beds. Renegade (smooth leaf) better for baby spinach. Cut often and careful not to cut growing point (grown in raised beds or strip). Savoy leaf for large harvests in field.

## Crop Notes

Towne's Harvest Garden

2009 Growing Season

- Squash-Summer** Large, early yields. We were first to market with SS and zukes and got the best price. By end of season we were still distributing a lot with out huge demand. Lots of weight to FB, CSA got more than they wanted. After a few markets everyone else had them and they were not worth much. Put effort into early season where most money is made. Have another market for them throughout the season so that CSA is not getting sick of them.
- Squash-Winter** Well liked at market and CSA, not harvested until end of season when we were just about done. Large yields of acorn, smaller yields of butternut and buttercup. Good and early yields of delicata but not much planted. Need to find a late season market. Grow more delicata, and shorter season squash. Come up with better harvesting method... black buckets got very when full and hard to carry.
- Swiss Chard** Large yields but not a large demand. Rainbow bunch sold at market. Lots of labor in bunching. Wilted quickly on hot days. Submerged in cold water to get rid of field heat. Barese variety (more of a smooth, waxy leaf) suffered worse from hail and insect damage. Could use ice for an ice water bath. Sold better/held up better in plastic bags. Bring mostly rainbow bunches to market. Don't grow Barese.
- Tomatillos** Crop somewhat neglected, many seedling killed by rodents in cold frame 1, prior to transplanting. Didn't try to market or distribute what did yield. Find a market or make sure enough is grown that can be distributed to entire CSA.

## Crop Notes

Towne's Harvest Garden

2009 Growing Season

<b>Tomatoes</b>	Many tomato plants suffered from what was diagnosed as Tomato Leaf Wilt. Plants in the field, the tomato house and cold frame 3 were all affected. The distribution of the virus led to the conclusion that the seedlings were likely exposed to the virus at the PGC. High yields. Didn't sell huge amounts at market, only started distributing at CSA in last few weeks.	Grow seedlings under more sterile conditions. Keep better track of varieties to see if some are resistant. Need to find a market for them. Had most of the crop harvested when CSA and markets were nearing the end.
<b>-Field</b>	Did not trellis field tomatoes, dry weather and black plastic helped reduce rot. Not worth the labor to trellis. Cherry tomatoes were a hassle to harvest in the field.	Grow cherry tomatoes in strip garden were they will be harvested often.
<b>-Greenhouse</b>	Pruned and trellised weekly. Plants looked stressed, need to be grown in more fertile soil, tomato house soil is depleted. Varieties very unorganized.	Only grow greenhouse varieties in cold frames. Do not grow tomatoes in the tomato house or add 2-3" of compost prior to planting. Keep varieties labeled and organized. Prune non fruiting branches continuously throughout season.



## 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 2009

2009 will be our third 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 initiative and interest in local and sustainable food.

Towne's Harvest is a educational, research farm and therefore, we greatly value member's involvement and feedback.

Towne's Harvest Garden offers a 13 week CSA program from **June 22 to Sept 16**. We are offering two share sizes, a Grande size and Venti size. The Grande Share will provide weekly produce for 4 people, and the Venti 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 **Wednesdays from 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](http://www.townesharvest.montana.edu)

### Duration of CSA Program 2009:

June 22 — September 16

### Cost for entire season:

**\$450 Grande or \$275 Venti**



*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.

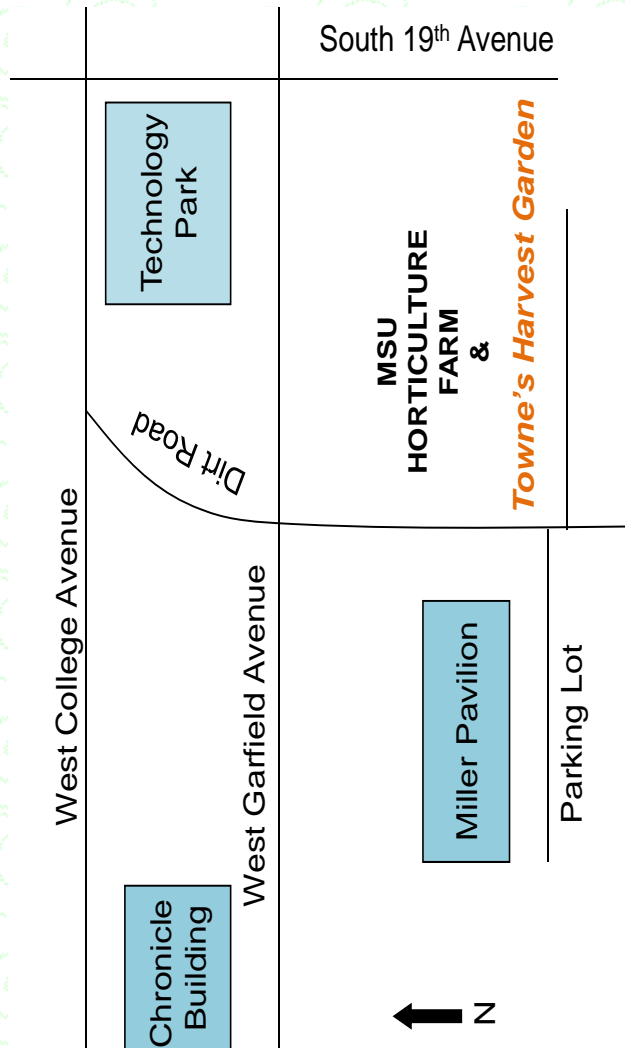
As a student group and a part of MSU, we will continue to be good stewards of the farm so that future generations of Montanans can grow food on this land!



*This is kohlrabi.  
Many of our 2008  
members learned  
that kohlrabi chips  
taste great dipped  
in hummus!*

## Where is the Towne's Harvest Garden?

The 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.



## 2009 CSA Shares

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

**Also included:** reusable tote bag and weekly newsletter.

**June 22 - September 16**

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

**Grande Share \$450**

Sized to provide weeks worth of produce for a family of four

**Venti Share \$275**

Sized to provide a weeks worth of produce for two people

### 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](http://www.townesharvest.montana.edu)

mail:

[Townes.Harvest@gmail.com](mailto:Townes.Harvest@gmail.com)

## TOWNE'S HARVEST GARDEN

&

## COMMUNITY SUPPORTED AGRICULTURE PROGRAM 2009



*Locally,  
sustainably  
and  
educationally  
grown!*



## CSA Weekly Distribution

### Venti

### Grande

Week 1 June 25			Week 1 June 25		
crop	amount	Value	crop	amount	Value
Food guide	1	20	Food guide	1	20
tote bag	1	4	tote bag	2	8
salad mix	0.33	4	salad mix	0.33	4
radish	4 each	2	radish	5 each	2
iris	1 stem	2	iris	1 stem	2
parsley	1 small bunch	2	parsley	1 small bunch	2
			broccoli	0.75	3
			spinach	0.33	4
			arugula	0.3	4
total		34			49

Week 2 July 2			Week 2 July 2		
crop	amount	Value	crop	amount	Value
beet greens / spina	.25	2	beet greens / spin	.25	2
kale	1 bunch	3	kale	1 bunch	3
parsley	.125	1	parsley	.125	1
basil	.1	1	basil	.1	1
lettuce	1 head	3	lettuce	2 head	6
shallots	3 ct	2	shallots	3 ct	2
garlic scapes	2 ct	2	garlic scapes	2 ct	2
			broccoli	1 bunch	2
			cauliflower	1 head	2
			carrots	4ct bunch	2
total		14			23

Week 3 July 9			Week 3 July 9		
crop	amount	Value	crop	amount	Value
basil	.5 oz	2	basil	.75 oz	3
Lettuce	1 head	3	Lettuce	2 head	6
Salad mix	.25 #	3	Salad mix	.5 #	5
Swiss Chard	1 sm bunch	2	Swiss Chard	1 bunch	2
flowers	1 sm bouquet	2	kale	1 bunch	2
broc/ cauliflower /	1	2	baby beets	5-6 per bunch	2
carrots / radish	4 total	2	flowers	1 bouquet	2
			broc/ cauliflower ,	2	4
			carrots / radish	5 total	4
total		16			30



<b>Week 4</b>			<b>July 16</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
Lettuce	1 head	4	Lettuce	1 head	4
arugula	.25	2.5	arugula	.25	2.5
cauliflower	.25	2	cauliflower	.25	2
broccoli	.75	3	broccoli	.75	3
radishes	1 bunch	1	radishes	1 bunch	1
scallions	1 bunch	2	scallions	1 bunch	2
kale	.5	2	kale	.5	2
			cabbage		1 3
			scallions	1 bunches	2
			onion		1 1
			summer sq	1 ct	2
			herbs	1 ct	5
			beets	3 ct	3
total		16.5			32.5

<b>Week 5</b>			<b>July 23</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
lettuce	1 head	3	lettuce	2 head	6
spinach	.5 #	4	spinach	.5 #	4
scallions	1 bunch	2	scallions	2 bunch	4
summer sq	2 ct	3	summer sq	2 ct	3
broccoli	.75 #	3	broccoli	1.5 #	6
cabbage	1 head	2	cabbage	1 head	2
beets	3 ct	1	beets	3 ct	1
			salad mix	.5 #	4
			arugula	.5 #	3
			onion	1 ct	1
			kale	1 bunch	2
total		18			36

<b>Week 6</b>			<b>July 30</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
cabbage	1 head	2	cabbage	2 head	4
summer squash	1.5 #	3	summer squash	1.5 #	3
carrots	6 each	2.5	carrots	10 ct	3
scallions	6 each	2	scallions	12 ct	4
peas	.3 #	1.5	peas	.6 #	3
swiss chard	1 bunch	3	swiss chard	1 bunch	3
basil	.5 #	10	basil	.5#	10
salad mix	.5 #	6	salad mix	.5 #	6
lettuce	1 head	3	lettuce	2 head	6

parsley	1 bunch	0.5	parsley	1 bunch	0.5
			beans	1 #	2
			broccoli	.75 #	4
			garlic	1 bulb	2
total		33.5			50.5

<b>Week 7</b>			<b>August 6</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
beets	5	2.5	beets	9	5
carrots	5	2.5	carrots	10	5
cabbage	1	2	cabbage	2	4
summer sq	4	2.5	summer sq	7	4
potatoes	1.5 #	3	potatoes	2.5#	3
beans	.5 #	2.5	beans	.5 #	2.5
peas	.5 #	2	peas	.5 #	2
kale	1 bunch	2	kale	1 bunch	2
broccoli	.75 #	3	broccoli	1 bunch	3
			lettuce	1 head	2.5
			swiss chard	1 bunch	2
			leeks	1 ct	0.5
			garlic	1 head	1
			cukes	1 ct	0.5
			peppers	1 ct	1
			eggplant	1 ct	0.5
total		22			38.5

<b>Week 8</b>			<b>August 13</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
potatoes	2 #	4	potatoes	4 #	8
carrots	10 ct	3	carrots	15 ct	5
beets	5 ct	3	beets	10 ct	5
scallions	1 bunch	1	scallions	2 bunches	2
onion	1 ct	1	onion	2 ct	2
beans	.5 #	2.5	beans	1 #	5
peas	.5 #	2.5	peas	1 #	5
summer sq	2 ct	2	summer sq	4 ct	4
eggplant / pepper	e/o	1	eggplant / pepper	e/o	1
cucumber	2 ct	2	cucumber	3 ct	2.5
basil	.25 #	3	basil	.5 #	6
kale	1 bunch	2	kale	1 bunch	2
total		27			47.5

<b>Week 9</b>		<b>August 20</b>			
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
carrots	10 ct	3	carrots	15 ct	5
beets	5 ct	3	beets	10 ct	5
cabbage	1 head	2	cabbage	1 head	2
summer sq	2 ct	2	summer sq	2 ct	2
garlic	1 bulb	1	garlic	2 ct	2
cucumbers	1 ct	1	cucumbers	2 ct	2
beans	.5 #	2.5	beans	1 #	5
peas	.5 #	2.5	peas	.5 #	2.5
potatoes	1.75 #	3	potatoes	3.5 #	6
lettuce	1 head	2	lettuce	1 head	2
onions	1	1	onions	2 ct	1.5
			eggplant	1 ct	1.5
			pepper	1 ct	1
			cauliflower	1 head	2
total		23	total		39.5

<b>Week 10</b>		<b>August 27</b>			
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
lettuce	2	2	lettuce	2	4
leeks	3	1.5	leeks	6	3
cucumbers	4	4	cucumbers	4	4
summer squash	2	2	summer squash	2	2
peppers	5	3	peppers	5	3
carrots	5	2	carrots	5	2
beets	5	2	beets	5	2
shallots	3	2	shallots	3	2
cilantro	1 bunch	1	cilantro	1 bunch	1
basil	1/4 #	3	basil	1/4 #	3
			kale	1	2
			spinach	1/2 #	3
			salad mix	1/2#	4
			turnips	2	2
			onion	2	2
			winter squash	2	5
total		22.5			44

<b>Week 11</b>		<b>September 3</b>			
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
lettuce	2	4	lettuce	2	4
leeks	3	1	leeks	6	3
cucumbers	2	3	cucumbers	4	6
summer squash	2	2	summer squash	2	2
peppers	5	3	peppers	5	3

carrots	10	4	carrots	5	2
beets	5	2	beets	5	2
basil	1/4 #	3	basil	1/4 #	3
			kale		1 2
			spinach	1/2 #	4
			salad mix	1/2#	4
			onion		2 2
			winter squash		2 5
total		22			42

<b>Week 12</b>			<b>September 10</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
potatoes	4.5#	7	potatoes	7 #	10
carrots	5	2	carrots	5	2
beets	5	2	beets	5	2
turnips	3	2	turnips	3	2
summer squash	2	2	summer squash	3	2
cucumbers	5	5	cucumbers	5	5
eggplants	2	3	eggplants	2	3
leeks	3	2	leeks	3	2
garlic	1	1	garlic	2	2
shallots	3	1	shallots	3	1
peppers	5	3	peppers	5	3
cilantro	1	1	cilantro	1	1
lettuce	2 heads	4	lettuce	3 heads	6
tomatoes	6	7	tomatoes	6	7
basil	1/4 #	2	basil	1/4 #	2
			cherry tomatoes	1/2 #	3
			cabbage	1	2
			winter squash	2	4
			spinach	1/2 #	4
			leek		1 1
			kale		1 2
total		44			66

<b>Week 13</b>			<b>September 17</b>		
<b>crop</b>	<b>amount</b>	<b>Value</b>	<b>crop</b>	<b>amount</b>	<b>Value</b>
winter squash	3	6	winter squash	5	9
potatoes	3 #	4.5	potatoes	3 #	4.5
beets	3	2	beets	3	2
cukes	3	2	cukes	5	2
lemon cukes	1	1	lemon cukes	1	1
onion	3	1	onion	3	1
melons	2	3	melons	2	3
peppers	5	3	peppers	10	5
eggplant	1	1	eggplant	1	1

garlic	1	1	garlic	1	1
leeks	3	1	leeks	6	2
kale	1	2	kale	1	2
salad mix	1/2 #	4	salad mix	1/2 #	4
tomatoes	2#	7	tomatoes	2#	7
pumpkin	1	3	pumpkin	1	3
			cabbage		1 2
			summer squash		2 2
			lettuce		2 4
total		41.5			55.5



## CSA - value by crop

	Venti	Value	Grande	Value
arugula	0.25	\$ 2.50	1.25#	\$ 9.50
basil	2	\$ 24.00	2.5#	\$ 28.00
beans	1.5	\$ 7.50	3.5#	\$ 14.50
greens	0.25	\$ 2.00	.25#	\$ 2.00
beets	35 ct	\$ 17.50	55 ct	\$ 27.00
broccoli	2	\$ 9.00	5 ct	\$ 22.00
cabbage	4 ct	\$ 8.00	9 ct	\$ 19.00
carrots	50 ct	\$ 20.00	75 ct	\$ 30.00
cauliflower	1 ct	\$ 2.00	3 ct	\$ 6.00
cilantro	2 b	\$ 2.00	2 b	\$ 2.00
cucumbers	18 ct	\$ 18.00	25 ct	\$ 22.50
eggplant	4 ct	\$ 5.00	6 ct	\$ 7.00
flowers	2 bouq	\$ 4.00	2 b	\$ 4.00
garlic	3 ct	\$ 3.00	7 ct	\$ 2.00
garlic scapes	2 ct	\$ 2.00	2 ct	\$ 2.00
kale	5 ct	\$ 11.00	10 b	\$ 5.00
leeks	9	\$ 4.00	23 ct	\$ 11.50
lettuce	12 ct	\$ 28.00	20 ct	\$ 50.50
melons	2 ct	\$ 3.00	2 ct	\$ 3.00
onion	4 ct	\$ 3.00	11 ct	\$ 10.50
parsely	3 b	\$ 3.50	3 b	\$ 3.50
peas	1.8 #	\$ 8.50	2.6 #	\$ 12.50
peppers	20 ct	\$ 12.00	27 ct	\$ 16.00
potatoes	10.75#	\$ 21.50	20 #	\$ 31.50
pumpkins	1 ct	\$ 3.00	1	\$ 3.00
radishes	2 b	\$ 3.00	2 b	\$ 3.00
salad mix	1.75 #	\$ 17.00	3#	\$ 27.00
scallions	4 b	\$ 7.00	8 b	\$ 14.00
shallots	6 ct	\$ 4.00	9 ct	\$ 5.00
summer squash	18 ct	\$ 16.50	28 ct	\$ 26.00
swiss chard	2 b	\$ 5.00	3 b	\$ 7.00
turnips	3 ct	\$ 2.00	4 ct	\$ 4.00
tomoatoes	5 #	\$ 14.00	8 #	\$ 14.00
winter squash	3 ct	\$ 6.00	11 ct	\$ 23.00
<i>cherry tomatoes</i>			.5 #	\$ 3.00
<i>misc herbs</i>			3 b	\$ 5.00
<i>spinach</i>			2 #	\$ 15.00
<b>Total</b>		<b>\$ 298.50</b>		<b>\$ 490.50</b>

## CSA - weekly attendance

total members 73

Week	# in attendance	%
pre mtg	22	59%
1	67	92%
2	65	89%
3	63	86%
4	63	86%
5	68	93%
6	69	95%
7	71	97%
8	66	90%
9	68	93%
10	66	90%
11	69	95%
12	63	86%
13	65	89%



## Food Bank Weekly Distribution

<b>Week 1</b>		<b>6/22/09</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
<i>agreed to delay start due to lack of volume</i>		

<b>Week 2</b>		<b>6/29/09</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
lettuce	64.8	
kale	4	
total	68.8	

<b>Week 3</b>		<b>7/6/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
spinach	4.6	
chard	2.2	
lettuce	56.6	
total	63.4	

<b>Week 4</b>		<b>7/13/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
lettuce	156.80	
radish	7.00	
total	163.80	

<b>Week 5</b>		<b>7/20/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
lettuce	267	
broccoli	8.8	
scallions	0.75	
spinach	4.8	
total	281.35	

<b>Week 6</b>		<b>7/27/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
lettuce	134.6	
radishes	37.4	
summer sq	50	

total	222
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<b>Week 7</b>		<b>8/3/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
lettuce	148.4	
cabbage	116.4	
beets	34.4	
broccoli	6.2	
scallions	7	
summer sq	186.2	
Swiss chard	2.4	
basil	1.4	
parsley	0.2	
kale	7.4	
cabbage	12.6	R
total	522.6	

<b>Week 8</b>		<b>8/10/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
beets	213	
carrots	123.6	
cukes	14.4	
summer sq	287.6	
summer sq	30.2	R
beets	26	R
carrots	32	R
lettuce	7.8	R
kale	4.40	R
cukes	18.00	R
cabbage	18.60	R
total	775.60	

<b>Week 9</b>		<b>8/17/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
beets	40.00	R
summer sq	30.00	R
carrots	33.00	R
onion	14.00	R
beets	241.00	
potatoes	174.00	
carrots	220.00	
total	752.00	

<b>Week 10</b>		<b>8/24/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>



carrots	55.00 R
potatoes	42.40 R
peas	2.40 R
beans	56.00 R
peppers	5.60 R
beets	30.00 R
cauliflower	2.00 R
summer sq	68.00 R
peas	10.00 R
summer sq	271.60
cucumber	33.20
broccoli	18.80
beans	48.00
cabbage	72.60
kale	5.40
carrots	62.00
total	783.00

<b>Week 11</b>		<b>8/31/09</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
carrots	215.8	
peas	9 R	
leeks	6.6 R	
summer sq	58 R	
cukes	185	
beets	39 R	
beans	19.2 R	
cauliflower	4 R	
eggplant	2 R	
beets	322	
potatoes	97	
onions	37	
summer sq	197.6	
cukes	158	
total	1350.2	

<b>Week 12</b>		<b>9/6/09</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
cukes	75	10 R
beets	316	
summer sq	61.6	31.6 R
turnips	8	R
leeks	20.6	R
potatoes	222	

cukes	32.2	
corn	34	
peppers	42	
tomatoes	13	
total	824.4	

<b>Week 13</b>		<b>9/14/09</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
summer sq	197.6	R
cukes	162	R
peppers	10.4	R
beets	50	R
winter sq	434.6	
cukes	120	
total	974.6	

<b>Week</b>		<b>9/24/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
onions	35	
winter sq	225	
total	260	

<b>Week</b>		<b>9/29/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
pumpkins	350	
misc	100	
total	450	

<b>Week</b>		<b>10/15/2009</b>
<b>crop</b>	<b>amount</b>	<b>Notes</b>
pumpkins	500	

Total (lbs)                      7942

*R - remnants from CSA/market*

## Food Bank Distribution Crop Totals

<b>crop</b>	<b>lbs</b>
basil	1
beans	123
beets	1311
broccoli	34
cabbage	220
carrots	741
cauliflower	6
chard	3
corn	34
cucumbers	798
eggplant	2
kale	21
leeks	27
lettuce	836
misc	100
onion	86
parsley	2
peas	22
peppers	58
potatoes	493
pumpkins	850
radish	44
scallions	8
spinach	10
summer squash	1439
tomatoes	13
winter squash	660
<b>Total</b>	<b>7942</b>

## **Towne's Harvest Marketing Plan for 2009 Farmers' Market Operations**

The 2009 Season was very successful for Towne's Harvest Garden at the local Farmer's Markets. Student interns learned from the important experience of selling their produce to the public, and made substantial profits in the process.

### **MARKET INCOME**

Towne's Harvest Gardens generated \$7,516.58 through sales at local markets. Twenty-one of the markets, accounting for \$4,832.36 were analyzed using market sales forms which were filled out at each market. Several markets were not recorded on market forms, including the school markets, and accounted for the remaining \$2,684.22. Of the twenty-one markets analyzed, eleven markets took place at the Bogert Farmer's Market, at Bogert Park near downtown Bozeman, and the other ten took place at the Gallatin Valley Farmer's Market, at the Haynes Pavilion at the Gallatin County Fairgrounds. The Bogert market generated \$2010.45, with an average of \$250.87 per market. The Gallatin market generated \$1,821.91, with an average of \$227.74 per market. Highest market income was around \$500 and occurred in late July at the Bogert Market, and at various dates throughout the late July and August at the Gallatin Valley Fairgrounds. Lowest market income occurred at the beginning of the season, in early June, with totals below \$100. The low totals are due to a combination of lower attendance at markets, and low inventory of products.

### **MARKET PRODUCE SELECTION**

Star performers at market, including items which we consistently sold out of varied throughout the season, depending on availability from other farmers and quality of product. However, we consistently sold out of carrots, spinach, spring mix, green beans, peas, with net incomes of \$310, \$136, \$175, \$351.50, \$366.50 respectively. We generated a high income from broccoli, cabbage, beets, potatoes, zucchini, and summer squash, with net incomes of \$226.50, \$216.50, \$243, \$278, \$559.70, and \$685 respectively. After analyzing these totals we realize that we should concentrate more on bringing larger quantities of specific crops, and to pay more attention to pricing. We need to consistently try and provide the crops which we sold out of on a regular basis, especially staples such as leafy greens and carrots. Often, we would not sell any herbs we brought. For items which didn't sell we need to decide whether bringing these products is worth the effort to round out our table, or if we are pricing them correctly.

Included at the end of this document there are excel forms which indicate produce we sold out of, and produce which we brought to market but sold none of. A corresponding price list is also included, which is important to compare to income totals of each product. The price list may also be helpful in pricing for next year. It is Towne's Harvest goal to price items to make a profit and not to undersell other, non-subsidized sellers. It may be helpful to reference these spreadsheets for planting and pricing next season.

### **MARKET OPERATIONS**

At the beginning of the season we created a market form to keep track of sales at each market. This form included information such as the market date, location, weather and information on each product; including size of unit, price, units brought to market, tally of items sold, and income. We also left a space for market workers to record observations, which were very helpful to create improvements between markets. Throughout the season we learned that it was very difficult to keep an accurate tally

and to calculate income during market. Often, cash totals were excluded, which made bookkeeping difficult.

We revised the market form to include names of THG staff working, and more information on each item, including the type of unit, the units left after market, and the expected income. We also created more clarity on the form by providing examples. At the top of each form we emphasized the importance of recording the income by creating a highlighted space for cash at the start, end, and actual income. We have attached the revised form at the end of this document.

Through observations on the back of market forms and other observation and communication about market we believe that there needs to be more direction for people about operations at market. We believe it would be very beneficial to hold a farmer's market training session at the beginning of each season for everyone who will work the market. We believe this will help create more consistency in quality operations and bookkeeping. The directions for market set-up are very helpful, but might be expanded to include some advice on how to set up the booth, and talk to customers. This would include advice on standing up throughout market, and helping customers bag. We also think it will be helpful to create an information sheet for each type of produce we sell. The information included on this sheet should include the basics of the crop, its season, and some basic preparation and recipes.

We found that items sell better if priced individually. Keeping a clean look at market may improved by using laminated prices for items, rather than dry-erase markers. We could also use a folding display, with slots for pamphlets, to reduce their space on the table-top. To create more efficiency during market, it would be very useful to acquire an additional scale.

We believe that the presentation of produce should emphasize the produce itself. We found that an L-shaped table display creates a welcoming atmosphere. It was also requested that we bring two lighter tables, rather than the one larger table, to make transportation easier. We also decided we want to create a tiered table system. We can do this by bringing crates or cinder blocks to put bins of items at different levels. Keeping a good supply of produce on multiple levels creates a bountiful look which attracts customers.

## **CONCLUSION**

With these improvements we hope to have an even better season at market in 2010. With more thorough training of interns, better bookkeeping forms and practices, consistent and calculated pricing and harvesting, and improved display tactics we hope to improve the efficiency and profits at the local farmer's market. We must keep in mind that the outcome of market is not always dependent on the variables of the day, but also upon strategic planting and harvesting. We hope that the information contained in this document will help in the process of planting, harvesting and marketing in the upcoming season.

***Submitted by Jennifer Nerison, HDFN 570, January 2010.***

## TOWNE'S HARVEST - FARMER'S MARKET

Cash at Start : \$	Cash/Check at End: \$	Income: \$
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Names of THG Staff:

Market Date:

Location:

Weather:

CROP	NUMBER/ WEIGHT OF EACH UNIT	TYPE OF UNIT (ex. bag)	UNITS BROUGHT TO MARKET	UNITS LEFT AFTER MARKET	PRICE PER UNIT	EXPECTED INCOME <small>(units brought x price)</small>
1.					\$	\$
2.					\$	\$
3.					\$	\$
4.					\$	\$
5.					\$	\$
6.					\$	\$
7.					\$	\$
8.					\$	\$
9.					\$	\$
10.					\$	\$
11.					\$	\$
12.					\$	\$
						\$ TOTAL

PLEASE FILL OUT OBSERVATIONS ON THE REVERSE SIDE!



DATE	2-Jun	9-Jun	16-Jun	20-Jun	27-Jun	30-Jun	7-Jul	11-Jul	14-Jul	18-Jul	21-Jul	25-Jul	28-Jul	1-Aug	4-Aug	8-Aug	15-Aug	18-Aug	22-Aug	25-Aug	1-Sep	15-Sep	AVERAGE	
MARKET	Bogert	Bogert	Bogert	Gallatin	Gallatin	Bogert	Bogert	Gallatin	Bogert	Gallatin	Bogert	Gallatin	Bogert	Gallatin	Bogert	Gallatin	Gallatin	Bogert	Gallatin	Bogert	Gallatin	Bogert	PRICE	
PRODUCT	Price at Market																							
THG totes	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
THG shirts	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
MT food guide	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
fower/bouquet			\$1.00	\$1.00	\$3.00	\$3.00		\$2.00		\$1.00			\$2.00								\$1.00			\$1.75
carrots (bunch)	\$2.00									\$2.00					\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$2.00		\$2.67
raddish (bunch)	\$2.00	\$2.00	\$2.00	\$2.00	\$2.00		\$2.00	\$2.00	\$2.00		\$2.00													\$2.00
parsley	\$2.00	\$2.00	\$2.00	\$2.00	\$1.00	\$1.00	\$2.00		\$5.00					\$2.00										\$2.11
basil	\$2.00				\$2.00	\$1.50	\$2.00	\$2.00	\$2.50				\$2.00	\$2.50					\$2.00				\$1.00	\$1.95
onion starts	\$2.00	\$1.00																						\$1.50
chives		\$2.00	\$2.00																					\$2.00
cilantro									\$2.00					\$2.00										\$2.00
sage		\$2.00	\$2.00	\$2.00																				\$2.00
oregano		\$2.00	\$2.00	\$2.00		\$2.00																		\$2.00
thyme		\$2.00	\$2.00	\$2.00																				\$2.00
asparagus		\$2.00																						\$2.00
beet greens		\$4.00				\$3.00	\$3.00																	\$3.33
spinach (1/4 lb)				\$3.00			\$3.00																	\$3.00
spinach (1/2 lb)	\$5.00						\$4.00	\$4.00		\$4.00	\$4.00	\$3.00	\$3.00											\$3.83
spring mix (1/2 lb)			\$5.00	\$5.00	\$4.00		\$4.00							\$5.00								\$4.00		\$4.14
spring mix (1/4 lb)					\$3.00		\$2.00																	\$3.00
arugula (1/4 lb bag)											\$2.00	\$3.00	\$2.50		\$2.50									\$2.50
kale						\$3.00	\$3.00	\$2.00	\$3.00		\$2.00			\$1.50			\$2.00							\$2.36
swiss chard							\$3.00	\$1.00		\$2.00	\$2.00		\$2.00	\$2.00	\$2.50			\$2.00				\$1.50		\$2.00
broccoli		\$3.00							\$3.50		\$3.50	\$2.00	\$2.00	\$3.00	\$2.00	\$1.00								\$2.63
head lettuce						\$3.00	\$4.00	\$2.00	\$4.00		\$4.00	\$2.00				\$3.00			\$2.00					\$3.00
garlic scapes						\$2.00																		\$2.00
scallions							\$2.00		\$2.50	\$1.50	\$2.50	\$2.50	\$2.00	\$2.00	\$2.00		\$1.00							\$2.00
cabbage (/lb)								\$2.00		\$1.50	\$1.50	\$1.00	\$1.50	\$1.50	\$2.00	\$2.00			\$2.50		\$1.50	\$0.50		\$1.59
cauliflower (/lb)								\$2.00		\$1.50	\$2.00							\$3.00		\$1.00	\$1.50			\$1.83
beets								\$1.00	\$3.00	\$1.50	\$2.00	\$2.00		\$3.00	\$3.00	\$3.00	\$2.00	\$3.00	\$2.50	\$3.00	\$2.00			\$2.38
zucchini (/lb)									\$3.00	\$3.00	\$3.00		\$3.00	\$3.00			\$1.00							\$2.67
summer squash (/lb)									\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$2.00	\$2.00	\$1.00	\$2.00	\$1.00					\$2.30
green beans (1/4 lb)										\$2.00	\$2.00													\$2.00
green beans (1/2 lb)									\$4.00	\$4.00				\$3.50	\$2.50	\$3.00	\$2.50	\$2.50	\$2.00	\$2.50	\$2.00			\$2.85
purple beans (1/2 lb)															\$2.50									\$2.50
cucumbers										\$0.50	\$0.50					\$1.50	\$0.50	\$0.75	\$0.50	\$0.75	\$1.00	\$0.50		\$0.72
peppers										\$0.50						\$0.50								\$0.33
onions										\$0.50	\$0.50						\$0.50	\$1.00	\$0.25		\$0.50	\$0.50		\$0.54
peas (1/3lb bag)										\$2.50	\$3.00	\$2.00	\$2.00	\$2.00	\$2.50	\$3.00	\$2.50	\$2.50	\$3.00					\$2.50
eggplant (each)										\$5.00			\$5.00	\$5.00	\$5.00	\$3.00	\$3.00	\$2.50	\$2.50	\$3.00		\$1.00	\$0.33	\$3.48
potato (/lb)													\$2.50	\$2.50	\$2.50	\$3.00	\$3.00	\$4.00	\$3.00					\$2.93
leeks													\$2.00								\$1.00	\$0.50		\$1.17
garlic																	\$2.00	\$1.00	\$2.00		\$1.50			\$1.63
turnips																					\$2.00			\$2.00
tomato (cherry 1/4lb)																					\$3.00	\$3.50		\$3.25
tomatoes (/lb)																						\$4.00		\$4.00
winter squash																							\$2.00	\$2.00





## **Towne's Harvest Garden**

Montana State University / HHD

121 PE Complex

Bozeman, MT 59717

*Locally, sustainably, and educationally grown*

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### **Towne's Harvest Garden SFBS Student Internship (HHD/LRES/PSPP 276)**

The Towne's Harvest Garden internship is a hands-on learning experience in small scale sustainable production and marketing. Towne's Harvest Garden is a 3-acre mixed vegetable farm that grows produce for a 40 member Community Supported Agriculture program (CSA), local farmers' markets, and for the Gallatin Valley Food Bank. The mission of the project includes education, research, and community service. The internship is designed to give students real-life experiences in food production, community supported agriculture, and food marketing. Interns will be involved in all aspects of the farm project: planting, maintenance, harvesting, distribution and sales. Interns will also have the opportunity to specialize in one aspect of the operation dependent upon individual desires and project needs.

#### **Typical duties expected of interns at Towne's Harvest Garden:**

- Seeding
- Transplanting
- Irrigating
- Weeding
- Harvesting
- Post-harvest Processing/washing
- Tool upkeep and maintenance
- Distribution at weekly CSA
- Produce Sales at weekly Farmers' Markets

#### **In addition to these basic duties, interns can expect to gain exposure to the following areas of specialization:**

- Soil Fertility
- Greenhouse / Protected cultivation
- Integrated Pest Management
- Compost
- Perennial Crop Management
- Flower Production
- Irrigation
- Beekeeping
- Chicken / Egg production
- Farmer's Market
- CSA Distribution
- Food Bank Partnership
- Program Marketing and Outreach

***Please note: Students declaring one of the three SFBS Options as their major have priority in terms of internship placement should interest exceed capacity for interns at the farm during any given summer.***

#### **Required Intern Qualifications:**

The ideal candidate is willing to work until the job gets done, is self-motivated, dependable, and displays strong teamwork skills. Early morning hours should be expected as well as some weekends. The candidate should be able to lift and transport up to 50 lbs and be willing to work outside in all types of weather. *Prior experience in vegetable production is not required.*

### **Internship Credit**

The SFBS Program requires 3 credits of the HHD/LRES/PSP 276 internship. (This equates to a commitment of 135 hours in total). Weekly hours will be part time and there will be some required *common hours* at the garden for interns and some individually scheduled hours. SFBS students will register for credits in the home department of their particular SFBS option (ie, Sustainable Crop Production option students will register for PSPP 276, Agroecology option students will register for LRES 276, and Sustainable Food Systems option students will register for HHD 276). Students doing their Towne's Harvest Internship during the summer might consider concurrent enrollment in PSPP 345 (*Organic Market Gardening*) 3 credits, offered first summer session May 18-June 26, and HDFN 445 (*Culinary Marketing: Farm to Table*) 3 credits offered second summer session, June 29-August 7. Please note that junior standing is typically required for 400 level courses.

The Summer 2010 Internship at Towne's Harvest Garden runs from May 10 through August 27, 2010. Internship grades will not be assigned until after August 27<sup>th</sup>. This internship is graded as pass/fail.

### **Required Reporting:**

SFBS Students are required to:

- Submit a weekly written log of the internship experience and significance during each week of their internship service. Logs are to be submitted to Mary Stein (SFBS Program Coordinator) [mstein@montana.edu](mailto:mstein@montana.edu) phone: 406-994-5640.
- Students will take part in mid-season and end of season reviews by the Towne's Harvest Management Team (Operations Manager and Farm Production Manager). Any resources requested by the Management Team for completion of these reviews must be submitted in a timely manner.

### **To Apply:**

- 1) Please complete the THG Internship Application.
- 2) Obtain the required signature from your academic advisor.
- 3) Sign the application and send the application, your one-page statement (see application questions), a current resume, and names and contact information of three personal references to:

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

Or via email to: [townes.harvest@gmail.com](mailto:townes.harvest@gmail.com)

***Applications must be submitted by April 15, 2010 date for the 2010 summer season.***

### **Inquiries:**

For further information regarding Towne's Harvest Garden please refer to our website: [www.townesharvest.montana.edu](http://www.townesharvest.montana.edu) For questions regarding the positions, please contact: [townes.harvest@gmail.com](mailto:townes.harvest@gmail.com)

**Towne's Harvest Garden  
SFBS Student Internship Application 2010**

Name:

Email:

Student GID #:

Address:

Phone:

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Briefly answer the following questions:

**Provide a one page statement that includes: (Attach as a separate sheet)**

- *What you hope to gain from your experience at Towne's Harvest Garden*
- *Your previous experience related to farming, teamwork, leadership or other position related activities*
- *What skills, enthusiasms and talents you are bringing to the position*

**How many internship credits do you anticipate registering for?**

(Note: 3 credits equates to 135 hours of service)

**What are your anticipated dates of internship service?**

from \_\_\_\_\_ to \_\_\_\_\_

**Indicate the days and hours you anticipate to be available for internship service:**

(Example: Tuesday – Saturday, 8:00am – 5:00pm)

**Indicate any expected times you will not be available during the summer.**



If there is anything else you would like the Towne's Harvest Management Team to know about you prior to your internship service, please feel free to communicate this here.

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*(Signature of Student)*

*(Date)*

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*(Signature of Academic Advisor)*

*(Date)*



***Towne's Harvest Garden***

*Montana State University / HHD*

*121 PE Complex*

*Bozeman, MT 59717*

*Locally, sustainably, and educationally grown*

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Dear Student Intern Applicant,

Thanks for your interest in the Towne's Harvest Garden Internship. Spring has arrived in the Gallatin Valley; we already have seeds planted in the greenhouse and are very excited to bring together the THG crew for the 2009 season.

In the fall of 2006, several MSU students came together to raise awareness about local food and encourage sustainable lifestyles on campus. Out of this vision and the continued hard work of many students and faculty, the Towne's Harvest Garden has grown. Towne's Harvest is a classroom, a research laboratory, and source of good food for the Bozeman community. Towne's Harvest is a way for students from diverse backgrounds to become involved in sustainable food production and consumption. Towne's Harvest is a way for you to put your academic training into action!

The heart of the THG internship is the notion that there is no better way to gain understanding of our food and agriculture systems, than to spend some time growing food. The THG project is a team effort with the primary goals of learning while doing and producing fresh high quality food. The farm is a real life situation in that Towne's Harvest has production obligations to fulfill, to both our CSA members and the Gallatin Valley Food Bank. This is an educational farm, but it is still a farm and that means hard work and dedication. You don't need to come with an extensive agriculture background, just the desire to be a part of a student driven project that requires quite a bit of effort on every person's part. Each year, the continued success of the project depends upon our willingness to get the job done—with style.

So, once again, we are excited you are interested in being a part of Towne's Harvest. Please review the attached Internship Agreement and contact us with any questions you might have.

Thanks again and look forward to seeing you out at the farm.

Sam Robbins and the THG staff

# Towne's Harvest Internship Agreement

## Position Summary

The Towne's Harvest Garden student intern position will be a hands-on learning experience in small scale sustainable production and marketing. Townes Harvest Garden is a 3 acre mixed vegetable farm that grows produce for a 40 member Community Supported Agriculture program (CSA), local farmers' markets, and for the Gallatin Valley Food Bank. The mission of the project includes education, research, and community service. The internship is designed to give students real life experiences in food production, community supported agriculture, and food marketing. Interns will be involved in all aspects of the farm project: planting, maintenance, harvesting, distribution and sales.

## General Intern Duties

Daily communal duties will be focused on basic production tasks. Depending upon the seasonal need and the daily obligations, these tasks will include the following:

- Seeding
- Transplanting
- Irrigating
- Weeding
- Harvesting
- Post-harvest Processing/washing
- Tool upkeep and maintenance
- Distribution at CSA
- Produce Sales at Farmers Market

## Internship Specialization

Interns will also have the opportunity to specialize in one aspect of the operation.

***Please note your top three areas of interest:***

- Soil Fertility
- Greenhouse / Protected cultivation
- Integrated Pest Management
- Compost
- Perennial Crop Management
- Flower Production
- Irrigation
- Beekeeping
- Chicken / Egg production
- Farmer's Market
- CSA Distribution
- Food Bank Partnership
- Program Marketing and Outreach
- Other: \_\_\_\_\_

## Internship Credit

The Towne's Harvest Internship is offered **May 11 – August 28**. This is an unpaid internship. Students can register for 1-12 academic credits. (A three credit internship is a commitment of approximately 135 hours). You may register for up to 6 internship credits for each of the two summer sessions offered by MSU. Internships are graded as pass/fail. The instructor for the internship is Mary Stein, coordinator of the Sustainable Food & Bioenergy Systems Degree Program, ([mstein@montana.edu](mailto:mstein@montana.edu)). There will be an orientation for all THG interns on Monday April 27 at 6pm in the SUB-- Union Market South. There will be a second orientation during the week of May 18<sup>th</sup> for non-MSU students registering for summer session only. Academic requirements of the internship include electronic submission of a weekly journal entry, and completion of pre-season and post-season internship surveys.

**Candidates will need to be enrolled as MSU students to receive internship credit.**

For SFBS Students, register for HHD 276/298, PSPP 276/298 or LRES 276/298

If you are not an SFBS student, you may choose to register for HHD 476/498, PSPP 476/498 or LRES 476/498

## Hours and Scheduling

The weekly schedule of Towne's Harvest varies daily and seasonally. The focus of the first part of the season is seeding, planting, and establishing infrastructure for the farm. As the end of June approaches, CSA and Farmer's Market sales begin and duties shift towards maintenance and harvesting.

Weekly hours will be part-time. Individual intern schedules will vary based upon credit requirements and areas of specialization. Some weekend duties, including irrigation and market sales, will be necessary throughout the season. Summer intern work at Towne's Harvest will begin May 11 and continue until August 21<sup>st</sup> (extends beyond the normal summer session, which ends August 7<sup>th</sup>). Additional work will be available in Fall Semester until approximately October 1<sup>st</sup>.

## Summer Courses

MSU offers two summer courses that utilize the Towne's Harvest Garden as an academic demonstration site. These courses are superb complements to the THG summer internship, allowing students to gain additional technical knowledge and diversify their experience with the project. Concurrent enrollment is encouraged but not required.

### **Organic Market Gardening - PSPP 345, 3 credits, May 18-June 26.**

Focus is on the production of quality vegetable, herb and flower products for sale through local, regional or non-traditional marketing avenues. Special attention is made to present and analyze sustainable food crop production systems.

### **Culinary Marketing: Farm to Table - HDFN 445, 3 credits, June 29-August 7.**

Emphasizes hands-on food experience, including market garden tending and harvesting, distribution by community supported agriculture, food marketing and retail at farmers' markets, culinary practice with seasonal garden produce and food preservation, educational outreach and culinary demonstrations, and independent research projects.

How many internship credits do you plan to register for? \_\_\_\_\_

Circle one:    First Summer Session                      Second Summer Session                      Both Summer Sessions

Please list the course (s) for which you are registering: \_\_\_\_\_

Please list the approximate dates you will be available to fulfill your internship credits and any weeks of the summer you know you will not be available:

\_\_\_\_\_  
\_\_\_\_\_

**For NON-MSU Students registering for Summer Session only:**

Information about summer session can be found at this link: <http://www.montana.edu/summer/>  
You will need to complete a short application: <http://www.montana.edu/summer/forms/admissionsform2009.pdf>  
and send it to MSU admissions with your completed course request form:  
<http://www.montana.edu/summer/forms/courserequest2009.pdf>.

MSU requires proof of immunizations and a TB screen. Health records can be faxed from your current institution to MSU Health Services at 405-994-2504. Housing is available for students attending summer session. Information can be found at <http://www.montana.edu/summer/>. Students can wait to pay for summer credits until they arrive at MSU or pay on-line with a credit card. If you have questions about summer session at MSU, please call 406-994-7136.

\*\*\*\*\*

**Acceptance of Internship**

Towne’s Harvest Internship positions will be limited. So that we can best fill these positions, please notify us of your acceptance via email ([townes.harvest@gmail.com](mailto:townes.harvest@gmail.com)) and send a signed copy of this agreement to:

Towne’s Harvest Garden  
MSU / HHD  
121 PE Complex  
Bozeman, MT 59717

I have read and understand the above stated requirements of the Townes Harvest Internship.

\_\_\_\_\_  
Printed Name of Applicant

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

**INTERN HOURS RECORD 2009**

	KC	SR	KC	HG	TG	TH	JJ	MK	AL	TR	GS	KS	MS			
1	req hours			200	135	270	135	135	135	135	180	135	135			
2	May 10	35.00	32	4.00	8	7	10.00	10	4	8.00	x	4.00	9.25	7		
3	May 17	40.00	45	9.00	x	10.5	17	8.5	X	4.00	x	12.00	11	10		
4	May 24	40.00	43	8.00	12	11.75	17.5	9	x	5.00	5.50	8.00	12	14		
5	May 31	40.00	60.00	7.00	27.25	9.5	20.5	8	4	3.00	5.75	11.00	5	13		
6	June 7	40.00	40.00	4.50	12	9.5	19.00	9	15	8.50	6.00	8	8	16		
7	June 14	40.00	55.00	13.00	16.25	13.75	3.00	9.75	8.50	7.25	4.00	12.00	10.00	6.00		
8	June 21	40.00	43.00	8.50	33.50	6.00	22.50	15.50	18.50	9.00	11.50	12.00	8.00	17.00		
9	June 28	40.00	25.00	6.00	34.00	8.00	17.00	7.50	12.50	7.00	0.00	24.00	9.00	0.00		
10	July 5	40.00	10.00	13.00	x	28.5	18.50	12.00	4.50	12.00	13.00	11.00	8.00	17.00		
11	July 12	40.00	42.00	0.00	x	0	20.50	12.00	0.00	0.00	12.00	0.00	4.00	23.00		
12	July 19	40.00	49.00	8.00	x	16	20.00	9.25	13.50	13.00	24.00	12.00	15.00	8.00		
13	July 26	40.00	40.00	12.00	x	2.5	24.00	16.25	5.00	21.00	29.50	20.50	9.00	22.00		
14	August 2	40.00	15.00	0.00	x	12.5	11.50	5.00	13.50	9.00	14.20	13.00	9.50			
15	August 9	40.00	45.00	7.00	x	x	x	8.50	x	8.50	26.00	14.00	20.50			
16	August 16	40.00	43.00	11.00	22.00	5.75	24.00	10.00	x	7.50		16.50	13.00	x		
	August 23	40.00	45.00	19.00	4.75	7.50	14.50	7.50	11.00	8.00		7.00	13.50	x		
	August 30	40.00	45.00	3.00	16.00	5.00	10.00	8.00	7.50							
	Sept 6	25.00	25.00		9.00		11.00		7.00	8.50						
	Sept 13	25.00	25.00	3.00	8.25				5.50							
	Sept 20	25.00	25.00						5.00							
	Sept 27	15.00	15.00													
	Total	765.00	767.00	136.00	203.00	138.75	280.50	165.75	135.00	139.25	151.45	185.00	164.75	153.00	total interns	3384.45 1852.45





Locally, Sustainably and Educationally Grown  
MSU Friends of Local Foods

# Towne's Weekly

July 16, 2009



## NOTES FROM THE FIELD

### Veggie List

Lettuce

Radishes

Kale

Broccoli

Scallions

Cauliflower

Well, as you've likely noticed, with all the rain in Bozeman, we haven't had to turn on our irrigation in a while! The cool wet temperatures have made for pleasant days in the field for our farmers, but our plants are hoping for that sun!! This week we've seen our first squash blossoms, so prepare yourself for the zucchini rush in a couple weeks. Our lettuce and other greens have benefitted from the cool temps, but will likely see the end of their days sooner than later. Peas and green beans have been slow to blossom, but keep an eye out for those delicate flowers. Thus far we've harvested mainly from the greenhouses, raised beds and strip garden. However, some of this week's broccoli and lettuce came from our large N field. Hope you are enjoying the presence of fresh local produce in your diet as much as we are!! As you adjust to the workings of our CSA, please feel free to contact us with questions, comments or concerns. Thanks and happy veggie munching to you are yours!



## MEET YOUR FARMERS



My name is **Jacqualynn Jones** I am from Bozeman and am in the Sustainable Food and Bioenergy Systems program at MSU. I have a daughter and stepson who are helping me with my garden, four huskies and twenty six chickens. Both my husband and I enjoy the outdoors with the family, our dogs pull us around on a sled or skis. The sustainable foods program interests me because I think that we as Americans need to stop living beyond our means and start to think about the future for our children who will have to live with many obstacles that have just started to be noticed. So my education will have an influence on my own children whom I can teach to be self sustaining.

Hey ya'll. My name is **Tim Holland** and I am a student intern at the Towne's Harvest this summer. I am originally from La Crosse, WI and moved to MT for the mountains. I will be a senior in Horticulture Science this fall. I love anything outdoors, and I am an avid climber and snowboarder. I am very interested in Organic Sustainable Horticulture and it is my focus as I continue my schooling. I am looking forward to meeting all of you at the CSA distributions.



# Broccoli



Broccoli is a member of the cabbage family and is closely related to and highly resembles cauliflower with its “tree-like” appearance. It has a thick fibrous stalk and soft flowery florets that are connected to the stalk by stems. Broccoli ranges in color from bright green to deep sage to purplish green depending on the variety.

## Picking/Selecting/Handling

When selecting broccoli, choose broccoli in which the floret clusters are compact and not bruised. The broccoli should be uniform in color (dark green, sage, or purplish-green) and free from yellow spots. The stalks and stems should be firm, the leaves should have a vibrant color, and there should be no slime anywhere on the vegetable.

## Preserving/Storing

Broccoli is highly perishable so it is important that it is stored properly. It should be stored in an open plastic bag in a crisper in the refrigerator for up to one week. Never wash broccoli before refrigerating it because the water will degrade the vegetable. If broccoli is blanched and then frozen, it will keep for up to one year. Leftover cooked broccoli will last for a few days if stored in a tight container in the refrigerator.

## Cooking Techniques/ Unusual Ways

Raw broccoli has the highest nutrient content, but it can also be steamed, blanched, stir-fried, or microwaved. Of these methods, steaming retains the most nutrients. Broccoli may also be added to casseroles, omelets, or pizza, or it may be pureed with cauliflower to make a soup base.

**Nutrients:** Vitamins A, C, K, Folate; Cancer-preventing compounds, and Fiber

## Using the Whole Vegetable

Broccoli florets have the most flavor, but you can also use the stalks in stir-fries, omelets, or casseroles. The leaves are not commonly eaten but are very high in nutrients. The leaves can be cooked in pasta dishes, omelets, casseroles, salads, or may be added to a puree for a soup base.

## FEATURED RECIPE:

### Fresh Broccoli Salad

#### INGREDIENTS

- 2 heads fresh broccoli
- 1 red onion
- 1/2 pound bacon
- 3/4 cup raisins
- 3/4 cup sliced almonds
- 1 cup mayonnaise
- 1/2 cup white sugar
- 2 tablespoons white wine vinegar

#### DIRECTIONS

- 1.Place bacon in a deep skillet and cook over medium high heat until evenly brown. Cool and crumble.
- 2.Cut the broccoli into bite-size pieces and cut the onion into thin bite-size slices. Combine with the bacon, raisins, your favorite nuts and mix well.
- 3.To prepare the dressing, mix the mayonnaise, sugar and vinegar together until smooth. Stir into the salad, let chill and serve.



Locally, Sustainably and Educationally Grown  
MSU Friends of Local Foods

# Towne's Weekly

September 3, 2009



## Veggie List

### Summer Squash

#### Green Beans

Leeks

Garlic

Tomatoes

Peppers

Lettuce

Cucumbers



## NOTES FROM THE FIELD

The squash leaves have begun to yellow and just yesterday we removed the pea trellises. With the first twinges of fall in the air, summer squash, peas and green beans are definitely on the way out. If you have a garden at home, beware, our first frost is predicted for early next week. We will cover our tomatoes and peppers in hopes of prolonging the season as much as possible.

We decided to give you a week to catch up with the carrots and beets you likely still have in the refrigerator. You will see more in the next couple weeks. Our final distribution is Sept 17 and we are hoping to load you up with vegetables that you will be able to store. You will see potatoes, carrots, beets, winter squash and onions. These vegetables can be kept for a few weeks as you transition back into purchasing vegetables elsewhere.

We will be conducting an end of the season survey soon and greatly look forward to your feedback.

## FALL EVENTS

If in the next month or so, you find yourself missing your connection to the local food / sustainability movement:

- Sept. 8, 2:30 - 4 PM - MSU Friends of Local Foods Campus Farmer's Market - THG and FLF will be selling vegetables on campus (Romney Flag Pole area). This is our inaugural market and we hope to increase access and awareness with student, faculty and staff.
- Sept. 15, 5-6 PM - Sustainable Food and Bioenergy Systems Seminar Series, Leon Johnson Hall, Room 346. Paul Gannon, professor in the Department of Chemical and Biological Engineering, will discuss current sources of renewable and nonrenewable energy and energy conversion systems. The seminar is free and open to the public.
- Oct. 16- 18 7th Annual Northern Rockies Bioneers Conference, Emerson Cultural Center. An exciting collection of local and national speakers and workshops on sustainable food and much more!





# Go Tomato!

## Summer Bruschetta

- 1 cup fresh, ripe tomatoes diced
- 1 tbsp fresh chopped basil leaves
- 2 tsp olive oil
- 1 clove garlic, finely chopped
- Salt and ground pepper to taste
- 1 loaf French bread, cut into inch thick pieces, toasted

1. Combine first 4 ingredients in a small mixing bowl and mix well.
2. Spoon tomato mixture onto sliced bread and serve.

Serves 4

The tomato, native to South America, arrived in Europe after the exploration of the New World. It was thought to be poisonous and was not well accepted until advocates of the tomato claimed that it had aphrodisiac powers.

Tomatoes are an excellent source of Vitamins A, C, and K and provide potassium and magnesium. Lycopene, an antioxidant, is also found in tomatoes and has been shown to prevent prostate cancer in men, reduce the chances of heart disease, and protects against many types of cancers.

Unlike some vegetables and fruits, some aspects of the nutrient content of food actually improve when cooked!

### How Can You Include Tomatoes Into Your Diet?

- Add fresh diced tomatoes to dips like guacamole and hummus, or fresh salads.
- Make a salad of sliced tomatoes, olive oil, mozzarella, and basil leaves.
- Add canned tomatoes to soups, stews, and pasta dishes.

### Did You Know That...



- Tomatoes should not be stored in the refrigerator! They will have a longer shelf life if stored on your counter top.
- There are over 60 million tons of tomatoes produced each year, 16 million more tons than the banana.

# “Does being involved in Community Supported Agriculture positively influence the family food culture?”

Jessi Peretti , Dietetics Students  
 Montana State University  
 Department of Health and Human Development

## Introduction

A family food culture can be described as any combination of events involving food that has either a positive or negative influence upon the children and/or adults' perception of food and nutrition, and the well-being of the family as a whole. The purpose of this project is to identify the importance and impact that Community Supported Agriculture shares can have on the well-being of families. This information can then be used as either a marketing tool for CSA farms or as an opportunity for CSA operators to brainstorm ways to incorporate more education into their distribution process. The information can also be used for individuals involved with public policy in an attempt to provide more money for small local farms.

## Methods

A scaled survey of 8 questions was developed using a five point scale. This survey was developed to explore the food cultures of families involved in CSA's and whether the CSA has influenced the food culture. This survey was then distributed with the Mid-Summer survey at Towne's Harvest Garden. Towne's Harvest Garden sells 74 shares, some small and some large. The data was then compiled in an Excel workbook and analyzed.

## Results

Questions How likely is it:	Not Likely	Somewhat Likely	Very Likely	N/A
You will incorporate a new recipe into your Menu for the upcoming week?	7	30	60	0
Your family will prepare a home cooked meal together?	5	7	82	5
Dinner will include fresh produce	2	0	98	0
The children in your family will be encouraged to help in meal preparation?	2	7	30	60
The parents will use cooking in the kitchen as an opportunity to teach children about a variety of fruits and vegetables	2	7	30	60
Your family will sit down at the table together and have dinner?	0	3	88	10

Question	Definitely No	Perhaps	Definitely Yes	N/A
<b>Since becoming CSA members, do you feel that your family:</b>				
Is spending more time cooking meals together	21	26	23	23
Is spending more time eating meals together	21	26	25	26
Is consuming more meals that include fresh produce	5	10	68	16

## Summary and Conclusion

Families involved in Community Supported Agriculture have a positive food culture and spend time cooking and eating together as well as using the kitchen as a tool for nutrition education for children. There is not strong evidence that the positive family food culture has been directly impacted by being involved in a CSA. More research is needed in this area.

There seems to be a correlation between people that are members of CSA's and the amount of fresh produce that is being incorporated into their meals. CSA's and government agencies should use this information as a marketing tool and as an opportunity to activate public policy related to funding of small farms.

With the majority of American's not meeting their daily recommendations for fruits and vegetables a CSA could increase the amount of fruits and vegetables consumed for most members. This research shows that CSA's are influencing the health of families in a positive way by incorporating more vegetables into their diets.

An increased interest in membership could emphasize the need for more Community Supported Agriculture farms. This could increase funding through grants and encourage the development of more CSA's and help to provide more memberships within existing CSA's. This in turn would have a positive effect on the local community, increase awareness about sustainability, and the importance of supporting local farmers.

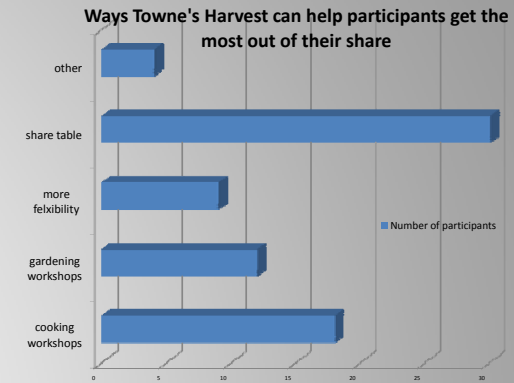
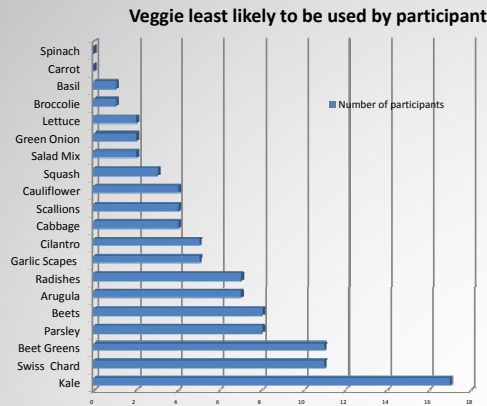


# How much of a CSA share goes unused and what factors contribute to member food waste?

Chelsey Clark

Department of Health and Human Development  
Montana State University

**Purpose:** This is an exploration of Towne's Harvest CSA members produce usage from the farm. It explores the topic of what products are being used and how much, while also taking into consideration reasons share members may not use their produce every week.



**Methods:** Survey questions were added to the midsummer survey the CSA members completed on July 30, 2009. Surveys were administered during the CSA distribution and immediately filled out by Towne's Harvest CSA share-holders onsite. The survey was optional.

## Results:

- Over 92% of participants answered that they used at least 75% of their share.
- 41% of participants answered that they compost.
- Nearly 36% of participants answered that kale was least likely to be used.
- 40% of participants checked "I do not like the food item" as a reason why an item in the CSA share would not get used.
- 73% of participants checked the share table as a way to help CSA members get the most out of their share.
- Almost 44% of participants checked cooking workshops as a way to help CSA members get the most out of their share.



## Summary and Conclusion:

- Survey could be reworded for some questions, and I think that because CSA's are so diverse this "produce usage" survey is only a reflection of Towne's Harvest CSA members and no other CSA.
- Results were not entered into a program that determines any statistical significance so therefore none of these statistics are proven to be of any significance.
- Further research could be done that implements some of these ideas, like share tables and cooking workshops, and then explores the effect of them on waste, as well as the additional community that is built by adding these programs.