

Proposal

Ensuring the Future of the Sustainable Student Farm

by

Bruce Branham
Department of Crop Sciences
University of Illinois

Introduction

The Student Farm at the University of Illinois was founded in 2009 with the goal of making the campus more sustainable by producing locally grown food for the campus community. After three growing seasons, the SSF has achieved some of its goals, and has received considerable support from students, dining services, and the community. However, the SSF has not integrated the farm into the core mission of the University nor have we met our production goals for food delivery to Dining Services. The purpose of this proposal is to develop a strategy to advance the missions of the farm, and to better align the farm with Campus teaching, research, and outreach missions.

Proposed Program

We propose to restructure the student farm to facilitate the twin missions of the SSF - food production for dining services and the University's primary missions of teaching, research, and outreach. The SSF can be the face of urban agriculture and local food production to the campus community - particularly to the thousands of undergraduate students who have little appreciation or connection to food production. I propose to expand the staff of the SSF to differentiate between food production and research, teaching, and outreach functions. Expanding the farm personnel will also be valuable as we increase our efforts in local foods including the addition of a faculty member in urban agriculture in August of 2012 (expected).

Student Farm Educator Position

The student farm educator (SFE) position will be a new position with direct supervision of the student farm. The SFE will work with the farm foreman to determine planting schedules, cropping rotations, cropping decisions, and day-to-day troubleshooting. The SFE position will spend approximately 50% of their time managing the farm, including hands-on help (this will be a working position), and 50% of their time on teaching and outreach activities related to the farm. The SFE will teach the laboratory section of an intensive summer session course on vegetable crop production with a decidedly applied,

in-the-field approach to learning. Informal teaching will include working with and training the many student and community volunteers that come to the farm to help with planting, weeding, harvesting, etc.

The SFE will serve as the research manager of the farm and coordinate on-farm research with faculty in Crop Sciences and other departments who wish to use the student farm in their research projects. The SFE will also assist faculty and UI Extension staff who wish to utilize the farm for outreach functions related to local foods, small farms, organic production etc. The SFE will conduct tours for campus visitors, coordinate and plan field days for extension activities on the farm, plan for the annual student farm open house, and develop other activities to promote the SSF and local foods within Illinois. This position will be funded for three years with further funding depending upon performance, revenue generation, and funding availability.

Student Farm Foreman

The Student Farm Foreman will be responsible for producing food for dining services. This position will be focused 100 % on vegetable and fruit production. The Student Farm Foreman will be managed by the SFE and will work with student interns, volunteers, and extra-help laborers to complete the work of the farm. The Student Farm Foreman position will ultimately be self-supporting, that is, the revenue from sales will support this position and other staff and interns needed for production.

Direct Farm Support

We are requesting funding to continue to expand and mechanize farm operations. The farm needs a capital budget to become more efficient and grow production over time. We will need a local-use delivery vehicle and we would anticipate purchasing an electric vehicle for use on campus. We recently purchased a specialized tractor for use in intensive vegetable production systems. We need to add a washing station, a storage building, and other improvements to the farm to increase efficiency. Each year we will add one additional high tunnel to our production facilities. High tunnels permit us to extend the growing season from 4 months of production to 8-9 months of production. High tunnel production will help us better match the seasonal consumption patterns that come from dormitories that are not substantially occupied during the summer months. High tunnels will be essential to increasing local food production within Illinois and will be a valuable component of our research, teaching, and outreach programs.

We envision building an underground storage facility to store root crops for distribution during the winter months. This will be a low environmental impact structure that is consistent with campus safety guidelines. We will also need to invest in a variety of equipment to mechanize some of the tasks at the farm. Crop Sciences charges a land rental fee of \$250 per acre and we envision the farm reaching 8 to 10 acres. We will use the direct farm support funding to pay the land fee while increase production. Finally, some of these funds may be used to pay for additional labor that may be needed as production ramps up.

Farm Production Trends and Metrics for 2012-2014

In 2011, we received good prices from Dining Services but our production totals were low. Our first production year was 2009, which was an unusually cool and wet summer. This combination produced excellent yields and fruit quality. The summers of 2010 and 2011 have been more typical of Central Illinois summers with hot, dry weather that led to reduced yields and reductions in fruit quality. We believe part of the problem has come from our reliance on drip irrigation that has led to large variations in soil moisture. A second problem has been weed control in a sustainable production system. Both problems are being addressed, and we will have a better production system in place for 2012.

Table 1. Production totals for 2009-11 and projected production for 2012-14.

Production Totals	Actual			Target Goals		
	-----Year-----					
Production Totals, lbs						
Crop	2009	2010	2011	2012	2013	2014
Tomatoes	5563	2158	2242	5000	7500	8500
Peppers	3468	1262	737	3000	4000	4000
Herbs (in oz)	4126	2112	1056	2000	3000	4000
Salad Greens	978	1061	1481	2000	2500	3000
Cucumber	1419	390	95	1000	2000	3000
Melons	746	965	0	750	1000	1250
Root Crops	0	191	34	200	500	1000
Apples	1441	0	0	0	0	2000

Table 2. Projected revenue from sales to Dining Services based upon 2011 pricing.

Production Totals	Estimated annual production and revenue in years 2012-14.						
	Price /lb	2012	2012 revenue	2013	2013 revenue	2014	2014 revenue
Tomatoes	2.5	5000	12,500	7500	18,750	8500	21,250
Peppers	3.12	3000	9,360	4000	12,480	4000	12,480
Herbs (in oz)	0.6	2000	1,200	3000	1,800	4000	2,400
Salad Greens	6.5	2000	13,00	2500	10,500	3000	12,600
Cucumber	1.75	1000	1750	2000	3500	3000	5,250
Melons	0.8	750	600	1000	800	1250	1,000
Root Crops	2.25	200	450	500	500	1000	2,250
Apples	1.00	-	0	0	0	2000	2,000
Estimated Annual Revenue			38,860		54,080		66,130

Value of the Farm to the Campus Community

The SSF has become an important educational resource for the campus community. The farm has hosted numerous tours for local schools, campus visitors, and on-campus courses. A significant number of student organizations have volunteered at the farm and many students have signed up to volunteer at the farm and have answered our calls for assistance.

Many in the campus community have visited the farm at the SSF Open House held each September in conjunction with Dining Services. Many others have purchased produce on the quad during our Farmstand on the Quad on Thursdays of the growing season.

Changing our food system is an important piece in the development of a more sustainable standard of living. Eating fresh, flavorful fruits and vegetables is important for human health and may be helpful in reducing obesity and diabetes in our country. If our food system is to undergo dramatic changes, the SSF can help educate and raise awareness with students of the value of locally-grown food. While tours and educational activity do not result in profit or sales, these activities may, in the long run, be the most important activity of the farm.

Future of the Farm without SSC Funding

The Student Sustainable Farm was started in 2009 with a grant from the Student Sustainability Committee. Our goal was to be self-supporting after 2010, but that has not happened. It is difficult to turn a profit from producing vegetables. Labor costs in Champaign-Urbana are relatively high, and produce prices, particularly at the wholesale level, are low. The result is a difficult business model that relies on volunteer labor to make the farm financially stable. Dining Services has been a wonderful business partner, and we wouldn't be able to make a go of it without their support.

The new plan has a different model that will make the farm more financially viable. The key, of course, is to grow more produce. In the new model, the farm foreman will have one responsibility – to produce as much fruit and vegetables as possible. Planning, giving tours and talks, training student workers and volunteers, will all be the responsibility of the Student Farm Educator.

Since approximately ½ of the time of the SFE will be spent on managing and working on production issues, the funding of the SSC, which supports that ½ of the SFE position, will be used to advance sustainability of the campus. The Crop Sciences Department funding will be used to support the academic side of the farm – teaching a hands-on course in the summer session, coordinating faculty research trials, giving tours of the farm, organizing open houses, etc.

Without SSC funding, I feel the current model of one position funded through Dining Services has not worked. The Farm has proven to be quite popular on campus and we have hosted many campus visitors, given tours to local groups including elementary school groups, hosted field days for trade industry groups, etc. All of these activities end up detracting from the mission of the farm – growing produce for campus. Without further support of SSC, I believe the farm may ultimately fail.

Table 1. Proposed budget for Student Sustainable Farm

Year 1	Total request	Contribution from SSC	Contribution from Crop Sci	Contribution from Dining Services
Student Farm Educator (salary plus benefits)	60,000	30,000	30,000	
Student Farm Foreman (salary plus benefits)	30,000	15,000		15,000
Interns and farm labor	10,000	10,000		
Year 1 Support	100,000	55,000	30,000	15,000
Year 2				
Student Farm Educator (salary plus benefits)	62,500	31,250	31,250	
Student Farm Foreman (salary plus benefits)	0	0	0	
Direct Farm Support	35,000	35,000		
Year 2 Support	97,500	66,250	31,250	
Year 3				
Student Farm Educator (salary plus benefits)	65,000	32,500	32,500	
Student Farm Foreman (salary plus benefits)	0	0	0	
Direct Farm Support	35,000	35,000		
Year 3 Support	100,000	67,500	32,500	
TOTAL OVER 3 YEARS	297,500	188,750	93,750	15,000