



Community Supported Agriculture Programs: A Sustainable Approach to Local Foods

Kynda Curtis, Associate Professor and Extension Specialist, Department of Applied Economics
Voravee Chakreeyarat, Graduate Research Assistant, Department of Applied Economics
J. Dominique Gumirakiza, Graduate Research Assistant, Department of Applied Economics

Introduction

Local food systems have attracted increasing attention as a potential solution to challenges in the globalized food system, as well as an avenue for increased promotion of agricultural and rural sustainability. Community Supported Agriculture (CSA) is promoted as a local community agricultural support system. The basic concept of CSA programs is a partnership between consumers and farmers in which consumers purchase shares pre-season and farmers commit to supplying a weekly basket of fresh fruits and vegetables. CSA programs may also supply value-added products, meats, or dairy products.

To evaluate the impacts of CSA program and benefits of local foods, this fact sheet provides an overview of the advantages of CSA programs as they relate to supporting economic, social and ecological sustainability. Economic benefits include a diversification strategy for local farmers, a pre-season revenue stream, both of which provide additional income to support the viability of small agricultural production and the improvement of farming networks (Van En, 1992). It has been suggested that CSA subscription programs can play an important role in raising awareness of local food-

related issues among members (Henderson and Van En, 1999). Local-food products may have benefits to consumers over products shipped long-distance, adding to the social benefits of local production (Kloppenburg, 1996). Ecological advantages for local foods emerges from the physical proximity of producers and consumers, such as reducing energy use in food transportation and the associated greenhouse gas emissions (Pirog, 2001). It is argued that fresh produce in primary grocery stores are shipped approximately 1,500 miles from its primary production location (Hendrickson, 1997). Additionally, the focus on organic production methods in local foods reduces the use of pesticides and other chemicals in agricultural production (Halweil, 2002).



Data Overview

A total of 175 CSA members in Utah, Nevada, and Idaho completed an online survey in the fall of 2011. The majority subscribed to a CSA program in 2011 (93%) and were, on average, 44-years-olds, Caucasian, female, and married. Respondents were well educated, holding a graduate degree or higher (52%) and were employed fulltime (54.7%). The average annual household income was more than \$105,000 and the average household size was 3.3 members (see Table 1).

The respondents were asked about other food related interests outside their CSA membership. Seventy-two percent of the members attended farmers' markets, and showed interest in food preparation ideas/ recipes (68.2%), canning and preserving (53%), and farm visits/tours (50.3%). The respondents also participated in recycling and home gardening (89.7% and 84.2%).

Table 1: Sample Survey Statistics

Description	Mean/Percentage
Primary food purchaser	90.4%
Household income	More than \$105,000
Household size	3.3
Age	44.41
Female	84.9%
Graduate degree or higher	52%

Potential Advantages of Local Foods

The benefits of CSA programs encompass three dimensions of sustainability: economic, social, and ecological. First, local economic advantages from CSA programs are attributed to the relationship between producers and consumers which create shorter supply chains, enhancing the economic viability of local farms and communities, raising public awareness of issues related to the food system, and improving local control over food systems (Gussow, 1999). Similar results were found from these CSA respondents as they reported that membership benefits included: supporting local farmers (95.2%), purchasing local products (89.9%), and product freshness/taste/ flavor (82.6%)

(see Figure 1). Respondents agreed that the quality (78.5%) and locality of produce (34.8%) were the most important attributes of CSA shares.

Overall, CSA member were willing to pay higher premiums for locally grown produce over organic produce of unknown origin. The survey asked participants indicate which product they were likely to purchase given differing pricing, production systems, and location of production for seven produce items (peaches, tomatoes, eggplants, cucumbers, green peppers, cantaloupe, and yellow squash). On average, consumers were willing to pay a 61% premium for locally (in state) produced products grown conventionally and a 29% premium for organically grown produce of unknown origin. Local products were shown as more important than organic products in CSA program participation rational as well as shown in Figure 1.

Consumer Attitudes and Concerns

Respondents were asked to rate their opinion regarding a number of given statements. Table 2 below shows their ratings on a scale of 1-5 (1 = strongly disagree, 2 = disagree, 3 = Unsure, 4 = agree, and 5 = strongly agree). CSA member respondents were concerned about nutrition, supporting local farmers, and the origin of products.

Table 2: Ranked Consumer Attitudes/Concerns

Ranking	
1	I am concerned about my health/diet
2	Supporting local farmers is important to me
3	I am concerned about the origin of my food
4	I am concerned about the safety of my food
5	Physical activity is an important part of my routine
6	Agricultural open space is important to me
7	Eating out is an event in my family
8	I buy products with low environmental impact
9	I have little time to prepare meals
10	I eat out frequently
11	I am a vegetarian or vegan

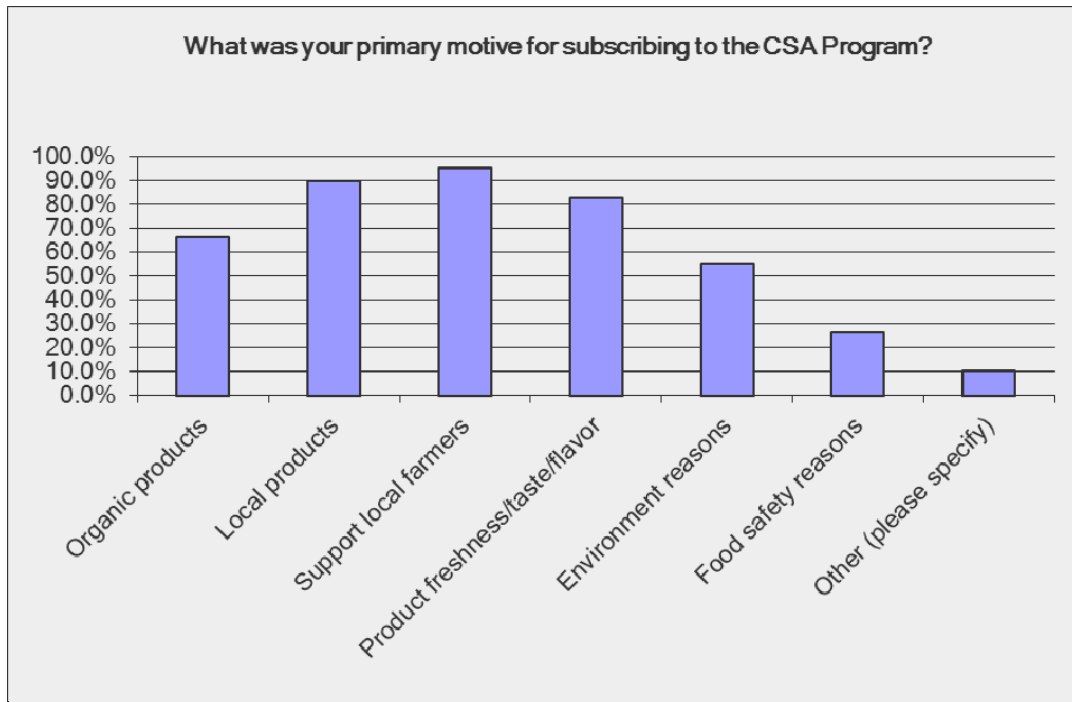


Figure 1. Respondent CSA membership primary motives.

Locally grown products have the potential to fulfill consumer demand (Getz, 1991). According to this study, CSA customers spent, on average, \$25.99 per weekly CSA share, approximately 20% of their weekly grocery expenditures of \$130.52. Their favorite grocery locations included Smith's and Lees (52.4%), followed by specialty stores such as Whole Foods and Trader Joe's (25.9%).



In this study, 57.7% of CSA participants learned about the CSA program by word-of-mouth, which supports similar research results. Members wanted to receive more information through weekly newsletters. Information on recipes and food preservation, such as canning and storage techniques, were suggested. Consumer members of

CSA programs were more likely to prepare meals at home. According to Table 2, CSA members stated that they have time to prepare meals at home so eating out was not routine for them.

Although, CSA members agreed that local produce provided improved taste and freshness, respondents suggested a number of additional items be included in their CSA share, such as more fruits (berries and nuts), meat, eggs, and vegetables (string beans and eggplant) in the shares. Members relied on grocery stores for these other items and traveled on average 7.25 miles to primary grocery outlets.

Conclusions

The current local foods movement has increased the potential sustainable food system approaches, such as CSA programs. The majority of health-conscious customers in CSA programs in Nevada, Idaho and Utah showed support for the economic, social, and ecological benefits that can be gained locally from CSA membership. The survey respondents were found to support local farmers, local products, as well as organic and other environmentally conscious production systems.

Social advantages from local systems included decreased food risks and increased freshness due in part to the short distance between farmers and end consumers. The majority of CSA members were involved in sustainable activities such as recycling, composting and home gardening. Relationships were generated and enhanced between members as they exchanged useful information such as recipes and brought new members into the program.

Increased farm product diversity or CSA share diversity may enhance consumer demand and reduce the dependency on food from primary grocery outlets. Participating in CSA programs encouraged family members to prepare meals at home, promoted the family environment, and decreased energy usage in food transportation and purchasing.



References

- Getz, A. 1991. Urban Foodsheds. *The Permaculture Activist*, 24:26-27.
- Gussow, J. 1999. Dietary Guidelines for Sustainability: Twelve Years Later. *Journal of Nutrition Education*, 31(4):194-200.
- Halweil, B. 2002. Home Grown: The Case for Local Food in a Global Market. Worldwatch Institute.
- Henderson, E., and R. Van En. 1999. Sharing the Harvest: A Guide to Community Supported Agriculture. White River Junction, VT: Chelsea Green Publishing.
- Hendrickson, J. 1997. Energy Use in the U.U. Food System: A Summary of Existing Research and Analysis. *Sustainable Farming-REAP-Canada*, Ste. Anne-de'Bellevue, Quebec, 7(4).
- Kloppenborg, J. 1996. Coming to the Foodshed. *Agriculture and Human Values*, 13(3):33-42.
- Pirog, R.P. 2001. Food, Fuel, and Freeways: An Iowa Perspective on How Far Food Travels, Fuel Usage, and Greenhouse Gas Emissions. The Leopard Center, Iowa State University, Ames, IA.
- Van En, R. 1992. Basic Formula to Create Community Supported Agriculture. Great Barrington, MA, Summary, 57.

Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran's status. USU's policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran's status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.