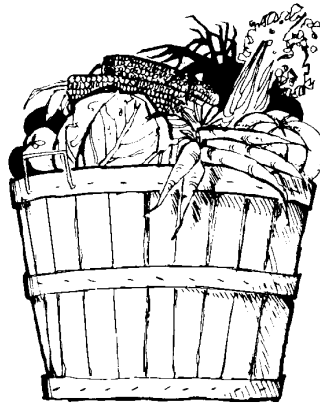


# HeartEye Village CSA 2011 Annual Report



March 7, 2012

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## Introduction

As part of the desire for transparency and education, and because we have documented everything we have done making analysis of our efforts possible, HeartEye Village CSA would like to share our Annual Report with our members and with the wider community.

There are several reasons that we feel it is pertinent to share details about the results of our latest growing season. One important factor is that the CSA model is a relatively new marketing concept and most people know very little about it and the benefits such a model engenders. This lack of familiarity can result in participants, and would-be participants, making erroneous assumptions about the procedures and economics that make a CSA function in a sustainable manner.

Another reason is that we feel it is important for our members to understand the context behind the decisions that are made. Such decisions range from how and why crops and harvests are allocated the way they are, why changes in management strategies occur and why share prices may or may not change.

Another factor is that over the course of the season as members pick up and utilize the produce from their boxes, they may not realize how much produce they are actually receiving. As a result, participants in a CSA may not fully appreciate how much they are saving by not purchasing organic produce in the retail sphere.

There were some significant changes to our operation in 2011. We received funding for a high tunnel so that we could continue producing through the fall and winter months. We also received funding to conduct a study examining how winter and fall production affects the financial sustainability of small operations such as ours. The report for the study can be found at: <http://landshareco.org/grow-your-own-csa-co-op/small-farm-financial-sustainability-study/>.

We want to thank our members for their support and we invite you to peruse the results of what we consider another amazingly successful year. As during our first two years we are excited to have learned some valuable lessons to apply towards making our future years sustainable ones.

Sincerely,

Tracy Sweely  
Farm Manager

## Part 1: Production

### Harvest Totals

#### Totals per crop: Main Season

A total of 3,144 lbs of produce was harvested from our ¼ acre micro-farm during the main season. We grew 9 fewer crops than we did in 2010. The following chart indicates the total number of lbs harvested for each of the 51 crops grown during the 2011 season.

Arugula	52.51	Cucumber	89.53
Beets & Greens	100.73	Eggplant, Japanese	36.44
Bok Choi	9.59	Eggplant, Black	45.35
Broccoli	21.16	Melons	172.5
Carrots	92.88	Peppers, Bell	12.76
Chard	69.11	Peppers, Anaheim	10.31
Cilantro	9.03	Peppers, Jalapeno	1.85
Collards	25.12	Summer Sq, Patty Pan	256.21
Garlic	12	Summer Sq. Crookneck	247.66
Kale	19.57	Summer Sq Zucchini	106.25
Leeks	2.63	Tomatillos	3.8
Lettuce, Leaf and Head	113.78	Tomatoes, Cherry	92.59
Mustard	14.18	Tomatoes	547.1
Onions, Red	15.56	Winter Sq. Blue Hubb	79
Onions, Yellow	32.54	Winter Sq. Delicata	97
Parsley	4.1	Perennial herbs	14.96
Peas, Snow	3.57	Rhubarb	8.25
Radishes	82.07	Garlic Scapes	0.94
Shallots	14.06	Squash Blossoms	2.5
Spinach, green	17.53	Cherries	12.55
Spinach, purple	15.47	Winter Sq. Hybrid	35.5
Turnips	138.68	Winter Sq. Red Kuri	85
Turnip Greens	35.78	Winter Sq. Acorn	42
Basil, Green	31.9	Horseradish	7.97
Beans, Yellow	135.22	Celery	5.63
Beans, Green	62.12		

## Total per share: Main Season

The following chart indicates the minimum total number of lbs of each crop received by half-share CSA members during the 2011 main season. At a minimum, full-share members received twice these amounts.

Arugula	0.84	Beans, Green	1.88
Beets & Greens	3.73	Cucumber	4.91
Bok Choi	0.57	Eggplant, Japanese	1.42
Broccoli	0.57	Eggplant, Black	1.86
Carrots	2.96	Melons	8.97
Chard	2.76	Peppers, Bell	0.50
Cilantro	0.42	Peppers, Anaheim	0.94
Collards	1.26	Peppers, Jalapeno	0.10
Garlic	0.46	Summer Sq, Patty Pan	3.17
Kale	1.10	Summer Sq. Crookneck	3.74
Leeks	0.19	Summer Sq Zucchini	2.09
Lettuce, Leaf and Head	5.20	Tomatillos	0.87
Mustard	1.18	Tomatoes, Cherry	7.72
Onions, Red	0.27	Tomatoes	15.55
Onions, Yellow	1.06	Winter Sq. Blue Hubb	2.50
Parsley	0.18	Winter Sq. Delicata	2.50
Peas, Snow	0.14	Perennial herbs	0.49
Radishes	2.07	Rhubarb	1.05
Shallots	0.54	Garlic Scapes	0.05
Spinach, green	0.43	Squash Blossoms	0.10
Spinach, purple	0.85	Cherries	0.46
Turnips	6.84	Winter Sq. Red Kuri	2.50
Turnip Greens	1.25	Winter Sq. Acorn	2.50
Basil, Green	1.13	Horseradish	0.32
Beans, Yellow	3.74	Celery	0.28

### Totals per crop: Winter

A total of 254.9 lbs of produce was harvested from the high tunnel during the winter season. A total of 21 crops were seeded but only 17 crops were successfully cultivated. Germination issues leading to crop failures occurred with Carrots, Snow Peas, Cilantro and Beets.

Arugula	10.38	Mustard	33.64
Beets & Greens	3.63	Onions, Yellow	1.21
Bok Choi	14.22	Radishes	85.75
Cabbage	4	Spinach, green	8.27
Chard	0.45	Turnips	36.12
Garlic	0.39	Basil, Green	0.63
Kale	15.56	Cucumber	5.24
Leeks	0.69	Tomatoes, Cherry	9.9
Lettuce, Leaf and Head	24.82		

### Total per share: Winter

The following chart indicates the minimum total number of lbs of each crop received by half-share CSA members during the 2011 winter season. Many crops received were carried over from main season production, either in the ground or in storage, and were not actually grown during the winter months in the high tunnel.

Arugula	1.18	Beans, Yellow	0.31
Beets & Greens	0.45	Beans, Green	0.25
Bok Choi	1.64	Cucumber	2.21
Cabbage	0.50	Eggplant, Japanese	0.25
Chard	0.70	Eggplant, Black	0.56
Cilantro	0.14	Melons	5.35
Garlic	0.04	Peppers, Bell	0.46
Kale	1.90	Peppers, Anaheim	0.27
Leeks	0.08	Peppers, Jalapeno	0.05
Lettuce, Leaf and Head	3.74	Summer Sq, Patty Pan	0.50
Mustard	3.28	Summer Sq. Crookneck	1.00
Onions, Red	0.73	Summer Sq Zucchini	0.75
Onions, Yellow	0.80	Tomatillas	0.92
Radishes	6.64	Tomatoes, Cherry	2.48
Spinach, green	0.90	Tomatoes	4.85
Turnips	3.97	Winter Sq.	3.75
Basil, Green	0.06	Celery	0.13

## Comparables: Main Season and Winter

Because we were able to have an 18-week harvest (instead of 16-weeks) during the main season, the price of \$450 paid for a full-share breaks down to a cost of \$25 for each harvest box per week. The price of \$225 for a half-share breaks down to \$12.50 for each harvest box per week. For the winter CSA we had a 13-week harvest (instead of 12-weeks). We only had half-share boxes for the winter CSA and these were sold for \$250. This breaks down to a cost of \$19.23 per box.

As we did in last year's annual report we wanted to see how our harvests per week compared to other farm's retail prices. Over the last couple of years several farms from the region were polled to ascertain prices charged for each crop at farm stands and at farmer's markets. The farms polled included:

Pachamama Organic Farm  
Ollin Farms  
Isabella Farm  
Jay Hill Farm  
Honeyacre Farm  
My Mama's Hat Farm  
The Berry Patch

We also included retail prices for a few crops from Growers Organic, which is an organic produce distributor to grocery stores in Colorado. Prices charged by the above entities were pooled to obtain an average price per lb paid for each crop in the region.

Given these figures for each crop the minimum average value of the amount of produce received by CSA Members over the course of the main season was \$744.56 for a full-share and \$372.28 for a half-share. This breaks out to \$41.36 per box for a full-share and \$20.68 per box for a half-share. Thus, over the course of the main season full-share members received \$294.56 worth of additional produce above what they paid for and half-share members received \$147.28 worth of additional produce above what they paid for.

The box value for the winter CSA was less than anticipated due primarily to germination issues that can be resolved during production in the future. The winter CSA half-share box value was \$175.84, which is \$74.16 less than what the winter CSA shareholders paid. While we are sorry that we did not meet our winter production goals, we feel that the overabundance of produce received by winter CSA members during the main season makes up for the lower winter box value.

## Part 2: Viability

### Income and Expenses

For the first 3 years of our farming operation, total expenses were \$52,045.74 and total income was \$31,221.79. We are thrilled to report that the income from 2011 includes \$10,856.00 in grants for the high tunnel study. Non-grant income for 2011 was approximately \$1000 more than the average income from 2009 and 2010. This is due to increases in farm stand and virtual farm stand sales as well as from the winter CSA shares.

## Labor

Total Labor for the 2011 season was 1762 person-hours, breaking down as follows:

1327 hours performed by the main season farm intern  
110 hours performed by the winter farm intern  
226 hours performed by working shareholders  
72 hours performed by Farm Manager working shareholder  
27 hours volunteered by Farm Manager

## Analysis

Because of changes in crop space allocation we had far less total annual yield in lbs than in 2010. Crop space was reallocated in 2011 to increase production of "lighter" crops that were more in demand and to reduce production of "heavier" crops that we were unable to market fully in previous years.

CSA operations for 2009 were found to be unsustainable and changes in labor and markets were made in 2010 and continued in 2011 to address shortfalls. Hiring an intern to perform most tasks in exchange for room, board, a small stipend and an intensive educational experience has continued to substantially mitigate labor costs in 2011. In addition, labor costs were further decreased by continuing to use the Farm Manager Working Share instead of hiring a Farm Manager. Regular working share hours were increased slightly from the 2009 season as well. These modifications to operations saved the CSA \$16,141 in both 2010 and in 2011. In addition, subsidized labor by Susan Weems was not needed for the 2011 season.

Where income is concerned, retail markets are still being cultivated and expanded. Extending the growing season at both the beginning of the year as well as the end by using the high tunnel, allows retail markets to be accessed for a longer period of time during each annual cycle. Wholesale markets abandoned in 2010 due to the extra labor involved in product preparation were found in 2011 to require less labor and thus were retained in a limited capacity. Wholesale sales income is substantially lower than retail and so our focus remains on farm stand and virtual farm stand sales.

Since the realized value of the main season CSA share in 2011 and in the previous two years was so much higher than shareholders paid, it is clearly a viable option for us to increase the number of shares that we sell. And while winter production germination issues caused yields to be less than expected in 2011, we are aware of why these issues occurred and we are confident they can be corrected in the future. As a result we expect to be able to not only continue to offer the winter CSA shares but actually increase the number of winter shares available.

In addition to produce sales during the harvest season, early season plant sales continued to appear a viable income stream in 2011. Late season cut flower sales were anticipated in 2011 but, due to poor germination, no sales were made and thus no assessment of the viability of this income stream was possible. Farm stand income stayed about the same as in 2010 but virtual farm stand sales increased significantly in 2011. Additions, additional products obtained from other local farms/ranches such as fruit, meat and



eggs were incorporated again in 2011 but not expanded due to labor constraints. We included a fruit share add-on from Ela Family Farms in 2011 and shareholder's expressed a high level of satisfaction with this option. A mark-up is calculated into the cost of the add-on and passed on to shareholders. Unfortunately, Ela increased their prices, cutting into our margin for 2011. Should this become a trend we may need to find another source for this add-on.

In previous years it was thought that workshops and farm dinners would constitute three new markets to integrate into operations. An examination of these potential markets continued in 2011 but obstacles were observed regarding labor availability for the former and market development and low margin issues for the latter. At this point there are no plans for further development of these potential income streams.

Fundraising efforts were successful in 2011. The high tunnel was funded as well as the study of winter production and financial sustainability of small farming operations. While this type of funding is unreliable and thus not considered to contribute to the long-term financial sustainability of our operation, it has allowed us to expand our markets through season extension.

Results of the study on season extension using the tunnel and financial sustainability were surprising. It was originally thought that a  $\frac{1}{4}$  acre sized operation similar to ours could be financially sustainable, but for the purposes of the study it was found that a  $\frac{1}{2}$  acre was necessary. A model of a financially sustainable micro-farming operation was discussed in the report but aside from size, many differences exist between that model and the HeartEye Village CSA operation in its current form. Besides size, the main difference was that primary labor for the hypothetical operation was in the form of a full-time manager being paid a living wage. It became clear during the study that due to its small size our operation is actually not financially sustainable in such terms. Because we have the internship program and the Working Share Manager positions we do not need to generate the income necessary to cover a full-time manager at a living wage, and this could allow us to become financially sustainable without expanding our cultivatable space. In order to do so we would need to increase our yields and subsequently increase the number of shares available and/or market sales.

In the study a technique for increasing yields without increasing the amount of cultivatable space was outlined. This common bio-intensive technique is known as intercropping, where crops with differential maturation times and light requirements are grown in the same location. For example, shade tolerant Lettuce could be grown beneath slow growing vine-type Tomatoes on a trellis. We have dabbled with this technique in 2012 and found it to be effective in some cases. By intentionally incorporating this technique into our growing methods it is possible, at least in theory, that we could substantially increase our yields and become financially sustainable. To this end we have planned to increase our experimentation with intercropping in 2012. If we are successful with intercropping, projections indicate that we may be able to recoup our start-up costs 7 years from our start date, although until conducting the financial sustainability study we had hoped to do so in 3.5 years.

## Part 3: Modifications

Several types of changes will need to be incorporated into our operations as a result of the financial sustainability analysis, and observations made during our 2011 season.

### Shares available

Since an overabundance of vegetables are being produced, it is felt that a total of 5 more shares can be sold while still maintaining a certain amount of buffer against limited crop failures. This means that the amount of produce in boxes will be slightly less than received in 2011 but we believe we will still be able to produce abundant weekly boxes that are an excellent value for our shareholders.

### Labor Changes

A total of 1762 person-hours were performed on the farm in 2011. The Farm Manager was required to put in more hours than planned and many tasks were left uncompleted due to unfulfilled weekly working shareholder time commitments. As a result changes in labor will be made.

After 3 years of offering working shares we have found that we must modify the terms. The primary reason is that more consistency in labor availability from week to week throughout the season is needed than many working shareholders have heretofore been able to provide. In an attempt to create consistency from week to week we will be changing the working shareholder agreement. Working shareholders will need to pay for their shares initially and if their working share commitments are met they will receive a prorated bi-monthly refund beginning in June. In this model, working shareholders will need to schedule in advance of the season a weekly or bi-weekly time commitment, which must be met consistently in order to obtain the refund. Working shareholders will be required to make up any missed workday within one week. As in previous seasons, working shareholders can trade shifts with one another if they find it necessary. If working shareholders are consistently unable to meet their time commitments during any given month, their share will be forfeited and we will replace them with someone on our working share wait list. Those who want to work at the farm but are unable to commit to the working share terms are always welcome to trade labor for produce at the farm stand.

Given this change the labor allocation for 2012 will be as follows:

1327 hours performed in the main season by the farm intern  
110 hours performed in the winter season by the farm intern  
360 hours performed by working shareholders  
72 hours performed by Farm Manager working shareholder

In addition to changes in labor allocation, we will also be incorporating a couple of significant changes in our methods. As a result of conducting the research for the study a couple observations were made that we found compelling. During previous years we instinctively knew that hand watering for seed germination was taking a lot of time but during the study we were able to track the actual time spent and found it to be prohibitive. Thus we will be installing a sprinkler system for seed germination in the farm plot and we will be starting many crops in flats and transplanting them out. Starting seeds in flats has

several benefits. It is much easier and faster to keep them watered adequately, germination is more even and we are better able to control spacing as we transplant the plants to the growing bed.

Another change in method that we will be making in 2012 is that we will be using the rototiller for initial growing bed preparation. Bio-intensive methodology discourages machine tilling because of the potential for soil structure to be undermined, which could contribute to a decrease in yields. Our soil has a heavy clay component and is extremely difficult to work by hand after the winter months, requiring a significant amount of labor. Thus to mitigate labor allocation concerns we are going to employ the rototiller for initial bed preparation, but because we will be intercropping in 2012 hand tilling will be necessary for the planting of successions as the season progresses.

## Conclusion

We had some great success in 2011. Not only did we again surpass our CSA yield expectations indicating that we can sell more shares, but we also increased our market sales. We received grants to build the high tunnel and another to conduct a study. During our third year we expanded our market potential by successfully extending our growing season using the high tunnel. In addition we learned how to remedy cultivation issues we had during our first season of winter production as well as what changes need to be made to make the CSA a financially sustainable operation. We streamlined many of our tasks and operations and we realized that we needed to change watering and plot prep methods in 2012. By incorporating the intercropping technique we should be able to grow significantly more produce on the ¼ acre plot than we have thus far. It has always been our goal to add more shares and increase sales without increasing the amount of cultivatable space, as our production skills increase over time. We feel that with the addition of season extension and more intercropping in 2012 we continue to actively demonstrate that increase in skill.

Each year of our first three years of operation we have made careful observations and continuously responded to the challenges we've experienced in becoming financially sustainable. While we continue to experience new challenges each season, the changes we've made in labor, markets, methods and techniques have successfully brought us closer to our goal, albeit with an awareness that we still have a ways to go. As always, we hope our members will find that participation in our project is not only of great value to them but is also an ongoing model of sustainability that they can be proud to have supported.

## Acknowledgments

We would like to take this opportunity to profusely thank Susan Weems for making the HeartEye Village CSA possible. Because of her vision and underwriting of the start-up costs the following entities have benefited in the following ways:

The CSA members, the Boulder Valley School residents, and the neighboring community have benefited by being able to obtain our produce on-site.

The Community Food Share has benefited by receiving our excess produce that was still good, but "just about to go".

From the dissemination of information about our project, the larger community continues to benefit from those who see the value and have the desire to participate in the local food movement by following our example and creating their own farms.

We would also like to thank the Colorado State University Specialty Crops Grower Research and Education Grants Program, Frank Stonaker, the grant review panel, USDA and the Colorado Department of Agriculture for their support of this research. We would also like to thank Joel Reich, Colorado State University Extension Agent for serving as Technical Advisor for this research trial.

Finally, we would like to take this opportunity to thank our intern Justin Domingus, our working shareholders and volunteers. Thanks so much for your efforts we simply can't do this without you!