THE FARM AND THE GARDEN:
COMMUNITY SUPPORTED AGRICULTURE PROGRAMS
AND PUBLIC HORTICULTURE INSTITUTIONS

by

Shari K. Edelson

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Science in Public Horticulture

Summer 2010

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>ix</td>
</tr>
<tr>
<td>Introduction</td>
<td>11</td>
</tr>
<tr>
<td>Literature Review</td>
<td>14</td>
</tr>
<tr>
<td>A Brief Introduction to Community Supported Agriculture</td>
<td>14</td>
</tr>
<tr>
<td>CSAs and Educational Programming at Public Horticulture Institutions</td>
<td>15</td>
</tr>
<tr>
<td>Modeling Sustainability</td>
<td>18</td>
</tr>
<tr>
<td>Community Engagement</td>
<td>20</td>
</tr>
<tr>
<td>Challenges to Implementation</td>
<td>21</td>
</tr>
<tr>
<td>Methodology</td>
<td>23</td>
</tr>
<tr>
<td>Research Design</td>
<td>23</td>
</tr>
<tr>
<td>Human Subjects Review Board</td>
<td>24</td>
</tr>
<tr>
<td>Quantitative Data Collection</td>
<td>25</td>
</tr>
<tr>
<td>Survey 1: APGA Institutional Membership Survey</td>
<td>25</td>
</tr>
<tr>
<td>Survey 2: ANCA Online Discussion Group Subscriber Survey</td>
<td>28</td>
</tr>
<tr>
<td>Survey 3: APGA Institutional Membership Follow-Up Survey</td>
<td>29</td>
</tr>
<tr>
<td>Qualitative Data Collection</td>
<td>31</td>
</tr>
<tr>
<td>Case Study Selection</td>
<td>31</td>
</tr>
<tr>
<td>Case Study Data Collection Procedures</td>
<td>33</td>
</tr>
<tr>
<td>Expert Interviews</td>
<td>35</td>
</tr>
<tr>
<td>Results</td>
<td>36</td>
</tr>
<tr>
<td>Survey 1: APGA Institutional Membership Survey</td>
<td>36</td>
</tr>
<tr>
<td>Survey 2: ANCA Online Discussion Group Subscriber Survey</td>
<td>54</td>
</tr>
<tr>
<td>Survey 3: APGA Institutional Membership Follow-Up Survey</td>
<td>55</td>
</tr>
<tr>
<td>Case Studies and Expert Interviews</td>
<td>59</td>
</tr>
<tr>
<td>Case Study Sites</td>
<td>59</td>
</tr>
<tr>
<td>Case Study and Expert Interview Themes</td>
<td>69</td>
</tr>
<tr>
<td>Discussion</td>
<td>99</td>
</tr>
<tr>
<td>The State of CSA Programming at Public Horticulture Institutions</td>
<td>99</td>
</tr>
<tr>
<td>Tales from the Field: Lessons Learned from CSA Implementation</td>
<td>101</td>
</tr>
<tr>
<td>Recommendations</td>
<td>116</td>
</tr>
<tr>
<td>Appendix A: University of Delaware Human Subjects Review Board (HSRB)</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>120</td>
</tr>
</tbody>
</table>

iv
Appendix A1: Notification of Exemption from HSRB Review for Survey Materials ................................................................. 121
Appendix A2: Notification of Exemption from HSRB Review for Case Study Materials ............................................................. 122
Appendix A3: Notification of Exemption from HSRB Review for Amendment/Modification to Case Study Materials .................... 123
Appendix A4: Notification of Exemption from HSRB Review for Amendment/Modification to Survey Materials ....................... 124
Appendix B: Survey 1 – APGA Institutional Membership Survey .............. 125
  Appendix B1: Invitation email text for APGA Institutional Membership Survey .................................................................................. 125
  Appendix B2: Reminder email text for APGA Institutional Membership Survey .................................................................................. 127
  Appendix B3: APGA Institutional Membership Survey Questions ........................................................................................................ 129
  Appendix B4: APGA Institutional Membership Survey Results ........................................................................................................ 137
Appendix C: Survey 2 – ANCA Online Discussion Group Subscriber Survey 148
  Appendix C1: Invitation email text for ANCA Online Discussion Group Subscriber Survey ................................................................. 148
  Appendix C2: Reminder email text for ANCA Online Discussion Group Subscriber Survey ................................................................. 150
  Appendix C3: ANCA Online Discussion Group Subscriber Survey Questions .......................................................................................... 152
  Appendix C4: ANCA Online Discussion Group Subscriber Survey Results .......................................................................................... 161
Appendix D: Survey 3 – APGA Institutional Membership Follow-Up Survey 169
  Appendix D1: Invitation email text for APGA Institutional Membership Follow-Up Survey ................................................................. 169
  Appendix D2: Reminder email text for APGA Institutional Membership Follow-Up Survey ................................................................. 171
  Appendix D3: APGA Institutional Membership Follow-Up Survey Questions .......................................................................................... 173
  Appendix D4: APGA Institutional Membership Follow-Up Survey Results .......................................................................................... 175
Appendix E: Case Study Research ................................................................. 177
  Appendix E1: Case Study Protocol ................................................................. 177
  Appendix E2: Case Study Questions ............................................................... 182
  Appendix E3: Case Study Interview Consent Form ........................................ 185
Appendix F: Expert Interviews ................................................................. 187
  Appendix F1: Expert Interview Questions .................................................... 187
Literature Cited ................................................................................................. 189
LIST OF TABLES

Table 1  Question categories, research questions, and items included in APGA Institutional membership survey and ANCA online discussion group subscriber survey .......................................................... 27

Table 2  Question categories, research questions, and items included in APGA Institutional membership follow-up survey ................................................. 31

Table 3  Case study sites, parent institutions, locations, and case study classifications ........................................................................................................... 33

Table 4  Categories and themes from case studies and expert interviews........... 96
LIST OF FIGURES

Figure 1  Survey 1, Question 1: Institutional categorization of respondent institutions................................................................. 41
Figure 2  Survey 1, Question 2: Fiscal Year 2008-09 institutional budgets among respondent institutions......................................................... 42
Figure 3  Survey 1, Question 3: Institutional mission components among respondent institutions............................................................. 43
Figure 4  Survey 1, Question 4: Perceived relevance of environmental sustainability to institutional mission among respondent institutions......................................................... 44
Figure 5  Survey 1, Question 5: Perceived relevance of agricultural sustainability to institutional mission among respondent institutions............................................................. 45
Figure 6  Survey 1, Question 6: Educational programming by topic area among respondent institutions............................................................. 46
Figure 7  Survey 1, Question 7: On-site CSA program offerings among respondent institutions............................................................. 47
Figure 8  Survey 1, Question 11: Off-site CSA program offerings among respondent institutions............................................................. 48
Figure 9  Survey 1, Question 12: Age of off-site CSA collaborations among respondent institutions............................................................. 49
Figure 10  Survey 1, Question 13: Perceived success of off-site CSA programming among respondent institutions................................. 49
Figure 11  Survey 1, Question 14: Factors influencing institutional decision to collaborate with an off-site CSA......................................... 50
Figure 12  Survey 1, Question 15: Factors influencing institutional decision not to implement CSA programming................................. 51

Figure 13  Survey 1, Question 16: Factors cited as important for public horticulture institutions to consider prior to CSA program implementation........................................................................................................ 52

Figure 14  Survey 1, Question 17: Respondent opinions regarding helpfulness of CSA implementation guidelines for public horticulture institutions........................................................................................................ 53

Figure 15  Survey 1, Question 18: Respondent opinions regarding topic areas important to address in CSA implementation guidelines.............................................. 54

Figure 16  Survey 3, Question 1: Percentage of respondents familiar with CSA as described in survey introduction................................................................. 57

Figure 17  Survey 3, Question 2: Percentage of respondents whose institution has considered implementation of a CSA project ................................................. 58

Figure 18  Survey 3, Question 3: Type of CSA project considered by respondent institutions........................................................................................................... 59
ABSTRACT

Community supported agriculture, or CSA, is one of several newly-emerging models of sustainable agriculture, which attempts to provide an alternative to conventional large-scale agricultural practice by linking independent, small-scale farmers to individual consumers. In recent years, CSA has become a topic of interest within the public horticulture community, and many public gardens have considered integrating CSA-related programming within operations. The purpose of this research was to assess the extent to which public horticulture institutions have engaged with community supported agriculture, to identify the institutional benefits and challenges presented by such programming, and to develop recommendations for public horticulture institutions wishing to implement CSA projects.

This study utilized a concurrent embedded mixed-methods design for data collection, and included three electronic questionnaires distributed to public horticulture institutions, four case studies of institutions currently implementing CSA programs, and additional interviews with topic experts in the field of sustainable agriculture.

Survey data revealed that over 25% of respondent institutions have considered CSA implementation; however, fewer than 11% of institutions have actually implemented such programming. Analysis of survey, case study, and expert interview data indicated that relevance to institutional mission, potential for
community engagement, availability of staff resources, and availability of financial resources were major factors taken into account by institutions considering CSA implementation. Case study research indicated that CSA implementation resulted in perceived benefits for parent institutions, farm shareholders, and society at large. Such benefits included support of institutional mission, creation of a sense of community, and provision of educational opportunities related to agricultural and environmental sustainability. Common challenges encountered over the course of CSA program implementation included financial difficulties, perceived lack of program support on the part of parent institutions, and logistical challenges. Implementation recommendations address the areas of strategic and financial planning, mission-relatedness, institutional leadership and support, educational goals, and community support.
Chapter 1

INTRODUCTION

Community supported agriculture, or CSA, is one of several newly-emerging models of sustainable agriculture, which attempts to provide an alternative to conventional large-scale agricultural practice by linking independent, small-scale farmers to individual consumers. By creating interpersonal and economic connections between producers and consumers, the CSA model has become increasingly influential in “revitalizing local agricultural economies, preserving farmland… and educating consumers about farming and the environment” (Ostrom, 2007). Since the founding of the first United States-based CSA farms in 1986 (McFadden, 2003), the movement has grown considerably; according to the 2007 Census of Agriculture, 12,549 farms in the United States reported marketing their products via CSA programs (United States Department of Agriculture, 2009).

Within the sustainability movement itself, there is a growing sense that the general public has become aware of the timeliness and relevance of sustainability-related topics (Anthony, 2008). Furthermore, consumers are beginning to make active choices on the basis of their new-found concerns; the increasing popularity and success of CSA farms in the past several years is one manifestation of this phenomenon. If the present is any indication of future events, we can expect to see a
continued increase in the public’s interest in issues related to both healthy food and the well-being of the environment.

Meanwhile, many public horticulture institutions are actively engaging in efforts to model sustainability; forge meaningful connections with their communities; and provide relevant, mission-based, and appealing educational programs for visitors. While some of these challenges are not new to public horticulture, others are directly tied to emerging aspects of our contemporary culture and surroundings. The inclusion of community supported agriculture projects within public gardens may provide a means by which today’s public horticulture institutions can address these challenges while diversifying offerings in an innovative and meaningful way.

While many CSA projects are independently operated, there is great potential for their inclusion within the operations of botanical gardens and other public horticulture institutions. Community supported agriculture projects can both complement and offer additional opportunities for educational programming, enhanced community engagement, and mission-based outreach by botanical gardens. In addition, the financial structure of CSAs enables them to offset expenses with earned revenue, an important consideration for any institution considering the addition of new initiatives.

The primary purpose of this research was to assess the potential for inclusion of CSA programs within the operations of public horticulture institutions. By assessing the degree of interest in CSA within the public horticulture community, and by investigating the challenges and benefits encountered as a result of CSA establishment, the researcher sought to both depict current conditions and recommend
For purposes of this research, public horticulture institutions were defined as organizations that “cultivate plants in spaces for public use and enrichment,” and

communicate the varied benefits of plants and landscapes to the visiting public in diverse ways… striv[ing] to enhance the quality of life for the public through plant display, education and interpretation, conservation and research, and outreach” (Center for Public Horticulture, 2007).

On the basis of this definition, the researcher adopted an inclusive approach to the present investigation, assessing the potential for CSA program implementation not only at botanical gardens and arboreta, but also at such institutions as nature centers, colleges, and universities.
Chapter 2

LITERATURE REVIEW

A Brief Introduction to Community Supported Agriculture

Community supported agriculture is a system of food production in which consumers form a direct relationship with the farmers who produce their food (Cone & Myhre, 2000). An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of the farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season (Ostrom, 2007). CSA farms may have as few as a half-dozen members, or as many as several hundred. While most provide a range of seasonal vegetables for their shareholders, some CSAs also provide fruit, eggs, dairy, or meat (Cone & Myhre, 2000). While the cost of a share varies from farm to farm, fees average in the range of $300 to $600 per year, and are determined on the basis of the farm’s annual expense budget (Winne, 2008). By receiving payment in advance, the farmer is able to cover the cost of seeds, soil amendments, labor, and other necessary inputs, and is thereby afforded a measure of security that he or she would not have otherwise. In effect, some of the risk of the farming enterprise is transferred from farmer to shareholder; by paying for his or her produce in advance, the shareholder accepts the risk that drought, crop failure, or other causes may lead to poor yields for certain items (Hinrichs, 2000).
These risks are offset by the potential benefits the CSA system provides. In a 2003 survey of members of four southeastern Pennsylvania CSAs (Oberholtzer, 2004), the three most-cited reasons for membership were desire for fresh produce, desire for locally-grown produce, and interest in supporting a local farmer or farm. Over 50% of participants also cited concern for the environment, concern for farm preservation, and a desire to know where their food came from and how it was grown. In addition, 26% of respondents reported that desire for a sense of community factored into their decision to join. These survey results accord with the findings of surveys conducted in other geographical areas of the United States (Cone & Myhre, 2000; Conner, 2003; Kane & Lohr, 2007; Perez et al., 2003), and reveal that a complex array of personal, social, and environmental motivations come to bear upon an individual’s decision to purchase membership in a CSA farm.

**CSAs and Educational Programming at Public Horticulture Institutions**

In its 1992 report, “Excellence and Equity: Education and the Public Dimension of Museums,” the American Association of Museums (AAM) established education as the “core of [museums’] service to the public,” and presents standards of educational excellence towards which all museums should strive. Like other members of the museum community, public horticulture institutions have made educational programming a fundamental priority, and have aspired to provide programming that is both mission-related and relevant to the interests and concerns of the public (Jenney, 2009).
Community supported agriculture projects offer many opportunities for the integration of such educational programming into the visitor experience at public horticulture institutions. CSA-related programming has the potential to be formal or informal; tailored toward adults, children, or families; or adjusted to suit either the casual visitor or the dedicated student (Henderson, 2007).

It is important to note that many CSAs unaffiliated with public horticulture institutions offer educational programming, either for shareholders, the general public, or other farmers. In a 1999 survey of 368 CSAs across the United States, Lass et al. (2003) found that 81.5% of responding farms provided educational or social programming, including but not limited to workshops, children’s events, potluck dinners, farm tours, and school-based programs. In addition, 99% of farmers surveyed in the same study stated that they were interested in contributing to educational efforts that would help to strengthen the CSA movement. Overall, these findings demonstrate a high degree of commitment to education on the part of the CSA community. Furthermore, this commitment may be regarded as a core value of the CSA movement as a whole: insofar as CSA-based educational programming strengthens links between farmers, farms, and the public, it can help to “create a more integrated community” (Hinrichs, 2000) characterized by meaningful bonds between food producers and consumers.

For public horticulture institutions seeking to integrate CSA projects into operations, opportunities for excellent adult education programs abound. Schatello-Sawyer et al. (2002) argue that there is much room for museums to expand and diversify their adult educational offerings. Although 94% of museums offer some
kind of adult programming, only 27% of total offerings at these institutions are geared toward adults. Therefore, while most museums make some attempt to engage adult learners, the extent of these educational programs is often limited. While lectures are the most common format for adult programs, adult learners overwhelmingly cite “active, hands-on activities” as important aspects of museum programs (Schatello-Sawyer et al., 2002).

The very nature of the farming enterprise lends itself to a wide variety of active, engaging educational activities for adults. Activities as diverse as gardening workshops, plant and insect identification courses, cooking demonstrations, harvest preservation classes, and craft workshops may all be offered at a single site, providing the basis for a well-rounded educational events calendar.

Farm-based programs may also provide excellent educational opportunities for families and children. Dierking et al. (2001) noted that families often visit museums in order to take advantage of opportunities for free-choice learning, a type of learning that is “self-directed, voluntary, and guided by the learner’s needs and interests.” This type of learning is both mediated through, and supported by, social interaction among family members (Falk & Dierking, 2000). The welcoming, family-friendly quality of the botanical garden, arboretum, or nature center has the potential to provide an excellent setting for free-choice learning; visitors are encouraged to explore at their own pace, strolling amongst displays in a pleasant outdoor setting. Farm environments offer much that is of potential interest to family members of all ages (White, 2009), and could provide the basis for an enjoyable free-choice learning
experience within the context of a visit to a public garden or other public horticulture institution.

CSA programs at public horticulture institutions could also be positioned to offer professional education for aspiring and novice farmers via internship and apprenticeship programs. Lass et al. (2003) noted that CSA farmers are more likely than conventional farmers to have entered the world of agriculture as adults, rather than to have been raised in a farm setting. In addition, CSA farmers tend to have less farming experience on average than their conventional-farming counterparts. While CSA farmers are highly educated overall (75% of farmers surveyed by Lass et al. held a college degree, while 25% held a graduate degree), many of them entered agriculture from other fields and therefore desire further farm-related education. Indeed, internship or apprenticeship experience is regarded as essential to any prospective CSA farmer’s education, and many sustainable agriculture organizations provide services that link willing students to farm-based internship programs (Thompson, 2008). As many public horticulture institutions offer internship programs in other horticulturally-related areas, farm-based sustainable agriculture internships could be an appropriate addition to curricular offerings, and would complement already-existing programs.

**Modeling Sustainability**

In recent years, issues of healthy eating, food security, and open space preservation have become more prominent within the national discourse and have begun to attract increased interest on the part of ordinary people (Cohen, Comrov, &
Hoffner, 2005; Organic Trade Association, 2007). Public horticulture institutions have wrestled with issues of sustainability, striving to reconcile their “green” image with the often resource-intensive and environmentally-unsound practices common to horticulturally-based enterprises. This practice in critical self-reflection has increasingly begun to bear fruit, and many of the nation’s leading public horticulture institutions, including the Chicago Botanic Garden and the Phipps Conservatory and Botanical Gardens, have shifted both their internal standards and their public offerings to reflect a genuine commitment to environmental stewardship (Bell, 2008). Like many museums, public gardens have found that prioritizing sustainability at an institutional level can have a positive impact on fiscal health, provide opportunities for education, and enable an institution to lead by example through the modeling of best practices (Brophy & Wylie, 2008).

Within this context, CSA projects offer public horticulture institutions an opportunity to further embrace sustainable practices. Indeed, the CSA movement as a whole stresses the importance of sustainability at all levels of operations. Although the use of organic farming methods is not required for CSA farms, the vast majority of such projects either hold federal organic certification or operate in accordance with organic standards (Lass et al., 2003). In addition, by providing consumers with a local source of produce, CSA farms embody an environmentally-friendly alternative to the extensive use of fossil fuels in conventional food transport. The CSA movement also underscores the importance of sustainability at the personal level, as expressed in the food choices made by consumers. In one long-term study of members of 24 CSA farms in the Midwest, 90% of respondents reported that their eating and shopping
habits had changed for the better as a direct result of their CSA membership (Ostrom, 2007). By incorporating CSA projects within their range of programming, public gardens have the potential to not only educate the public about the connections between agriculture and environmental stewardship, but also directly support the sustainability-related efforts of local farmers and consumers.

**Community Engagement**

Making meaningful connections with the local community is one of the most challenging projects any public horticulture institution can undertake (Daubman, 2002). The development of community relationships requires a significant investment of time, resources, and effort on the part of any institution, and necessitates both patience and a sustained commitment to the process (Conwill & Roosa, 2003). Although cultivating community engagement can be challenging, successfully doing so can be transformative. If successful in its efforts, the public garden may become “an active, visible player in civic life, a safe haven, and a trusted incubator of change” (Hirzy, 2002).

As their name implies, community supported agriculture projects are firmly grounded in connections to their communities. As stated earlier, a 2003 membership survey of CSAs in southeastern Pennsylvania found that “desire for community” motivated 26% of respondents to join their farm (Oberholtzer, 2003). Additional research demonstrated that as their length of membership and degree of involvement with the farm increase, shareholders place greater value on the community-related aspects of the CSA experience (Cone & Myhre, 2000).
Although CSA projects do not provide a panacea for public gardens looking to deepen their connections with the local community, they may provide an important means by which public horticulture institutions can augment and diversify their community engagement efforts (Anthony, 2009).

**Challenges to Implementation**

It is important to note that, like all enterprises, CSAs are subject to a wide range of challenges, not least of which is the risk of program failure (Henderson, 2007). Challenges to CSA program implementation include financial struggles, failure to create a genuine community among shareholders, high rates of member turnover from year to year, and farmer burnout caused by an unmanageable administrative and agricultural workload (Ostrom, 2007). A 2001 survey of 354 CSA farms in the United States (Lass et. al, 2001) revealed that approximately 9% had plans to discontinue their programs in the near future. Those farmers terminating their CSAs had very similar reasons for doing so, and cited insufficient income (34.4%), lack of members/demand (21.9%), and farmer burnout (12.5%) as the top three factors influencing their decision to suspend operations.

While association with a parent organization is not likely to eliminate all challenges to CSA implementation, the financial, administrative, and labor support offered by a larger institution has the potential to mitigate a great deal of the risk associated with CSA farming (Anthony, 2010; Rovegno, 2010; Riska, 2009). Thus, implementation of a CSA program may not only provide multiple benefits for a parent
organization, but may also provide the program itself with a greater chance of success by reducing exposure to many of the risks associated with implementation.
Chapter 3

METHODOLOGY

Research Design

This research utilized a combination of qualitative and quantitative methods, employing a concurrent embedded mixed-methods design. In such a design, quantitative and qualitative data are collected simultaneously. These data are then analyzed separately and presented side-by-side, providing an “overall composite assessment” (Creswell, 2003) of the topic matter. A concurrent mixed-methods design has several advantages over research designs utilizing only one type of data-collection strategy. First, the strengths of both qualitative and quantitative methods are brought to bear on a single research problem, yielding a more diverse data set than could be generated through either method on its own (Yin, 2009). Second, a mixed-methods approach permits the researcher to address questions at several levels of inquiry, with each research method addressing a different question or set of questions. This enables the researcher to “gain perspectives from the different types of data or from different levels within the study” (Creswell, 2003).

The quantitative component of this research consisted of three electronic surveys, while the qualitative component consisted of four institutional case studies and two additional formal interviews.
The surveys deployed as part of this research sought to characterize awareness of, interest in, and engagement with community supported agriculture on the part of public horticulture institutions in North America. Case studies investigated the implementation of CSA programs at selected, individual public horticulture institutions. The case study research utilized a multiple case design (Yin, 2009) consisting of semi-structured interviews and document collection at four individual public horticulture institutions hosting CSA programs.

**Human Subjects Review Board**

This research followed all regulations and practices prescribed by the University of Delaware Office of the Vice Provost for Research, in accordance with Federal guidelines issued by the Office for Human Research Protections, United States Department of Health and Human Services (University of Delaware Office of Research, 2009). The researcher attended a University of Delaware Human Subjects Research training session on December 9, 2008. All research materials, including research protocol, interview questions, interview consent forms, and survey questions, were submitted to the Human Subjects Review Board, and were granted exemption from full Board review under Exemption Category 2b, which pertains to research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless (i.) information obtained is recorded in such a manner that human subjects can be identified… and (ii.) any disclosure of the human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation (United States Department of Health and Human Services, 2010).
Exemption was granted for preliminary materials in April 2009, and was granted for all additional research materials in January 2010 (Appendix A).

**Quantitative Data Collection**

All three surveys conducted as part of this research were administered through Qualtrics software, which is institutionally licensed by the University of Delaware (Qualtrics Inc., 2008). Survey data were collected over a secure Web server and were viewed only by the researcher. Confidentiality of participant identity was maintained throughout the research. Prior to deployment, all three surveys were piloted by volunteers, whose feedback was used as the basis for improvements.

**Survey 1: APGA Institutional Membership Survey**

The first survey was designed to assess interest in and engagement with community supported agriculture on the part of public horticulture institutions within North America. The survey was distributed to 494 Institutional members of the American Public Gardens Association (APGA). Institutional APGA members are public gardens only; Institutional memberships are not available to organizations operating outside the field of public horticulture, or to individual members of the general public (American Public Gardens Association, 2010).

In order to establish a target survey population, the researcher reviewed a comprehensive list of all 497 APGA Institutional members. Three institutions were removed from this list due to lack of email contact information. The remaining 494 Institutional members were retained as the target survey population.
Each survey recipient was sent an initial email containing an explanation of the survey, an invitation to participate, and an electronic link to the survey instrument itself (Appendix B1). Subsequent to this initial email, two reminder emails were sent to members of the survey population who had not yet participated in the survey (Appendix B2).

The survey consisted of a textual introduction, followed by a series of between 14 and 20 questions (Appendix B3). The survey utilized a skip logic function, such that a participant’s response to a given question determined whether or not that participant would be asked a series of follow-up questions. Thus, a given recipient could be asked as few as 14 questions or as many as 20, depending on how previous questions were answered.

Survey questions were arranged into the following categories: 1) institutional background information, 2) mission-related information, 3) educational offerings related to sustainable agriculture and associated topics, 4) on-site CSA programming, 5) off-site CSA programming, 6) rationale for lack of CSA programming, and 7) opinions regarding CSA implementation guidelines (Table 1).
Table 1  Question categories, research questions, and items included in APGA¹ Institutional membership survey and ANCA² online discussion group subscriber survey.

<table>
<thead>
<tr>
<th>Question Category</th>
<th>Research Question</th>
<th>Item(s) on Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional background information</td>
<td>What are the institution’s basic characteristics?</td>
<td>Questions 1 and 2</td>
</tr>
<tr>
<td>Mission-related information</td>
<td>To what extent are agricultural sustainability and related topics related to institutional mission?</td>
<td>Questions 3, 4 and 5</td>
</tr>
<tr>
<td>Educational offerings related to sustainable agriculture and related topics</td>
<td>Is sustainability education a priority for the institution?</td>
<td>Question 6</td>
</tr>
<tr>
<td>On-site CSA programming</td>
<td>What factors motivated the institution to implement an on-site CSA, and how is program success measured?</td>
<td>Questions 7, 8, 9, 10</td>
</tr>
<tr>
<td>Off-site CSA programming</td>
<td>What factors motivated the institution to collaborate with an off-site CSA, and how is program success measured?</td>
<td>Questions 11, 12, 13, and 14</td>
</tr>
<tr>
<td>Rationale for lack of CSA programming</td>
<td>What factors led the institution not to implement a CSA program?</td>
<td>Question 15</td>
</tr>
<tr>
<td>Opinions regarding CSA implementation guidelines</td>
<td>Would CSA implementation guidelines be helpful or desirable? What areas should such guidelines address?</td>
<td>Questions 16, 17, and 18</td>
</tr>
</tbody>
</table>

¹American Public Gardens Association
²Association of Nature Center Administrators
Participants were also invited to indicate whether their institution would be willing to participate in future research; those who answered affirmatively were invited to provide their contact information. Finally, participants were asked to offer any additional comments they considered relevant to implementation of CSA projects at public horticulture institutions.

Survey 2: ANCA Online Discussion Group Subscriber Survey

This survey was designed to assess interest in and engagement with community supported agriculture on the part of nature centers and similar institutions within North America. The survey was distributed to all 518 individual subscribers of the Association of Nature Center Administrators (ANCA) online discussion group, an Internet-based forum that enables nature center professionals to “find, organize, and share events, discussions, organizational information, and documents” (Association of Nature Center Administrators, 2010). Although subscription to the online discussion group is not limited to ANCA members, a majority of subscribers are staff members at nature centers, environmental learning centers, or similar institutions (Levy, 2009).

An initial email (Appendix C1) was posted to the online discussion group. This email contained an explanation of the survey, an invitation to participate, and an electronic link to the survey instrument itself. Subsequent to this initial email, two reminder emails were posted to the online discussion group. Both reminder emails contained identical text (Appendix C2).

The design and format of the survey were identical to those of Survey 1; minor alterations were made to survey content to specifically address nature centers.
and similar institutions. The survey consisted of a textual introduction, followed by a series of between 14 and 20 questions (Appendix C3) utilizing a skip logic function. Survey questions were arranged into the following categories: 1) institutional background information, 2) mission-related information, 3) educational offerings related to sustainable agriculture and associated topics, 4) on-site CSA programming, 5) off-site CSA programming, 6) rationale for lack of CSA programming, and 7) opinions regarding CSA implementation guidelines (Table 1). Participants were invited to indicate whether their institution would be willing to participate in future research; those participants who answered affirmatively were invited to provide their contact information. Finally, participants were asked to offer any additional comments they considered relevant to implementation of CSA projects at nature centers and similar institutions.

**Survey 3: APGA Institutional Membership Follow-Up Survey**

Results from Survey 1 indicated that some participants may have based their responses on a definition of CSA that differed from that of the researcher. Furthermore, this survey also assumed that public horticulture institutions without CSA programs had at some point considered the possibility of CSA implementation; however, respondent comments indicated that this was not always the case. Accordingly, a follow-up survey was developed to assess respondent familiarity with the definition of CSA, and to learn whether respondent institutions had ever considered implementing CSA programming.
The survey was distributed to all 494 APGA Institutional members. Each recipient was sent an initial email containing an explanation of the survey, an invitation to participate, and an electronic link to the survey instrument itself (Appendix D1). Subsequent to this initial email, two reminder emails were sent to members of the survey population who had not yet participated in the survey (Appendix D2).

The survey utilized a skip logic function and consisted of a textual introduction followed by a definition of CSA and either two or three questions.

Survey questions fell into the following categories: 1) awareness and understanding of the CSA concept, and 2) institutional consideration of CSA programming (Table 2).
Table 2  Question categories, research questions, and items included in APGA\(^1\) Institutional membership follow-up survey.

<table>
<thead>
<tr>
<th>Question Category</th>
<th>Research Question</th>
<th>Item(s) on Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness and understanding of the CSA concept</td>
<td>Is the basic definition of CSA well-understood by the respondent?</td>
<td>Question 1</td>
</tr>
<tr>
<td>Institutional consideration of CSA programming</td>
<td>To what extent has the institution considered implementing CSA programming?</td>
<td>Questions 2 and 3</td>
</tr>
</tbody>
</table>

\(^1\)American Public Gardens Association

**Qualitative Data Collection**

Qualitative data were collected through four institutional case studies, as well as two additional interviews conducted with experts in the fields of sustainable agriculture and CSA programming. All case studies and interviews were conducted between August 2008 and January 2010.

**Case Study Selection**

A purposeful selection technique was used to identify four case study sites. In purposeful selection, the researcher non-randomly selects “participants or sites…that will best help [her] understand the problem or the research question” (Creswell, 2009). The following criteria guided the researcher in identification of sites eligible for potential inclusion in this research:

- The CSA program must be housed within, and operated by, a parent institution.
• The parent organization must be a public horticulture institution, defined as an institution that undertakes “the art and science of cultivating plants in spaces for public use and enrichment” (Center for Public Horticulture, 2007).

• There must exist evidence of meaningful institutional commitment to the CSA, whether in the form of funding, specialized staff, or dedicated material resources such as land.

In addition to the above criteria, ultimate selection of case study sites was based on several factors. These included an institution’s willingness to participate in research, consideration of information gathered from conversations with professionals in the fields of public horticulture and sustainable agriculture, and review of relevant literature. Two case study sites were identified on the basis of their institutions’ participation in Survey 1. Three of the four case study institutions hold institutional memberships in APGA; the fourth was selected on the basis of the long-term success and exemplary implementation of its CSA program.

Of the four case study sites selected (Table 3), two represented institutions with long-standing CSA programs, and two were currently planning for implementation of new CSA projects.
Table 3  Case study sites, parent institutions, locations, and case study classifications.

<table>
<thead>
<tr>
<th>Case Study Site</th>
<th>Parent Institution</th>
<th>Location</th>
<th>Case Study Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cal Poly CSA</td>
<td>California Polytechnic State University</td>
<td>San Luis Obispo, CA</td>
<td>Long-standing CSA</td>
</tr>
<tr>
<td>Hampshire College CSA</td>
<td>Hampshire College</td>
<td>Amherst, MA</td>
<td>Long-standing CSA</td>
</tr>
<tr>
<td>Chatfield CSA</td>
<td>Denver Botanic Gardens</td>
<td>Denver, CO</td>
<td>Newly-established CSA</td>
</tr>
<tr>
<td>Coverdale CSA</td>
<td>Delaware Nature Society</td>
<td>Hockessin, DE</td>
<td>Newly-established CSA</td>
</tr>
</tbody>
</table>

Case Study Data Collection Procedures

A case study protocol (Appendix E1) was developed to guide the researcher in further focusing of research questions, as well as collection of case study data. This protocol was modeled on the basis of Yin’s (2009) recommendations, and enumerated the theoretical framework and overall research questions guiding the researcher’s investigation, established data collection procedures, and listed case study questions. The case study questions included in this protocol were directed toward the researcher; they were later used to develop a series of interview questions (Appendix E2), which were directed toward individual participants and formed the basis of the researcher’s conversations with all interviewees.

Interview questions were organized into several categories, each of which addressed a specific aspect of CSA implementation at the case study site. These categories were as follows: 1) institutional background, 2) CSA operations, 3) CSA-
related educational and recreational programming, 4) institutional benefits, and 5) institutional challenges.

Following initial contact with a case study site, interview questions and an informed consent form (Appendix E3) were sent electronically to participants. Prior to participation, all interviewees were offered an explanation of the research and their institution’s role as a case study site, and were asked to sign the informed consent form, either manually or electronically. Consent forms stipulated that interviews would be audio-recorded by the researcher, and that unless participants specified otherwise, direct quotations and both individual and institutional names could be referenced in final research documents. All interviewee requests to omit such information were honored by the researcher. No individuals were interviewed without having first signed an informed consent form.

Semi-structured interviews were conducted either in person or over the telephone, and were digitally audio-recorded for later transcription and analysis. All telephone interviews were conducted individually; in-person interviews were conducted both individually and in groups. While the interview questions distributed to participants served as the basis for all semi-structured interviews, discussions were permitted to range freely between topics, and participants were encouraged to expand upon their answers. Interviews ranged from approximately 25 minutes to 2 hours in length.

In addition to interviews, case study data was collected from institutional documents such as CSA program plans, budgets, grant applications, and promotional materials.
**Expert Interviews**

Semi-structured interviews were also conducted with professionals from within the field of sustainable agriculture, and provided additional context for the case study and survey data. Interviewee selection was based on association with a leading professional organization, as well as on expertise in sustainable agriculture, CSA programming, and CSA implementation by parent organizations. Kim Niewolny, Transitional Steering Council Member and primary public information contact for the Sustainable Agriculture Education Association; and Marilyn Anthony, Southeast Regional Director of the Pennsylvania Association for Sustainable Agriculture, served as expert interviewees for this research.

Interview questions (Appendix F1) and an informed consent form (Appendix F2) were developed for use in the expert interviews and were adapted from those used for case study interviews; data collection procedures for expert interviews were identical to those used for case study interviews.
Chapter 4

RESULTS

Survey 1: APGA Institutional Membership Survey

This survey was distributed to 494 institutional members of the APGA, and was active for a two-month period between May and July 2009. There were 159 responses, representing a 33% response rate. The reader is referred to Table 1 for a categorization of all survey question types, and to Appendix B3 for a full survey text. Full survey responses are provided in Appendix B4.

Prior to statistical analysis, all survey responses were reviewed for completeness. Responses were judged incomplete and removed from analysis if they included a total of zero answers to questions in the following survey categories: educational offerings related to sustainable agriculture and associated topics, on-site CSA programming, off-site CSA programming, rationale for lack of CSA programming, and opinions regarding CSA implementation guidelines. Nine responses met this criterion and were removed from analysis.

All responses were also reviewed for accuracy prior to statistical analysis. Responses were judged inaccurate if respondent comments regarding institutional CSA programming were refuted by follow-up research, which was conducted via email inquiries, telephone calls, and literature review. Three responses were subsequently judged inaccurate and were removed from analysis. All three
respondents had reported that their institution operated an on-site CSA; however, further research revealed that this was not the case.

Two additional survey responses were judged inaccurate, but were subsequently recoded to correct inaccuracies and were included in analysis. Both respondents reported that their institution operated an on-site CSA, but subsequent research determined that both actually operated off-site CSAs.

Following these reviews for completeness and accuracy, data from 147 respondents, or 29.8% of the survey population, remained available for statistical analysis. The margin of error for the survey was calculated at ±6.78 percentage points, with a set confidence level of 95%. This margin of error was calculated using the standard formula for determining margin of error of the proportion for finite populations (Berenson, Levine, and Krehbiel, 2008).

Institutional background information was collected from survey respondents in survey questions 1 and 2. Among respondent institutions, “botanical garden” was the most common institutional category (46.3%), while “farm garden” was the least common (2.7%). Figure 1 illustrates the institutional categorizations of all respondent institutions. Respondents to this question were invited to select all applicable institutional categories; therefore, total percentage exceeds 100%.

In question 2, respondents were asked to report their institution’s annual operating budget for Fiscal Year 2008-2009. The budget category “less than $500,000” was selected most frequently (38.7% of respondents), while the budget category “between $500,000 and $1,000,000” was selected least frequently (14.1% of respondents). Figure 2 illustrates institutional budget sizes of all survey respondents.
Figure 3 illustrates all responses to survey question 3, which asked respondents to identify components of their institution’s mission. The most prevalent components of institutional mission were public education (91.8%) and horticultural display (85.0%), while the least prevalent components of institutional mission were agricultural education (18.4%) and horticultural therapy (10.9%). Respondents to this question were invited to select all applicable mission components; therefore, total percentage exceeds 100%.

Survey question 4 inquired about the relevance of environmental sustainability to institutional mission: 67.1% of respondents reported the topic to be “very relevant,” while only 0.7% rated it “very irrelevant.” Figure 4 illustrates full responses to this survey question.

In survey question 5, respondents were asked about the relevance of agricultural sustainability to institutional mission. “Somewhat relevant” was the most common response (35.5%), while “very irrelevant” was the least common response (7.8%). Full responses to this question are provided in Figure 5.

Respondents were asked in survey question 6 to report topic areas within which their institutions offered educational programming. “Home vegetable and fruit gardening” was the most commonly selected response (56.0%), while “farm life” was the least commonly selected (6.0%). Figure 6 illustrates full responses to this question. Respondents were asked to select all topic areas within which their institution offered educational programming; hence, total percentage exceeds 100%.

Survey questions 7 through 10 related to on-site CSA programming. When asked whether their institution currently operates an on-site CSA program, one
respondent (0.7%) answered “yes,” while all remaining respondents (99.3%) answered “no” (Figure 7). This respondent reported that their institution had been operating a CSA program for 20 years, and characterized the program as very successful. When asked to identify factors that had contributed to the decision to implement an on-site CSA program, the respondent selected all available options provided in the question (mission-appropriateness, support from institution staff, support from institution administration, support from institution membership, interest among general public, desire to broaden educational offerings, desire to attract members, desire to engage with the community, availability of land on-site, availability of financial resources, availability of staff resources, and potential for program revenue).

In survey questions 11 through 14, respondents were asked about off-site CSA programming at their institutions: 10% of respondents reported that their institutions currently collaborated with an off-site CSA program, while 90% did not (Figure 8). Among institutions operating off-site CSAs, five years was the most common program age (28.6%), while 10 years was the least common (7.8%). Figure 9 illustrates the program ages of all off-site CSAs operated by respondent institutions.

When asked about the relative success of their institution’s collaboration with an off-site CSA, a majority of respondents with such a program characterized it as “neither successful nor unsuccessful” (53.3%). Only 13.3% of respondents characterized their off-site CSA program as “very successful,” and no respondents characterized their program as “very unsuccessful.” Full responses to this question are illustrated in Figure 10.
Question 14 asked respondents to identify factors that played a key role in the institutional decision to collaborate with an off-site CSA. “Mission-appropriateness” was the most commonly cited factor (85.7%), while “availability of financial resources” was the least commonly cited factor (7.1%). Figure 11 illustrates all responses to this question. As respondents could select all factors that applied, the total percentage exceeds 100%.

Survey question 15 inquired about factors contributing to the decision not to implement CSA programming. “Unrelatedness to mission” was the most common factor (57.1%), while “lack of support from membership” was the least common (4.8%). Full responses to this question are provided in Figure 12. As respondents could select all factors that contributed to institutional decision-making, the total percentage exceeds 100%.

In survey question 16, participants were asked to offer their opinion on those factors important for public horticulture institutions to consider when deciding whether or not to implement CSAs. The full range of participant responses is provided in Figure 13. Among responses, “mission-appropriateness” was selected most frequently (86.4%), while “desire to attract members” (33.6%) and “other” (4.3%) were selected least frequently. Respondents were asked to select all factors important for consideration; therefore, the total percentage is greater than 100%.

Survey questions 17 and 18 related to the development of implementation guidelines for public horticulture institutions wishing to implement CSA projects. 87.2% of respondents thought that implementation guidelines would be helpful for such institutions, while 12.8% did not think they would be helpful (Figure 14). When
asked what areas CSA implementation guidelines should address, respondents cited “budgeting and financial considerations” most frequently (88.9%), and “crop planning” (56.3%) and “other” (10.4%) least frequently. Figure 15 illustrates the full range of responses to this question. As respondents could select all areas they felt guidelines should address, the total percentage exceeds 100%.

Figure 1   Survey 1, Question 1: Institutional categorization of respondent institutions.
Figure 2  Survey 1, Question 2: Fiscal Year 2008-09 institutional budgets among respondent institutions.
Figure 3  **Survey 1, Question 3: Institutional mission components among respondent institutions.**
Figure 4  Survey 1, Question 4: Perceived relevance of environmental sustainability to institutional mission among respondent institutions.
Figure 5  
Survey 1, Question 5: Perceived relevance of agricultural sustainability to institutional mission among respondent institutions.
Figure 6  Survey 1, Question 6: Educational programming by topic area among respondent institutions.
Figure 7 Survey 1, Question 7: On-site CSA program offerings among respondent institutions.
Figure 8  Survey 1, Question 11: Off-site CSA program offerings among respondent institutions.
Figure 9  Survey 1, Question 12: Age of off-site CSA collaborations among respondent institutions.

Figure 10  Survey 1, Question 13: Perceived success of off-site CSA programming among respondent institutions.
Figure 11  Survey 1, Question 14: Factors influencing institutional decision to collaborate with an off-site CSA.
Figure 12  Survey 1, Question 15: Factors influencing institutional decision not to implement CSA programming.
Figure 13   Survey 1, Question 16: Factors cited as important for public horticulture institutions to consider prior to CSA program implementation.
Figure 14  Survey 1, Question 17: Respondent opinions regarding helpfulness of CSA implementation guidelines for public horticulture institutions.
Survey 2: ANCA Online Discussion Group Subscriber Survey

This survey was distributed to 518 individual subscribers to the ANCA online discussion group, and was active for a two-month period from May to July 2009. There were 22 responses, representing a 4.2% response rate.

Of the 22 responses received, only 17 were sufficiently complete to warrant inclusion in survey analysis. This completed sample size was smaller than the minimum necessary to permit statistically-valid conclusions to be drawn from the
data, given a set confidence interval of 95% and a maximum acceptable margin of error of ±10%. This was calculated using the standard formula for determining minimum sample size given a set population, confidence interval, and margin of error (Dillman, Smyth, and Christian, 2009).

Table 1 provides a categorization of all survey question types, and Appendix C3 contains a full survey text. Full survey results are provided in Appendix C4.

**Survey 3: APGA Institutional Membership Follow-Up Survey**

This survey was distributed to 494 institutional members of the APGA, and was active for a three-week period in January 2010: 137 responses were received, representing a 27.7% response rate. Table 2 contains a categorization of survey question types, and Appendix D3 contains the full survey text; full survey results are provided in Appendix D4.

Prior to statistical analysis, all survey responses were reviewed for completeness. Responses were judged incomplete and removed from analysis if the respondent failed to answer two or more questions. Ten responses met this criterion and were therefore removed from analysis. Following this review for completeness, data from 127 respondents (25.7% of the survey population) remained available for statistical analysis. The margin of error for the survey was calculated at ±7.50%, with a set confidence level of 95%. This was calculated using the standard formula for
determining margin of error of the proportion for finite populations (Berenson, Levine, and Krehbiel, 2008).

Survey participants were first presented with the following introductory paragraph defining CSA. This text remained visible when participants were presented the first two survey questions:

Community Supported Agriculture (CSA) is an agricultural model within which consumers form a direct relationship with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year. The shareholder then receives weekly distributions of produce for the duration of the growing season. The following questions relate to CSA projects at public horticulture institutions.

The first survey question ascertained participants’ familiarity with this definition of CSA; 85.5% of respondents reported familiarity with the CSA concept as defined, while 14.5% reported no familiarity with the concept (Figure 16).

In survey question 2, participants were asked whether their institution had ever considered implementing a CSA program. 25.6% of respondents reported that their institution had considered implementation, while 74.4% of respondents reported that their institution had not done so (Figure 17).

Survey question 3 asked what type of CSA program the respondent’s institution had considered implementing, and was only presented to participants answering “yes” to question 2. Partnerships with off-site CSAs were considered most frequently (54.5%). In contrast, 36.4% of respondents had considered implementation of an on-site CSA operated and managed by institution staff, while 24.2% of respondents had considered implementing other CSA-related programs. Full responses
to this question are illustrated in Figure 18. Respondents were asked to select all types of CSA program their institution had considered implementing; therefore, the total percentage is greater than 100%.

**Figure 16**  Survey 3, Question 1: Percentage of respondents familiar with CSA as described in survey introduction.
Figure 17  Survey 3, Question 2: Percentage of respondents whose institution has considered implementation of a CSA project.
Figure 18  Survey 3, Question 3: Type of CSA project considered by respondent institutions.

Case Studies and Expert Interviews

Case Study Sites

The following four CSA programs located at public horticulture institutions were selected for case study analysis; data was collected through personal interviews and document analysis.

Cal Poly CSA, California Polytechnic State University, San Luis Obispo

History and Description

The Cal Poly CSA was established in 2000 as one component of the Cal Poly Organic Farm (CPOF), a student-led farming project in operation since the mid-1980s. Prior to the founding of the CSA, the farm had been independent of Cal Poly’s
academic curriculum. In the late 1990s, however, a Cal Poly student proposed the CSA as part of an academic thesis, and suggested that the program be integrated into the Horticulture and Crop Science Department of the Cal Poly College of Agriculture; currently, the CSA is fully integrated within the curriculum of the Horticulture and Crop Sciences Department. The CSA is located on an 11-acre site, which it shares with the larger Cal Poly Organic Farm.

**Mission**

The mission of the Cal Poly Organic Farm is to provide “educational opportunities in sustainable and local agriculture through an on-campus farm that serves as the center of a thriving network of producers and consumers.” As one component of the farm, the Cal Poly CSA “serves as the main avenue for CPOF produce… and promotes local agriculture and direct farmer-to-consumer relationships” (California Polytechnic University, 2010).

**Funding**

The Cal Poly CSA is funded through a combination of a California Polytechnic University endowment allocation, instructional-related-activity grants awarded by the University, and sales of produce. Wages for student employees are subsidized through Federal Work Study funding.

**Governance and Staffing**
Operations are overseen by one faculty member in the Horticulture and Crop Science Department, who serves as the primary instructor for all CSA-related courses. The CSA has two full-time staff positions, a Farm Manager and a Production Manager, and employs between 15 and 20 part-time student employees, each of whom works between 8 and 15 hours per week.

Share Allocation

The Cal Poly CSA currently has approximately 200 shareholders, but has the capacity to offer 250 shares. Shares are available to the general public, but most shareholders are affiliated in some way with the University. Approximately 50% of shareholders are Cal Poly faculty and staff, while approximately 25% of shareholders are Cal Poly students. Shares are available in both small and large sizes, and harvests are conducted year-round.

Programming

Currently, one academic course is offered through the Cal Poly CSA. This course, the Organic Farming Enterprise Class, is offered on a quarterly basis and is taken by approximately 150 students a year. The CSA also welcomes approximately 1000 casual visitors per year, and hosts field trips for area elementary schools.

Chatfield CSA, Denver Botanic Gardens

History and Description
The Chatfield CSA is a new project of the Denver Botanic Gardens (DBG) and will begin production and distribution of produce during the 2010 growing season. The CSA project was proposed by a DBG employee, who conducted graduate research on Colorado CSAs and then presented her findings to the Gardens’ administration. The CSA is located at the Denver Botanic Gardens at Chatfield, a satellite site approximately 18 miles from the DBG main location in downtown Denver, CO. The Chatfield site includes an historic farm and currently focuses on agricultural education and demonstration; the CSA will be the first on-site program to focus on growing vegetable crops for retail sale. In its inaugural year, the CSA will occupy 1 acre of the Chatfield property; ultimately, however, it is planned to expand to 7 acres of production.

Mission

The mission of the DBG is “to connect people with plants, especially plants from the Rocky Mountain region and similar regions around the world, providing delight and enlightenment to everyone” (Denver Botanic Gardens, 2010). The Chatfield CSA seeks to further the Gardens’ institutional mission by connecting people with plants as food, as well as by educating the public about the history and future of agriculture in the Rocky Mountain region.

Funding

The majority of funding for the Chatfield CSA is currently provided by a three-year Community Health Initiative grant from Kaiser Permanente, a healthcare
organization. Funding for some staff is being provided by DBG, and revenue from share sales is anticipated to provide an additional income stream. Following the expiration of the Kaiser Permanente grant, the CSA program will be funded by the DBG and revenue from produce sales.

**Governance and Staffing**

The Director of the DBG at Chatfield has oversight responsibility for the CSA. In its first year, the Chatfield CSA will have one full-time dedicated staff member, the CSA Produce Grower. A second seasonal staff member will also be employed. In addition, the Horticultural Manager of the DBG at Chatfield will serve as CSA Coordinator. In the second year of operations, a Community Coordinator will be hired and an internship program will be established.

**Share Allocation**

In its first year of operation, the Chatfield CSA will offer between 50 and 60 shares, in both small and large sizes. Sixty-five percent of these shares will be available for public purchase, 30% of shares will be set aside for purchase by Kaiser Permanente, and 5% will be available at no charge to low-income families. By year four, the CSA plans to offer approximately 200 shares.

**Programming**

The Chatfield CSA will offer a wide range of educational and community outreach programs, in collaboration with both Kaiser Permanente and the DBG.
flagship location in downtown Denver. These offerings will include classes on nutrition, vegetable gardening, and urban homesteading for audiences of all ages. A farmer training program is also planned for the future.

**Coverdale CSA, Delaware Nature Society**

*History and Description*

The Coverdale CSA is a new project of the Delaware Nature Society (DNS), and will begin production and distribution of produce during the 2010 growing season. The DNS Farm Education Manager first proposed the CSA to the organization’s Executive Director in the mid-2000s; Board and staff subsequently endorsed the project. The Coverdale CSA is located on the Coverdale Farm at Burrows Run Preserve, a satellite site approximately 2 miles from the DNS headquarters at the Ashland Nature Center in Hockessin, DE. The Coverdale Farm complex occupies approximately half of the 352 acres encompassed by the Burrows Run Preserve, and serves as an agricultural education and demonstration site. The Coverdale CSA occupies approximately 5 acres of land within the Coverdale Farm complex.

*Mission*

The mission of the DNS is “to foster understanding, appreciation, and enjoyment of the natural world through education; to preserve ecologically significant areas; and to advocate stewardship and conservation of natural resources” (Delaware Nature Society, 2009). The Coverdale CSA will educate the public about sustainable
agriculture, embody the Society’s ideals of natural resource stewardship, and continue the agricultural legacy of historic Coverdale Farm.

**Funding**

The Coverdale CSA is currently fully funded by the DNS; revenue from a recent capital campaign provided funding for necessary infrastructure development. Revenue from produce sales and educational programs is expected to provide 100% of program funding by the fifth year of CSA operations.

**Governance and Staffing**

The Coverdale CSA is overseen by the Coverdale Farm Steward, who reports to the DNS Associate Director for Land and Biodiversity Management. One full-time Farmer will oversee crop production and manage CSA sales, and will report to the Coverdale Farm Steward. Between one and three seasonal laborers will be hired to assist the Farmer. The Delaware Nature Society’s Education department will develop and implement all educational programs offered through the CSA. Farm-related policy will be determined by the Farm Committee, a six-member committee of the DNS Board of Directors whose members include organization staff, volunteers, and other stakeholders.

**Share Allocation**

Shares in the Coverdale CSA will be available to DNS members only. In the program’s inaugural year, 40 full shares and 20 half shares will be offered. By the
program’s fifth year of operation, 140 full shares and 80 half shares will be available for purchase.

**Programming**

As a benefit of CSA membership, the Delaware Nature Society plans to offer a series of free courses and workshops, including cooking classes and CSA walking tours. Additional classes will be offered to non-members for a fee. A CSA internship program will be established in the program’s second year.

**Hampshire College CSA, Hampshire College**

**History and Description**

The Hampshire College CSA was founded in 1992 on the grounds of the Hampshire College Farm Center, which was itself established soon after the College opened in 1970. In the early 1990s, two Hampshire College students researched CSA initiation at other colleges and universities, and presented their findings to College faculty and administration; this research provided the impetus for establishment of the CSA. Currently, 15 acres of land at the Hampshire College Farm Center are devoted to CSA vegetable production. The CSA is integrated within Hampshire College’s academic and student employment programs.

**Mission**

The Hampshire College CSA “provides a model of farming, directly linking consumers to farmers” (Hampshire College, 2010). In addition, it supports
Hampshire College’s educational mission by offering opportunities for academic research and student employment, and by embodying the ethic of sustainability that pervades all of Hampshire’s operations.

*Funding*

Produce sales provide the majority of funding for the Hampshire College CSA; Hampshire College provides funding for staff salary and benefits, while Federal Work Study funding subsidizes student employee wages. Small grants have provided additional funding for equipment purchases and temporary labor.

*Governance and Staffing*

Until the late 2000s, the Hampshire College Treasurer’s Office provided oversight for the CSA, as it did for all of the College’s auxiliary programs. However, responsibility for the CSA was recently transferred to the School of Natural Science. The CSA employs one full-time staff member, the CSA Farm Manager, who reports to the Dean of the School of Natural Science. Forty part-time work study students are also employed. In addition, the CSA operates a summer internship program, which employs four students from June through August each year. Grants have funded a temporary Assistant Manager, whose position extends for the duration of the fall growing season.

The Hampshire College Farm Policy Committee is the CSA’s governing body; it is chaired by the Dean of the School of Natural Science and includes faculty from this school, as well as from the Schools of Cognitive Science and Social Science.
The CSA Farm Manager and the manager of the Farm Center’s non-CSA-related operations also sit on the committee, as do student body representatives.

Share Allocation

Shares in the Hampshire College CSA are available to all members of the Five College Consortium, a group of higher education institutions located in the Amherst, MA area and comprised of Amherst College, Hampshire College, Mount Holyoke College, Smith College, and the University of Massachusetts Amherst. Most shares are purchased by Hampshire College students, faculty, and staff.

At its inception in 1992, the CSA offered 30 shares; 210 shares are available today. Originally, produce was harvested for distribution between June and October. In an effort to align harvests with the academic calendar, however, the CSA harvest season was shifted to September through December.

Programming

Faculty from the Schools of Natural Science, Cognitive Science, and Social Science frequently incorporate the CSA into their course offerings, utilizing the farm as a field study site or offering students the opportunity to conduct individualized research there. The School of Humanities, Arts, and Cultural Studies occasionally uses of the CSA in course offerings, as does the Lemelson Center, an interdisciplinary applied design center operated by the College. The CSA Farm Manager is co-instructor for some academic courses and provides mentorship for student researchers. In addition, faculty at other institutions in the Five College Consortium utilize the
CSA as a field trip location. A summer internship program provides employment and experiential learning opportunities for four students each summer.

Educational opportunities for children are provided by The Farm Education Collaborative, an independent non-profit organization that operates a farm-based summer camp as well as programs for toddlers and home-school students.

**Case Study and Expert Interview Themes**

Analysis of case study and expert interviews revealed 65 individual themes, which were further organized into 13 major thematic categories (Table 4):

1. Planning
2. Mission
3. Funding
4. Governance and Staffing
5. Share Allocation
6. Promotion
7. Educational Programming
8. Shareholder Experience
9. Challenges to Implementation
10. Benefits of Implementation
11. The Sustainable Agriculture Movement
12. Elements of Success
13. Partnerships with Parent Organizations

**Category 1: Planning**
This category contained themes addressing CSA program history and inception, the program planning process, and strategic decisions that influenced project trajectory.

Program history and inception
• We had a couple students who were really… interested in starting a CSA here at Hampshire College and that was in the early ’90s, ’91 or ’92 if I remember exactly. They wrote questionnaires and polled people [to find out] how many people would be interested, and there was a lot of interest so we actually started doing it. (Brian Schultz, Hampshire College CSA)

Gaining support from parent institution
• I put together a portfolio and presentation for the CEO of the Denver Botanic Gardens and the director of Chatfield, and just said, “Hey, this is a great opportunity. The demand is there, we have the resources, maybe we should look into this.” And they were totally on board. (Leigh Rovegno, Chatfield CSA)

Pre-implementation research
• We’ve had several meetings over the years with constituents, so to speak, whether they be local farmers, people from the state Department of Agriculture, retail merchants, or other influential people… We’ve also brought people in to advise us. And then early on, we visited CSAs physically. (Jim White, Coverdale CSA)

Land allocation
• Topography was our first criterion, because the land is so rolling here. To find an area that’s reasonably flat is really tough. We decided early on that we needed at least 5 acres for the CSA operation. It had to be near the operations center… because we didn’t want a lot of product movement. The other thing we looked at was the organic operation, because we want the CSA to be organic. We have about 12 acres of cropland that we already operate organically so that was part of the choice. Nearness to utilities [and] location of roadways was also a big thing. So we
looked at a lot of things and arrived at the conclusion that this site was the best at meeting all of the criteria we had set. (Jim Wolfer, Coverdale CSA)

**Gearing up in first years**
- We're starting with one acre of land this year, just to get a feel for things, and then next year we'll grow to five acres, and then plan on seven acres by the third year. (Leigh Rovegno, Chatfield CSA)

**Category 2: Mission**

This category is comprised of themes relating to various aspects of mission, including overall tenets of program mission as well as specific mission components.

**Resonance with mission of parent institution**
- You would have to have a philosophy statement that answers the questions, “How do we proceed with sustainability in this project? Is it going to be an add-on or is it going to be part of the overall mission [of the organization]?” (Kim Niewolny, Sustainable Agriculture Education Association)
- The farm has always been seen as integral to the educational mission of Hampshire College. So the farm is not a free-standing farm. It was never meant to be self-supporting. It was meant to be integrated into all of the schools [that comprise Hampshire College]. (Chris Jarvis, Hampshire College CSA)
- Denver Botanic Gardens’ overall mission simplified is basically just connecting people with plants… our mission for the CSA is furthering that mission by connecting people with their food. (Leigh Rovegno, Chatfield CSA)
- The only difference between the natural environment and a farm is the human being in the middle who’s culturing it… It’s a perfect fit for our mission. There’s absolutely no separation with the roots of the organization and its mission steeped in the natural world, to the evolution of including a farm. (Michele Wales, Coverdale CSA)
• We're having to ask ourselves not just about [the CSA’s] educational mission in general, but also about how this fits with the educational mission of the [Cal Poly] campus. (David Headrick, Cal Poly CSA)

Modeling sustainable practice
• The CSA allows us to demonstrate a food system, a very local food system, and ultimately one that’s closed, in that we are going from soil back to soil, and not needing much off-the-farm input for anything. (Michele Wales, Coverdale CSA)

• This program's mission is to educate organic and sustainable agricultural practices to Cal Poly students. (Cindy Douglas, Cal Poly CSA)

Supporting local agriculture
• Communities can benefit from having local food and they do benefit from having local food, so it's making that connection, being very public to people. (Kim Niewolny, Sustainable Agriculture Education Association)

Public education
• Not only are we educating how to farm, but we're educating consumers how to purchase. So if you're young and you've never heard of a CSA or local food and you work a day on the farm, wow, your whole world's been opened to a whole new perspective of what you eat, where it comes from, when it can be grown. So it's not only that we're teaching farming techniques, but we're teaching people how to think about where their food comes from. (Cindy Douglas, Cal Poly CSA)

• I describe this as training eaters. Students come here and they have a CSA experience, or they have an experience growing food, and they realize how hard it is. And when they go out into the world they take that experience with them, and will be more apt to support local farmers. So in that way it’s teaching people that there’s a different way of producing food than what we’ve done in this country for the past 50 or 60 years. (Nancy Hanson, Hampshire College CSA)
• It's just another way of teaching about environmental education. What's more basic than teaching kids where their food and fiber comes from and the natural resources you need to do that? (Mike Riska, Coverdale CSA)

Building community
• It opens up just a world of new potential ways of getting involved in the community and being a whole different kind of resource for Denver, and I think that's just really exciting for everybody. (Leigh Rovegno, Chatfield CSA)

• It's a way of building a diverse community around food - fruit and vegetables. (Marilyn Anthony, Pennsylvania Association for Sustainable Agriculture)

Embodying agricultural heritage
• As far as Chatfield goes, our mission [relates to] preserving the agricultural part of our history, and a big part of who we are is representing the agricultural past. So that obviously is hugely relevant to what we would be doing at the CSA. (Leigh Rovegno, Chatfield CSA)

Category 3: Funding

This category contains themes related to funding structures and strategies employed by case study programs.

Financial support from parent institution
• Five years ago the Delaware Nature Society had a campaign that ended up getting $7.8 million. $600,000 was for the Coverdale CSA, so there was money for equipment and the facility. (Mike Riska, Coverdale CSA)

• [Cal Poly] allows us to apply for endowment money so we did get some, about $34,000 of endowment money via the department, and that went directly for help with my salary. (Cindy Douglas, Cal Poly CSA)
Revenue from produce sales

- I created a budget for the first three years of operation and … estimated the money we would be getting in from selling the shares, so that would be fed in as well to absorb the initial costs. (Leigh Rovegno, Chatfield CSA)

- The CSA is responsible for a lot of the farm’s income. (Chris Jarvis, Hampshire College CSA)

Grant-based support

- We have been able to tap into our college's granting system. They have something called an instructional related activity grant. So usually we'll get through the summer with help from the college system. I apply for the whole farm, and usually we get about $10,000. (Cindy Douglas, Cal Poly CSA)

- [Our grant from Kaiser Permanente] covers everything for the first three years minus some of the work that we would be providing here on site. Payroll will be covered by the grant. The second year, staffing positions will be funded three-quarters by the grant, and Denver Botanic Gardens will cover one quarter. The third year, Denver Botanic Gardens will cover half, and then the fourth year we’ll be on our own. So we're kind of weaning ourselves into it as we build it, taking more of the financial responsibility. (Leigh Rovegno, Chatfield CSA)

Should the program generate a profit?

- I really don't know what it would take to make the CSA profitable. And I think that it's surprising that it's not profitable when you consider that the land and the water and the equipment and everything is all provided… It makes a lot of money but it loses a lot of money and my biggest concern and really the biggest part of my job for the next few months is to figure out why. (David Headrick, Cal Poly CSA)

- The anticipation is not that we’re going to generate hundreds of thousands of dollars, or even thousands and thousands of dollars, above expenses. There’s never ever, ever been the design or plan we were going to generate money. (Jim Wolfer, Coverdale CSA)
Category 4: Governance and Staffing

This category includes themes focused on governance of, and staffing for, CSA programs. Remarks related to such topics as policy-setting, the need for designated program staff, and the inclusion of volunteers, interns, and seasonal employees within staffing plans.

Governance by parent institution

- Our governing body is the Farm Policy Committee. It's generally [comprised of] the two farmers and some student representatives, and then the Dean of Natural Science, and faculty that are interested in the farm. In general, we as farmers use them as allies. They help us manage getting through the institution and keeping the program alive and integrating the program into the academic portion of the school, and so that's really where the farm policy committee has evolved. (Nancy Hanson, Hampshire College CSA)

- The Coverdale Farm Committee is a committee of the Board. And we tried to put on [the committee] people who are very interested in the CSA and its success… We’ve tried to really create a committee that’s made up of people who want this thing to go, who have been involved in the planning from the beginning, and who understand what the goals of the CSA are. (Jim Wolfer, Coverdale CSA)

Core program staff

- We’re hiring a full time CSA produce grower... and then of course the CSA coordinator, which is the position I would most likely be taking as well as [retaining my position as] the horticultural manager, so I'll still be in charge of all of the gardens on site… The second year we will be hiring a community coordinator, so that person will be really be involved with developing the community around the CSA (Leigh Rovegno, Chatfield CSA)

- What we've got is not just the farm manager, which is Cindy Douglas, but we also have a production manager, which is Jerry Mahoney, and then we have a variety of other people are working,
sometimes part time, sometimes full time. (David Headrick, Cal Poly CSA)

*Seasonal employees*

- I have an assistant in the fall. And that’s only because I’m teaching a class and I have a grant to cover that position. (Nancy Hanson, Hampshire College CSA)

- Our anticipation is that we will have a seasonal person in addition to the manager in the first year. And then since we’re going to expand fairly quickly year by year, that labor force of seasonals would increase year by year based upon how many contracts we have. (Jim Wolfer, Coverdale CSA)

*Interns*

- We’re definitely going to have an internship program. Actually, we do have an overall internship program that the Denver Botanic Gardens run and I may be getting an intern next year through that overall program… I think that's a really great resource for people that are just looking to get experience… the goal is to create a position just for the CSA. (Leigh Rovegno, Chatfield CSA)

- In the summer time I have slots for 4 summer interns, which are paid a stipend of about $4000 for the summer. So I have 4 students in the summer and we do all the growing. (Nancy Hanson, Hampshire College CSA)

*Student employees*

- We have fifteen to twenty [student employees]. But remember they're all working eight to fifteen hours a week because they have school. So it's a lot of management. A big value of the farm is that the students run it. For example, harvest supervisor is always a student. We have an assistant to the production supervisor that's a student. We have a head gardener that's a student. That's the whole point, really. Also our outreach coordinator is a student, so the person who's taking our booth to local events and going to campus events is a student as well. (Cindy Douglas, Cal Poly CSA)

- On the 1st of September… I start off harvesting with work-study students. And I have probably 40 kids on my work-study list. (Nancy Hanson, Hampshire College CSA)
Volunteers

- We have pretty specific goals for volunteer involvement. I've got a core group of 30 volunteers or so who help with our existing adult programs and I know that they're going to be absolutely necessary for doing [educational] programs at Chatfield … we are going to have to find a way to provide support for programs in terms of access to classroom space, setting up AV equipment, taking registrations at the door, that kind of thing. We'll probably be relying pretty heavily on volunteers to help make that possible. (Celia Curtis, Chatfield CSA)

- We do have some volunteers. I just hand them the harvest schedule and say, “Show up.” It’s usually students. There is a community service requirement for students in their Division II, and some of them use work on the farm to fulfill that. We also have a staff service day where staff members come out and help on the farm for a day. (Nancy Hanson, Hampshire College CSA)

- The thing we have to be extremely careful of in volunteers is that we’re not paying volunteers with product. Because that could eat us alive from a dollars standpoint. Volunteer to me means that you volunteer, it doesn’t mean that you get anything in return, other than the satisfaction of volunteering… We have a volunteer coordinator within the organization, and we certainly would accept volunteers to come work on the CSA, but we have to understand that that’s not an exchange for produce to go out of there. (Jim Wolfer, Coverdale CSA)

Category 5: Share Allocation

This category includes interviewee comments related to plans for allocating CSA shares, including plans to make shares available to the public and plans to restrict shares to members of a parent institution. Remarks also addressed the number and size of shares on offer.

Open to the public
• Our CSA shareholders are people who want to support the education of sustainable and organic farming at Cal Poly… The vast majority I'd say are community members, not students. We have maybe 50 students out of our 200 members, and about 150 community members, many of which are faculty and staff at Cal Poly. [Membership] is open to anyone. (Cindy Douglas, Cal Poly CSA)

• We want to reach a broad audience. We're not just creating this to serve an elite population. (Leigh Rovegno, Chatfield CSA)

*Restricted to members of parent institution*

• Since it's only ever going to be available to our members either a person has to be a member [of the Delaware Nature Society] or they're going to have to join to get into it. (Jim Wolfer, Coverdale CSA)

• There are more people who want shares in this valley, still, than there are shares available. So we would never be drawing people away from other CSAs, but we don’t want people to even think that we might be. So we keep our shares confined to members of the five-college community. (Nancy Hanson, Hampshire College CSA)

*Reserved for special groups or partners*

• Five percent of shares annually are going to be donated to lower income families. And then Kaiser [Permanente] requested 30% of shares be given to them… so 35% of the shares will already be spoken for upon releasing membership opportunities to the public. (Leigh Rovegno, Chatfield CSA)

• We’re looking at some interesting ways of selling shares… The YMCA was actually interested in buying shares. So I think one of the things we need to explore as a staff is unique ways of selling shares. Maybe shares are sold to entities like the Brandywine YMCA, so those children come to Coverdale certain times throughout the year and they benefit from those shares that were purchased. There’s opportunity for organizations to partner with us using the shares to do some nutrition-based programming, some hands-on activity programming. (Michele Wales, Coverdale CSA)
• The student cafeteria, which is run by Sodexho, buys shares. Students demanded that and so they do pick up shares… and that food is integrated into the food that they serve. (Christopher Jarvis, Hampshire College CSA)

Working shares
• We are going to do working shares too where people can work [a certain number of hours a month] to get a discount on their shares. (Leigh Rovegno, Chatfield CSA)

Number and size of shares
• We have around 200 members currently… And we've got two sizes, a small would be $20 per week and a large is $26.50, and we ask for a 12-week commitment. (Cindy Douglas, Cal Poly CSA)

• We’ve been able to steadily grow. In 1999… we started at 125 shares at $150 a share, and now we’re at 210 shares at $300 a share. And I could sell more but I’m at the capacity I can handle as a single manager, and handle it at a level of quality that I think is important, and the level of student involvement that I think is important. (Nancy Hanson, Hampshire College CSA)

• In total we will be supplying food for about 60 households during our first season… and that will be full, half, and quarter shares. I found with talking to other people that a full share really isn't as popular as the smaller shares, and actually we can get a better return financially by doing the smaller shares, and reach more people. (Leigh Rovegno, Chatfield CSA)

• In 2010 we’re going to have 40 to 50 shares. And we hope in 2011 to pretty much double our membership in the CSA, when we go to 80 or 90 shares… We would like to think that by this time or nearly so in 2011 we would have our 80 to 100 members already in hand. So my thought is that the first three years we need to be moving forward into the 100-plus category, but from that point forward, we’ll base [membership] on the demand of the people wanting to be in it. That’s what’s going to drive it. (Jim Wolfer, Coverdale CSA)

Category 6: Promotion
This category contains themes related to advertising and promotion of CSA programs, and addresses such methods as use of parent institution resources, targeted advertising, and word of mouth.

**Word of mouth**
- Word of mouth, you know, that's probably the best--and that's what all these CSA farmers told me. They didn't use any marketing tools other than word of mouth and the Internet. And they're way oversold on their memberships. (Leigh Rovegno, Chatfield CSA)

- There's a lot of interest in what's going on… This has been planned for two or three years, and I'm talking about it in house, so people want to be involved in it and are kind of getting antsy now. (Jim Wolfer, Coverdale CSA)

**Targeted advertising**
- Promotion is done mostly via email with past membership lists. Any time we go to an event we collect emails so I'm sending a lot of email blasts. We're going to local foodie, green events. I speak at a lot of classes. I host classes for tours of the farm. We've reached out to local elementary schools and put things in their newsletters. We also advertise in local papers. (Cindy Douglas, Cal Poly CSA)

- That’s how the shares are sold – we just stick up posters on campus the last couple days of the summer. I send my kids out and they stick a brochure for the CSA on every door of every Mod [on-campus apartment], and that’s it. (Nancy Hanson, Hampshire College CSA)

**Use of parent institution’s resources**
- Even, I think potentially this year, there might be a couple of Delaware Nature Society programs dealing with the CSA open to the membership because we have to look ahead… And so we’d like to kind of groom those people who might want to join up [in future years]. (Jim Wolfer, Coverdale CSA)

**Category 7: Educational Programming**

80
This category contains themes that relate to the wide variety of educational programming offered in conjunction with CSA enterprises.

**Importance of education to program mission**
- People ask “What do you do here?” and I say that our main product is education. And everything else is done for that. (Michele Wales, Coverdale CSA)

**Shareholder newsletters**
- We're talking about [a CSA newsletter]. It'll either be bi-weekly or weekly, and it'll have what you're getting in your share, the usual little bit about it, recipe ideas, maybe things that are going on in the fields as far as pest pressure, anything like that. (Jim Wolfer, Coverdale CSA)
- I think [a CSA newsletter] is sort of mandatory…. to keep members abreast of what's going on and offer them as little or as much involvement and the opportunity for involvement as they may require or be interested in. (Leigh Rovegno, Chatfield CSA)

**Share pickup as educational experience**
- We will be doing that quote-unquote “shopping style” of pickup, which I think is a brilliant form of education in and of itself, just to learn how to select food. (Michele Wales, Coverdale CSA)

**Classes and workshops**
- When you look at the research, a lot of CSAs lose their members because they don’t know what to do with collards, they don’t know what to do with the greens that you get - they don’t necessarily find it valuable to be a member because they’re letting things go to waste. So basically what we’re looking at now is designing a “What to do with a rutabaga” program, which will actually be weekly or biweekly cooking classes. (Michele Wales, Coverdale CSA)
- We've had quite a few classes at Chatfield just teaching people how to grow small space vegetable gardens, how to do sustainable organic growing, what kinds of plants work well in our climate, how to preserve food, how to start things from seed. All the
different sort of components of sustainable home gardening or vegetable gardening that could basically, ultimately tie into the CSA program. (Leigh Rovegno, Chatfield CSA)

- We're actually going to work with registered nutritionists to create recipes and programs that are very specifically geared to your physical and mental health. (Celia Curtis, Chatfield CSA)

**Linking educational offerings to academic curriculum**

- There is one course that's called the Organic Farming Enterprise Class that uses the farm as its stage, and that was one student's project, making sure that course got incorporated into the Horticulture and Crop Science department. And it's because of that one course that we have a faculty member and we really have a place here at Cal Poly. It's very popular… it ranges from about 100 to 150 students that take the course every year. (Cindy Douglas, Cal Poly CSA)

- I've had many, many students conduct research and work very closely with Nancy [Hanson, CSA Farm Manager], testing out best practices using those CSA plots. To ask applied questions rather than purely academic questions about plant growth and health or soil sustainability, we want to integrate a lot of questions into actual production within the CSA context. And then I teach a variety of courses in soil microbiology that make use of the CSA plots as our test sites. We test those soils for fertility and a variety of soil properties. So it's tied in pretty well with a number of my classes. (Jason Tor, Hampshire College CSA)

- It's a place where students go with their classes. Not just natural science classes but courses in social sciences and the arts as well. (Chris Jarvis, Hampshire College CSA)

**Group visits**

- We have almost 1,000 visitors every year. And we have probably two to three elementary school groups come through and visit. (David Headrick, Cal Poly CSA)

- The Delaware Nature Society looks at all ages, so Michele [Wales, Farm Educator] will be thinking adults, families, children, so that
everyone from young to seasoned in age will have the opportunity to learn. (Helen Fischel, Coverdale CSA)

**Education of interns, volunteers, and seasonal employees**

- We can continue to nurture or help construct new skill sets for [the intern], which makes them definitely more appealing to future employers, and a real benefit to other developing farm-based education sites. (Michele Wales, Coverdale CSA)

- The goal is to create an internship position just for the CSA so that kids can learn, get some experience under their belt and figure out, “Is this something I really want to do, something I want to try and start myself?” Optimally I would sit down with the intern and say, “This is what I think would really benefit the CSA the most on a greater level.” (Leigh Rovegno, Chatfield CSA)

**Long-term training programs**

- We have a program [at Denver Botanic Gardens] called the Urban Homestead series, and it includes backyard beekeeping, aquaponics, grapevine pruning, canning, and all kinds of really hands-on, sustainable urban homestead-type topics. We’d like to take that to the next level and create a training program for people who want to get into starting their own CSA or neighborhood supported agriculture program or small scale farm. So all the different skills they would need, maybe business classes, things like that to help them, to help create more local farmers… There isn't really a comprehensive training program like that in the area. But we'd like to create a curriculum that's geared towards people who are looking at this as a second career or need a place to get some experience. We do have two certificate programs already so I think we wouldn't be afraid to try to create something that's that rigorous. (Celia Curtis, Chatfield CSA)

**Category 8: Shareholder Experience**

This category contains themes related to shareholders’ personal experience of CSA membership. Remarks included personal reflections on membership, as well as program goals for optimizing the shareholder experience.
Quality of produce

- I like the idea of having food that's not from the dining hall… The fact that you would be able to cook for yourself with vegetables that are straight from down the road - not many people have that opportunity, especially at college… it's just an awesome opportunity. (Maya Cramer, Hampshire College CSA)

- It's been great for my kids and they look forward to me coming home on Tuesdays with the food. I had them out picking green beans in August and they had a great time and it was a lot of fun. (Jason Tor, Hampshire College CSA)

Opportunity for involvement in farming enterprise

- I really like the combination of working and then eating what I've worked for too. (Male interviewee, Hampshire College CSA)

- I think being a shareholder really helped me want to be more involved. (Female interviewee, Hampshire College CSA)

- They're going to be coming out every single week, so they're going to get some familiarity with the farm and they'll feel really comfortable here. They’ll feel like they want to be here. (Daniel Malcolm, Coverdale CSA)

Community-building aspects of membership

- In the end we have to develop that core group of people that are connected and do love their farm. You really have to do that. (Leigh Rovegno, Chatfield CSA)

- We have a lot of people invested in the farm in a way that they wouldn’t otherwise be. So they have this sense of ownership, “This is my farm, this is my farm share,” that they wouldn’t have if this wasn’t a CSA… The whole student body owns the farm, and the faculty, for the most part, feel like they own the farm. (Nancy Hanson, Hampshire College CSA)

- People come to the CSA not just for food, they come for that experience of having some sort of connection. (Nancy Hanson, Hampshire College CSA)
• The CSA is great, you know. I go on Tuesdays and it's not unusual for me to see my colleagues from social sciences and from different schools who, the only other time I'll likely see these folks is at a big faculty meeting. And it's really nice to run into some of my colleagues. Me, I tend to linger but it's a nice, different way to meet up with faculty. (Jason Tor, Hampshire College CSA)

**Educational aspects of membership**

• I'm from the suburbs of New Jersey, and before [I became involved with the CSA] I had a really strange idea of what agriculture was. My experience with farms was, like, apple picking or like pumpkin picking. So I start waking up my first year [at Hampshire College] and for two weeks I'm coming down to the farm and I'm doing these things that I've never done before. My romantic notions of what it is to be picking vegetables were completely shattered. (Female interviewee, Hampshire College CSA)

• I think our membership doesn’t have a really good comprehension of what a CSA is, and that is that you bear the losses also. And so there may not be perfect sweet corn every year because of the weather situation or the insect situation… and this is something we have to educate the CSA membership about, about the fact that the world is not perfect at the Coverdale Farm. It’s tougher than they think. (Jim Wolfer, Coverdale CSA)

**Category 9: Challenges to Implementation**

This category includes themes related to challenges experienced over the course of CSA program implementation.

**Securing support from parent institution and administration**

• I think another challenge is that maybe some of the administration don’t want Hampshire to be too tied to an agricultural kind of image… I don't know if they think it might demean the school or what. It's a little bit puzzling to me because I think the farm and the CSA has embodied so many of the values that we want to project, like sustainability and community and health, and that it
could be used so much more for admissions and retention and fund raising, for development, and I just find it puzzling that they don’t. (Elizabeth Conlisk, Hampshire College CSA)

- I think the biggest challenge for the project was very early on, having all of the players involved convinced that we should do a CSA. I think that’s where the challenge was. (Michele Wales, Coverdale CSA)

- I mean it seems like the students want it, many of the professors seem very positive, even my department head has told me many times this is a great program but I don't see people putting their money where their mouth is or getting more courses in this sort of venue. (Cindy Douglas, Cal Poly CSA)

**Program generates insufficient revenue**
- And so I find that the CSA typically runs about $50,000 or so into the red every year. And so state money… and even donations are really what helps support it. So it makes a lot of money but it loses a lot of money. (David Headrick, Cal Poly CSA)

- And so there’s always, “Well, why don’t you make money on your farm?” And I’m like, “Have you looked at the margins?” Farming is a marginal business to begin with. But then you throw the educational aspects on top of it and there’s no way. (Nancy Hanson, Hampshire College CSA)

**Fiscal year timing**
- One of the difficulties budget-wise is that the fiscal year splits the growing season, and it drives me nuts… The Hampshire College fiscal year is July 1st through July 1st. It really makes it hard for me to plan… I’m halfway through a fiscal year at the beginning of the season. (Nancy Hanson, Hampshire College CSA)

**Impact of global recession**
- [Membership] is down this year about 20% so we're really scrambling to reach out to anyone who wants to join. And it’s because of the economy. California cut all of the University people 10%. So like I said our vast majority of members was faculty and staff of Cal Poly. Well, they've been laid off, they've been furloughed, it's doom and gloom here and they're not spending
their money as freely as they were a year ago. (Cindy Douglas, Cal Poly CSA)

- This institution, like every other, it seems like, is going through a difficult financial period. (Jason Tor, Hampshire College CSA)

- In the last year we’ve had some budgetary issues, no doubt about it. Endowments have not been paying. And our organization relies on endowments. So we’ve had to scale back in certain areas, and the Associate Director Team members have met many times over the past year to discuss projects that we need to scale back or to eliminate. And the CSA was on the drawing board, it was on that list. And so we had to make the decision to go on with this… And in the end, I think it’s going to work fine. But it was a little bit of a challenge, and I think other organizations will have that challenge. (Jim White, Coverdale CSA)

Logistical challenges

- I think the biggest challenge for me was getting the operational center the way that we wanted it. I had to work with the architect, work with the builders, work with the finances, to make sure that we got what we wanted. I had to continually fight, and not in a bad way, but let’s say they wanted to change something, I had to say, “Well no, no, Jim [Wolfer, Coverdale Farm Steward] didn’t write that down for nothing, so I want it the way Jim said it.” That was a challenge, but I think that’s a typical challenge in any building project – you fight for what you think you need. (Jim White, Coverdale CSA)

- The challenges of taking the students, who may have never even been near a farm, and in many cases teaching them to drive a tractor and there have been a number of challenges… Working with students is a challenge, no doubt about it. (Jason Tor, Hampshire College CSA)

**Category 10: Benefits of Implementation**
This category includes themes related to the benefits of CSA programming, which were organized into three sub-categories: A., Benefits to Parent Institution, B., Benefits to Society, and C., Benefits to Shareholders.

10A: Benefits to Parent Institution

Helps parent institution fulfill mission
- That's what makes Cal Poly effective is that people who graduate from there really have an intimate understanding of the field that they're going into. Yeah, they've put together a drip system. They've transplanted on a transplant. They're not walking into a situation that's totally foreign to them. (Cindy Douglas, Cal Poly CSA)

- At the main Denver Botanic Gardens site, they saw a huge boom and interest in their classes on vegetable gardening and container gardening and growing your own food, and they actually began some educational programming around those things but they really don't have the space there to address that need within that population so we're really lucky that we have Chatfield. (Leigh Rovegno, Chatfield CSA)

Raises parent institution's profile in community
- For an institution like the Denver Botanic Gardens, this is going to be such a huge PR boost. (Leigh Rovegno, Chatfield CSA)

- It diversifies your organization. It entices a new audience, helps you leverage a new community to your organization, which for a membership-based organization you need to keep cultivating new interest. (Michele Wales, Coverdale CSA)

Builds community among parent institution's stakeholders
- And when kids come out to the farm to work at the farm they find kids who are likeminded… I had one student describe it to me as, “I finally found my people when I came to the farm.” It also kind of cuts across, so we have the President who buys a share, we have administrators, we have faculty, we have students, we have staff. (Nancy Hanson, Hampshire College CSA)
• That’s part of the beauty of these local food systems is to know the people, to be able to see that person in town and say, “Hey, there’s the person who grows my food.” So I don’t want this person to just be a silhouette out in the field, I want them to be known. (Michele Wales, Coverdale CSA)

*Enables parent institution to serve as model for sustainable practices*
• And by introducing food into the equation it can really change that perception, to say that the horticultural institution is concerned about land and stewardship and conservation and energy and all of these other things that can be traced to food production, food consumption, food sharing. (Marilyn Anthony, Pennsylvania Association for Sustainable Agriculture)

10B: Benefits to Society

*Models sustainable agricultural practices*
• It gives opportunities to explore what may be some best management practices for larger farm operations, and that’s one thing I’m very interested in, is how we can make the farming that we do today more sustainable… things like watershed management. I mean, you see it with the Chesapeake, agricultural runoff is a problem down there. How do you solve that problem and yet still grow the same amount of food? And grow that food to make a profit? To me it opens up a whole field of agricultural questions. (Jim White, Coverdale CSA)

• I think I wouldn't have taken this job if I didn't think it was a crucial need for the next 20, 30 years. I mean if we can't figure out a less destructive way to farm then we're in big trouble. All of us. And the only way that these sort of experimentation can happen and the next generation gets involved is at universities. It’s traditionally been the way that change has come about in agriculture from way back, from the Dust Bowl. (Cindy Douglas, Cal Poly CSA)

*Preserves agricultural heritage*
• I think as much of farmland as I do natural areas. And I think we could be a very sorry country some day for our loss of farmland.
And kids are so removed not only from the natural areas, they're removed from where their food and fiber comes from, and that connection to our natural resources. (Mike Riska, Coverdale CSA)

- Farmland preservation is a very big part of [the Delaware Nature Society mission]. It wasn’t always, but it has become, especially within the past fifteen or twenty years. And it becomes more and more important to the Society. (Jim White, Coverdale CSA)

**10C: Benefits to Shareholders**

*Provides access to healthy, local produce*
- You go there on a Friday night and everybody's getting together and they're talking about what they're going to cook and you think about that, that's the start of their Friday night. It's not - it could be other things at a college. (Elizabeth Conlisk, Hampshire College CSA)

*Educates shareholders as consumers*
- When I see these students from graphic arts and architecture and business and liberal studies and they come in here and they work for a quarter on the farm and they get dirty and they taste fresh produce for the first time, lights go on. Things are happening. There is an education that's going on there that really, I mean, just as an observer is like, “This is really good.” (David Headrick, Cal Poly CSA)

*Generates sense of community*
- It helps students form community here at Hampshire, and the ones that discover it early are very excited about it and it helps them to meet people and bond with people and feel more excited about Hampshire. (Christopher Jarvis, Hampshire College CSA)

**Category 11: The Sustainable Agriculture Movement**
This category is comprised of interviewee reflections on the growth of the sustainable agriculture movement, and the impact such change has exerted on CSA programming.

**Growth and trajectory of the sustainable agriculture movement overall**
- We've seen a tremendous increase in the number of CSAs and just anecdotally what we hear from farms starting CSAs is that they're instantly subscribed. So they basically feel that they are kind of maxed out even, in terms of being able to supply food for the demand for CSAs. (Marilyn Anthony, Pennsylvania Association for Sustainable Agriculture)

- It’s really taken off in the past 5 years. It’s amazing to me. The Pioneer Valley has always been on the cutting edge of the local food movement, but now it’s spreading everywhere. It’s like, my God, they’re planting vegetables on the lawn of the White House! Wake me up! It’s a symbolic gesture, but it’s a very important symbolic gesture. It says that nutrition is important and how we grow our food really makes a difference in our bodies and our nutrition. (Nancy Hanson, Hampshire College CSA)

**Increasing public awareness about sustainable agriculture**
- Every time you turn on the radio there's something about eating at home or eating local or eating fresh. (Cindy Douglas, Cal Poly CSA)

- I’ve seen growth in interest by the public in terms of a common discourse. When someone says “sustainable agriculture” more and more people, I think, understand what that term means. (Kim Niewolny, Sustainable Agriculture Education Association)

**Being in the right place at the right time**
- There's the current trend towards local food and organics, and all that played into the timing really well so the CSA was well-received. Because five or ten years ago had I brought this to light people would have been like, “What are you talking about?” [But] now the language is just out there more and people know. (Leigh Rovegno, Chatfield CSA)
**Category 12: Elements of Success**

This category focuses on those elements that contribute to the success of CSA programs.

**Strong partnership between CSA and parent institution**

- The successes that I see are people who are designing these different partnerships, these different initiatives in collaboration with, say, land grant universities and non-governmental organizations who are supportive of that kind of work, so it's not blazing a trail on your own. (Kim Niewolny, Sustainable Agriculture Education Association)

- Part of the luxury, if you can call it that, here at the Delaware Nature Society, is that we’re large enough that there’s not one person trying to do it all. (Helen Fischel, Coverdale CSA)

- Leadership is key, I think. And I’m talking about the Director…the more the top person is on your side, the better you’re going to be. (Jim White, Coverdale CSA)

**Strong connection with a community of stakeholders**

- I think what's really key is having really good partnerships and collaborations with a variety of stakeholders, the actual people who are living in the community. (Kim Niewolny, Sustainable Agriculture Education Association)

- Having that grass roots approach is the right approach, in my opinion, to let this sort of thing grow organically out of structures that already exist. And in my personal opinion, not having too much of a top down approach, but really letting the people who are interested in being involved grow this thing. (Christopher Jarvis, Hampshire College CSA)

**Detailed and forward-thinking planning**

- There's a need for good practice because this is hard work, and if you don't do it right you're not going to get further than your boss. You need to make sure that you have a solid proposal and a solid planning process and all that, because one person alone isn't going to do this work. If you're going to develop a project, a participatory
planning framework is essential, and democratic planning falls into that. (Kim Niewolny, Sustainable Agriculture Education Association)

- We were lucky enough to start early enough that there was never a time when we felt like we were up against a wall. We had time to flesh it out. (Jim White, Coverdale CSA)

- This year's goal [for the farm policy committee] is to write a strategic plan for the next five years. So, what is it we would like to see at the farm, how will it grow, what areas do we want to grow, what areas might we want to cut back on? (Christopher Jarvis, Hampshire College CSA)

**Category 13: Partnerships with Parent Organizations**

This category includes interviewee statements about the nature of relationships between CSA programs and parent organizations such as public horticulture institutions.

*CSA programs are a “good fit” for public horticulture institutions*

- There's a public mission [at public gardens]. And there's a social contract attached to that mission. It will look different depending on your leadership but I would agree that there are definitely interests that are in common. (Kim Niewolny, Sustainable Agriculture Education Association)

- When I brought up the idea [of the CSA] to a horticulturist who works downtown, they were kind of like, “Who's going to grow the crops?” I'm like, “Well, we are. I mean, we grow plants.” There’s an amazing disconnect - food comes from plants, from the earth, from the soil. We're getting back there, and I think that the Denver Botanic Gardens is really interested in sort of reaching across that divide, making that reconnection, as so many people are already doing. (Leigh Rovegno, Chatfield CSA)

- It just makes sense as a form of education. Here we have this amazing farm, this gorgeous gift, and an opportunity to really
leverage a completely different type of programming for this organization. (Michele Wales, Coverdale CSA)

- In some ways, horticultural institutions are uniquely positioned to have a real impact in the local foods movement because there's no doubt that their staff represent a concentration of highly skilled growers and at the same time you have tremendous opportunity to influence and impact the public because you touch thousands and thousands of people as visitors, and typically there's great depth of educational programming at these institutions. (Marilyn Anthony, Pennsylvania Association for Sustainable Agriculture)

**CSA programs do not make sense for all public horticulture institutions**

- [Most botanical gardens] don’t have the acres of land that you need for food production. So that's probably a big reason why they haven't up to this point been able to take on anything like this. (Leigh Rovegno, Chatfield CSA)

- It depends on every institution, and you'll have your committees, your boards, who will have opinions on how and if that will take place. (Kim Niewolny, Sustainable Agriculture Education Association)

**Importance of synergy between program and institutional mission**

- [When I pitched the CSA to the administration] I did get a really positive response, and luckily right now our CEO is very forward-thinking… He understands that it's very popular and it's current, and I think the swing towards sustainability really helped. (Leigh Rovegno, Chatfield CSA)

- I feel very confident that food could and should be grown and distributed to the general public through horticultural institutions. How that's packaged, I don't know. That's going to be determined by each institution and how they feel comfortable. I mean, does someone pay admission to the grounds to come pick up their CSA? Do they have to be a member of the organization? All that stuff is going to be addressed by bylaws and also mission fit. Without knowing what the specific mission is of a given horticultural institution, it's easy for me to say food should be part of it, but it might not fit. (Marilyn Anthony, Pennsylvania Association for Sustainable Agriculture)
• On a farm, weeds are okay. So the structure of the actual growing may not coincide with the mission and the overall policy or philosophy of the public garden. (Kim Niewolny, Sustainable Agriculture Education Association)

Affiliation with parent institution can provide significant support for program

• [The CEO of Denver Botanic Gardens] started talking about the CSA immediately to a bunch of people and doing his own form of PR and, you know, just really talking it up, because I think he saw the excitement that came back to him. (Leigh Rovegno, Chatfield CSA)

• It’s like a baseball team: some teams take years to get any good because they don’t want to spend any money. And then you’ve got the Yankees who like to spend the money up front, to do everything right. And that’s kind of the style we’ve chosen. It being an institutional CSA, it’s different than if you and I were starting a CSA. We’d be growing a few things to make some money, then putting the water in, you know, doing it that way. But being an institutional CSA, we could go about it the other way. And we need to be playing ball very quickly, and very well, and not just halving it. And we’re not going to be able to fall back on the excuse that it’s our first year. (Jim White, Coverdale CSA)

• Going up against what you can do as a farmer and what you can do as an institution are two different things. (Nancy Hanson, Hampshire College CSA)
Table 4  Categories and themes from case studies and expert interviews.

<table>
<thead>
<tr>
<th>Category</th>
<th>Theme</th>
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<tbody>
<tr>
<td>Category 1: Planning</td>
<td>Program history and inception</td>
</tr>
<tr>
<td></td>
<td>Gaining support from parent institution</td>
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<tr>
<td></td>
<td>Pre-implementation research</td>
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<tr>
<td></td>
<td>Land allocation</td>
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<tr>
<td></td>
<td>Gearing up in first years</td>
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<tr>
<td>Category 2: Mission</td>
<td>Resonance with mission of parent institution</td>
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<tr>
<td></td>
<td>Supporting local agriculture</td>
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<tr>
<td></td>
<td>Modeling sustainable practice</td>
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<tr>
<td></td>
<td>Public education</td>
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<tr>
<td></td>
<td>Building community</td>
</tr>
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<td>Embodying agricultural heritage</td>
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<tr>
<td>Category 3: Funding</td>
<td>Financial support from parent institution</td>
</tr>
<tr>
<td></td>
<td>Revenue from produce sales</td>
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<tr>
<td></td>
<td>Grant-based support</td>
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<tr>
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<td>Should the program generate a profit?</td>
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<td>Category 4: Governance and Staffing</td>
<td>Governance by parent institution</td>
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<tr>
<td></td>
<td>Core program staff</td>
</tr>
<tr>
<td></td>
<td>Seasonal employees</td>
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<td>Interns</td>
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<td>Student employees</td>
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<td>Volunteers</td>
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<td>Category 5: Share Allocation</td>
<td>Open to the public</td>
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<tr>
<td></td>
<td>Restricted to members of parent institution</td>
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<tr>
<td></td>
<td>Reserved for special groups or partners</td>
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<td></td>
<td>Working shares</td>
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<td></td>
<td>Number and size of shares</td>
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<td>Category 6: Promotion</td>
<td>Word of mouth</td>
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<td>Use of parent institution's resources</td>
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<td></td>
<td>Targeted advertising</td>
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</tbody>
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| Category 7: Educational Programming | Importance of education to program mission  
| | Shareholder newsletters  
| | Share pickup as educational experience  
| | Classes and workshops  
| | Linking educational offerings to academic curriculum  
| | Group visits  
| | Education of interns, volunteers, and seasonal employees  
| | Long-term training programs |

| Category 8: Shareholder Experience | Quality of produce  
| | Opportunity for involvement in farming enterprise  
| | Community-building aspects of membership  
| | Educational aspects of membership |

| Category 9: Challenges to Implementation | Securing support from parent institution and administration  
| | Program generates insufficient revenue  
| | Fiscal year timing  
| | Impact of global recession  
| | Logistical challenges |

| Category 10: Benefits of Implementation  
A. Benefits to Parent Institution | Helps parent institution fulfill mission  
| | Raises parent institution's profile in community  
| | Builds community among parent institution's stakeholders  
| | Enables parent institution to serve as model for sustainable practice |

|  
B. Benefits to Society | Models sustainable agricultural practices  
| | Preserves agricultural heritage |

| C. Benefits to Shareholders | Provides access to healthy, local produce  
| | Educates shareholders as consumers  
| | Generates sense of community |
### Table 4 Continued

| Category 11: The Sustainable Agriculture Movement | Growth and trajectory of the sustainable agriculture movement overall  
Increasing public awareness of sustainable agriculture  
Being in the right place at the right time |
| Category 12: Elements of Success | Strong partnership between CSA program and parent institution  
Strong connection with community of stakeholders  
Detailed and forward-thinking planning |
| Category 13: Partnerships with Parent Organizations | CSA programs are a "good fit" for public horticulture institutions  
CSA programs do not make sense for all public horticulture institutions  
Importance of synergy between program and institutional mission  
Affiliation with parent organization can provide significant support for program |
Chapter 5

DISCUSSION

The State of CSA Programming at Public Horticulture Institutions

This research indicates that although public horticulture institutions are familiar with the CSA concept and are interested in promoting agricultural and environmental sustainability, implementation of CSA programs at public horticulture institutions is still relatively rare. While 25.6% of institutions participating in the survey research reported having considered CSA programming, only 16 institutions (10.9% of respondents) had actually implemented such programs. Of these 16 institutions, only one was operating an on-site CSA with its own institutional resources; the other 15 institutions had partnered with independent off-site CSAs, serving as produce distribution points.

Relevance to organizational mission was the primary factor institutions considered when deciding whether or not to implement CSA programming. 81.3% of institutions with CSAs reported that mission-appropriateness was a factor in their decision to implement CSA programming, while 57.1% of institutions without CSAs reported that unrelatedness to mission was a major factor in their decision to forgo such programs.

Despite the fact that many survey participants felt that a CSA would not relate to their institution’s mission, a majority (53.2% of respondents) nevertheless
regarded agricultural sustainability as a mission-relevant topic. In addition, educational offerings at respondent institutions commonly included programming in the areas of home vegetable and fruit gardening, local foods, sustainable living, and cooking and food preparation, all topics relevant to sustainable agriculture. One potential explanation for this seeming contradiction is that although many public horticulture institutions may regard agricultural sustainability as sufficiently mission-related to warrant educational programming, they do not consider the topic mission-central enough to justify establishment of a CSA, which presents comparatively high risks and requires substantial institutional investment.

The fact that on-site CSAs require considerable and sustained investment may also account for the tendency among public horticulture institutions to establish partnerships with independently-operated off-site CSAs rather than initiating new programs of their own. In general, partnership with a pre-existing off-site CSA carries relatively little financial risk and requires only modest input of resources by the host institution (Sclar, 2009). These modest investment requirements may appear attractive to institutions wishing to find a simple and low-cost means of engaging with sustainable agriculture. However, survey data suggest that public horticulture institutions may be reaping what they sow in terms of the returns such partnerships generate. Among survey respondent institutions partnering with off-site CSAs, a majority (53.3%) rated the partnership “neither successful nor unsuccessful.” While the current survey data can neither confirm nor deny this conclusion, it is possible that this ambivalence may be linked to the minimal institutional investment involved in partnerships with off-site CSAs. Anecdotal evidence suggests that many institutions
serving as CSA produce distribution sites do relatively little to integrate this partnership into other educational programming or public events, with the result that the CSA remains tangential to institutional operations (LeFevre, 2009; Lyons, 2010).

While only a minority of public horticulture institutions have considered implementing CSA programming, survey data revealed a great deal of support for the creation of implementation guidelines for institutions wishing to establish CSAs. The vast majority of survey participants (87.2%) reported that they believed implementation guidelines would be helpful for such organizations. Furthermore, respondents tended to believe that implementation guidelines should be broad-ranging and comprehensive; when asked what areas such guidelines should address, all topic areas listed on the survey received support from a majority of participants. These potential topic areas (budgeting and financial, building/retaining membership, crop planning, farm-related educational programming, infrastructural and equipment needs, legal issues, and strategic planning) encompass nearly the full range of subjects a public horticulture institution might consider over the course of CSA program implementation.

Tales from the Field: Lessons Learned from CSA Implementation

Case studies and expert interviews revealed several themes relevant to the establishment of CSAs at public horticulture institutions, and are discussed below.
Planning

Sound and thoughtful planning was identified as a critical component of successful CSA program establishment. Planning typically began prior to program implementation, sometimes preceding establishment by as much as several years, and continued as an ongoing component of CSA operations.

Making a plausible case for program implementation was important in securing the early support of institutional administrators. At all four case study sites included in this research, CSA programming was first proposed by a staff member or student, who suggested the idea to the institution’s administration and presented a convincing case for support. In all cases, the individual who initially proposed the program had either conducted academic research on CSA implementation or had a great deal of professional experience on the topic. The prior experience and knowledge of these early proponents enabled them to serve as credible advocates for CSA programming and was likely a factor in the ultimate administrative decision to implement the project.

Early in the planning process, institutions commonly consulted with knowledgeable experts, even making field visits to other CSAs to learn specific details of operation. Oftentimes, these consultants were recruited as key project advocates. Jim White, Associate Director for Land and Biodiversity Management at the Delaware Nature Society, noted that while laying the groundwork for the Coverdale CSA, staff “had several meetings over the years with constituents, so to speak, whether they be local farmers, people from the state Department of Agriculture, retail merchants, or
other influential people… We’ve also brought people in to advise us. And then early on, we visited CSAs physically.”

Over the course of the planning process, institutions also considered land allocation and project budgeting. In three out of four cases, these were linked to an implementation plan that specified incremental expansion of operations, and a concomitant increase in land use, over time. In the words of Leigh Rovegno, of the Denver Botanic Gardens’ Chatfield CSA project, these implementation plans can enable an institution to “get a feel for things” by producing a relatively small number of shares in the project’s inaugural year and gradually increasing capacity over the course of several successive seasons.

Mission

Interviewees stressed the importance of alignment between the mission of the CSA project and that of the project’s parent institution. At all four case study sites, extensive attention was paid to mission synergy. This emphasis on strong ties between institutional and program mission was strongly articulated by Christopher Jarvis, Dean of the School of Natural Science at Hampshire College, who noted that the Hampshire College CSA “has always been seen as integral to the educational mission of Hampshire College. So the farm is not a free-standing farm. It was never meant to be self-supporting. It was meant to be integrated into all of the schools [that comprise Hampshire College].”

Failure to achieve this mission synergy can lead to difficult, but often legitimate, questions regarding the justification for institutional CSA programming. At
the Cal Poly CSA, where plans for continued operation are currently uncertain, David Headrick, Professor of Horticulture and Crop Science, observed, “We're having to ask ourselves not just about [the CSA’s] educational mission in general, but also about how this fits with the educational mission of the campus.”

While specific mission statements differed among programs, several mission components were held in common: educating stakeholders and the public, modeling sustainable practice, building community, and, in two of four cases, embodying the institution’s agricultural heritage.

**Funding**

Case study participants cited three major sources of program funding: financial support from the parent institution, revenue from produce sales, and grant-based support. All case study sites relied on a combination of these sources to generate project funds, and all expected the sale of farm shares to provide a substantial percentage of required funding.

Programs differed with respect to the expectation that the CSA generate a profit. At one case study site, several interviewees expressed the belief that the CSA project should be partially subsidized by the institution and should not be expected to cover all of its own operating expenses. In this particular case, the CSA’s use as a platform for educational programming had introduced structural inefficiencies that, though making it difficult for the program to break even financially, enabled it to fulfill its educational mission. At two other case study sites, the CSA was expected to cover its expenses, but not necessarily generate extensive profits. At the fourth case
study site, overall sentiment was that the CSA should function as a profitable business enterprise; the fact that this CSA was not profitable, and in fact required supplemental funding from its parent institution, was a source of considerable concern.

**Governance and Staffing**

At two case study institutions, governing committees set and reviewed policy, and oversaw ongoing planning and evaluation. For these institutions, the governing committee also served as a source of support and advocacy for the CSA program, and helped maintain effective communication among stakeholders.

All four case study sites employed at least one full-time, permanent CSA staff member who managed the program. At two institutions, managerial tasks were divided between two full-time permanent employees, one of whom oversaw overall CSA operations and the other of whom served as head farmer. All case study sites also employed either seasonal employees or students as farm labor.

Internship programs were an additional component of staffing plans. Three out of four case study sites operated or had plans to implement a farm internship, while the fourth employed college students in administrative positions, offering them experiences and training in a manner similar to many internship programs.

Volunteers were part of staffing plans at three of four case study sites. The fourth had tentative long-term plans to establish a volunteer corps, but was concerned about the staff time commitment required for volunteer management, and was wary of potential problems such as volunteers seeking to be “paid” in produce. Only one
institution reported that volunteers would be critical to program success; this institution did not plan to use volunteers to accomplish farm labor, but instead hoped to engage them in delivery of educational programs offered in conjunction with the CSA. This institution already had a very strong volunteer corps that worked with its education department, and relied on them heavily in this capacity.

**Share Allocation**

Case study institutions implemented a variety of share allocation strategies, tailoring CSA membership requirements to meet institutional goals and support program mission. Two institutions offered shares to the general public, while two chose to restrict shareholder opportunities to members of the parent institution’s community. For the Coverdale CSA, this community was construed as including members of the Delaware Nature Society, the CSA’s parent institution. For the Hampshire College CSA, the eligible community included faculty, staff, and students at all higher education institutions in the Five College Consortium (Amherst College, Hampshire College, Mount Holyoke College, Smith College, and the University of Massachusetts Amherst).

Even for programs choosing to make CSA membership available to the general public, many shareholders may nevertheless be affiliated with the parent institution. At the Cal Poly CSA, for example, approximately 75% of shareholders were either staff, faculty, or students at California State Polytechnic University, San Luis Obispo.
Of the four case study institutions included in this research, three planned to reserve at least some shares for distribution to a special group or partner. At the Hampshire College CSA, a number of shares were sold each season to the college’s food service provider, Sodexho, which incorporated the produce into meals served at on-campus dining facilities. At the Chatfield CSA, there were plans to reserve 5% of shares for distribution to low-income families; an additional 30% of shares were to be distributed to Kaiser Permanente as one condition of a grant that Kaiser Permanente had awarded the Denver Botanic Gardens to establish the CSA.

Share numbers and sizes varied among institutions, and target share capacity ranged from 100 to 250 individual shares. Three out of four programs either offered or had plans to offer a variety of share sizes at a range of price points; this was regarded as a means of both accommodating customers and maximizing revenue. Leigh Rovegno, of the Chatfield CSA, described the benefits of offering a variety of share sizes, and noted, “a full share really isn't as popular as the smaller shares, and actually we can get a better return financially by doing the smaller shares, and reach more people.”

**Promotion**

Promotion strategies took the form of word-of-mouth publicity, targeted advertising, and use of parent institution resources. Overall, relatively little emphasis was placed upon promotion; several interviewees noted that the popularity of CSA programming rendered extensive advertising unnecessary. In describing the speed with which the Hampshire College CSA sells out each autumn, Farm Manager Nancy
Hanson noted, “It’s always just first-come first-served – and you better have your $300 in your hand!”

An exception to this trend was the Cal Poly CSA, which has been adversely affected by both California’s state budget crisis and the global economic downturn. During the 2009 growing season, membership at this CSA was approximately 20% below capacity; Cindy Douglas, Farm Manager, attributed this state of affairs to California’s budget woes, saying, “the vast majority of [our] members [are] faculty and staff of Cal Poly. Well, they've been laid off, they've been furloughed, it's doom and gloom here and they're not spending their money as freely as they were a year ago.” In response to this state of affairs, the Cal Poly CSA had broadened its promotion strategies, making use of email marketing, newspaper advertising, and public speaking opportunities. In addition, the CSA was reaching out to area elementary schools by promoting the program in school newsletters.

**Educational Programming**

Educational programming was a major component of operations at all case study sites included in this research. In describing the centrality of education to the mission of the Coverdale CSA, Michele Wales, Farm Educator, noted, “People ask ‘What do you do here?’ and I say that our main product is education. And everything else is done for that.” All sites identified education as a main component of program mission, and described educational programming as an important means of linking CSA operations to the mission of the parent institution. All sites employed a variety of educational formats, including shareholder newsletters, topic-focused classes and
workshops, and farm tours. Longer-term educational offerings included internships and farmer training programs; for the two CSAs affiliated with institutions of higher education, efforts were also made to integrate the farm into academic coursework and research.

Some interviewees also cited share pickup as an important educational opportunity for CSA members. Weekly pickups at the farm provided firsthand lessons on produce seasonality, offered an opportunity to become more familiar with the farming enterprise, and enabled shareholders to meet and talk with their farmers and other CSA shareholders.

**Shareholder Experience**

Desire for fresh, high-quality, local produce emerged as a basic motivation for CSA membership. However, farm members and other interviewees cited a number of additional factors that, taken together, supported a rich shareholder experience. The opportunity for involvement in the farming enterprise was greatly appreciated by some members, as were the community-building aspects of the shareholder experience. Indeed, it was frequently observed that the social benefits of CSA membership were at least as important to the overall shareholder experience as was the farm produce. Nancy Hanson, of the Hampshire College CSA, observed, “People come to the CSA not just for food, they come for that experience of having some sort of connection.”

In addition to this sense of connection and community, shareholders valued the educational benefits they received from affiliation with the CSA. One student member of the Hampshire College CSA described how membership and work-
study employment at the farm had revolutionized her understanding of agriculture:
“I'm from the suburbs of New Jersey, and before [I became involved with the CSA] I had a really strange idea of what agriculture was… So my first year [at Hampshire College] I'm coming down to the farm and I'm doing these things that I've never done before. My romantic notions of what it is to be picking vegetables were completely shattered.”

**Challenges to Implementation**

As with any large project, CSA implementation carries with it a number of challenges. Among case study institutions, these challenges fell into several major categories: securing support from parent institution and administration, unmet revenue expectations, the impact of the global recession, logistical concerns, and for one project in particular, fiscal year timing.

Failure to secure support from institution administration was identified as a source of challenges at two case study sites. In both cases, perceived disengagement on the part of administration was linked to institutional reticence to provide program funding. Program staff expressed concern that administration did not regard CSA activities as relevant to institutional mission, and felt that administrators were often unaware of benefits generated by the program. Failure to generate sufficient program revenue was also cited as a challenge at these two case study sites. In both cases, concerns about unmet revenue expectations were linked to concerns about potential reduction of financial support by the parent institution.
The global economic downturn was cited as a source of challenges at all four case study sites. Interviewees noted that larger economic trends had exerted a negative impact on a wide range of sectors, including educational and not-for-profit enterprises, and that this impact was being felt at all institutional levels.

At one case study site, fiscal year timing created substantial challenges for crop planning and project budgeting. In this case, the institution’s fiscal year extended from July 1 through June 30, though a system that followed the January-December calendar would have been much more useful for farm-related planning.

**Benefits of Implementation**

Interviewees described many benefits derived as a result of CSA program implementation. These benefits fell into three main categories: benefits to the program’s parent institution, benefits to shareholders, and benefits to society at large.

Among the many benefits parent institutions derived from CSA programming, four emerged as particularly significant. According to interviewees, CSA programming helped the parent institution to fulfill its overall mission, raised the institution’s profile in the community, created a sense of shared purpose among institution stakeholders, and enabled the organization to serve as a model for implementation of sustainable practices.

Interviewees identified three primary benefits CSA programming conferred to shareholders. First, CSAs provide shareholders with access to fresh, healthy, local produce. In addition, they can foster a valuable sense of community among members, and serve to educate shareholders as food consumers.
CSAs at public horticulture institutions also provide considerable benefits to society at large. By enabling institutions to model sustainable agricultural practices, they help to pioneer changes in farming practice that may have a lasting positive impact on food systems and the environment. In addition, CSAs provide a means by which public horticulture institutions can preserve, safeguard, and educate the public about our shared agricultural heritage.

The Sustainable Agriculture Movement

Many interviewees commented on the sustainable agriculture movement in the United States, observing that over the past several years both awareness of and interest in the topic have increased dramatically. With respect to this phenomenon, Kim Niewolny of the Sustainable Agriculture Education Association commented, “I’ve seen growth in interest by the public in terms of a common discourse. When someone says ‘sustainable agriculture’ more and more people, I think, understand what that term means.” This increased public awareness of the topic has been mirrored by a growth in the number – and popularity – of CSA farms. As observed by Marilyn Anthony, Southeast Regional Director of the Pennsylvania Association for Sustainable Agriculture, “We’ve seen a tremendous increase in the number of CSAs, and just anecdotally what we hear from farms starting CSAs is that they're instantly subscribed. So they basically feel that they are kind of maxed out, even in terms of being able to supply food for the demand for CSAs.”

Given this growing demand for CSA shares, it is not surprising that many case study interviewees felt that despite the challenges encountered over the course of
program implementation, they nevertheless had the good fortune to be “in the right place at the right time.”

**Elements of Success**

Case study and expert interviews elucidated several elements regarded as keys to CSA program success. The first was a durable partnership between the CSA program and its parent institution. Where such partnerships existed, parent institutions served as critical sources of leadership and support. Strong connection with a community of stakeholders also served to support the success of CSA programming. Interviewees observed that meaningful opportunities for shareholder participation helped to nurture a sense of shared ownership and responsibility, ultimately creating a dynamic and active community of farm members. Finally, interviewees stressed the importance of detailed and forward-thinking planning in engendering program success. Effective planning helped staff and administrators to prepare for contingencies, utilize resources responsibly, and accurately envision future needs.

**Partnerships with Parent Organizations**

Interviewees discussed the potential for successful relationships between CSA programs and parent institutions, and evaluated the overall suitability of such arrangements. Many participants felt that CSA programs could be a “good fit” for many public horticulture institutions insofar as they provide mission-relevant opportunities to educate the public and effect positive cultural and environmental change. Marilyn Anthony, of the Pennsylvania Association for Sustainable Agriculture, noted that CSAs could serve as a valuable tool for public horticulture
institutions wishing to promote agricultural sustainability: “Horticultural institutions are uniquely positioned to have a real impact in the local foods movement… [Y]ou have tremendous opportunity to influence and impact the public because you touch thousands and thousands of people as visitors.”

However, it was also noted that CSA programming is not necessarily appropriate for all public horticulture institutions. Mission fit emerged as the single most important criterion for determining the suitability of CSA program implementation. Public horticulture institutions should carefully consider whether CSA programming supports organizational ideals, goals, and priorities.

Interviewees agreed that affiliation with a parent institution can provide significant support for a CSA program, increasing the likelihood of success and contributing to the overall quality of program deliverables. Parent organizations can offer invaluable financial and infrastructural support; as Nancy Hanson, of the Hampshire College CSA, noted, “Going up against what you can do as a farmer and what you can do as an institution are two completely different things.”

Overall, then, implementation of CSA programming at public horticulture institutions has the potential to be appropriate, successful, and rewarding. Such programming presents an opportunity for institutions to meaningfully engage in the dialogue and practice of agricultural sustainability. In addition, CSA programming at public horticulture institutions can support educational goals, create community among organizational stakeholders, and, not least of all, provide a source of high-quality, locally-grown produce. Though CSA programming may not be appropriate for
all organizations, it carries substantial benefits for those institutions wishing to undertake the challenges of implementation.
Chapter 6

RECOMMENDATIONS

As demonstrated by this research, CSA programming has the potential to generate substantial benefits for the host institution, program stakeholders, and society at large. These recommendations are presented to assist public horticulture institutions in maximizing the unique opportunities that CSAs present.

Determine if CSA is the “Right Fit” for your Organization, and Act Accordingly

Before deciding to implement CSA programming, it is critical to first consider whether such programming resonates with institutional mission. In order to succeed, CSAs require substantial organizational investment. For most public horticulture institutions, resources such as funding, staff time, and land are limited; it is important that these resources be invested in a manner that supports primary mission.

Having determined that CSA programming resonates with the mission of the larger organization, it is next important to undertake a realistic assessment of the costs and benefits potentially associated with implementation. CSAs require large capital and infrastructural investment, and may require several years of operation before becoming self-supporting. It is also quite possible that a CSA may operate at a financial deficit and hence require supplemental funding over the long term. In short, CSA programming should not be regarded as a means of generating substantial
revenue for a parent organization. Rather, it should be considered in light of its proven merits: as a foundation for educational programming, an incubator of community, and a platform for implementation of sustainable practices. If considering a simple partnership with an off-site CSA, a public horticulture institution should bear in mind that if efforts are not made to integrate such a partnership into other programming, there is a strong likelihood that the host organization will not experience many of the potential benefits of CSA.

**Secure and Maintain the Support of Key Stakeholders**

The current research has demonstrated that stakeholder support is a critical factor in CSA program success. Stakeholders include not only CSA shareholders, community members, and program advocates, but also administrators and staff of the parent institution. It is important that stakeholders understand – and share – program goals, and feel as though they have the opportunity to play an active role in the CSA should they desire to do so.

In order to earn the support of institutional administrators, CSA programming must first contribute to overall organizational goals. In addition, any implementation proposal should be based on sound external research, and should include plans for ensuring program success at the parent institution. Open dialogue and collaborative program governance can also support administrative engagement in the months and years following initial program implementation.

The community of CSA shareholders also constitutes an important stakeholder base. Educational, social, and volunteer events provide excellent
opportunities to engage shareholders; for programs affiliated with academic institutions, student employment and research opportunities present another means of involving an important segment of the community.

**Engage in Sound Strategic Planning**

In order to succeed, CSA programming must be informed by a realistic, forward-thinking strategic plan. It is important to set program goals that are both measurable and achievable, allocate appropriate resources to meet these goals, and evaluate progress on a regular basis. Budgets, staffing needs, and infrastructural plans should be established far in advance of implementation, reviewed periodically, and revised as necessary.

A staged rollout can provide a means of ensuring that planned operations do not exceed initial capacity. It is thus advisable to offer a small number of shares during the program’s inaugural year and incrementally increase capacity over the course of three or four successive growing seasons.

**Develop Programming that Supports Educational Goals**

The educational programming offered in conjunction with a CSA provides opportunities for enrichment and public involvement, and can assist both the CSA program and the host institution to achieve stated goals. In many cases, it is the potential for educational value that provides the strongest link between a CSA program and its host institution – absent this imperative to provide hands-on education about local and sustainable agriculture, a CSA would amount to an incongruous addition at a public garden.
Educational programs and interpretive materials should capitalize on the opportunities provided by the CSA, while relating lessons back to the organization’s core mission and values. In this way, the CSA may enable the institution to implement new and timely initiatives while remaining true to long-held principles. CSAs offer an unparalleled occasion for public horticulture institutions to engage the public in a mission-relevant and educational undertaking that opens genuine dialogue about agricultural sustainability and the contemporary food system. As cultural awareness of these topics increases, public gardens have the opportunity to be at the forefront of a nationwide conversation about sustainability, educating the public while serving as agents of positive social and environmental change.
Appendix A

APPENDIX A: UNIVERSITY OF DELAWARE HUMAN SUBJECTS REVIEW BOARD (HSRB) MATERIALS
Appendix A1: Notification of Exemption from HSRB Review for Survey Materials

HUMAN SUBJECTS PROTOCOL
University of Delaware

Protocol Title: Surveys on Community Supported Agriculture and Public Horticulture Institutions

Principal Investigator
Name: Shari Erdelson
Contact Phone Number: (443) 418 8731
Email Address: sedelson@udel.edu

Advisor (if student PI):
Name: Dr. Robert Lyons
Contact Phone Number: (302) 831 2517
Email Address: rlyons@udel.edu

Other Investigators: n/a

Type of Review:
Exempt
Expeditied
Full board

Exemption Category: 1 2 3 4 5 6

Minimal Risk: yes no

Submission Date:

HSRB Approval Signature
Eugene DePasquale

Approval Date: 4/22/09

HS Number XMP 414

Approval Next Expires n/a

Investigator Assurance:
By submitting this protocol, I acknowledge that this project will be conducted in strict accordance with the procedures described. I will not make any modifications to this protocol without prior approval by the HSRB. Should any unanticipated problems involving risk to subjects, including breaches of guaranteed confidentiality occur during this project, I will report such events to the Chair, Human Subjects Review Board immediately.

Signature of Investigator: _______________________________

Date: _______________________________
Appendix A2: Notification of Exemption from HSRB Review for Case Study

Materials

HUMAN SUBJECTS PROTOCOL
University of Delaware

Protocol title: The Farm and the Garden: Community Supported Agriculture Programs at Public Horticultural Institutions

Principal Investigator
Name: Shari Edelson
Contact Phone Number: 831-1369
Email address: sharieedelson@gmail.com

Advisor (if student PI):
Name: Robert Lyons
Contact Phone Number: 831-1369
Email address:

Other Investigators:

Type of review: √ Exempt  Expediting  Full board

Exemption Category: 1 2 3 4 5 6

Minimal Risk: √ yes  no

Submission Date:

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Approval Next Expires: n/a

Investigator Assurance:
By submitting this protocol, I acknowledge that this project will be conducted in strict accordance with the procedures described. I will not make any modifications to this protocol without prior approval by the HSRB. Should any unanticipated problems involving risk to subjects, including breaches of guaranteed confidentiality occur during this project, I will report such events to the Chair, Human Subjects Review Board immediately.

Signature of Investigator: ________________________________

Date: ________________________________
Appendix A3: Notification of Exemption from HSRB Review for Amendment/Modification to Case Study Materials

DATE: January 5, 2010

TO: Shari Edelson
FROM: University of Delaware IRB

STUDY TITLE: [151100-1] The Farm and the Garden: Community Supported Agriculture Programs at Public Horticulture Institutions

IRB REFERENCE #: Amendment/Modification

ACTION: DETERMINATION OF EXEMPT STATUS

DECISION DATE: January 5, 2010

REVIEW CATEGORY: Exemption category #2

Thank you for your submission of Amendment/Modification materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Elizabeth Pelosi at 302-831-8619 or epelosi@udel.edu. Please include your study title and reference number in all correspondence with this office.
Appendix A4: Notification of Exemption from HSRB Review for Amendment/Modification to Survey Materials

DATE: January 6, 2010

TO: Shari Edelson
FROM: University of Delaware IRB

STUDY TITLE: [151100-2] The Farm and the Garden: Community Supported Agriculture Programs at Public Horticulture Institutions

IRB REFERENCE #: Amendment/Modification
SUBMISSION TYPE: Determination of Exempt Status
ACTION: Exemption category # 2
DECISION DATE: January 6, 2010

Thank you for your submission of Amendment/Modification materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Elizabeth Pelosi at 302-831-8619 or epeloso@udel.edu. Please include your study title and reference number in all correspondence with this office.
Appendix B

APPENDIX B: SURVEY 1 – APGA INSTITUTIONAL MEMBERSHIP SURVEY

Appendix B1: Invitation email text for APGA Institutional Membership Survey

Dear Colleague,

I would like to invite your institution to participate in a survey regarding Community Supported Agriculture (CSA) projects at public horticulture institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA.

This survey aims to assess the extent to which public horticulture institutions are interested in and involved with Community Supported Agriculture (CSA). CSA is an agricultural model in which consumers form direct relationships with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

This research is intended to gauge public garden involvement in initiatives related to sustainable agriculture. In addition, it will inform the development of implementation guidelines for public horticulture institutions wishing to implement CSA projects.

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 14 and 20 questions and should take less than 15 minutes to complete. If you prefer to register a response on a paper survey please contact me to request that a paper copy be mailed to you.
If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.

Thank you for your time and consideration. Your participation in this research is greatly appreciated!

Please follow this link to the Survey: ${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your Internet browser:
${l://SurveyURL}

Sincerely,

Shari Edelson  
Graduate Fellow  
Longwood Graduate Program  
126 Townsend Hall  
University of Delaware  
Newark, DE 19716-2106  
Tel: 302-831-2517  
Fax: 302-831-3651  
sedelson@udel.edu

www.udel.edu/longwoodgrad/

Follow this link to opt out of future emails: ${l://OptOutLink}
Appendix B2: Reminder email text for APGA Institutional Membership Survey

Dear Colleague,

I am writing once again to invite your institution to participate in a survey regarding Community Supported Agriculture (CSA) projects at public horticulture institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA. An initial invitation was sent to you approximately two weeks ago; if you have already participated in the survey, I would like to thank you very much for your time and attention.

This survey aims to assess the extent to which public horticulture institutions are interested in and involved with Community Supported Agriculture (CSA). CSA is an agricultural model in which consumers form direct relationships with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

This research is intended to gauge public garden involvement in initiatives related to sustainable agriculture. In addition, it will inform the development of implementation guidelines for public horticulture institutions wishing to implement CSA projects.

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 14 and 20 questions and should take less than 15 minutes to complete. If you prefer to register a response on a paper survey please contact me to request that a paper copy be mailed to you.

If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.

Thank you for your time and consideration. Your participation in this research is greatly appreciated!
Please follow this link to the Survey: ${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your Internet browser: ${l://SurveyURL}

Sincerely,

Shari Edelson
Graduate Fellow
Longwood Graduate Program
126 Townsend Hall
University of Delaware
Newark, DE 19716-2106
Tel: 302-831-2517
Fax: 302-831-3651
sedelson@udel.edu

www.udel.edu/longwoodgrad/

Follow this link to opt out of future emails: ${l://OptOutLink}
Appendix B3: APGA Institutional Membership Survey Questions

Introduction:
This survey investigates interest in, and engagement with, Community Supported Agriculture (CSA) projects on the part of public horticulture institutions.

This survey is being conducted by Shari Edelson of the Longwood Graduate Program in Public Horticulture at the University of Delaware. Survey results will be published as part of a Master’s thesis and will be available upon request.

This questionnaire consists of between 14 and 20 questions and will take you around 10 minutes to complete.

Individual responses will be collected on a secure web server. These data will remain confidential and will be viewed only by the investigator. The data will be destroyed following the completion of the research project. If you prefer to submit a response using a paper survey, please contact the investigator, Shari Edelson, to request that a paper copy be mailed to you.

Your participation is entirely voluntary. To leave the study at any time, simply close your web browser.

If you have any questions concerning this study, please contact the investigator, Shari Edelson, Longwood Graduate Program, University of Delaware, at sedelson@udel.edu. For questions about your rights as a subject or about any issues concerning the use of human subjects in research, please contact the Chair of the University of Delaware Human Subjects Review Board, (302) 831-2137.

Thank you very much for your participation in this survey. Your assistance is greatly appreciated!
Question 1:
How does your institution identify itself? (Please select all that apply. Options are presented in random order.)
- Arboretum
- Zoo
- Nature Center
- Botanical Garden
- Display Garden
- Public Park
- Conservatory
- Farm Garden
- Historic Landscape and Site
- Public Garden
- College or University Garden
- Other (please specify): ____________

Question 2:
What was the approximate annual operating budget of your institution in Fiscal Year 2008-2009?
- Less than $500,000
- Between $500,000 and $1,000,000
- Between $1,000,000 and $2,000,000
- Greater than $2,000,000

Question 3:
Which of the following are part of your institution's mission? (Please select all that apply. Options are presented in random order.)
- Horticultural Display
- Historic Preservation
- Open Space Preservation
- Horticultural Therapy
- Plant Conservation
- Agricultural Education
- Public Education
- Land Stewardship
- Horticultural Research
- Other (please specify): ____________
Question 4:
How relevant or irrelevant is environmental sustainability to your institution’s mission?
• Very Relevant
• Somewhat Relevant
• Neither Relevant nor Irrelevant
• Somewhat Irrelevant
• Very Irrelevant

Question 5:
How relevant or irrelevant is agricultural sustainability to your institution's mission?
• Very Relevant
• Somewhat Relevant
• Neither Relevant nor Irrelevant
• Somewhat Irrelevant
• Very Irrelevant

Question 6:
In which of the following topic areas does your institution host educational programming? (Please select all that apply. Options are presented in random order.)
• Sustainable Living
• Organic Gardening
• Cooking and Food Preparation
• Local Foods
• Farm Life
• Farming Techniques
• Home Vegetable and Fruit Gardening
• Other related areas (please specify): ____________

Text:
Community Supported Agriculture (CSA) is an agricultural model within which consumers form a direct relationship with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

The following questions relate to CSA projects at public horticulture institutions.
Question 7:
Does your institution currently operate a Community Supported Agriculture program on-site? (In such a program, food is grown on the premises and distributed directly to shareholders.)
- Yes
- No

Question 8:
How many years has your institution been operating an on-site Community Supported Agriculture program?
- Number of Years: ___

Question 9:
How successful or unsuccessful has your institution's on-site Community Supported Agriculture program been?
- Very Successful
- Somewhat Successful
- Neither Successful nor Unsuccessful
- Somewhat Unsuccessful
- Very Unsuccessful

Question 10:
Which of the following factors have played a role in your institution's decision to operate an on-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)
- Mission-appropriateness
- Interest among general public
- Availability of financial resources
- Potential for program revenue
- Support from institution's membership
- Support from institution's staff
- Desire to attract members
- Availability of staff resources
- Desire to engage with community
- Support from institution's administration
- Availability of land on-site
- Desire to broaden educational offerings
- Other (please specify): ____________
**Question 11:**
Does your institution currently collaborate with an off-site Community Supported Agriculture program? (In such a program, food is grown off-site by a farmer, and delivered to your institution for shareholder pickup.)
- Yes
- No

**Question 12:**
How many years has your institution been collaborating with an off-site Community Supported Agriculture program?
- Number of Years: ___

**Question 13:**
How successful or unsuccessful has your institution's off-site Community Supported Agriculture program been?
- Very Successful
- Somewhat Successful
- Neither Successful nor Unsuccessful
- Somewhat Unsuccessful
- Very Unsuccessful

**Question 14:**
Which of the following factors have played a role in your institution's decision to collaborate with an off-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)
- Availability of financial resources
- Unavailability of land on-site
- Mission-appropriateness
- Desire to attract members
- Desire to engage with community
- Desire to broaden educational offerings
- Interest among general public
- Support from institution's membership
- Support from institution's staff
- Support from institution's administration
- Availability of staff resources
- Potential for program revenue
- Other (please specify): ____________
Question 15:
Which of the following factors have influenced your institution's decision NOT to become involved with Community Supported Agriculture? (Please select all that apply. Options are presented in random order.)
- Insufficient potential for program revenue
- Unrelatedness to institution's mission
- Lack of support from institution's administration
- Lack of support from institution's staff
- Lack of support from membership
- Unavailability of land on-site
- Lack of interest from public
- Unavailability of financial resources
- Unavailability of staff resources
- Other (please specify): ____________

Question 16:
In your opinion, which of the following factors are important for public horticulture institutions to take into account prior to implementing a Community Supported Agriculture project? (Please select all that apply. Options are presented in random order.)
- Interest among general public
- Desire to broaden educational offerings
- Availability of financial resources
- Support from institution's administration
- Desire to attract members
- Desire to engage with community
- Mission-appropriateness
- Availability of staff resources
- Support from institution's membership
- Potential for program revenue
- Support from institution's staff
- Availability of land on-site
- Other (please specify): ____________

Question 17:
In your opinion, would implementation guidelines be helpful for public horticulture institutions wishing to establish Community Supported Agriculture programs?
- Yes
- No
Question 18:
In your opinion, what areas should Community Supported Agriculture program implementation guidelines address? (Please select all that apply. Options are presented in random order.)

- Building and retaining CSA membership
- Crop planning
- Farm-related educational programming
- Legal issues
- Infrastructure and equipment needs
- Strategic planning
- Budgeting and financial considerations
- Other (please specify): ____________

Question 19:
Would your institution be willing to participate in further research on Community Supported Agriculture programs and public horticulture institutions? Such research would be conducted within the next year, and may take the form of institutional case studies or personal interviews.

- Yes
- No

Question 20:
Thank you for indicating your willingness to participate in further research. Please enter your contact information below, to enable the primary researcher to contact you. Please note that your contact information will remain entirely confidential, will not be sold, transferred, or shared with any third parties, and will not be used for any purposes other than the present research project.

- Name
- Title / Position
- Institution
- Address
- Address 2
- City
- State
- Zip Code
- Country
Text:
Please make any additional comments that you feel are relevant to the topic of Community Supported Agriculture projects and their implementation at public horticulture institutions.
## Question 1:
How does your institution identify itself? (Please select all that apply. Options are presented in random order.)

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<th>Answer</th>
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Total respondents 147

### Text entries in category “Other”:
- Private estate
- Forest Resources Center
- Country Estate
- Plant Society
- Garden and Sculpture Park
- Art Museum
- Horticultural Society
- Conservatory and Public Garden in planning
- nature trails
- horticultural therapy garden
- Conservation Agriculture
- Non-profit private garden, open to the public

## Question 2:
What was the approximate annual operating budget of your institution in Fiscal Year 2008-2009?
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<td>Between $500,000 and $1,000,000</td>
<td>14.1%</td>
<td>20</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>142</td>
</tr>
</tbody>
</table>

**Question 3:**
Which of the following are part of your institution's mission? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Education</td>
<td>91.8%</td>
<td>135</td>
</tr>
<tr>
<td>Horticultural Display</td>
<td>85.0%</td>
<td>125</td>
</tr>
<tr>
<td>Plant Conservation</td>
<td>59.9%</td>
<td>88</td>
</tr>
<tr>
<td>Land Stewardship</td>
<td>40.1%</td>
<td>59</td>
</tr>
<tr>
<td>Horticultural Research</td>
<td>35.4%</td>
<td>52</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>27.2%</td>
<td>40</td>
</tr>
<tr>
<td>Open Space Preservation</td>
<td>27.2%</td>
<td>40</td>
</tr>
<tr>
<td>Agricultural Education</td>
<td>18.4%</td>
<td>27</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>15.6%</td>
<td>23</td>
</tr>
<tr>
<td>Horticultural Therapy</td>
<td>10.9%</td>
<td>16</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>147</td>
</tr>
</tbody>
</table>

**Text entries in category “Other”:**
- other research
- Forest resources research and education
- Arboricultural Research; Nature interpretation
- Cultural engagement; university education (students)
- Recreation
- cultural expressions/connections and sustainability (this is not exactly plant conservation) are the two most important; environmental stewardship is also part of the mission statement; research focuses on cultural research but "horticultural" or garden practices may be a part
- Art Museum dedicated to art of the Brandywine region
- We also do Hort therapy and hort research but they are not a part of our stated
mission. Part of our mission is also entertainment.

- sharing the benefits of gardening
- The mission of the Lady Bird Johnson Wildflower Center is to increase the sustainable use and conservation of native wildflowers, plants and landscapes.
- forest ecology research
- Botanical Research
- Improve community vitality
- Soil ecology research
- Botanical Research
- PUBLIC GARDEN & PARK
- Arts and cultural programming
- Natural Resource Management
- Academic education
- Animal Stewardship
- propagation and distribution

**Question 4:**
How relevant or irrelevant is environmental sustainability to your institution’s mission?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Relevant</td>
<td>67.1%</td>
<td>98</td>
</tr>
<tr>
<td>Somewhat Relevant</td>
<td>23.3%</td>
<td>34</td>
</tr>
<tr>
<td>Neither Relevant nor Irrelevant</td>
<td>6.8%</td>
<td>10</td>
</tr>
<tr>
<td>Somewhat Irrelevant</td>
<td>2.1%</td>
<td>3</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0.7%</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents 146

**Question 5:**
How relevant or irrelevant is agricultural sustainability to your institution's mission?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat Relevant</td>
<td>35.5%</td>
<td>50</td>
</tr>
<tr>
<td>Neither Relevant nor Irrelevant</td>
<td>27.7%</td>
<td>39</td>
</tr>
<tr>
<td>Very Relevant</td>
<td>17.7%</td>
<td>25</td>
</tr>
<tr>
<td>Somewhat Irrelevant</td>
<td>11.3%</td>
<td>16</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>7.8%</td>
<td>11</td>
</tr>
</tbody>
</table>

Total respondents 141
Question 6:
In which of the following topic areas does your institution host educational programming? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Vegetable and Fruit Gardening</td>
<td>56.0%</td>
<td>75</td>
</tr>
<tr>
<td>Organic Gardening</td>
<td>53.7%</td>
<td>72</td>
</tr>
<tr>
<td>Sustainable Living</td>
<td>35.1%</td>
<td>47</td>
</tr>
<tr>
<td>Local Foods</td>
<td>34.3%</td>
<td>46</td>
</tr>
<tr>
<td>Cooking and Food Preparation</td>
<td>33.6%</td>
<td>45</td>
</tr>
<tr>
<td>Other related areas</td>
<td>32.1%</td>
<td>43</td>
</tr>
<tr>
<td>Farming Techniques</td>
<td>11.2%</td>
<td>15</td>
</tr>
<tr>
<td>Farm Life</td>
<td>6.0%</td>
<td>8</td>
</tr>
</tbody>
</table>

Total respondents 134

Text entries in category “Other”:  
- mostly horticulture  
- various hort topics, from specie-specific classes e.g. hostas, to bonsai  
- wildlife, art, habitat preservation  
- none yet, in the future  
- nature, horticulture, forest, conservation, historical/cutural types of programs  
- landscape design  
- childrens science programs  
- general and specific gardening practices  
- sustainable horticulture (2)  
- Growing and using herbs  
- youth education - environment awareness  
- urban agriculture  
- community gardening  
- Native Plants  
- Ecology  
- sustainable gardening practices  
- Hosting an organic farmers market on site  
- Trees, Shrubs.Wildlife  
- Residential Garden Design  
- native plants  
- Edible Native Plants  
- Landscape design and maintenance  
- Cultural use of plants
• Ag Policy
• Plant and animal conservation, botanical illustration, horticulture
• nutrition education, obesity prevention
• sustainable forest management
• home gardening
• worm composting
• general gardening
• History, Horticulture, Native Plants, Sustainable Gardening
• BASIC HORTICULTURE & ARBORCULTURAL STUDIES
• Coastal, tropical gardening
• Horticulture, conservation, and floral design
• Nursery and Landscape
• use of ecologically appropriate plants
• display of traditional crops, fruit trees and medicinal plants
• propagating native plants
• School science curricula
• botany, horticulture, wildlife management,
• Propagation, Design, Plant info

**Question 7:**
Does your institution currently operate a Community Supported Agriculture program on-site? (In such a program, food is grown on the premises and distributed directly to shareholders.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>99.3%</td>
<td>144</td>
</tr>
<tr>
<td>Yes</td>
<td>0.7%</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents 145

**Question 8:**
How many years has your institution been operating an on-site Community Supported Agriculture program?

<table>
<thead>
<tr>
<th>Answer</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 years</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents 1

**Question 9:**
How successful or unsuccessful has your institution's on-site Community Supported Agriculture program been?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Successful</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Question 10:**
Which of the following factors have played a role in your institution's decision to operate an on-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution's staff</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution's administration</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution's membership</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Interest among general public</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Desire to broaden educational offerings</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Desire to attract members</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Desire to engage with community</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Availability of land on-site</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Availability of financial resources</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Availability of staff resources</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Potential for program revenue</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Question 11:**
Does your institution currently collaborate with an off-site Community Supported Agriculture program? (In such a program, food is grown off-site by a farmer, and delivered to your institution for shareholder pickup.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>90%</td>
<td>128</td>
</tr>
<tr>
<td>Yes</td>
<td>10%</td>
<td>15</td>
</tr>
<tr>
<td>Total respondents</td>
<td>143</td>
<td></td>
</tr>
</tbody>
</table>

142
Question 12:
How many years has your institution been collaborating with an off-site Community Supported Agriculture program?

<table>
<thead>
<tr>
<th>Number of Years</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 years</td>
<td>28.6%</td>
<td>4</td>
</tr>
<tr>
<td>1 year</td>
<td>14.3%</td>
<td>2</td>
</tr>
<tr>
<td>2 years</td>
<td>14.3%</td>
<td>2</td>
</tr>
<tr>
<td>3 years</td>
<td>14.3%</td>
<td>2</td>
</tr>
<tr>
<td>4 years</td>
<td>14.3%</td>
<td>2</td>
</tr>
<tr>
<td>10 years</td>
<td>7.1%</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents 14

<table>
<thead>
<tr>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.846153846</td>
<td>2.375084344</td>
</tr>
</tbody>
</table>

Question 13:
How successful or unsuccessful has your institution's off-site Community Supported Agriculture program been?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neither Successful nor Unsuccessful</td>
<td>53.3%</td>
<td>8</td>
</tr>
<tr>
<td>Somewhat Successful</td>
<td>33.3%</td>
<td>5</td>
</tr>
<tr>
<td>Very Successful</td>
<td>13.3%</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Very Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Total respondents 15

Question 14:
Which of the following factors have played a role in your institution's decision to collaborate with an off-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>85.7%</td>
<td>12</td>
</tr>
<tr>
<td>Desire to engage with community</td>
<td>71.4%</td>
<td>10</td>
</tr>
<tr>
<td>Support from staff</td>
<td>64.3%</td>
<td>9</td>
</tr>
<tr>
<td>Interest among general public</td>
<td>64.3%</td>
<td>9</td>
</tr>
</tbody>
</table>
Text entries in category “Other”:
- we are part of the University of TN Agricultural Exxperiment Station
- it started because staff were having their csa shares delivered to work and then the farmer asked if we would be willing to also be a pick-up site for other share holders who live in the area. We have never advertised it as an offerring, instead it is a bit of serendipity.
- We buy some CSA produce for using in our cafe
- we have a board member who operates an organic farm and wants to provide the food

Question 15:
Which of the following factors have influenced your institution's decision NOT to become involved with Community Supported Agriculture? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrelatedness to mission</td>
<td>57.1%</td>
<td>72</td>
</tr>
<tr>
<td>Unavailability of staff resources</td>
<td>53.2%</td>
<td>67</td>
</tr>
<tr>
<td>Unavailability of financial resources</td>
<td>36.5%</td>
<td>46</td>
</tr>
<tr>
<td>Other</td>
<td>25.4%</td>
<td>32</td>
</tr>
<tr>
<td>Unavailability of land on-site</td>
<td>24.6%</td>
<td>31</td>
</tr>
<tr>
<td>Lack of support from administration</td>
<td>11.1%</td>
<td>14</td>
</tr>
<tr>
<td>Insufficient potential for revenue</td>
<td>11.1%</td>
<td>14</td>
</tr>
<tr>
<td>Other - Never been considered</td>
<td>10.3%</td>
<td>13</td>
</tr>
<tr>
<td>Lack of support from staff</td>
<td>7.9%</td>
<td>10</td>
</tr>
<tr>
<td>Lack of interest from public</td>
<td>7.1%</td>
<td>9</td>
</tr>
<tr>
<td>Lack of support from membership</td>
<td>4.8%</td>
<td>6</td>
</tr>
</tbody>
</table>

Total respondents 126
Text entries for category Other:

- Never been considered (13)
- Lack of awareness
- College of Ag has a local farmers market
- possibility being considered as mission changes
- Growing our own fruits and vegetables for distribution to local food bank.
- program not widely known in Canada
- relevance to current mission
- No facilities or staff at this point
- other local organizations supporting such efforts
- already done within the community
- no CSA's in area
- would compete with locally-owned CSAs
- Nearby Farmer's Market fills this role on our community
- New Garden
- We wanted to present a lecture on CSA and were unable to find a speaker
- not a current goal
- We donate all produce from our vegetable garden to a local food distribution non-profit (food is distributed free to needy)
- i am working on proposal for Greenwood to be a distribution site
- have not been contacted to participate in csa. short staffed to offer help to csa
- an organization exists in our city that has CSA

Question 16:
In your opinion, which of the following factors are important for public horticulture institutions to take into account prior to implementing a Community Supported Agriculture project? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>86.4%</td>
<td>121</td>
</tr>
<tr>
<td>Availability of staff resources</td>
<td>79.3%</td>
<td>111</td>
</tr>
<tr>
<td>Support from administration</td>
<td>70.0%</td>
<td>98</td>
</tr>
<tr>
<td>Availability of financial resources</td>
<td>70.0%</td>
<td>98</td>
</tr>
<tr>
<td>Desire to engage with community</td>
<td>69.3%</td>
<td>97</td>
</tr>
<tr>
<td>Interest among public</td>
<td>64.3%</td>
<td>90</td>
</tr>
<tr>
<td>Availability of land on-site</td>
<td>60.0%</td>
<td>84</td>
</tr>
<tr>
<td>Support from staff</td>
<td>56.4%</td>
<td>79</td>
</tr>
<tr>
<td>Desire to broaden educational offerings</td>
<td>47.9%</td>
<td>67</td>
</tr>
<tr>
<td>Support from membership</td>
<td>47.1%</td>
<td>66</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
<td>----</td>
</tr>
<tr>
<td>Potential for revenue</td>
<td>36.4%</td>
<td>51</td>
</tr>
<tr>
<td>Desire to attract members</td>
<td>33.6%</td>
<td>47</td>
</tr>
<tr>
<td>Other</td>
<td>4.3%</td>
<td>6</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>140</td>
</tr>
</tbody>
</table>

**Text entries in category “Other”:**
- volunteers
- What mission related activities may it support or detract from.
- the Parks Department sponsors a 340 plot community garden which is run by the local garden club
- Water rights and availability
- I need to learn more about the program in order to answer this question.
- Visibility of CSA organizers

**Question 17:**
In your opinion, would implementation guidelines be helpful for public horticulture institutions wishing to establish Community Supported Agriculture programs?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>87.2%</td>
<td>123</td>
</tr>
<tr>
<td>No</td>
<td>12.8%</td>
<td>18</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>141</td>
</tr>
</tbody>
</table>

**Question 18:**
In your opinion, what areas should Community Supported Agriculture program implementation guidelines address? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budgeting and financial</td>
<td>88.9%</td>
<td>120</td>
</tr>
<tr>
<td>Infrastructural and equipment needs</td>
<td>81.5%</td>
<td>110</td>
</tr>
<tr>
<td>Building / retaining membership</td>
<td>80.0%</td>
<td>108</td>
</tr>
<tr>
<td>Legal issues</td>
<td>79.3%</td>
<td>107</td>
</tr>
<tr>
<td>Strategic planning</td>
<td>74.1%</td>
<td>100</td>
</tr>
<tr>
<td>Farm-related educational programming</td>
<td>60.0%</td>
<td>81</td>
</tr>
<tr>
<td>Crop planning</td>
<td>56.3%</td>
<td>76</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>10.4%</td>
<td>14</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>135</td>
</tr>
</tbody>
</table>

146
Text entries in category “Other”:

- transportation
- horticulture
- Time requirements of staff
- post-harvest requirements, most public gardens are not in the production mode/operation of fruit and most likely not equipped with coolers, refrigerators, etc for appropriate methods
- farmers market potential; using products in cafe operations
- General education around what a CSA is
- In our area, and in others?, I think the institutions that are most logically related to CSA are the land grant universities and the ag extension programs
- Using CSA produce for special event fundraising
- leasing CSA work to farmers on public horticulture institution land
- farmers' market creation to reduce infrastructure costs
- Food Safety
- Staff needs; case studies
- case studies of successful CSAs run by public horticulture organizations
- certification or inspection requirements
Appendix C

APPENDIX C: SURVEY 2 – ANCA ONLINE DISCUSSION GROUP
SUBSCRIBER SURVEY

Appendix C1: Invitation email text for ANCA Online Discussion Group
Subscriber Survey

Dear Colleagues,

I would like to invite you to participate in a survey regarding Community Supported Agriculture (CSA) projects at nature centers and related institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA.

This survey aims to assess the extent to which nature centers are interested in and involved with Community Supported Agriculture (CSA). CSA is an agricultural model in which consumers form direct relationships with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

This research is intended to gauge nature center involvement in initiatives related to sustainable agriculture. In addition, it will inform the development of implementation guidelines for institutions wishing to implement CSA projects.

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 14 and 20 questions and should take less than 15 minutes to complete. If you prefer to register a response on a paper survey please contact me to request that a paper copy be mailed to you.
If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.

Thank you for your time and consideration. Your participation in this research is greatly appreciated!

Please follow this link to the Survey, or copy and paste the URL into your Web browser:

https://delaware.qualtrics.com/SE?SID=SV_2hlqnTsbnc7mhQU&SVID=Prod

Sincerely,

Shari Edelson
Graduate Fellow
Longwood Graduate Program
126 Townsend Hall
University of Delaware
Newark, DE 19716-2106
Tel: 302-831-2517
Fax: 302-831-3651
sedelson@udel.edu

www.udel.edu/longwoodgrad/

Follow this link to opt out of future emails: ${l://OptOutLink}
Appendix C2: Reminder email text for ANCA Online Discussion Group Subscriber Survey

Dear Colleagues,

I am writing once again to invite your institution to participate in a survey regarding Community Supported Agriculture (CSA) projects at nature centers and related institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA. An initial invitation was sent to you approximately six weeks ago; if you have already participated in the survey, I would like to thank you very much for your time and attention.

This survey aims to assess the extent to which nature centers are interested in and involved with Community Supported Agriculture (CSA). CSA is an agricultural model in which consumers form direct relationships with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

This research is intended to gauge nature center involvement in initiatives related to sustainable agriculture. In addition, it will inform the development of implementation guidelines for institutions wishing to implement CSA projects.

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 14 and 20 questions and should take less than 15 minutes to complete. If you prefer to register a response on a paper survey please contact me to request that a paper copy be mailed to you.

If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.

Thank you for your time and consideration. Your participation in this research is greatly appreciated!
Please follow this link to the Survey, or copy and paste the URL into your Web browser:

https://delaware.qualtrics.com/SE?SID=SV_2hlqnTsbnc7mhQU&SVID=Prod

Sincerely,

Shari Edelson
Graduate Fellow
Longwood Graduate Program
126 Townsend Hall
University of Delaware
Newark, DE 19716-2106
Tel: 302-831-2517
Fax: 302-831-3651
sedelson@udel.edu

www.udel.edu/longwoodgrad/
Appendix C3: ANCA Online Discussion Group Subscriber Survey Questions

Introduction:
This survey investigates interest in, and engagement with, Community Supported Agriculture (CSA) projects on the part of nature centers and related institutions.

This survey is being conducted by Shari Edelson of the Longwood Graduate Program in Public Horticulture at the University of Delaware. Survey results will be published as part of a Master’s thesis and will be available upon request.

This questionnaire consists of between 14 and 20 questions and will take you around 10 minutes to complete.

Individual responses will be collected on a secure web server. These data will remain confidential and will be viewed only by the investigator. The data will be destroyed following the completion of the research project. If you prefer to submit a response using a paper survey, please contact the investigator, Shari Edelson, to request that a paper copy be mailed to you.

Your participation is entirely voluntary. To leave the study at any time, simply close your web browser.

If you have any questions concerning this study, please contact the investigator, Shari Edelson, Longwood Graduate Program, University of Delaware, at sedelson@udel.edu. For questions about your rights as a subject or about any issues concerning the use of human subjects in research, please contact the Chair of the University of Delaware Human Subjects Review Board, (302) 831-2137.

Thank you very much for your participation in this survey. Your assistance is greatly appreciated!
Question 1:
How does your institution identify itself? (Please select all that apply. Options are presented in random order.)

- Botanical Garden
- College / University Garden
- Conservatory
- Public Park
- Historic Landscape Site
- Wildlife Preserve
- Farm Garden
- Zoo
- Public Garden
- Nature Center
- Display Garden
- Arboretum
- Environmental Education Center
- Other (please specify): ____________

Question 2:
What was the approximate annual operating budget of your institution in Fiscal Year 2008-2009?

- Less than $500,000
- Between $500,000 and $1,000,000
- Between $1,000,000 and $2,000,000
- Greater than $2,000,000
Question 3:
Which of the following are part of your institution's mission? (Please select all that apply. Options are presented in random order.)

- Open Space Preservation
- Environmental Education
- Plant Conservation
- Land Stewardship
- Horticultural Display
- Horticultural Research
- Public Education
- Historic Preservation
- Wildlife Conservation
- Agricultural Education
- Horticultural Therapy
- Other (please specify): ____________

Question 4:
How relevant or irrelevant is environmental sustainability to your institution’s mission?

- Very Relevant
- Somewhat Relevant
- Neither Relevant nor Irrelevant
- Somewhat Irrelevant
- Very Irrelevant

Question 5:
How relevant or irrelevant is agricultural sustainability to your institution's mission?

- Very Relevant
- Somewhat Relevant
- Neither Relevant nor Irrelevant
- Somewhat Irrelevant
- Very Irrelevant
Question 6:
In which of the following topic areas does your institution host educational programming? (Please select all that apply. Options are presented in random order.)
• Sustainable Living
• Organic Gardening
• Cooking and Food Preparation
• Local Foods
• Farm Life
• Farming Techniques
• Home Vegetable and Fruit Gardening
• Other related areas (please specify): ____________

Text:
Community Supported Agriculture (CSA) is an agricultural model within which consumers form a direct relationship with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

The following questions relate to CSA projects at public horticulture institutions.

Question 7:
Does your institution currently operate a Community Supported Agriculture program on-site? (In such a program, food is grown on the premises and distributed directly to shareholders.)
• Yes
• No

Question 8:
How many years has your institution been operating an on-site Community Supported Agriculture program?
• Number of Years: ___
Question 9:
How successful or unsuccessful has your institution's on-site Community Supported Agriculture program been?
- Very Successful
- Somewhat Successful
- Neither Successful nor Unsuccessful
- Somewhat Unsuccessful
- Very Unsuccessful

Question 10:
Which of the following factors have played a role in your institution's decision to operate an on-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)
- Mission-appropriateness
- Interest among general public
- Availability of financial resources
- Potential for program revenue
- Support from institution's membership
- Support from institution's staff
- Desire to attract members
- Availability of staff resources
- Desire to engage with community
- Support from institution's administration
- Availability of land on-site
- Desire to broaden educational offerings
- Other (please specify): __________

Question 11:
Does your institution currently collaborate with an off-site Community Supported Agriculture program? (In such a program, food is grown off-site by a farmer, and delivered to your institution for shareholder pickup.)
- Yes
- No

Question 12:
How many years has your institution been collaborating with an off-site Community Supported Agriculture program?
- Number of Years: ___
Question 13:
How successful or unsuccessful has your institution's off-site Community Supported Agriculture program been?
- Very Successful
- Somewhat Successful
- Neither Successful nor Unsuccessful
- Somewhat Unsuccessful
- Very Unsuccessful

Question 14:
Which of the following factors have played a role in your institution's decision to collaborate with an off-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)
- Availability of financial resources
- Unavailability of land on-site
- Mission-appropriateness
- Desire to attract members
- Desire to engage with community
- Desire to broaden educational offerings
- Interest among general public
- Support from institution's membership
- Support from institution's staff
- Support from institution's administration
- Availability of staff resources
- Potential for program revenue
- Other (please specify): ____________
Question 15:
Which of the following factors have influenced your institution's decision NOT to become involved with Community Supported Agriculture? (Please select all that apply. Options are presented in random order.)

- Insufficient potential for program revenue
- Unrelatedness to institution's mission
- Lack of support from institution's administration
- Lack of support from institution's staff
- Lack of support from membership
- Unavailability of land on-site
- Lack of interest from public
- Unavailability of financial resources
- Unavailability of staff resources
- Other (please specify): ____________

Question 16:
In your opinion, which of the following factors are important for nature centers and related institutions to take into account prior to implementing a Community Supported Agriculture project? (Please select all that apply. Options are presented in random order.)

- Interest among general public
- Desire to broaden educational offerings
- Availability of financial resources
- Support from institution's administration
- Desire to attract members
- Desire to engage with community
- Mission-appropriateness
- Availability of staff resources
- Support from institution's membership
- Potential for program revenue
- Support from institution's staff
- Availability of land on-site
- Other (please specify): ____________

Question 17:
In your opinion, would implementation guidelines be helpful for nature centers and related institutions wishing to establish Community Supported Agriculture programs?

- Yes
- No
Question 18:
In your opinion, what areas should Community Supported Agriculture program implementation guidelines address? (Please select all that apply. Options are presented in random order.)
- Building and retaining CSA membership
- Crop planning
- Farm-related educational programming
- Legal issues
- Infrastructure and equipment needs
- Strategic planning
- Budgeting and financial considerations
- Other (please specify): ____________

Question 19:
Would your institution be willing to participate in further research on Community Supported Agriculture programs and nature centers? Such research would be conducted within the next year, and may take the form of institutional case studies or personal interviews.
- Yes
- No

Question 20:
Thank you for indicating your willingness to participate in further research. Please enter your contact information below, to enable the primary researcher to contact you. Please note that your contact information will remain entirely confidential, will not be sold, transferred, or shared with any third parties, and will not be used for any purposes other than the present research project.
- Name
- Title / Position
- Institution
- Address
- Address 2
- City
- State
- Zip Code
- Country
Text:
Please make any additional comments that you feel are relevant to the topic of Community Supported Agriculture projects and their implementation at nature centers and related institutions.
Appendix C4: ANCA Online Discussion Group Subscriber Survey Results

Question 1:
How does your institution identify itself? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature Center</td>
<td>76.5%</td>
<td>13</td>
</tr>
<tr>
<td>Environmental Education Center</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>17.6%</td>
<td>3</td>
</tr>
<tr>
<td>Display Garden</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Farm Garden</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Public Park</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Conservatory</td>
<td>5.9%</td>
<td>1</td>
</tr>
<tr>
<td>Historic Landscape Site</td>
<td>5.9%</td>
<td>1</td>
</tr>
<tr>
<td>Wildlife Preserve</td>
<td>5.9%</td>
<td>1</td>
</tr>
<tr>
<td>Arboretum</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Botanical Garden</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>College / University Garden</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Public Garden</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Zoo</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Text entries in category “Other”:
- wildlife hospital
- Nature Center and Open Space organization (County)
- University Nature Center

Question 2:
What was the approximate annual operating budget of your institution in Fiscal Year 2008-2009?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $500,000</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Between $1,000,000 and $2,000,000</td>
<td>23.5%</td>
<td>4</td>
</tr>
<tr>
<td>Between $500,000 and $1,000,000</td>
<td>17.6%</td>
<td>3</td>
</tr>
<tr>
<td>Greater than $2,000,000</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Total respondents</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>
**Question 3:**
Which of the following are part of your institution's mission? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Education</td>
<td>100.0%</td>
<td>17</td>
</tr>
<tr>
<td>Public Education</td>
<td>94.1%</td>
<td>16</td>
</tr>
<tr>
<td>Land Stewardship</td>
<td>76.5%</td>
<td>13</td>
</tr>
<tr>
<td>Wildlife Conservation</td>
<td>76.5%</td>
<td>13</td>
</tr>
<tr>
<td>Open Space Preservation</td>
<td>52.9%</td>
<td>9</td>
</tr>
<tr>
<td>Plant Conservation</td>
<td>52.9%</td>
<td>9</td>
</tr>
<tr>
<td>Agricultural Education</td>
<td>35.3%</td>
<td>6</td>
</tr>
<tr>
<td>Historic Preservation</td>
<td>35.3%</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>29.4%</td>
<td>5</td>
</tr>
<tr>
<td>Horticultural Display</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Horticultural Research</td>
<td>5.9%</td>
<td>1</td>
</tr>
<tr>
<td>Horticultural Therapy</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Total respondents 17

**Text entries in category “Other”:**
- promote natural resource stewardship
- wildlife rehabilitation
- Community Sustainability
- Outdoor Recreation
- Environmental Research

**Question 4:**
How relevant or irrelevant is environmental sustainability to your institution’s mission?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Relevant</td>
<td>94.1%</td>
<td>16</td>
</tr>
<tr>
<td>Somewhat Relevant</td>
<td>5.9%</td>
<td>1</td>
</tr>
<tr>
<td>Neither Relevant nor Irrelevant</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat Irrelevant</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Total respondents 17

162


**Question 5:**
How relevant or irrelevant is agricultural sustainability to your institution's mission?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Relevant</td>
<td>37.5%</td>
<td>6</td>
</tr>
<tr>
<td>Somewhat Relevant</td>
<td>50.0%</td>
<td>8</td>
</tr>
<tr>
<td>Neither Relevant nor Irrelevant</td>
<td>12.5%</td>
<td>2</td>
</tr>
<tr>
<td>Somewhat Irrelevant</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Very Irrelevant</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Total respondents</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

**Question 6:**
In which of the following topic areas does your institution host educational programming? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Living</td>
<td>64.7%</td>
<td>11</td>
</tr>
<tr>
<td>Organic Gardening</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Cooking and Food Preparation</td>
<td>35.3%</td>
<td>6</td>
</tr>
<tr>
<td>Local Foods</td>
<td>35.3%</td>
<td>6</td>
</tr>
<tr>
<td>Farm Life</td>
<td>23.5%</td>
<td>4</td>
</tr>
<tr>
<td>Home Vegetable and Fruit Gardening</td>
<td>23.5%</td>
<td>4</td>
</tr>
<tr>
<td>Other related areas</td>
<td>23.5%</td>
<td>4</td>
</tr>
<tr>
<td>Farming Techniques</td>
<td>11.8%</td>
<td>2</td>
</tr>
<tr>
<td>Total respondents</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

**Text entries in category “Other”:**
- youth gardening programs
- gardening for wildlife
- Organic Housekeeping
- Native wild plants and animal education; teambuilding/group dynamics; environmental interpretation

**Text:**
Community Supported Agriculture (CSA) is an agricultural model within which consumers form a direct relationship with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year, and then receives weekly distributions of produce for the duration of the growing season.

The following questions relate to CSA projects at public horticulture institutions.
Question 7:
Does your institution currently operate a Community Supported Agriculture program on-site? (In such a program, food is grown on the premises and distributed directly to shareholders.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>94.1%</td>
<td>16</td>
</tr>
<tr>
<td>Yes</td>
<td>5.9%</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents: 17

Question 8:
How many years has your institution been operating an on-site Community Supported Agriculture program?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 years</td>
<td>100</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents: 1

Question 9:
How successful or unsuccessful has your institution's on-site Community Supported Agriculture program been?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat Unsuccessful</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Very Successful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat Successful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Neither Successful nor Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Very Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Total respondents: 1

Question 10:
Which of the following factors have played a role in your institution's decision to operate an on-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution staff</td>
<td>100.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution administration</td>
<td>100.0%</td>
<td>1</td>
</tr>
</tbody>
</table>
Desire to broaden educational offerings 100.0% 1
Availability of land on-site 100.0% 1
Potential for program revenue 100.0% 1
Support from institution membership 0.0% 0
Interest among public 0.0% 0
Desire to attract members 0.0% 0
Desire to engage with community 0.0% 0
Availability of financial resources 0.0% 0
Availability of staff resources 0.0% 0
Other 0.0% 0
Total respondents 1

Question 11:
Does your institution currently collaborate with an off-site Community Supported Agriculture program? (In such a program, food is grown off-site by a farmer, and delivered to your institution for shareholder pickup.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>88.2%</td>
<td>15</td>
</tr>
<tr>
<td>Yes</td>
<td>11.8%</td>
<td>2</td>
</tr>
</tbody>
</table>
Total respondents 17

Question 12:
How many years has your institution been collaborating with an off-site Community Supported Agriculture program?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>2 years</td>
<td>50.0%</td>
<td>1</td>
</tr>
</tbody>
</table>
Total respondents 2

Question 13:
How successful or unsuccessful has your institution's off-site Community Supported Agriculture program been?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat Successful</td>
<td>100.0%</td>
<td>2</td>
</tr>
<tr>
<td>Very Successful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Neither Successful nor Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Somewhat Unsuccessful</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>
Question 14:
Which of the following factors have played a role in your institution's decision to collaborate with an off-site Community Supported Agriculture program? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution staff</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Desire to attract members</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Desire to engage with community</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Availability of staff resources</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Potential for program revenue</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>50.0%</td>
<td>1</td>
</tr>
<tr>
<td>Support from institution administration</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Support from institution membership</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Interest among general public</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Desire to broaden educational offerings</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Unavailability of land on-site</td>
<td>0.0%</td>
<td>0</td>
</tr>
<tr>
<td>Availability of financial resources</td>
<td>0.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Total respondents: 2

Text entries in category “Other”:
- unavailability of resources (they have heated greenhouse and start all of our seedlings for us, which we then grow and harvest for our members)

Question 15:
Which of the following factors have influenced your institution's decision NOT to become involved with Community Supported Agriculture? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>66.7%</td>
<td>10</td>
</tr>
<tr>
<td>Unavailability of staff resources</td>
<td>26.7%</td>
<td>4</td>
</tr>
<tr>
<td>Unrelatedness to institutional mission</td>
<td>20.0%</td>
<td>3</td>
</tr>
<tr>
<td>Unavailability of land on-site</td>
<td>20.0%</td>
<td>3</td>
</tr>
<tr>
<td>Unavailability of financial resources</td>
<td>20.0%</td>
<td>3</td>
</tr>
<tr>
<td>Lack of support from administration</td>
<td>13.3%</td>
<td>2</td>
</tr>
<tr>
<td>Lack of support from membership</td>
<td>13.3%</td>
<td>2</td>
</tr>
</tbody>
</table>

Total respondents: 2
<table>
<thead>
<tr>
<th>Lack of interest from public</th>
<th>13.3%</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of support from staff</td>
<td>6.7%</td>
<td>1</td>
</tr>
<tr>
<td>Insufficient potential for program revenue</td>
<td>6.7%</td>
<td>1</td>
</tr>
</tbody>
</table>

Total respondents 15

**Text entries in category “Other”:**
- Plenty of CSA activity in our community
- our farm is currently closed due to funding and strategic planning limitations
- nearby CSA meets community needs
- There are many CSA's in the area; we encourage people to support them and are partners with them in education here.
- We are looking into it as a collaborative effort with a neighboring botanical garden which is a neighboring landowner
- haven't considered
- We are partnering with other organizations who are doing this but would like to increase our partnership if resources were available
- Location - not near a population center
- General lack of knowledge
- have not considered it yet but should

**Question 16:**
In your opinion, which of the following factors are important for nature centers and related institutions to take into account prior to implementing a Community Supported Agriculture project? (Please select all that apply. Options are presented in random order.)

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission-appropriateness</td>
<td>88.2%</td>
<td>15</td>
</tr>
<tr>
<td>Availability of staff resources</td>
<td>82.4%</td>
<td>14</td>
</tr>
<tr>
<td>Availability of financial resources</td>
<td>76.5%</td>
<td>13</td>
</tr>
<tr>
<td>Interest among public</td>
<td>70.6%</td>
<td>12</td>
</tr>
<tr>
<td>Availability of land on-site</td>
<td>70.6%</td>
<td>12</td>
</tr>
<tr>
<td>Support from institution administration</td>
<td>64.7%</td>
<td>11</td>
</tr>
<tr>
<td>Support from institution staff</td>
<td>58.8%</td>
<td>10</td>
</tr>
<tr>
<td>Desire to engage with community</td>
<td>52.9%</td>
<td>9</td>
</tr>
<tr>
<td>Support from institution membership</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Desire to broaden educational offerings</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Desire to attract members</td>
<td>47.1%</td>
<td>8</td>
</tr>
<tr>
<td>Potential for program revenue</td>
<td>35.3%</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>23.5%</td>
<td>4</td>
</tr>
</tbody>
</table>

Total respondents 17
Text entries in category “Other”:
- Ability to lose $$ for several years
- difficult to make a CSA work on a small scale
- availability of CSA locally
- no experience to base a decision

Question 17:
In your opinion, would implementation guidelines be helpful for nature centers and related institutions wishing to establish Community Supported Agriculture programs?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>88.2%</td>
<td>15</td>
</tr>
<tr>
<td>No</td>
<td>11.8%</td>
<td>2</td>
</tr>
</tbody>
</table>

Total respondents 17

Question 18:
In your opinion, what areas should Community Supported Agriculture program implementation guidelines address? (Please select all that apply. Options are presented in random order.)

| Building and retaining CSA membership | 94.1% | 16 |
| Budgeting and financial considerations | 88.2% | 15 |
| Legal issues | 88.2% | 15 |
| Infrastructure and equipment needs | 82.4% | 14 |
| Strategic planning | 76.5% | 13 |
| Farm-related educational programming | 41.2% | 7  |
| Crop planning | 29.4% | 5  |
| Other | 11.8% | 2  |

Total respondents 17

Text entries in category “Other”:
- potential funding sources
- assessing interest/need
Appendix D

APPENDIX D: SURVEY 3 – APGA INSTITUTIONAL MEMBERSHIP FOLLOW-UP SURVEY

Appendix D1: Invitation email text for APGA Institutional Membership Follow-Up Survey

Dear Colleague,

I would like to invite your institution to participate in a survey regarding Community Supported Agriculture (CSA) projects at public horticulture institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA.

This survey is a follow-up to an initial survey, which was distributed in the summer of 2009. Whether or not your institution answered the original questionnaire, your participation in the current survey is welcomed and would be greatly appreciated.

The current survey aims to assess the extent to which public horticulture institutions are aware of and interested in Community Supported Agriculture (CSA).

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 2 and 3 questions and should take less than 5 minutes to complete.

If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.
Thank you for your time and consideration. Your participation in this research is greatly appreciated!

**Please follow this link to the Survey:** ${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your Internet browser:
${l://SurveyURL}

Sincerely,

Shari Edelson
Graduate Fellow
Longwood Graduate Program
126 Townsend Hall
University of Delaware
Newark, DE 19716-2106
Tel: 302-831-2517
Fax: 302-831-3651
sedelson@udel.edu

www.udel.edu/longwoodgrad/

Follow this link to opt out of future emails: ${l://OptOutLink}
Appendix D2: Reminder email text for APGA Institutional Membership Follow-Up Survey

Dear Colleague,

I am writing once again to invite your institution to participate in a survey regarding Community Supported Agriculture (CSA) projects at public horticulture institutions. This survey is a component of my M.S. thesis research in the Longwood Graduate Program in Public Horticulture at the University of Delaware, Newark, Delaware, USA. An initial invitation was sent to you approximately one week ago; if you have already participated in the survey, I would like to thank you very much for your time and attention.

This survey is a follow-up to a previous survey, which was distributed in the summer of 2009. **Whether or not your institution answered the original questionnaire, your participation in the current survey is welcomed and would be greatly appreciated.**

The current survey aims to assess the extent to which public horticulture institutions are aware of and interested in Community Supported Agriculture (CSA).

As a participant in the survey, you are free to terminate your participation at any time by simply closing your Web browser before you press the final submission button. Any responses you previously made will not be included in the study.

The survey consists of between 2 and 3 questions and should take less than 5 minutes to complete.

**If you feel that a different individual within your institution could better address questions regarding Community Supported Agriculture, please feel free to forward this survey to them.**

Thank you for your time and consideration. Your participation in this research is greatly appreciated!

**Please follow this link to the Survey:** $\{l://SurveyLink?d=Take the Survey\}$
Or copy and paste the URL below into your Internet browser:
${l://SurveyURL}

Sincerely,

Shari Edelson  
Graduate Fellow  
Longwood Graduate Program  
126 Townsend Hall  
University of Delaware  
Newark, DE 19716-2106  
Tel: 302-831-2517  
Fax: 302-831-3651  
sedelson@udel.edu

www.udel.edu/longwoodgrad/

Follow this link to opt out of future emails: ${l://OptOutLink}
Appendix D3: APGA Institutional Membership Follow-Up Survey Questions

Introduction:
This survey investigates awareness of, and interest in, Community Supported Agriculture (CSA) projects on the part of public horticulture institutions.

This survey is being conducted by Shari Edelson of the Longwood Graduate Program in Public Horticulture at the University of Delaware. Survey results will be published as part of a Master’s thesis and will be available upon request.

This questionnaire consists of two (2) or three (3) questions, and should take no more than a few minutes to complete.

Individual responses will be collected on a secure web server. These data will remain confidential and will be viewed only by the investigator. The data will be destroyed following the completion of the research project.

Your participation is entirely voluntary. To leave the study at any time, simply close your web browser.

If you have any questions concerning this study, please contact the investigator, Shari Edelson, Longwood Graduate Program, University of Delaware, at sedelson@udel.edu. For questions about your rights as a subject or about any issues concerning the use of human subjects in research, please contact the Chair of the University of Delaware Human Subjects Review Board, (302) 831-2137.

Thank you very much for your participation in this survey. Your assistance is greatly appreciated!

Text:
Community Supported Agriculture (CSA) is an agricultural model within which consumers form a direct relationship with the farmers who produce their food. An individual CSA customer, variously referred to as a “shareholder” or “member,” purchases a share of a farm’s projected harvest for the coming year. The shareholder then receives weekly distributions of produce for the duration of the growing season.

The following questions relate to CSA projects at public horticulture institutions.

173
**Question 1:**
Are you familiar with Community Supported Agriculture (CSA) as described above?
- Yes
- No

**Question 2:**
Has your institution ever considered implementing a Community Supported Agriculture (CSA) project?
- Yes
- No

**Question 3:**
What type of Community Supported Agriculture (CSA) project has your institution considered implementing? Please select all that apply.
- On-site CSA directly operated by your institution. (Staff of your institution grow all produce and manage all aspects of the CSA.)
- Partnership with off-site CSA. (Your institution collaborates with an independent farmer who grows all produce and uses your institution as a drop-off site for shares.)
- Other - please describe.

**Text:**
Please make any additional comments that you feel are relevant to the topic of Community Supported Agriculture projects and their implementation at public horticulture institutions.
Appendix D4: APGA Institutional Membership Follow-Up Survey Results

Question 1:
Are you familiar with Community Supported Agriculture (CSA) as described above?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>85.5%</td>
<td>106</td>
</tr>
<tr>
<td>No</td>
<td>14.5%</td>
<td>18</td>
</tr>
<tr>
<td>Total Respondents</td>
<td></td>
<td>124</td>
</tr>
</tbody>
</table>

Question 2:
Has your institution ever considered implementing a Community Supported Agriculture (CSA) project?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>74.4%</td>
<td>92</td>
</tr>
<tr>
<td>Yes</td>
<td>25.6%</td>
<td>64</td>
</tr>
<tr>
<td>Total Respondents</td>
<td></td>
<td>156</td>
</tr>
</tbody>
</table>

Question 3:
What type of Community Supported Agriculture (CSA) project has your institution considered implementing? Please select all that apply.

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partnership with off-site CSA</td>
<td>54.5%</td>
<td>18</td>
</tr>
<tr>
<td>On-site CSA</td>
<td>36.4%</td>
<td>12</td>
</tr>
<tr>
<td>Other</td>
<td>24.2%</td>
<td>8</td>
</tr>
<tr>
<td>Other - partnership with on-site CSA</td>
<td>9.1%</td>
<td>3</td>
</tr>
<tr>
<td>Total Respondents</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

Text entries in category “Other”:
- Partnership with off-site CSA (3)
- Really--just thought it would be a good match with us....never got to research; we sponsor a farmer's market already.
• We have considered both above plus a student run business, owned and operated by students. None have been implemented because of past mis management.
• local community garden development
• being the distribution point for a CSA
• only in the sense of our produce to be donated to local charities
Appendix E

APPENDIX E: CASE STUDY RESEARCH

Appendix E1: Case Study Protocol

A. Case Study Overview
   1. Research Questions
      a. To what extent are public horticulture institutions in the United States interested in, and engaged with, community supported agriculture (CSA)?
      b. What are the perceived and actual institutional benefits of including CSA projects within operations?
      c. What are the perceived and actual institutional barriers to inclusion of CSA projects within operations?
      d. Would implementation guidelines assist public horticulture institutions to establish CSA programs? If so, what types of guidelines would be of greatest utility?

   2. Theoretical framework for the case study
      This study as a whole utilizes a mixed methods approach to data collection, consisting of surveys, case studies, and interviews.
      a. Surveys. Internet-based surveys were sent to institutional members of the American Public Gardens Association, as well as to registrants of the Association of Nature Center Administrators’ online discussion group. These surveys were designed to gather data on the research questions identified in Section A1, above. The collected survey data was then utilized to design case study questions and identify themes for further investigation.
      b. Case Studies. Institutions utilizing a range of CSA implementation models will be selected for case study investigation and analysis. This approach will ensure that research findings are relevant to a diverse array of public
horticulture institutions, and will form the basis for implementation guidelines that may be effectively utilized by a wide range of institutions. In addition, at least one newly-established CSA program will be included as a case study, with the intent of providing more detailed information on the beginning stages of CSA establishment at public horticulture institutions.

c. **Interviews.** Interviews will be conducted with representatives of additional institutions that operate or collaborate with CSAs. These interviews will provide additional insight on the research topic.

**B. Data Collection Procedures**

1. **Case Study Sites**
   - Case study sites were selected on the basis of the following criteria:
     a. The CSA program must be housed within, and operated by, a parent institution.
     
     b. The parent organization must be a public horticulture institution, defined as an institution that undertakes “the art and science of cultivating plants in spaces for public use and enrichment” (Center for Public Horticulture, 2007).
     
     c. There must exist evidence of meaningful institutional commitment to the CSA, whether in the form of funding, specialized staff, or dedicated material resources such as land.

   Using the above criteria, the following institutions have been identified as case study sites:
     
     a. Delaware Nature Society / Coverdale Farm CSA (newly-established CSA)
     
     b. Hampshire College / Hampshire College CSA (long-running CSA)
     
     c. California Polytechnic State University / Cal Poly Organic Farm (long-running CSA) (tentative)
     
     d. Denver Botanic Gardens / Chatfield CSA (newly-established CSA) (tentative)

2. **Data collection plan**
a. **Interviews.** Interviews with CSA staff, volunteers, and members, as well as with upper-level management at parent institutions, will constitute the majority of data collected at case study sites. For purposes of analysis, audio recordings will be made of all interviews.

b. **Documents.** Relevant institutional documents concerning CSA-related planning, programming, budgeting, and promotion will be gathered at each case study site.

c. **Program Observation.** In order to gain additional insight into institutional practices, the investigator will attend and observe CSA-related programming when possible.

3. **Site Visit Preparation**
   a. Case study protocol and interview questions will be reviewed and approved by the investigator’s Graduate Committee, as well as by the University of Delaware Human Subjects Review Board.
   b. Case study questions and other relevant background materials will be provided to research sites prior to the case study visit.

C. **Case Study Questions**
   The following questions are directed toward the researcher and are intended to focus data collection efforts; they will be modified for distribution to individual interviewees.

   1. **General Questions**
      a. What factors motivate institutions to implement CSA projects?
      b. To what extent have the case study sites been successful at integrating CSA projects within operations? How is this success measured?
      c. How do institutions determine which implementation model to adopt? Does one implementation model lead to a different level of program success than another?

   2. **Institutional Background**
      a. What is the identity and current staff position of the interviewee? What role does the interviewee play in operation or management of the institution’s CSA project?
      b. What is the history of CSA implementation at the institution?
         i. How was the decision made to establish the program?
         ii. What stakeholders were engaged in the process?
iii. What role did the stakeholders envision the program playing within the institution?
iv. What background research did the institution conduct in preparation for implementation?
v. What motivated the institution to adopt one implementation model over the other?
vi. How were land-use decisions made?
vii. How were budgeting decisions made, and what were the project’s funding sources?
viii. How were programming decisions made?

3. Operations
   a. Staffing
      i. How many staff / volunteers are involved in the project? How is the program administered?
   b. Membership
      i. How large is the CSA’s membership? What is the average rate of returning membership?
      ii. Has there been a change in subscription demand over time?
      iii. How are members recruited? Are subscriptions available to the public, or are they available as a benefit of membership in the parent organization?
      iv. How active are members in the operation and management of the CSA?
   c. Finances
      i. How much does the institution invest in the project on a yearly basis? Has the institution’s level of financial investment changed over time?
      ii. Does the program generate revenue for the institution?
   d. Evaluation
      i. Has the institution conducted any surveys of CSA members?
      ii. Has the institution conducted any other self-assessments related to CSA programming?

4. Programming
   a. Does the institution offer any CSA-related programming (educational, recreational, or other)? If yes, what kinds? If no, why not?
b. Can related programming generate additional benefits for the CSA and parent institution?

5. Institutional Benefits
   a. In what ways can CSA programs support an institution’s mission?
   b. Does one implementation model lead to different institutional benefits than another?
   c. With what frequency and to what extent are the following benefits realized?
      i. Supports connection with garden membership and local community; provides a valuable community service
      ii. Can increase institution’s visibility, prominence, and perceived relevance within community
      iii. Supports educational and recreational programming
      iv. Enables the institution to model sustainable practices
      v. Increases overall awareness of public horticulture and public gardens
      vi. Provides a source of revenue for the institution

6. Institutional Challenges
   a. What are the barriers to implementation of CSA projects at public horticulture institutions?
   b. With what frequency and to what extent are the following barriers encountered?
      i. Unrelatedness to institutional mission
      ii. Unavailability of financial resources
      iii. Unavailability of staff resources
      iv. Lack of support from administration, staff, or membership
      v. Lack of public interest
      vi. Insufficient potential for program revenue
   c. How do institutions respond to and cope with these barriers?
   d. Do the benefits of implementing CSA projects at public horticulture institutions outweigh the challenges?
Appendix E2: Case Study Questions

Case Study Interview Questions

The Farm and the Garden: Community Supported Agriculture Programs and Public Horticulture Institutions

Shari Edelson, Longwood Graduate Program, University of Delaware

1. Institutional Background
   a. Interviewee’s name and current position
      i. What role does the interviewee play in operation or management of the institution’s CSA project?
   b. What is the history of CSA implementation at the institution?
      i. What motivated the institution to establish the program?
      ii. What stakeholders were engaged in the planning and implementation process?
      iii. What role did the stakeholders envision the program playing within the institution?
      iv. What background research did the institution conduct in preparation for implementation? Were there any reference materials that proved to be particularly useful?
   v. What motivated the institution to establish an on-site CSA versus an off-site CSA?
   vi. How were land-use decisions made?
   vii. How were budgeting decisions made, and what were the project’s initial funding sources?
   viii. How were programming decisions made?

2. Operations
   a. Staffing
      i. How many staff / volunteers are involved in the project?
      ii. What is the program’s administrative structure? Where does the program fall within the operations of the parent institution?
      iii. How are volunteers recruited, managed, and retained?
   b. Membership
i. How large is the CSA’s membership? What is the average rate of returning membership from year to year?
ii. Has there been a change in subscription demand over time?
iii. How are members recruited? Are subscriptions available to the public, or are they available as a benefit of membership in the parent organization?
iv. How active are members in the operation and management of the CSA?

c. Finances
   i. How much does the parent institution invest in the project on a yearly basis? Has the institution’s level of financial investment changed over time?
   ii. Does the program generate revenue for the institution?
   iii. To what extent is the CSA program financially self-supporting?

d. Evaluation
   i. Has the institution conducted any surveys of CSA members?
   ii. Has the institution conducted any other self-assessments related to CSA programming?

3. Programming
   a. Does the institution offer any CSA-related programming (educational, recreational, or other)? If yes, what kinds? If no, why not?
   b. In the interviewee’s opinion, could CSA-related programming generate additional benefits for the CSA and parent institution?

4. Institutional Benefits
   a. In the interviewee’s opinion, does the institution’s CSA program support the mission of the parent institution? If so, how? If not, why not?
   b. With what frequency and to what extent are the following benefits realized?
      i. Program supports connection with garden membership and local community; provides a valuable community service
      ii. Program increases institution’s visibility, prominence, and perceived relevance within community

183
iii. Program supports educational and recreational programming
iv. Program enables the institution to model sustainable practices
v. Program increases overall awareness of public horticulture and public gardens
vi. Program provides a source of revenue for the institution
vii. Other benefits – please specify

5. Institutional Challenges
   a. Has the institution encountered any challenges to CSA implementation?
   b. With what frequency and to what extent are/were the following barriers encountered?
      i. Unrelatedness to institutional mission
      ii. Unavailability of financial resources
      iii. Unavailability of staff resources
      iv. Lack of support from administration, staff, or membership
      v. Lack of public interest
      vi. Insufficient potential for program revenue
      vii. Other barriers – please specify
   c. How did/does the institution respond to and cope with these barriers?
   d. In the interviewee’s opinion, how have the benefits provided by the institution’s CSA programming compared to the challenges it has posed?
Appendix E3: Case Study Interview Consent Form

Informed Consent Form for Interviews

The Farm and the Garden: Community Supported Agriculture Programs and Public Horticulture Institutions

Shari Edelson, Longwood Graduate Program, University of Delaware

You have been invited to participate in a research study concerning community supported agriculture (CSA) projects at public horticulture institutions. The purpose of this study is to assess the potential for successful integration of CSA projects at public gardens; the end result will be the development of recommendations for institutions interested in implementing CSA programs.

Please read the information below describing this study. Feel free to ask questions about anything you do not understand before deciding to take part. Your participation is voluntary and you are free to refuse to answer any question or withdraw from this study at any time without penalty.

Procedures of the Study

This research consists of case studies and focused interviews, to be completed at several institutions that have implemented CSA programs. You have been selected to participate in this research because of your institution’s noteworthy CSA programming. This interview will last approximately one to two hours. Audio recordings of interviews will be necessary to ensure proper collection of data by the investigator, and will serve as the basis of the current research. Audio recordings will be destroyed two years after the study is completed. Direct quotations, your name, and the name of your organization might be referenced in the final document. There is no compensation for your voluntary participation in this study.

If you understand that this interview will be audio recorded and you agree to this, please initial here:

______ Subject’s Initials
Contact Information
If you have questions about this research, please contact Shari Edelson, Longwood Graduate Fellow, via email at sedelson@udel.edu; or Dr. Robert Lyons, Longwood Graduate Program Coordinator, by phone at (302) 831-1369. If you have any concerns about your rights as a participant, please contact the Chair of the University of Delaware Human Subjects Review Board at (302) 831-2136.

If you agree to participate in this research, please print and sign your name below.

<table>
<thead>
<tr>
<th>Name of Subject (Please Print)</th>
<th>Signature of Subject</th>
<th>Date</th>
</tr>
</thead>
</table>
Appendix F

APPENDIX F: EXPERT INTERVIEWS

Appendix F1: Expert Interview Questions

Interview Questions

The Farm and the Garden: Community Supported Agriculture Programs and Public Horticulture Institutions

Shari Edelson, Longwood Graduate Program, University of Delaware

1. Interviewee Background
   a. Interviewee’s name and current position
   b. What is the interviewee’s area of expertise?

2. Interviewee’s perspective on sustainable agriculture and community supported agriculture
   a. How does the interviewee perceive the growth and trajectory of the sustainable agriculture movement?
   b. What trends, if any, does the interviewee anticipate in the future?

3. Interviewee’s perspective on implementation of CSA projects at public horticulture institutions
   a. Does the interviewee believe that such arrangements are potentially feasible? Desirable? Why or why not?

4. Institutional Benefits
   a. In the interviewee’s opinion, could CSA-related programming generate additional benefits for the CSA and parent institution?
   b. With what frequency and to what extent might the following benefits be realized?
i. Program supports connection with garden membership and local community; provides a valuable community service
ii. Program increases institution’s visibility, prominence, and perceived relevance within community
iii. Program supports educational and recreational programming
iv. Program enables the institution to model sustainable practices
v. Program increases overall awareness of public horticulture and public gardens
vi. Program provides a source of revenue for the institution
vii. Other benefits – please specify

5. Institutional Challenges
   a. In the interviewee’s opinion, could CSA implementation prove challenging for a parent institution?
   b. With what frequency and to what extent might the following barriers be encountered?
      i. Unrelatedness to institutional mission
      ii. Unavailability of financial resources
      iii. Unavailability of staff resources
      iv. Lack of support from administration, staff, or membership
      v. Lack of public interest
      vi. Insufficient potential for program revenue
      vii. Other barriers – please specify
   c. How might a parent institution respond to and cope with these barriers?

6. Benefits Versus Challenges
   a. In the interviewee’s opinion, how do the benefits provided by institutional CSA programming compare to the challenges posed?

7. Elements of Success
   a. What practices does the interviewee recommend in each of these areas to promote CSA success?
      i. Staffing
      ii. Membership
      iii. Finances
      iv. Programming
      v. Evaluation
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