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Establishing a Student Organic Farm at the University of Nebraska – Lincoln:
Collected Ideas from Student Organic Farms at Other Midwestern Universities

by

Daniel Martin

An Undergraduate Thesis

Presented to the Faculty of

The Environmental Studies Program at the University of Nebraska – Lincoln

In Partial Fulfillment of Requirements

For the Degree of Bachelor of Science

Major: Environmental Studies

With the Emphasis of: Natural Resources

Under the Supervision of

Thesis Advisor: Dr. Charles Francis

Thesis Reader: Sara Cooper

Lincoln, Nebraska

December 2012

Acknowledgements

Many thanks go to Sara Cooper and Charles Francis for their guidance and inspiration. Both were key advisors to me during this journey. This is a continuation of a project Dr. Francis has been pursuing in recent years. Without his passion in the project I would not have discovered my own passion in it. Much thanks also goes to David Gosselin for a consistent stream of questions. Furthermore, this project would not have been possible without the spectacular students involved with the F.H. King Farm in Madison, Wisconsin, the Cornercopia Farm in St. Paul, Minnesota, and the Iowa State University Student Organic Farm in Ames, Iowa. I am extremely grateful for their support of this project. On a final note, Neil Tabor and Jenn Simons played a vital role in advancing this project so it may become a reality and not only a dream of ours. I am thankful for the direction they contributed and continue to contribute to this project.

Establishing a Student Organic Farm at the University of Nebraska – Lincoln:
Collected Ideas from Student Organic Farms at Other Midwestern Universities

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University of Nebraska –Lincoln, 2012

Thesis Advisor: Dr. Charles Francis

Thesis Reader: Sara Cooper

Abstract

The purpose of this study was to investigate and discover what is necessary to establish a Student Organic Farm (SOF) at the University of Nebraska – Lincoln (UNL). A case study evaluated student farms at three different Midwestern Universities: University of Wisconsin (UW), University of Minnesota (UM), and Iowa State University (ISU). The study consisted of an investigation into the establishment of each university's SOF and the factors contributing to each SOF's success. The investigation was conducted over the course of a six day field study in August 2012 at the three universities. Prior contacts with key players from the three universities resulted in productive tours of the farms and focused interviews. The findings from the field investigation show there were factors related to experiential learning, community engagement, and student research from each SOF that contributed to their success. Factors for success are taken from each of the three schools and molded together for a SOF proposal for UNL.

Introduction

“Although the number of students in conventional agriculture production is decreasing, there is an increased interest and opportunity in growing organic fruits and vegetables (Markhart, 2006).” The focus on organically grown products has climbed in recent years as people have become more concerned with their health and the quality of the environment. The Organic Farming Research Foundation reports the number of farmers in the U.S. growing organic products increased from approximately 2,750 certified organic growers in 1994 to approximately 13,000 certified organic growers in 2007 (“About organic: frequently,” 2011). In conjunction with the increase of organic growers, U.S. sales of organic products has grown from \$1 billion in 1990 to \$28.6 billion in 2010 (Laux, 2010). This clearly illustrates the market for products grown organically has increased dramatically over recent decades.

The development of this unique market has given many farmers the grounds for making the transition from conventional agriculture to organic agriculture, which is quite a transition for many. The USDA states that all organically produced crops are to be grown without the use of irradiation, sewage sludge, synthetic fertilizers, prohibited pesticides, and genetically modified organisms (“National organic program,” 2012). This provides challenges for farmers transitioning from conventional practices to organic practices such as; learning how to control pests without synthetic chemicals, fertilizing without synthetic chemicals, learning how to market organic products, and more. Although the transition seems too daunting for some farmers, according to the USDA many farmers are changing their agricultural practices because of the higher prices organic products offer on the market (Oberholtzer, Dimitri, & Greene, 2005).

Although the increased demand in organic food has encouraged many to make the switch, the number of organic growers is actually increasing at a rapid rate due to a different group of people. Despite the fact that the average age of the American farmer has been rising as young people have been leaving family farms, the same is not true about organic farms. Combatting the current 55-year-old average age of farmers in the U.S., the number of young people getting involved in organic agriculture has skyrocketed. Thousands of young people who have never farmed before are interested in growing food without synthetic chemical fertilizers and

pesticides. For many it is about the lifestyle, while many others report they're just trying to do their part to make an impact in the world. Either way, the influx of young people becoming involved in the business of agriculture is getting noticed (Charles, 2011).

At the college level, this provides universities with a new niche subject area to capitalize on. While UNL as a land grant university provides a wide array of educational opportunities for students interested in conventional agriculture, educational opportunities in the increasingly popular organic production sector are less prominent. Two such courses at UNL which place an emphasis on principles and practices of organic agriculture are AGRO/HORT 439/839 Organic Farming and Food Systems and AGRO/HORT/NRES 435/835 Agroecology. Charles Francis, UNL Professor of Agronomy, teaches both courses and he has seen an interesting trend in one of the courses. Francis reports that AGRO/HORT/NRES 435/835 Agroecology has grown substantially from 18 students in 1998 at its inception to 75 students in the spring of 2012.

The rise in enrollment in this one class does not necessarily determine for a fact there is a large demand for educational opportunities in organic production at UNL, it does however shed light on the fact alternative strategies in agriculture should be considered. Because courses and programs in organic agriculture are currently lacking at UNL this provides numerous opportunities for the university to attract students and open new directions for learning. While a continued education in conventional practices is important for the university to sustain, a diversification of agricultural practices taught, i.e. organic production methods, is important as well. While providing current students with a more diverse selection of agricultural practices to learn about, offering a wider variety of opportunities would also greatly increase the attractiveness of UNL to a greater number of prospective students pursuing an education in agriculture. One such educational opportunity students at colleges across the nation have been adopting is the Student Organic Farm model, which provides a place where all are welcome to learn and grow.

What is a Student Organic Farm?

SOFs are typically small-scale, student-run, organic farms located on or near a college campus enabling experiential learning, community engagement, student research, and other opportunities to take place. Although, as of recently SOFs were relatively unheard of, there are now well over 60 such farms in the U.S. from coast to

coast. The Rodale Institute, an outreach organization for farmers on a global scale to promote economically viable sustainable farming techniques benefiting human health and the environment, provides a student farm directory that lists on its website the numerous colleges with SOFs. The directory provides a brief description of each farm along with a link to each SOF's webpage. Some of the colleges listed on the directory include Yale, Dartmouth, Rutgers, Cornell, Clemson, Stanford, Iowa State, and U.C. Davis. There are even several schools in the Big Ten Conference with reputable operations, including The Ohio State University, University of Wisconsin, University of Minnesota, University of Illinois, and Michigan State University ("A directory of," 2011).

John Biernbaum, Michigan State University Professor of Agronomy and SOF advisor, describes the SOF at MSU as a place that provides experiential learning of CSA management, crop selection, scheduling, maintenance, harvest, and organic farming methods (Biernbaum, Ngouajio, & Thorp, 2006). The CSA Biernbaum mentions, also known as Community-Supported Agriculture, consists of buying a subscription from a local farmer just like people buy a subscription to a magazine. But instead of receiving a magazine each week, the person receives a "share" of fresh, locally grown produce. Students involved with the Clemson University SOF promote the use of their farm as being a place for experiential learning for students to "develop and demonstrate farming systems and strategies that are ecologically, economically and socially sustainable, and that will strengthen local food systems ("Student organic farm," 2012)." Student involvement, typically on both the undergraduate and graduate levels, drives the heart of these farms. Although the missions of SOFs across the nation differ slightly according to what specific knowledge students at each college are seeking, the common element among all of them is that all of the farms provide a place where experiential learning may take place.

What is Experiential Learning?

The term "experiential learning," may generally be expressed as "learning by doing" or "participatory learning" (Walter, Marks, & James, 1981). David Kolb, American education theorist acclaimed for his work in developing the experiential learning theory, describes it as the role experience plays in the learning process. Kolb's experiential learning theory defines learning as "the process whereby knowledge is created through the

transformation of experience." (Kolb, Boyatzis, & Mainemelis, 2001). Although Kolb writes of the importance of learning by means of symbolic representation, for example concepts learned in a classroom or from a textbook, he puts an emphasis on reinforcing such concepts with actual hands-on experiences.

Experiential Learning in Agriculture Education

In relation to this study, an agronomy course, which relies on experiential learning as the key method of teaching, is currently offered at UNL. The course, AGRO 436/836 Agroecosystems Analysis, is an intensive, travel course offered during the summer in which students and faculty from Nebraska, Iowa, and Minnesota visit farms in each of the three states while analyzing the different factors of each farm. Co-taught by instructors from the University of Nebraska, Iowa State University, University of Minnesota, and Dordt College, students analyze ten farms in a week's time by means of their experiences both touring the farms and interviewing the farmers. Instructors in this course act more like facilitators as they allow the students to be educators for one another.

The results of this highly experiential-based model of learning were successes, as reported in a journal article describing the findings of the course. Although some students who have taken the class wrote in their course evaluations they were more interested in a lecture component, most students were more inclined toward the experiential learning that took place. One of the student's course evaluations read: "I've learned more in one week visiting farms and working in small groups than I learn in a whole semester on campus." Additional feedback from students in relation to experiential learning consisted of students who enjoyed being challenged to think critically and outside of the box, rather than searching for answers in a textbook. (Wiedenhoeft, Simmons, Salvador, McAndrews, Francis, King, & Hole, 2003). Many aspects of this course are directly related to the learning occurring at SOFs.

Just like the Agroecosystems Analysis course, SOFs also provide a place for learning where the answers are not necessarily easily accessible in a textbook; rather they are waiting to be discovered in the soil. As it would provide interested students with a hands-on learning tool, as well as new research and community engagement opportunities, a SOF should be established at UNL. As students at colleges across the nation have been establishing such farms there are numerous examples of the SOF model that exist for UNL to use as

references to start its own farm. The purpose of this study is to investigate and discover what is necessary to establish a SOF at UNL by studying what students at other universities have done.

Materials and Methods

The key element of this study was to examine and learn from existing SOFs in the nation; thus, the best way to do this was to physically visit such farms. Prior to the actual field investigation of the farms a significant amount of time was spent attempting to make contact with students at other universities with SOFs. In the beginning it was decided that for this study visits should be kept to universities in the Midwest region of the U.S. First of all, the UNL environmental studies program was sponsoring the trip, and thus it made economic sense to only drive to colleges in a close proximity. Secondly, many of the universities within the Big Ten Conference, of which UNL is a member, are located in the Midwest. Universities within the same conference are competitive with one another, and thus if one of the universities falls behind in a given area the other colleges will keep it in check. Essentially, the data collected at other Big Ten universities is more relevant to UNL than data collected at non-conference universities.

Contact information was researched through the Rodale Institute's online student farm directory. The website provided a list of several schools in the Midwest with SOFs including Indiana, Ohio, Minnesota, Michigan, Iowa, Missouri, and Wisconsin. Student farm managers from the University of Minnesota – St. Paul, Michigan State University, University of Wisconsin – Madison, University of Illinois – Urbana-Champaign, and Iowa State University, were contacted utilizing information from the online directory. These five schools were selected due to their proximity to UNL, student enrollment numbers similar to UNL, and impressive online data about their SOFs. During the course of the summer of 2012, e-mails and phone calls were exchanged with students from the five selected universities in an attempt to plan farm tours and interviews. Considering the availability of the student farm managers at each location the final farm visit schedule included, in chronological order of visit date, UW, UM, and ISU.

The field investigation in which the three SOFs were visited took place from August 9, 2012 through August 14, 2012. The method in which data was collected for the study included student interviews and farm

tours. At each of the three locations student farm managers provided tours while presenting how their particular farm operates. The student farm managers were then interviewed and questioned about the establishment of the farm and how the farm is sustained. Core interview questions included the following: when was the farm established, where did the initial and continued funding come from, where did the initial and continued student support come from, which form of food distribution did they use, and what has the student response to the SOF been? Following the three farm visits, analysis of the data collected commenced.

Results

The results include data collected by observations made during the farm tours and information provided by the farm managers during interviews, and from their websites. The results are divided into sections of information about each of the three different SOFs in chronological order of farms visited.

University of Wisconsin – Madison

In 2002 a student group called the F.H. King Students for Sustainable Agriculture established the SOF at UW. Although the group of students initially established the farm in a central location on campus, due to the construction of a new building the farm was moved to the edge of campus in 2005. Although the farm was moved farther from the center of campus its location is now on the university's Lakeshore Nature Preserve, an aesthetically-pleasing place because of the preservation of trees and wildlife. The Lakeshore Nature Preserve is also home to a large plot of Madison's community gardens and university research gardens, which creates a larger community of gardeners and farmers who can learn from one another. The students currently grow more than 60 different varieties of fruits and vegetables on a 1.5 acre plot of uncertified organic land, one acre of which is used for cultivation. Although the land is not certified organic the students grow all of the produce, which range from peppers, tomatoes, cucumbers, and an assortment of berries, to hops and tobacco, under USDA organic regulations. The farm was named the F.H. King Farm, after the student group that established it, which provides the bulk of the support for the continuation of the farm.

The group currently has a membership of approximately 40 students who play varying roles and contribute to the success of the farm. The F.H. King Farm has ten paid student workers at all times, several

unpaid interns, and a number of volunteers from the student group and other interested students. The university Office of Sustainability acts as an umbrella for the students in addition to three faculty members who act as advisors to the SOF. The paid student positions are open to both graduate and undergraduate students and include the following positions: program director, program assistant, two garden directors, two garden assistants, a finance director, administrative director, outreach coordinator, and an urban agriculture director.

Although the F.H. King Students for Sustainable Agriculture initially established their farm with grant funding and sustained the farm with grant money until 2008, it is now completely funded by money from the university student government. Coming from university's student fees, the SOF receives \$68,000 annually on the condition the food harvested is given out free to the student body. Thus, on a weekly basis from June to October, students involved with the farm host an event they call Harvest Handouts in which they give away free produce, provide cooking tips and talk about how the food was grown with other students, staff, and faculty. This current model of funding and food distribution will continue to work well for the farm so long as the funding is granted when reapplied for every two years. Previous to hosting the Harvest Handouts the primary method of distribution for food grown at the farm was through a CSA program. The program successfully trained students how to grow food with and distribute through a CSA model. At the peak of the CSA program the farm was providing an overabundance of food to 21 share members; while the share members were paying for \$12.50 worth of food weekly they received \$25.00 worth of food because production was so high. In addition to providing locally produced, organic food to the student body there were also many community engagement opportunities available at the farm.

The F.H. King Students for Sustainable Agriculture are dedicated to growing fresh, organic produce from May to October, but throughout the entire year they are hosting weekly workshops for students and community members to attend for free. Also funded in part by the student government, the workshops play a large role in the experiential learning of students on the farm. Workshops include bee keeping, cheese making, beer brewing, permaculture, tie dying with natural dyes, mushroom foraging, and more. In terms of community engagement, potluck events are hosted on the farm throughout the year. Furthermore, a composting program was established in 2010 in which students take turns daily riding a bicycle toting an eight-foot-trailer that has a

400 pound weight capacity, on which they collect food waste from local businesses and bring it back to the farm to compost. The program, called the F.H. King Full Cycle Freight composted with 40 local businesses in 2012. This concludes the important data results for the SOF at UW.

University of Minnesota – St. Paul

The SOF at UM was established in 2005 by a group of interested students and faculty. In the spring of 2004, interested students approached, “What’s Up in Sustainable Agriculture” (WUSA), a student organization that hosts weekly seminars on topics relating to sustainable agriculture, about launching a SOF “test plot.” During the spring and summer months of 2004, 12 students worked together growing fruits and vegetables on a 20 by 20 foot plot of land on campus while they continued to discuss issues involved with the garden plot. During the course of the next year a one acre plot of land was secured and planted with a cover crop of rye. Next, the students involved discussed with faculty the possibility of creating a two-credit “Student Farm Planning Course.” Graduate student Courtney Tchida, Horticulture Professor Albert Markhart, and Agronomy Professor Paul Porter co-taught the course in the spring of 2005 for a class of 16 students. In the following spring the farm plan was enacted and Courtney became the student farm coordinator. The farm, which was named Cornercopia, quickly took off with support from sustainable agriculture organizations including the Minnesota Institute for Sustainable Agriculture (MISA), which provided initial grant funding for the farm. Grant funding, coming from various other providers, helped pay a total of 13 interns who helped start the farm in the spring of 2005. During the first year Courtney and the interns grew over 100 varieties of produce and sold their products at a variety of different markets. The produce was sold at a local café, several cooperative grocery stores, two school districts interested in local foods, a restaurant located on campus, and at the Minneapolis Campus Farmers’ Market. During the first season of operation the farm generated a little more than \$8,500 in sales.

Following the first season of production a new two-credit course was created and offered to students, entitled *Student Organic Farm: Planning, Growing, and Marketing*. This course continues to be offered today as it prepares students to work with the Cornercopia farm. The farm continued to grow and is now 2.34 acres at the same location. Courtney continues to play the role of farm coordinator, a position paid by the university.

Outside of Courtney's position, the farm is now sustained by the sales of produce on a year-to-year basis. Although the farm had five paid interns during the summer of 2012, the number of interns varies every year depending on the amount of funding available from sales of produce. Also contributing to the farm's attractiveness are potlucks and occasional workshops the farm hosts. It is not uncommon to see a group of students and community members eating and talking about the foods grown at the farm. This concludes important data results for the SOF at the UM.

Iowa State University

The SOF at ISU was established in 1996 by a group of students interested in organic agriculture. The current ISU farm managers knew less about the history of their SOF because a lack of structure compared to the other two schools. What is known is the farm was moved to several locations over the years and it currently has two locations, each maintaining 0.25 acre of cultivated land. One of the locations is at the ISU Horticulture Station four miles north of Ames while the other location is in the center of campus. Also known was the students used to sell the produce at the Ames Farmers' Market, to the campus dining halls, and it was donated to the local shelters and food banks. The current market model however is a CSA program running from June to October with eight food shares. Currently, the involvement of five students, two of which are paid, and a small handful of other volunteers, sustain the farm. Although it was established with grant funding, the farm and the paid student worker positions are now supported by \$6,000 provided by the student government, in addition to money generated from the CSA. The money received from the student government must be requested through application on an annual basis.

The current farm managers have attempted to reach out to the campus and community with potluck gatherings, but for the most part have been unsuccessful. Also absent at the ISU SOF are courses that use the farm for teaching purposes. Although there were not a large number of people involved with this farm it was still apparent the farm managers were learning much about organic production and marketing. This concludes important data results for the SOF at ISU.

The following table provides highlighted results in an easy to read format with data from each university so the three SOFs may be compared across the board.

	University of Wisconsin – Madison	University of Minnesota – St. Paul	Iowa State University
Year Farm Established	2002	2005	1996
Cultivated Land	1 acre	2.34 acres	0.5 acres
Organic Certification	No	Yes	No
Class Utilization	Yes	Yes	No
Involvement	10 paid part-time student workers; 20-30 volunteers from Recognized Student Organization (RSO)	1 full-time faculty coordinator; 5 paid part-time student workers; 5-10 volunteers from RSO	2 paid part-time student workers; 3 volunteer student farm officers
Funding	Grants were used to establish farm; student government funding sustains farm	Grants were used to establish farm; sale of produce sustains farm	Grants were used to establish farm; student government funding sustains farm
Visibility of Location (scale from 1-5)	2	4	5
Current Market for Food	Distributed free to student body	Sells at campus farmers' market and restaurant	Community Supported Agriculture (CSA)
Community Engagement	Weekly workshops; community bicycle composting program; potlucks	Workshops and potlucks	Potlucks
Student Enrollment	42,595 Students	51,853 Students	31,040 Student

Table 1

Discussion

The three SOF farms visited were all quite impressive in one way or another, all providing different opportunities for students on each campus. While community engagement opportunities were offered at UM and UW, marketing education opportunities offered at UM and ISU, and in-class education opportunities offered at UW and UM, all three SOFs enabled students to encounter experiential learning at some level. Once again, as described by David Kolb, learning is "the process whereby knowledge is created through the transformation of experience" (Kolb, Boyatzis, & Mainemelis, 2001). Although student involvement was lower and the community engagement was nearly non-existent at ISU, there were still students learning how to farm

organically by working with the SOF. Simply, the students involved with the SOF at ISU have plenty of opportunities to expand their already-established farm. Though the fact is only some students at ISU are exposed to experiential learning, students and community members in Madison and St. Paul are involved in experiential learning opportunities at a much greater level.

During the farm visits in August, it was immediately apparent there was a greater level of student involvement at UW than at ISU. Both visits occurred when involved students were harvesting produce, and while there were at least ten students involved with harvest at UW, there were only two students involved at ISU. To some degree UW may have a higher level of student involvement because their university has approximately 10,000 more students enrolled than does ISU, however it seems more likely the student involvement is attributed to the wider variety of opportunities offered outside of experiential learning. With weekly workshops offered at UW, not only those directly involved with the farm are engaged but also all students and community members aware of such opportunities may become engaged with what the SOF has to offer. In addition, the work students at UW are doing with their newly-established Full Cycle Freights program not only provides a great source of compost for the farm, but also provides a marvelous means of SOF awareness to customers of the 40 businesses currently participating. For instance, at many of the locations where compost is collected, signs are posted describing the work the F.H. King Students for Sustainable Agriculture does in the community.

When visiting UM community engagement was apparent as the students involved with the SOF were hosting farm tours and a potluck open to the public. The students had previously hosted that day a workshop on raising chickens and rabbits in a garden or farm scenario. These activities were well attended by students and community members. These community dynamics at UW and UM not only attract more attention to the farms, but also provided more social interaction for students, attracting them to be a part of the SOFs. However, one important factor UW did not offer the other two universities did is that of education for marketing the food products.

Although UW was providing something unique to the student body by supplying students, staff and faculty with free, fresh, organic produce, experiential learning opportunities related to actually selling the food

was non-existent. As SOFs are a place for learning how to grow organic food and manage such a farm, learning about the marketing of an organic farm operation is extremely important. Students at ISU are learning a valuable lesson in CSA management and thus are provided with the opportunity to experience their SOF, not only on the production side of things, but also the business side. Turning to look at UM, the students learn even more about the business aspect of things as their marketing is more diversified. Food from the UM SOF currently has a more diversified marketing system as food is sold to a restaurant located on campus, at the Minneapolis Campus Farmers' Market, and to campus dining services for events once a semester. Still, a drawback exists in the marketing process at UM, because the SOF coordinator, Courtney Tchida, plays a strong role in the marketing operations, taking away from the education opportunity for the students. A healthy balance would be where students were in charge of the marketing, but could still ask Courtney for advice when needed; then a higher level of experiential learning would take place. What also increased awareness of the SOFs and the opportunity for learning through the SOFs on campuses at both the UW and the UM were the academic, faculty-led courses utilizing the farms.

Though UW did not have courses centered on the SOF, faculty members in the horticulture department have been utilizing it over the years to illustrate certain concepts taught in class. By using the SOF to help enhance the learning experience at UW students are afforded the opportunity to better understand the intricacies of such systems. UM is one step ahead of UW in that the course entitled *Student Organic Farm: Planning, Growing, and Marketing* was created to focus on issues directly related to the SOF. The course is very beneficial to those who are involved with the SOF and want a more in-depth understanding of how each of the parts affects a successful organic farm. Similar to community engagement opportunities, when academic courses are offered that focus on a particular SOF, the student body is made more aware of the farm, what it does, and how it works.

Conclusions

The objective of this study was to determine what is necessary to establish a SOF at UNL. Observations were made and data were collected from the visits to the three different SOFs that provided a good base for

proposing which factors would be included at UNL, if it were to establish such a farm. Although there are many factors contributing to the sustained success of the SOFs visited, there are three key factors that must be met in order to establish one. The three key factors are, as illustrated by figure 2, a high level of student involvement, an easily accessible and visible location, and sufficient funding.

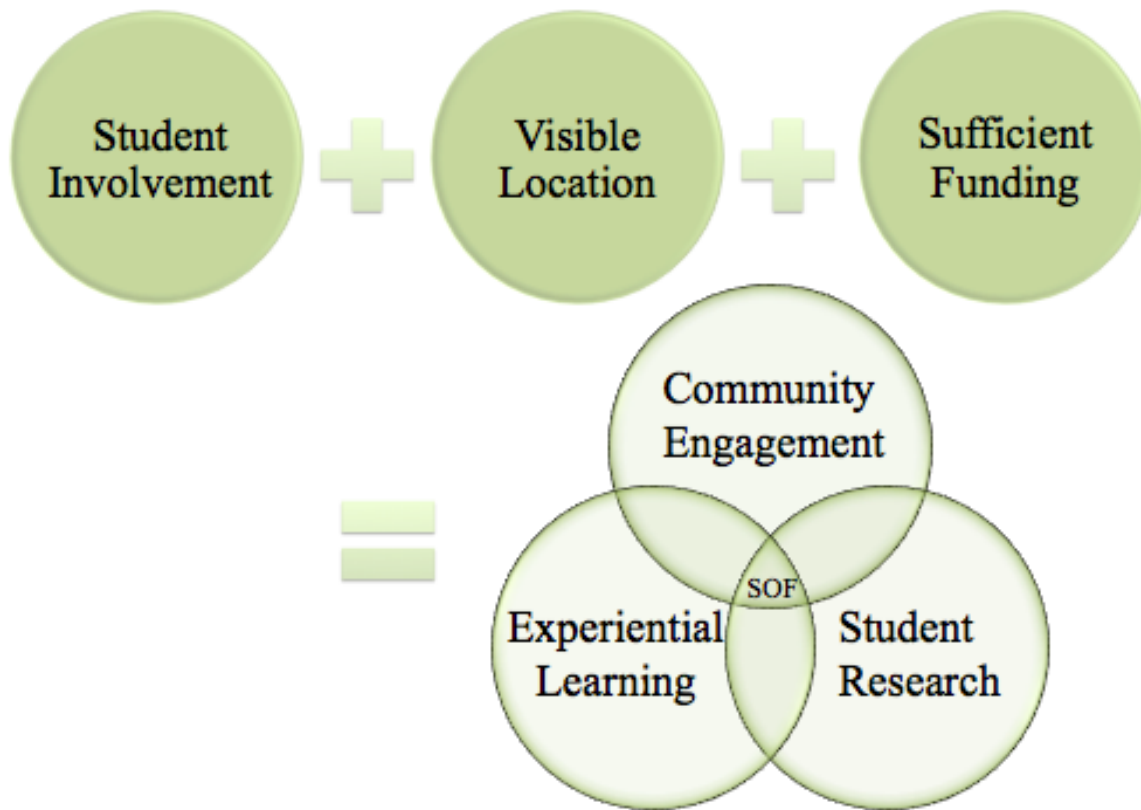


Figure 1

When these three factors have all been acquired a SOF providing experiential learning, community engagement, and student research opportunities may be established. At UNL, both student involvement and a visible location await a SOF; however, the current lack of funding hinders the project from getting underway.

Student Involvement

At each of the three universities visited students reported their SOF started with an interested group of students and faculty who saw the value in the learning opportunities provided by the experience of actually farming on their campus. A group of students and faculty members interested in establishing a SOF at UNL currently exists. Several students within the environmental studies program and the agronomy and horticulture department have voiced interest in being involved in a SOF at UNL. In recent years, faculty member Charles

Francis has dedicated a large amount of time toward the goal of establishing such a farm at UNL and plans to continue to work toward the goal in the future. Also, as a number of students within the Environmental Studies Program have shown interest in the SOF project, the environmental studies advisor and coordinator, Sara Cooper, has been involved in working toward the goal as well.

Visible Location

A visible location in which the SOF may be established is extremely important. As in the case of ISU, having one of the farm locations four miles north of where the university is located creates a situation in which students interested are less likely to volunteer and participate in the learning opportunities. Thus, an ideal location for a SOF at UNL, where interested students would easily be able to access the plot, would be on UNL's east campus where many environmental studies, horticulture, and agronomy students already spend a good deal of time for classes. There is a three acre plot of land east of the College of Law on the UNL east campus used for high tunnel research in recent years by Laurie Hodges, Associate Professor of Horticulture. Due to challenges in finding sufficient grant funding it will be difficult to sustain a strong research program. Roch Gaussoin, Department Head and Professor of Agronomy and Horticulture, has specified if sufficient funding is obtained the three acre plot of land may be used by interested students and faculty to establish a SOF. The following is a satellite picture of the UNL College of Law, a parking lot, and the three acre plot of land that may be used to establish a SOF. The three acre plot of land is highlighted within the yellow rectangle on the right side of the picture.



Figure 2

Sufficient Funding

The third key factor necessary to establish a SOF is sufficient funding. Because the land east of the College of Law may be designated by the Department of Agronomy and Horticulture for this educational purpose, with the bulk of labor provided on a volunteer basis, the initial seeds donated and supplies and equipment used from existing materials from the agronomy and horticulture department, one of the main costs would be obtaining a farm manager and interns. To start, at least one part-time graduate student farm manager would be necessary, in addition to at least three interns. The graduate student farm manager would need to be extremely dedicated and would be asked for a commitment of two years to manage the SOF. The graduate student farm manager would be asked to work 20 or more hours a week earning \$5,000 per year. Responsibilities would include farm planning, overseeing interns, organizing monthly workshops, and selling

produce, among other things. Interns would likely be undergraduate students, and like the farm manager would be asked to commit to two years. Interns, receiving annual stipends of \$1,000, would be asked to work ten or more hours a week while providing assistance to the farm manager in all duties. Funding required to create these positions and sustain them for two years would be \$16,000 or more, depending on the number of interns hired. Although \$16,000 would pay for the farm manager and internship positions, it is the minimum amount needed to establish a SOF.

Also required for this particular farm plan is funding to support community and student engagement opportunities. On a monthly basis, workshops would be provided on the farm for students and community members to learn about a variety of topics related to sustainable agriculture. Funding required for the workshops would be \$100 per workshop – a sum of \$2,400 for two years. Each month the \$100 would pay for tools, supplies, and most importantly speakers from within the community to lead the particular workshop. Additionally, funding would be necessary in the future to purchase tools and equipment specifically for the SOF. Thus, obtaining \$18,400 or more is the current goal in order to establish a SOF at UNL. It is likely funding will be obtained by means of grants, as that is the how students at UW, UM, and ISU all acquired sufficient funding to establish their farms. Several grant applications have already been submitted, but we await decisions on these initiatives. Interested students, faculty, and staff will continue to seek out the funding necessary to establish a SOF at UNL.

Community Engagement

When funding is secured and the SOF is established at UNL in the future, there are many factors that will play into its sustained success. Community engagement opportunities, in the form of the monthly-workshops will be a vital tool in spreading awareness about the SOF and educating students and community members about various topics related to healthy, sustainable food. In addition to an education component, many of the guest presenters would be experts from within the community, thus workshops would also provide students networking opportunities. Following the model UW uses, workshops should be offered on a year-round basis at the UNL SOF to sustain community engagement and student involvement. Hosting workshops would be the responsibility of the farm manager, farm interns, and volunteers interested in assisting.

Class Utilization

In addition to offering community engagement opportunities, UNL also has faculty-led student courses that would utilize the SOF. Responses from students at UW and UM indicate having faculty directly integrate the SOF into agriculture and horticulture courses significantly benefits the farm and students overall. Students previously unaware of the farm are made aware of its existence, increasing the likelihood student involvement at the farm will be sustained. By directly utilizing the farm in courses, a level of experiential learning not found in other courses would be presented to students. Concepts learned in lecture would be illustrated in the SOF, enhancing the learning experience of the students.

Charles Francis, Professor of Agronomy, has stated his intent to directly utilize the SOF in two courses he teaches, AGRO/HORT 439/839 Organic Farming and Food Systems and AGRO/HORT/NRES 435/835 Agroecology. As already mentioned, a total of 75 students were enrolled in the AGRO/HORT/NRES 435/835 Agroecology course in spring of 2012, signifying that in only a short period of time a number of students would be exposed to the SOF if established. While directly integrating a number of courses with the SOF will likely benefit both the farm and the students greatly, choosing a correct method of marketing is of utmost importance for it to be truly sustained for years to come.

Marketing

If a SOF is not subsidized by student government funding or by other means, marketing of its produce ultimately decides the fate of the farm. Although two out of the three schools visited in this study received funding from fees paid by the student body, the business aspect that exists in a real farm operation is lost as a result of such funding. In order for the SOF at UNL to provide a holistic education of organic farming to students, the farm should sustain itself with sales from produce. By continuing the farm with earnings from sales of produce, after the initial grant funding is obtained to establish the farm, involved students will receive a first-hand look at the challenges associated with running a farm.

Instead of selecting one method of marketing for the SOF as ISU did with the CSA model, following in the footsteps of UM with a diversified marketing model will not only provide greater stability for the farm, but it would also allow a higher level of experiential learning to occur. A diversity of market strategies consisting of

CSA, farmers' markets, and direct marketing (selling to restaurants and grocery stores) will prove to create a more stable farm system because of the inconsistencies in consumer demand. The CSA model provides a means for obtaining funding at the beginning of each season and a community of people receiving produce from the farm consistently throughout the growing season. Outside of CSA, the farmers' market and direct marketing are more variable, as although a community of people purchasing SOF produce will be developed, it is unknown exactly how much food will be sold in these market strategies. Together these three methods of marketing promote a stable and sustainable farm system.

As SOFs may be viewed as training grounds for individuals interested in organic agriculture, all marketing strategies should be available for students to experience. Each method of marketing has its own distinct advantages and disadvantages presenting different challenges for organic farmers utilizing different methods. In the pursuit of maximized experiential learning, interested students should become well acquainted with all options available on the business side of organic farming.

Closing Statements

When students, staff, and faculty interested in sustainable agriculture work together to obtain a visible location on their college campus and sufficient funding from a variety of grants, a SOF may be established. Such a farm provides experiential learning, community engagement, and research opportunities for individuals involved. The rewards of establishing a SOF are many, but also are the challenges presented as the farm is sustained. However, the challenges presented will provide students with the opportunity to develop important life skills benefiting them in their journeys toward success in life. Ergo, the establishment of a SOF ultimately only presents reward to those involved.

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