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EDUCATION

TOWARDS A CULTIVATED CLASSROOM: STUDENT RUN FARMS AND THE  
BIG 10

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## ABSTRACT

The purpose of this study is to explore the recent advent of student-run farms across colleges and universities in the Big 10. In response to heightened demand amongst students and faculty alike, individuals from Penn State and the surrounding community have begun visioning for what is to be a student-run farm at the University Park campus. In order for this most recent project to be successful, gaining an understanding of both the successes and failures of past attempts to begin a student farm in the Penn State community is essential. After an exploration of the history of student farming at Penn State, the methods and strategy behind the university's most recent student farming project are chronicled with an emphasis on the promotion of an integrated design approach and stakeholder mapping. Serving as context for the larger, nation-wide trends in student farming, information was gathered on student farming and sustainable food systems programming occurring at universities across the Big 10 Athletic Conference. A case study of the newly founded University of Michigan Sustainable Food Program Student Farm focuses on how this university overcame the barriers present in the Penn State student farm narrative. The study concludes with suggestions for the future of the Penn State student farming project. Information for this study was collected through a combination of existing literature and first-person key informant interviews.

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*We can succeed only by concert. It is not “can any of us imagine better?” but, “can we all do better?”. The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew, and act anew.*

•••

Abraham Lincoln, 1862

## **Chapter 1**

### **The Blossoming of the Student-Run Farm in America**

*“How do we take learning beyond the classroom?”*

Indeed, this is a question that has plagued institutions of higher education throughout the United States since their inception. It is within the past decade that a viable solution has emerged: creating student-run farms.

The idea is simple: provide students with a setting that provides basic training in farming practices while creating linkages between the diverse fields within academia. Imagine – Accounting students handling the financial affairs the farm, Nutrition students gaining an understanding of food beyond the dinner plate, Elementary Education students teaching younger members of the community the source of their food. In finding ways to combine the tenants of a liberal arts education with hands-on, immersive, and practical farming experiences, the notion of a student-run farm has indeed garnered great support (Sayre & Clark, 2011, 9).

About 20 years ago, on-campus student farms were largely unheard of, barring a small number of institutions with unique agricultural programs. Today, however, the

landscape has drastically changed. According to the 2009 College Sustainability Report Card, a study examining the sustainability practices of 300 leading colleges and universities throughout the US and Canada, 82% of schools do at least some sort of local food purchasing, 55% have food waste composting programs, and 29% have a community garden or student farm on campus (Sayre & Clark, 2011, 9). The number of operational student run farms and gardens throughout North America continues to grow on a yearly basis (Sayre & Clark, 2011, 10).

This most recent, reinvigorated interest in student farming is largely driven by uncharacteristically high student demand and interest. The causes of this pedagogical resurgence are multifaceted and several are listed below:

1. Popular media sources: Books including Michael Pollan's *Omnivore's Dilemma*, Barbara Kingsolver's *Animal, Vegetable, Miracle* and films such as *Food, Inc.* and *King Corn* have brought issues related to the American food system to a broader audience. Student-run farming addresses a desire for further food system literacy by intimately incorporating students in the food-production system.
2. Nationwide health concerns: The high occurrence of diabetes, obesity, heart disease, etc amongst Americans combined with largely sedentary, technology heavy lifestyles has forced Americans to reconsider their relationship with diet and exercise. Healthful produce and fun, active labor are both by-products of participation in student farming (or any variety of farming for that manner) and can be parleyed to meet growing health concerns.
3. Sustainability literacy: Amongst institutions of higher education, sustainability literacy and overall more sustainable institutional practices have gained great

popularity and gravity. As discussed further in this thesis, student-run farms transcend agriculture and can be viewed as vehicles of “sustainability in action”, for they incorporate a broad spectrum of conscious living habits and techniques.

In considering these causes, an important questions arises – what should the relationship be between, agriculture, higher education, and sustainability? Is it the role of trends in agriculture and sustainability to shape higher educational practices or *visa versa*? From the perspective of leaders within the sustainable agriculture movement of the late twentieth century, “the professionalization and institutionalization of agriculture as a science had gone too far, losing all sight of interdisciplinary education or the need to communicate with non-farmers” (Sayre & Clark, 2011, 9). In the 1974 article “Agriculture, the Island Empire”, authors André and Jean Mayer argued for what they described as, “the present isolation of agriculture in American academic life” as possessing serious implications for students and citizens alike (Sayre & Clark, 2011, 9).

More recently, 1994 marked the publication of David Orr’s essay “Agriculture and the Liberal Arts.” In his essay, Orr contributed the modern lack of ecological and agricultural literacy of the American college student to not only the institutionalization of agriculture within academic settings but also to a decrease in students’ “direct, familial experience with farming as a way of life” (Sayre & Clark, 2011, 10). By including agriculture in the curriculum in the form of student-run farms, Orr noted the acquisition of the following traits. As summarized by Sayre & Clark:

1. Acquisition of work ethic while promoting ecological awareness

2. Interdisciplinary study of plants, soils, and other natural systems
3. Revitalization of local, rural economies
4. Protection of biodiversity
5. Skills for the mitigation of carbon impacts by reducing food miles and/ or planting trees
6. A deeper understanding of recycling
7. Instruction of problem solving and strategies for institutional change (Sayre & Clark, 2011, 11).

## **Methods**

Inspiration for the penning of this thesis is generated from a renewed interest in student farming at Penn State. January 2013 marked a reinvigorated effort to being a student-run farm at Penn State, due in large part to interest exhibited by several members of the student body and faculty from within the Penn State Sustainability Institute. Details on the history of this most recent effort will be outlined in Chapter 5 of this thesis. The ultimate purpose of this paper is to explore trends in student-run farming amongst institutions of higher education in the Big 10 Athletic Conference and to apply both the successes and failures of these efforts to the current student farming project occurring at Penn State. Compiling information on divergent efforts to begin a student run farm both here and across the country has largely not yet been attempted.

A significant portion of the information included in this study was collected by way of personal interview. Through consistent involvement in the planning and visioning process of the 2013 Penn State student farm process, it was possible to identify and contact stakeholders from within the community to participate in interviews. Through

Penn State IRB approved methods, the informants were contacted via email and, upon agreeing to participate in this study, were issued a form of informed consent (forms available upon request from the principle investigator). Informants were then asked to meet in a public place and to participate in an hour-long interview about their specialized knowledge on student-run farming at Penn State. The following is the survey orally administered to Penn State informants (E. Sauder, J. Rosenberger, K. Steiner, and H. Karsten):

1. Define “Student-Run Farm”
2. Detail your involvement in beginning a student-run farm at Penn State
  - a. Specify supporting institution
  - b. Specify rationale behind desire to start a student-run farm
  - c. Specify model proposed (CSA, Research focused, For-credit involvement, etc)
3. Identify major boundaries to beginning a student-run farm at Penn State
  - a. Bureaucracy? Funding? Zoning? Student support?
4. Define vision for a “Student-Run Farm” at Penn State
5. Identify other key informants in the “Student-Run Farm” movement at Penn State

In order to better understand the broader implications of the student farm movement throughout the US, a case study was conducted at the University of Michigan, located in Ann Arbor, Michigan. As a university member of the Big 10 Athletic conference with a recently founded student-run farm project, this campus served as an attractive and comparable model to Penn State. Individuals from the University of Michigan were contacted via email after an Internet search of the project. Individuals

were sent a form of informed consent and were scheduled for either a phone or Skype-based interview about their involvement in creating the student-run farm. The survey for these informants was as follows (A. Green, J. Tyrrell, and R. Grese):

1. Define “Student-Run Farm”
2. Detail your involvement in beginning a “Student-Run Farm” at U of M
  - a. Specify supporting institution
  - b. Specify rationale behind desire to start a “Student-Run Farm”
3. Detail current model for your operational “Student-Run Farm”
4. Identify major boundaries to beginning a “Student-Run Farm”
  - a. Focus on comparison to boundaries experienced at Penn State
  - b. Identify how to overcome boundaries
5. Identify other key informants to the “Student-Run Farm” movement at U of M

Information included in Chapter 5 of the study was collected by way of personal communication and involvement since the inception of the 2013 Penn State Student-Run Farm project.

### **About this study**

This thesis will be explored in several parts. As evidenced, the purpose of this chapter is to introduce the notion of student-run farming as a national concept and practice and to touch on the multifaceted reasons behind the recent resurgence in interest in this agricultural practice amongst members of the Big 10 Athletic Conference.

Chapter 2 explores existing research on this topic in the form of a literature review with a focus on interdisciplinary approaches to student farming. Understanding

previous research aids in effective framing of future attempts to initiate and maintain a student-run farm.

In Chapter 3, the history of student farming at Penn State is chronicled in detail. While conducting interviews for this study, it became increasingly clear that individuals even within the immediate Penn State community were unclear of the motivations behind and facts regarding the various historical student-farming projects that have thus far been attempted. Chronicling these projects adds context to current community sentiments on this topic and serves as a frame from which to better understand successes, failures, and barriers.

Chapter 4 summarizes student farming and sustainable food projects throughout university members of the Big 10 Athletic Conference. Members of the Big 10 are characterized by large student bodies, popular athletics programs, and renowned research and academic programs. Penn State's institutional, educational, and cultural similarities to these universities serve as a viable frame of comparison for the establishment of a student-run farm. A case study of the establishment of a student-run farm at the University of Michigan concludes the chapter, with a particular focus in understanding their unique student farm narrative and how they were able to overcome the barriers present in the current Penn State effort.

Chapter 5 serves to chronicle the most recent effort to begin a student-run farm at Penn State University, largely initiated in January 2013. Identifying stakeholders, networking through integrative design, and garnering student support are amongst the topics covered in this section. Key is the identification of barriers within the Penn State community. Chapter 5 also serves as the conclusion of this thesis, recapping what has

been discussed, highlighting lessons learned for partner universities, and detailing steps for the future success of this project. As the project to begin a student farm is currently in progress, the information included in this section will not be up-to-date past the date of publication of this thesis.

## Chapter 2

### Seed Bank: A Review of Literature

In exploring the notion of student-run farming at institutions of higher education, gaining an understanding of the barriers, successes, and failures experienced by other institutions is essential in devising a viable strategy for implementation. However, the theoretical motivations behind and prominent themes present in a given project are also critical to note. Throughout the course of this literature review, particular attention was taken to explore the “why” behind the implementation of student farm in addition to the “how”.

Francis, C.A. (04/30/2011). *Innovative Education in Agroecology: Experiential Learning for a Sustainable Agriculture*. *Critical reviews in plant sciences* (0735-2689), 30 (1-2), p. 226.

The purpose of this article was to explore and advocate for the role of experiential learning in relation to agroecology. According to the author, experiential learning not only incorporates hand-on experiences outside of the classroom, but also multidisciplinary approaches to learning, with agroecology fitting both of these characteristics. Through analysis of case studies, Francis explored the role and effects of incorporating agroecological knowledge from other countries into the education of students in Norway and the US. Of particular interest was a case study conducted at the Iowa State University where experiential learning in agriculture and agroecology was utilized as a transition tool for first year college students. Other successful learning

techniques mentioned throughout the article included online teaching modules, “adventure learning” models, and independent, student driven studies. The study concluded with suggestions and implications for future development of this style of curriculum.

Francis, C.A., Lieblein, G., Breland, T.A., Salomonsson, L., Geber, U., Sriskandarajah, N., Langer, V. (2008) *Transdisciplinary Research for a Sustainable Agriculture and Food Sector*. *Agronomy Journal*, 100 (3), pg. 771-776.

The purpose of this study was to discuss the importance of interdisciplinary and experiential learning in relation to agriculture. The article began with a chronicling of the positive role interdisciplinary thought has played in advancing modern agricultural research practices. This same philosophy, as advocated by the authors, should be incorporated into (or rather out of) the classroom to enrich students and their understanding of agriculture. Amongst the several case studies discussed in the article, a master’s program in Norway best embodied the authors’ message. By incorporating in-class, theoretical, trans-disciplinary study with community based experiential opportunities in agriculture, students were better prepared and more aware of real-world challenges in their area of study.

Kunkel, H.O., & Skaggs, C.L. (Eds.) (2005). *Revolutionizing Higher Education in Agriculture: Framework, Principles, and Agenda for Action*. Ames, IA: Iowa State University Press.

The purpose of this text was to explore and advocate for the role of agricultural education in institutions of higher education. A collaboration between several agricultural education specialists throughout the US, this book sought to navigate the complexities of

eliciting change in higher educational settings. Incentive for this text derived from an observed overarching change in the food, agricultural, and natural resource systems caused by a widespread shift to industrialized agricultural systems. The text was divided into two sections, the first of which dealt with the motivations and conditions necessary for change to occur within institutions of higher education. The second section focused on plans for pursuing this change in institutional settings through examination of shifts in educational values, the content of courses, the classroom environment, and faculty scholarship. Case studies and analysis of existing educational theory dominated the content of this text.

Sayre, L., & Clark, S. (Eds.) (2011). *Fields of Learning: The Student Farm Movement in North America*. Lexington, KY: The University Press of Kentucky.

The purpose of this text was to chronicle the advent of student-run farms at colleges and universities throughout North America. As evidenced by the appendix, student-run farms were not only numerous but also widely dispersed in terms of location throughout the area in question. The text began by summarizing the importance and relevance of student-run farms in relation to today's job market and shift towards more interdisciplinary models of higher education. Aside from the introduction, the text was comprised of numerous case studies of student-run farms throughout the US and Canada. Although equivalent in goal, each case study was unique in that they effectively portrayed the diverse interests, barriers, motivations, and end results present in disparate student-run farming efforts.

Schwimmer, S. (2012). *Room to Grow: Sustainable Food Systems in Higher Education*.

Unpublished master's thesis, University of Michigan, Ann Arbor, Michigan.

The purpose of this master's thesis was to chronicle ongoing efforts in relation to sustainable foods systems at the University of Michigan, Ann Arbor Campus. Told in the first person, this study detailed, in chronological order, the process by which graduate students and faculty members were able to collaborate and successfully establish the University's first student-run farm. Further details on this process can be found in Chapter 4 of this thesis. Key topics covered in the piece included an abbreviated history of agriculture and higher education in the US, integrated assessment and its role in visioning of the student-run farm, the proposal writing process undergone by students and faculty, and the role of campus sustainability culture in promoting the establishment of the farm. Descriptive research dominated the content of this study, for a significant portion of the data was collected by way of first person interviews with faculty and staff directly involved in the various efforts related to the promotion of sustainable food systems. Notably, the author of the study was deeply involved in this process, explaining the message of advocacy that underscored the thesis.

### **Insights**

Key insights garnered from this review of literature are critical to the academic framing of both the 2013 Penn State Student Farm project and future student farming endeavors. It has been shown that teaching methods incorporating an interdisciplinary student-run farm are reflective of current transitions in institutional philosophies, as they foster more extensive comprehension of agricultural systems on behalf of students. On a more tangible level, case studies of successful student run farming endeavors are highly useful as organizational and process models for future endeavors.

## **Chapter 3**

### **A Wilting Project: The History of Student-Run Farming at Penn State**

A 60-year history of student-run farming at Penn State precedes this most recent effort. Although largely unsuccessful or not fully explored, these six narratives provide contextual lessons of town-gown relations, zoning regulations, and risk management concerns essential to the future implementation of a thriving farm. The following Penn State case studies are listed in chronological order and include only details necessary for a factual recounting of each effort, as interviews conducted for the purpose of this thesis revealed opposing and controversial sentiments amongst informants.

#### **1950s – Rock Springs**

With an influx of students after World War II, the Penn State was in need of additional property on which to build dormitories. Because of their attractive and central location, the College's on-campus agricultural facilities were forced to relocate in lieu of additional student housing. In 1956, Russell Larson, then department head of Horticulture for the Penn State College of Agricultural Sciences, began searching for additional agricultural property for the university ("Russell Larson", 2013).

The first of these satellite facilities was purchased by the agronomy department in 1955 in the form of a 285-acre farm outside of Centre Hall (an undependable water source on this property made research difficult). The next year, Larson began his search for properties in the Spruce Creek Valley, a 15-minute drive from the University Park campus. Overcoming initial unwillingness to sell amongst farm owners, Larson was able

to secure nearly 450 acres of research property for the university by 1965 (“Russell Larson”, 2013).

Between 1965 and 1998, the University continued to purchase land for agricultural research and currently owns more than 2,000 acres in the Rock Springs area. Now referred to as the Russell E. Larson Agricultural Research farm, this extensive property is located 10 miles southwest of central campus (“Russell Larson”, 2013). Four separate farms (Agronomy, Entomology, Horticulture, and Plant Pathology) are currently in operation within the property along with the home of Ag Progress Days, a yearly community event highlighting the College’s latest research and best practices for the agricultural industry (“Ag Progress”, 2013). Students and faculty alike within the College of Agricultural Sciences utilize these properties for large scale, long-term agricultural research studies.

### **1980s – The Circleville Farm**

The early 1980s marked the establishment of the Circleville Farm, a 176-acre student-run farm located in Ferguson Township. The property, located at the intersection of Circleville and Science Park Roads (several miles outside of the University Park Campus) was under the jurisdiction of the College of Agricultural Sciences. A full-time staff of 15 to 20 students managed, maintained, and organized the nearly 29 year-round courses offered at the site. Between 1985 and 1989, an average yearly profit in sales of between \$10,000 and \$20,000 effectively underwrote the student salaries. At its prime, it was reported that nearly 75 of the College’s 300 faculty members from 16 different departments utilized the farm for teaching purposes (“CAMPUS LIFE”, 1989).

In July of 1989, responsibility for the Circleville Student Farm shifted from the students to the University's Manager of Farm Operations. As described in a 1989 New York Times article, the transition occurred in part because the "administration felt that too few students and faculty members were involved with the farm". Resources formerly committed to the farm were to be utilized for the acquisition of grants which in turn would be channeled into supervised, faculty lead programs as opposed to daily farm operations. In addition, sustainable agricultural practices previously employed at the Farm were abandoned and replaced with more chemical-intensive techniques. Livestock and heavy machinery formerly maintained by the students were also redistributed amongst neighboring universities ("CAMPUS LIFE", 1989).

This transition was met with significant opposition. In 1989, students and faculty members within the College of Agriculture along with community members mounted a letter writing campaign to oppose the Circleville Farm reorganization. Between the late 1980s and today, the Circleville Farm property has continued to generate conflict amongst the divergent interests of the community. Since 2003, Penn State and Ferguson Township have been accepting proposals for both the purchasing and residential redevelopment of the property. The property remains largely undeveloped ("Penn State", 2003).

### **2006 – College of Agricultural Sciences Proposal**

Dr. Heather Karsten, Associate Professor of Crop Production/ Ecology in the College of Agricultural Sciences, lead a student-farm proposal team in 2006. The interdepartmental proposal, receiving significant support from College administration, aimed to provide students with hands-on experiences in agronomic cropping systems and

research in bio-energy crops. Funding for the project was to be provided by Northeast SARE (Sustainable Agriculture Research & Education), a grant program sponsored by the USDA to “advance innovations in sustainable agriculture” (USDA, 2012).

Ultimately, a lack of unanimous support from within the College terminated the effort (H. Karsten, personal communication, March 14, 2013).

### **2010 – Rockview**

A 2010 bill introduced by Centre County State Representative Mike Hanna marked the transfer of approximately 1,850 acres of land formerly owned by the PA State Correctional Facility at Rockview and the Commonwealth of Pennsylvania to the University. Of the transferred property, 1,124 acres was to be managed by the College of Agricultural Sciences, 400 acres were allocated to Benner Township, and property previously leased by the PA Fish and Boat Commission remained in their possession. (“Proposed Transfer”, 2013). The Rockview property is currently a mixture of forests, orchards, open fields, and cropland.

In a letter written by Dr. Bruce McPheron, former Dean of the College of Agricultural Sciences, a vision for the newly acquired property was clearly outlined. The following are quotes from this letter, published online by the College of Agricultural Sciences, detailing the potential for a student-run farm at the Rockview property:

*“In keeping with our unique land-grant mandate to meet the educational, research, and extension needs of the Commonwealth, the College of Agricultural Sciences recently purchased approximately 452 acres of land bordering the Spring Creek Canyon in Benner Township, previously owned by the State Correctional Institution at Rockview...*

*“The land represents a unique opportunity for the College to invest in innovative educational and research programs that advance our understanding and capacity to produce food, materials, and energy sustainably, respectful of and enriching the ecological services provided by the land and landscape...”*

*“Our interest in this property is long term. The types of research and educational programs that we envision will require substantial time to bring to fruition... The Rockview property can serve as a living laboratory to provide Pennsylvania and U.S agriculture with science-based, sustainable solutions to ensure we can meet this challenge now and in the future.” (J. Wall, 2013).*

The property remains largely undeveloped by the College for educational purposes, although it is open to the public for hunting and outdoor recreation. (“Rockview Map”, 2013).

### **2012 – New Leaf Initiative**

A recent addition to the State College sustainability landscape, New Leaf Initiative defines itself as “community hub that catalyses your potential for impact” (“What We Do”, 2013). The downtown State College office space assumes the role of incubator and think tank for students interested in issues related to social justice, entrepreneurship, and innovation. By operating outside of the university system, the founders of New Leaf aim to illicit lasting change in the State College community without the delay and frustration associated with institutional inertia (E. Sauder, personal communication, February 14, 2013).

One such project began in the summer of 2012. Students approached Eric Sauder, Director of New Leaf, with great interest in starting a student-run farm. Sauder soon

connected these Penn State undergraduate students with local beef farmer and Penn State professor of Statistics, Dr. James Rosenberger. Calling his operation a “hobby gone out of hand,” Rosenberger is the owner of Bergenblick Farm, a grass-fed beef operation located outside of State College. Aside from raising Scottish Highland Cattle, Rosenberger found himself extremely interested in opening up his operation to students (“About Us”, 2012).

Rosenberger’s vision for a student-run farm on his property was as follows:

1. Collaborate with New Leaf to gather interested students
2. Allocate acreage within his property for student production of fruits and vegetables
3. Provide interested students housing on the farm in exchange for managing his produce operation (J. Rosenberger, personal communication, February 21, 2013)

This student-run farming project was never fully seen into fruition. Rosenberger, aware of risk management procedures within the University, cites “a fear of risk” as the “biggest barrier” to a successful student farming operation. His property’s status as an enterprise separate from the University only serves as an impediment to the implementation of a student-farming project. Currently, Rosenberger has hired a farm manager who resides on his property and remains dedicated to student involvement in his beef operation (J. Rosenberger, personal communication, February 21, 2013).

### **Arboretum**

Common amongst speculations about property allocated for student farming at Penn State is use of the Arboretum. Upon further research, it has been confirmed that a

student farm was never included the strategic plan for the Arboretum (K. Steiner, personal communication, March 30, 2013).

### **Insights**

It is with an understanding and appreciation of the past challenges within the Penn State student run farm narrative that future success is tangible. Historically risk-averse policies, lack of unanimous departmental support, and limited follow through on proposed student farming operations have proven themselves as the greatest barriers to successful implementation when operating within the Penn State community. Gaining an understanding of how similar institutions of higher education have overcome barriers similar to these is critical and is the objective of the following section.

## Chapter 4

### **To-ma-to, To-mah-to: Student-Run Farming in the Big 10**

In 1990, Penn State joined the Big 10 Athletic Conference, the nation's oldest collegiate athletic conference. Criteria for membership includes strong academic programs, well-respected research, a large student body, along with a pervasive culture of athletics. Amongst the 12 (soon to be 14) universities included in the Big 10, operational student-run farms exist on 9 of these campuses (see Table 4-1).

A commitment to agriculture precedes many of these student-farming efforts, as a majority of the members of the Big 10 are also members of the land-grant university system. Over 150 years ago, President Lincoln signed the Morrill Act of 1862, a piece of legislature directing states to create institutions of higher learning for the explicit purpose of education in agriculture and mechanics. About 30,000 acres of public land were provided to each state for the establishment of these universities. Penn State, for example, was founded in 1855 under the Morrill Act as the Farmers' High School of Pennsylvania. Student-run farms serve well in exhibiting a 21<sup>st</sup> century interpretation of the 19<sup>th</sup> century land grant mission (N. Conan, 2012).

Below is a table detailing student-run farming operations amongst Big 10 Universities. Where student farms have not yet been established, information on campus sustainable food system projects has been included.

**Table 4-1. Occurrence of Student-Run Farms Amongst Big 10 Universities**

<b>University</b>	<b>Location</b>	<b>Enrollment</b>	<b>Student Farm?<sup>1</sup></b>	<b>Additional Information</b>
The Ohio State University	Columbus, OH	56,064	The Ohio State University Student Farm	Land grant university, academic courses, 3 day-a-week farmers' market, CSA <sup>2</sup> , internships and employment opportunities ("Welcome", 2010)
Michigan State University	East Lansing, MI	43,159	MSU Student Organic Farm	Land grant university, certified organic, 48-week CSA, summer CSA, on-campus farm stand, food to MSU dining halls, intensive 9-month Organic Farmer Training Program ("Welcome", 2013)
Indiana University	Bloomington, IN	42,464	No	Food Working Group established in 2007 by the IU Task Force on Sustainability, focuses on dining hall sustainability ("Sustainable

				Food”, 2011)
Purdue University	West Lafayette, IN	39,637	The Purdue Student Farm	Land grant university, focus on promoting cultural diversity with surrounding community, courses, research for students (“Plan”, 2010)
University of Michigan	Ann Arbor, MI	37,197	University of Michigan Sustainable Food Program Student Farm	See <sup>3</sup>
University of Illinois at Urbana-Champaign	Urbana and Champaign, IL	41,918	Sustainable Student Farm	Land grant university, year-round high tunnel production, sells produce to dining halls and community, volunteering, pilot CSA project (“Recent News”, 2013)
University of Iowa	Iowa City, IA	31,498	ISU Student Organic Farm	Managed by student club, piloting selling produce to dining hall as a part of “Farm to ISU” program (“ISU”, 2013)

University of Minnesota	Twin Cities, MN	51,853	Cornercopia Student Organic Farm	Land grant university, certified organic, courses offered through agronomy department, on campus farmers market, volunteering (“Cornercopia” 2013)
University of Nebraska-Lincoln	Lincoln, NE	24,593	No	Land grant university, “Good. Fresh. Local” University of Nebraska-Lincoln Sustainable Food Project provides dining halls with Nebraska-produced foods (“Good”, 2013)
Northwestern University	Evanston, IL	14,988	No	NU Sustainable Food Talks is a community program that holds events related to the pursuit of more sustainable food systems in the Chicago area (“NU”, 2013)

Pennsylvania State University	University Park, PA	44,817	No	Land grant university, see <sup>4</sup>
University of Wisconsin-Madison	Madison, WI	42,595	FH King Student Farm	Land grant university, volunteers, piloting campus CSA, rotating local meals in the dining halls (B. Mitchell, 2008)
University of Maryland <sup>5</sup>	College Park, MD	37,631	No	Land grant university, hosts weekly community farmers' market ("Wellness", 2013)
Rutgers University <sup>5</sup>	New Brunswick, NJ	38,912	The Student Sustainable Farm at Rutgers	Land grant university, "Nation's largest organic farm managed by students", CSA, volunteering, internships, donation to local soup kitchen ("Student", 2011)

<sup>1</sup> For the purpose of this chart and thesis, community gardens and agricultural research facilities utilized by students but managed by university faculty do not fall under the definition of a student-run farm.

<sup>2</sup> CSA = Community Supported Agriculture, "consists of a community of individuals who pledge support to a farm ... with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Typically, members or "share-holders" of the farm or garden pledge in advance to cover the anticipated costs of

the farm operation and farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season” (“Community”, 2013)

<sup>3</sup> Case study to follow

<sup>4</sup> See chapters 3 and 5 of thesis

<sup>5</sup> Indicates future members of Big 10 Conference

### **University of Michigan: A Case Study**

In order to better understand the advent of student-run farms amongst Big 10 Universities and the unique factors that contribute to the successful implementation of such a project, a case study was performed on faculty and staff members involved in the creation of the University of Michigan Sustainable Food Program Student Farm.

Located in Ann Arbor, Michigan, The University of Michigan is a space-grant university with over 40,000 students. UMich has been ranked as one of the top 5 research institutions in the USA and is also widely regarded for its athletic programs (“Campus History”, 2010). The following information was collected via phone interviews with:

1. Professor Bob Grese, Director of the Matthei Botanical Gardens Arboretum and Nichols Arboretum, University of Michigan
2. Allyson Green, Graduate Student and Instructor, University of Michigan School of Natural Resources and Environment
3. Jerry Tyrrell, Graduate Student, University of Michigan School of Natural Resources and Environment
4. Sarah Schwimmer, Alumni, University of Michigan School of Natural Resources

The idea for the student-run farm emerged as a part of a larger, campus-wide effort to promote sustainable food systems. Without an agricultural school or resources typically provided to land-grant universities, convincing individuals throughout the university that

there existed a strong interest in foods systems was proved to be an “uphill battle” for individuals involved in the early stages of this project (R. Grese, personal communication, February 6, 2013).

Despite the initial on-campus climate, interest in sustainable food systems had been building in the surrounding community for a number of years. Amongst the most popular of these initiatives was the Cultivating Community project, a collaboration between members of the Ann Arbor community and UMich students to promote healthy eating and agricultural outreach. On campus, a program was established to utilize dining hall food scraps for university-generated compost. After about a decade of this program, the waste stream became so great that the University no longer had sufficient uses for the magnitude of compost being generated.

About 2 years ago, UMich officials decided to increase campus-wide sustainability efforts, as, at the time, the university ranked poorly amongst comparable universities in terms of sustainability initiatives. As a part of this initiative, the University launched a program to hire about 100 new faculty members in the form of interdisciplinary clusters. A group of 4 prospective faculty members “gelled around food security and sustainable food systems” and were eventually hired by the university (R. Grese, personal communication, February 6, 2013). In a 2011 random survey of 450 UMich students conducted by this working group, it was found that 83% of respondents “declared a moderate to high interest in having a campus farm” and 96% of respondents “said they would purchase produce grown at a campus farm” (University of Michigan, 2012).

In addition to wide-scale hiring, university officials launched The Planet Blue Student Innovation Fund, a call-for-proposals to encourage self-study of university sustainability practices. In response to this, January 2012 marked the creation of a team of undergraduate and graduate students to meet “a need for greater educational opportunities and a unified community to support all of the sustainable food work on campus” (A. Green, personal communication, February 11, 2013). Between the winter and fall of 2012, several groups of students from within the university’s School of Natural Resources and Environment, Program in the Environment, and Taubman College of Architecture and Urban Planning began outlining the logistics of a potential student farm. The goal of this working group, as stated in the University of Michigan Sustainable Food Program 2012 Annual Report, was to “foster collaborative leadership that empowers students to create a sustainable food system at the University of Michigan while becoming change agents for a vibrant planet” (University of Michigan, 2012). In February 2012, the Sustainable Food Program and Campus Farm Working Group was awarded \$42,000 from the Planet Blue Initiative, identifying and hiring a full time campus farm manger being among the stipulations of the grant (R. Grese, personal communication, February 6, 2013).

By the end of May, volunteers and the Masters Project group broke ground on a pilot plot for the campus farm at the University of Michigan Matthaei Botanical Gardens, located 7 miles from the central UMich Campus. Located in close proximity to several existing community gardens, the new home of the Campus Farm enabled collaboration amongst existing community agriculture groups. The 20’ by 30’ pilot space successfully produced over 700 pounds of produce over the summer of 2012. Seeing these results, the

botanical gardens offered the Campus Farm working group an expansion of an additional 2 acres for the 2013 season, property formerly used as nursery space (R. Grese, personal communication, February 6, 2013).

A great deal of the success of this operation can be attributed to the collaborative of 10 food-related groups from throughout the Ann Arbor area, ranging in focus from permaculture to urban gardening in Detroit. In a demonstration of symbiosis, the Campus Farm utilizes this network for additional volunteers while the partnering organizations gain access to the University's resources.

Unlike the case of Penn State, risk management concerns were insignificant in the establishment of the Campus Farm, due in large part to the top-down approach of the Planet Blue Initiative. Additionally, UMich is amongst the largest contributors of volunteers to the Peace Corps. The unmet need for hard, agricultural skills prerequisite for prospective Peace Corps volunteers was well addressed by the farm.

In terms of greatest challenges to the success of this project, interviewees agreed on the following:

1. Finding a location for the Campus Farm easily accessible to students – Initial proposals included the campus farm within the central campus of the university. Concerns of campus beautification disbanded that element of the proposal. Although 7 miles from central campus, the Arboretum remains a popular destination for students and community members alike.
2. Funding a full time farm manager – An “aggressive pursuit of grants” currently complements the initial \$42,000 supplied by Planet Blue. Consistent funding is not only necessary for the longevity of the farm, but

also for the retention of paid individuals to ensure the aforementioned longevity (R. Grese, personal communication, February 6, 2013).

### **Insights**

Key to the successes demonstrated by the University of Michigan student farming effort were a supportive administration, long-term and dedicated student involvement, and, as stated by Dr. Robert Grese, “an aggressive pursuit of grants” (personal communication, February 6, 2013). The project, although in its infancy, has a demonstrated history of a relentless pursuit of improvement, growth, and collaboration that should inspire and be deeply incorporated into future student run farming endeavors.

## **Chapter 5**

### **Buds and Blooms: The 2013 Penn State Student Farm Reawakening**

The following chapter details the most recent attempt to begin a student-run farm at Penn State, a project dubbed as “The 2013 Penn State Student Farm Reawakening”. Content found in this section is based primarily one-on-one interviews, attendance at organizational and planning meetings, and personal involvement in the project since its inception in December of 2012. As much as the individuals involved in the Penn State project were able to learn from the successes and failures of other university student farming projects, it is the sincere objective of this section to serve as not only a critical analysis of this project but also to serve as a blueprint for future student farming endeavors and similar collaborative projects.

#### **Rationale**

As explored in Chapter 4 of this thesis, it is with an agricultural vision that Penn State was founded. That being said, the most logical rationale behind starting a student-run farm is to provide students with a living laboratory experience in the agricultural sciences. Students studying the various disciplines within the College of Agricultural Sciences would be able to practice and perfect the hard skills outside of the classroom while still in an academic setting.

Patterns within the Penn State student-run farming narrative reveal time and time again, however, that designing this project through the lens of sustainable agriculture is by no means the most compelling angle. When analyzing successful projects, it is clear

that a more multifaceted approach incorporating a multitude of units within a given university system is critical.

It was with an awareness of this “branding issue” that the students, faculty, and staff involved in this project agreed upon pursuing the student-run farming project as an exemplar of “sustainability in action”. Engaging multiple stakeholders in the planning and design process, incorporating curriculum from across the university – it is through a consideration of these elements that a farm can assume a role well beyond simply growing produce.

The notion of “sustainability in action” is also quite fitting when considering the blossoming institutional sustainability culture at Penn State. In 2012, students, faculty, staff, and administrators from across the university penned “The Penn State Sustainability Strategic Plan”, a 10-page document detailing Penn State’s present and future commitment to promoting and advancing sustainability. Explained as “the simultaneous pursuit of human health and happiness, environmental quality, and economic wellbeing for current and future generations”, this document’s definition of sustainability coincides well with the ultimate goal of the student farming project (“Penn State”, 2012). Particular attention should be paid to the section entitled “Land Grant 2.0”, which reads:

*“In 1855, the Pennsylvania State legislature chartered the Farmers’ High School that would one day become the Pennsylvania State University, a flagship of the land-grant mission. The original charter called for ‘an institution for the education of youth in the various branches of science (and) learning... as they were interconnected with each other...”*

*“Today, to remain vibrant and true to our purpose, the University must again transform how it pursues its mission. Penn State must provide an atmosphere that encouraged critical thinking and develops our capacity to account for the ethical, environmental, and economic outcomes of our decisions – an immersive education in sustainability” (“Penn State”, 2012).*

It is with the tenants of the land-grant mission and the pursuit of interconnectedness that the 2013 Penn State Student Farm Reawakening can be further explored.

### **Timeline**

For the sake of posterity, the following is a timeline chronicling the major events in the 2013 Penn State Student-Run Farm project. It is important to note that this timeline is by no means comprehensive – there were many interactions that occurred in between these major events that are not noted. As well, the effort is slated to continue beyond the submission of this thesis.

**Table 5-1. Timeline of Major Events in 2013 PSU Student-Run Farm Project**

<b>Month</b>	<b>Major Events</b>
December 2012	In response to positive feedback from PSU administrators for food system reform garnered at a Student Sustainability Advisory Council (SSAC) <sup>1</sup> meeting, Rachel Hoh (Principal Investigator), Alyssa Kalter (Sustainability Institute intern) and Jeremy Bean (Sustainability Institute) begin discussions of the possibility of student farming at Penn State. The idea for this thesis is born, approved, and activated.
January 2013	<p>1/18/13: Initial meeting of student farm working group. Both students and faculty members from within the college of agriculture were in attendance. Major topics discussed include the recent creation of the Penn State Sustainability Institute, land owned by the PSU College of Ag currently being used for farming and research, role of students in this project, identification of additional stakeholders</p> <p>1/25/13: Second meeting. Students and faculty from within the College of Agriculture and The Sustainability Institute were present. Major topics discussed include networking with successful student farms, need for administrative networking within the university, how to market this project appeal to a broader range of academic units</p> <p>1/25/13: Inaugural Student Sustainability Leadership Summit brought together sustainability-minded students from across campus. A common theme of conversation focused on student farming and the desire for a stronger sustainable food system across the University.</p>
February	<p>2/1/13: Meeting with members of the Penn State Sustainability Institute, serving as the formal introduction of the project. Discussed the history of student farming at the university. Engaged in visioning session (discussed in further detail later in this chapter). Major topics discussed include the identification of stakeholders, risk management policies, importance of student demand, and an integrated design approach.</p> <p>2/1/13: Meeting with Dr. Dave Cranage, associate professor of Hospitality Management/ head of PSU's Café Laura<sup>2</sup>. Discussed logistics and risk management concerns behind Café Laura's food</p>

	<p>sourcing. Cranage offered support and resources on behalf of the PSU School of Hospitality Management for the student farming project.</p> <p>2/14/13: Meeting with Eric Sauder of the New Leaf Initiative. Discussed New Leaf's failed student farm project. Major topics discussed are included in Chapter 3 of this thesis.</p>
March	<p>3/12/13: Student-lead student farm visioning session held at the HUB. Over 20 students representing multiple colleges from across the university met and discussed their vision for the student farm. Results from this discussion will be discussed later in this thesis.</p> <p>Late March: Student Farm project officially adopted by The Sustainability Institute.</p>
April	<p>Early April: Student farm project presented to PSU Sustainable Agriculture Working Group. Individuals from the College of Ag and Sustainability Institute are present.</p>

<sup>1</sup>SSAC = Student Sustainability Advisory Council is a presidentially appointed group of sustainability-minded PSU students, faculty, staff and administrators.

<sup>2</sup> Café Laura is an on-campus dining option operated by students within the School of Hospitality Management. In the past, certain products utilized in food preparation for the Café were sourced locally or grown by students.

## **Organizational Strategies**

Throughout the course of this recent student farming project, there has been a great deal of consistency in methodologies utilized to gather input. The following section will chronicle the methods and findings garnered thus far.

### *1) Stakeholder mapping*

Encouraging interconnectedness and multidisciplinary thought requires significant input. It is for this reason that identification of, communication with, and garnering the support of stakeholders across the Penn State community was essential to the implementation and long-term support of this project. Great thought was taken to

incorporate individuals both involved in the Penn State agricultural landscape and other academic units. Below is a visual representation of a stakeholder mapping exercise conducted by Jeremy Bean, intended to highlight figures from throughout the Penn State agricultural community known to possess historical interest or involvement in student run farming. Data for this chart was collected by way of visioning sessions (discussed later) and personal communication:

**Figure 5-1. Stakeholder Mapping of the PSU Student-run Farming Project**

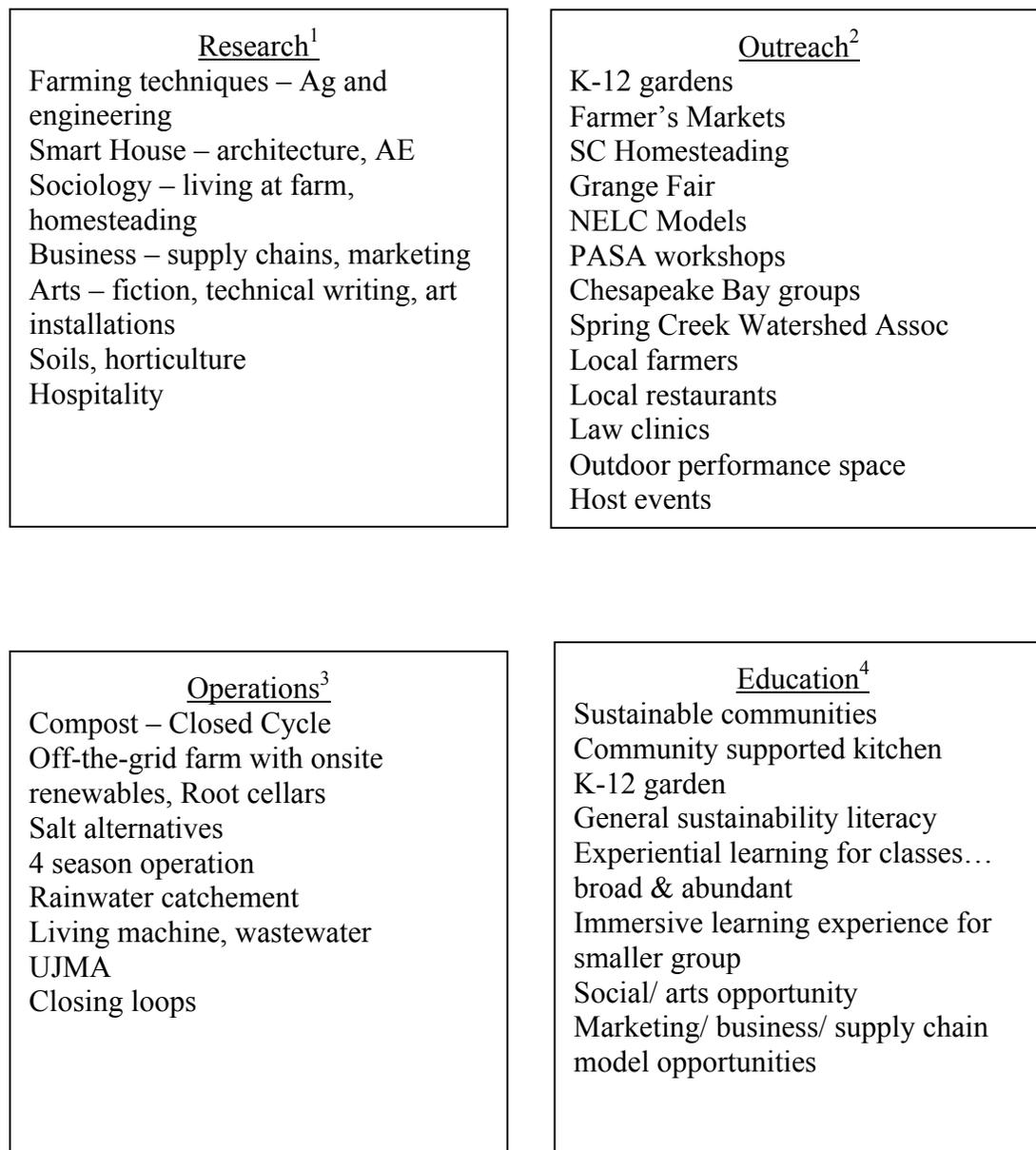


## *2) Visioning sessions*

The notion of interconnectedness continued into the brainstorming process for the student farm. Throughout the course of the semester, two separate visioning sessions were held. At these meetings, faculty stakeholders from within the Sustainability Institute and interested students were invited to gather and voice their vision for the student-run farm project in an organized, well documented setting.

Central to these gatherings was an exercise here referred to as the “pillar break-out session”. Utilizing the “pillars” of Penn State (research, outreach, operations, education) as a frame, participants were asked to envision the relevant uses and benefits of the student farm while simultaneously identifying stakeholders. Below are summarized versions of the “pillar break out session” exercise performed at the Sustainability Institute visioning session and Student visioning session, respectively.

**Figure 5-2. Sustainability Institute Visioning Session – Pillar Break Out Exercise**



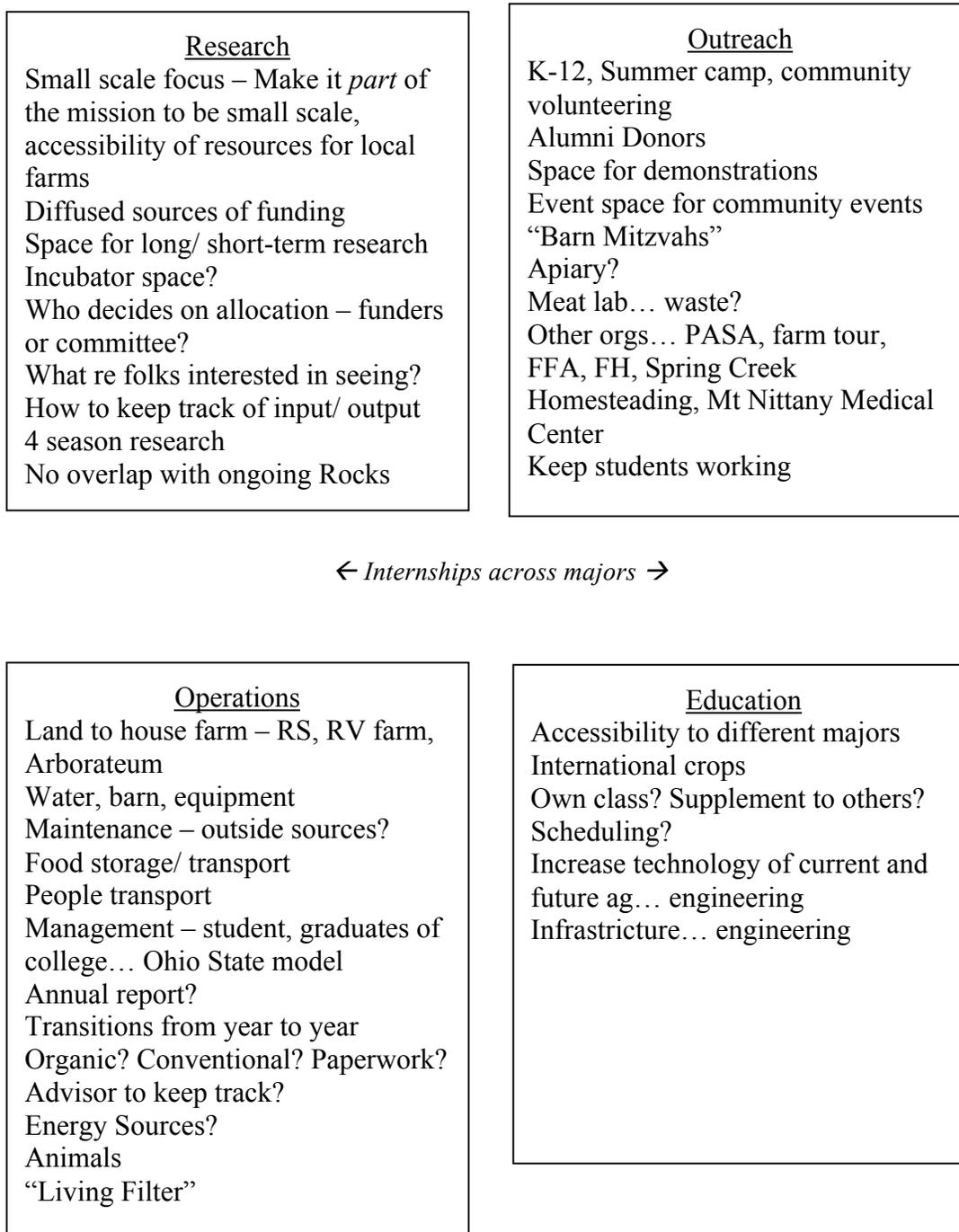
<sup>1</sup> Research = Here defined as endeavors that promote or support ongoing faculty-supported investigations

<sup>2</sup> Outreach = Here defined as connections to the counties surrounding the University Park campus

<sup>3</sup> Operations = Here defined as the infrastructure and logistics necessary for an operational student run farm

<sup>4</sup> Education = Here defined as additions to both in and out of classroom learning

**Figure 5-3. Student Interest Visioning Session – Pillar Break Out Exercise**



## **Insights – Penn State**

Although still largely in progress, the 2013 Reawakening can serve as a model for organizational success for not only future student farming endeavors but also collective engagement in a variety of situations. Throughout the course of this collaborative and integrative design process, several themes have emerged as paramount to further advancement. In no particular order:

1. Project branding as a reflection of organizational history: Although an agricultural focus may be the most logical avenue for the branding of a student-run farming project, as evidenced at Penn State, in many ways this is a misguided assumption. Maintaining an awareness of historical successes and failures and organizational sustainability culture is key in determining the lens through which a particular student farming project should be viewed. “Sustainability in action” may be more compelling as rationale than one with limited historical support.
2. Engaging stakeholders: A student-run farm transcends agricultural uses. If designed properly, student farms possess the capacity to engage community members from across the community and university system. Stakeholders possess topical expertise and networking capacities instrumental in all stages of project development. Effectively engaging stakeholders is also critical in predicting and overcoming boundaries in ways simply not possible with less multifarious groups.
3. Effective mobilization of the student body: Putting the “student” in “student-run farm” is amongst the most overlooked of steps necessary for successful implementation of this variety of project. When dealing with institutions of higher education, demands from the students that are consistently taken into

consideration. Student involvement is critical from the onset as stakeholders and organizers, for it is ultimately the students that will provide the human capital necessary for a sustained and operational student farm.

4. Organizational ownership: Indeed, the involvement of a broad spectrum of parties is critical to the success of projects of this variety. That being said, the project is doomed to fail unless it is housed within a single, administrative body. Take the Sustainability Institute, for example. Housing the student-run farm project within this central campus unit has simplified communication, networking, visioning, and student involvement since its inception. Resistance to this type of ownership is ultimately counterproductive to project momentum.

## **Conclusion**

The steps to a successful student-run farm are as multifaceted as the farm itself. Through historical analysis of both the successes and failures present in the student-run farm movement throughout the Big 10 Athletic Conference, a comprehensive understanding of this process is possible. Engaging stakeholders, remaining mindful of project branding, deep involvement of the student body – these are but a few of the considerations necessary to overcome the barriers inevitable in the inception of a successful university student run farm. Efforts to begin a student-run farm at Penn State are slated to continue beyond the publication of this thesis and will undoubtedly incorporate the lessons learned from other institutions to push on “towards a cultivated classroom”.

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### Education

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### Honors and Awards

- Gamma Sigma Delta, The Honor Society of Agriculture, Penn State University, 2012
- The Honor Society of Phi Kappa Phi, Penn State University, 2011
- Coaly Leadership Honors Society, Penn State University, 2010
- Bunton Waller Minority Fellow, Penn State University, 2009
- Teva Pharmaceutical/ Philadelphia Eagles “Green Dream” Scholarship, 2009

### Professional Experience

- Lemont Farmer’s Market, Lemont, PA  
Market Manager, 2013
- Spring Creek School for Sustainable Living, Bellefonte, PA  
Farm Manager/ Head Instructor, 2013
- Penn State ORION Wilderness Orientation Program, University Park, PA  
Backpacking Trip Leader/ Freshman Mentor, 2009-2012
- Penn State Department of Horticulture, University Park, PA  
Root and Leaf Biophysiology Lab, Dr. Dave Eissenstadt

Research Assistant/ Tree Climber, 2012

- Lancaster Buy Fresh Buy Local, Lancaster, PA

Marketing/ Outreach Intern, 2011

- Creekside Farm Market, Manheim, PA

Marketing Intern/ Farm Apprentice, 2011

### **Activities**

- Penn State Student Sustainability Advisory Council, University Park, PA

Presidentially Appointed Member, 2011-2013

- Penn State Outing Club, University Park, PA

President, 2012-2013

- Penn State Sustainable Agriculture Club

Vice President, 2010-2013

- Penn State Community, Environment, and Development Undergraduate Research

Journal, University Park, PA

Editor-in-Chief, 2010-2013

### **Research Interests**

I am deeply committed to studying, understanding, and participating in community development.

Issues relating to community food security, network building amongst farmers and consumers,

and institutional sustainability policy are amongst my greatest passions and interests.