

## **Applying the Principles of Community Supported Agriculture to an Extension Nutrition Education Program**

**Luanne J. Hughes**

### **Abstract**

Helping people understand where their food comes from is one way to help them explore food options and incorporate more fresh foods into their diets. This approach to nutrition education can be an appealing and a marketable way to interest children and families in nutrition and nutrition education programs. The Community Supported Agriculture (CSA) movement maintains that there are significant relationships between the foods we eat and the health of our bodies, our communities, and the ecosystem. This philosophy forms a solid foundation for Family and Consumer Sciences (FCS) professionals to develop educational programs that combine nutrition with agricultural education to effectively reach out to children and their families.

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*From Our Farms*<sup>™</sup> is an interactive, activity-based curriculum for children ages 3 to 8 and their families. It was created in response to a call by local consumers, farmers/growers, and targeted collaborators for a program that taught people (children in particular) about locally grown food products. The theory behind the curriculum is that local families -- if presented with information on local agriculture, building new eating skills/behaviors and improved nutrition in an interesting and entertaining way -- will participate in a farm, food, and nutrition education program.

With the landscapes of so many states shifting from farmland to suburban development, it is becoming increasingly important to educate consumers that the value of agriculture extends far beyond dollars and cents to the local economy. The Community Supported Agriculture (CSA) movement maintains that there are significant relationships between the foods that we eat and the health of our bodies, our communities, and the ecosystem. This philosophy forms a solid foundation for Family and Consumer Sciences (FCS) professionals to develop educational

programs that combine nutrition with agricultural education to effectively reach out to children and their families.

CSA is based on the principle that the future success of our farms is dependent upon the relationships between farmers and an expanding nonagricultural population. And, in many ways, the future success of our communities can be cultivated by strengthening our connection with our agricultural roots (Patel 1991). The goal of the CSA initiative that is gaining popularity throughout the country is to restore the "local connection" that once was common among farmers and consumers of food. CSA can help "reconnect" local consumers with local farmers and the farm; promote a sense of family and community; honor the knowledge and experience of local growers and producers; and teach consumers how to improve diet quality by increasing consumption of locally grown agricultural products (Abel, Thomson and Maretzki 1999; Hahn 1997; and Relf 1992).

### **What is CSA and how does it work?**

A CSA farm is made up of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community's farm. Both growers and consumers provide mutual support and share the risks and benefits of food production. Typically, members or "shareholders" of the farm or garden pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. Members pay "upfront" or in advance by purchasing shares (each share translates into a particular quantity of food when harvested) and/or contributing manpower/services on the farm for crops to be grown and harvested later in the growing season. In return, they receive shares in the farm's bounty throughout the growing season, as well as satisfaction from reconnecting to the land and participating directly in food production. Members also share in the risks of farming. If the growing season is successful, they reap the bounty of the farm's products. If not, they share the loss along with the farmer. CSAs take many forms. Yet, all share one central commitment to building a more local and equitable agricultural system -- one that allows growers to focus on land stewardship and still maintain productive and profitable small farms.

### **Teaching nutrition from the farm using a CSA approach**

*From Our Farms*<sup>TM</sup> is a new program under development at Rutgers Cooperative Extension in New Jersey. It is designed to acquaint children ages 3-8 and their families with the farm and the value of its contribution to the community. The program is conducted throughout Gloucester County, New Jersey, via a unique collaboration between Rutgers Cooperative Extension, the Gloucester County Library System, Gloucester County Board of Agriculture, and individual farmers, creating a somewhat unique approach to "Community Supported Agriculture."

*From Our Farms* provides families with the necessary tools to introduce children to food, the farm, and nutrition as a fun way of improving nutrition knowledge and adopting healthful eating behaviors. Helping people understand where their food comes from is one way to help them explore food options and incorporate more fresh foods into their diets. This approach to nutrition education can be a savvy, appealing, and marketable way to interest consumers in nutrition and nutrition education programs (Crockett and Sims 1995). *From Our Farms* offers parents and children a series of fun nutrition education activities/programs to promote increased consumption of locally grown fruits, vegetables, and dairy products. The program includes two key components: learning boxes and activity days.

**Learning Boxes.** Children learn about food, nutrition, and the farm with *From Our Farms* Learning Boxes, available through local libraries. Learning Boxes are themed learning kits aimed at 3- to 8-year-old children and their parents (Trissler 1998). The boxes include instructional materials that serve a variety of learning styles, including games, puppets, audio and/or videotapes, puzzles, and farm- and food-focused storybooks. Boxes also include family learning units, developed by Rutgers Cooperative Extension. Family learning units (i.e., workbooks) contain a series of lessons and activities for parents and children to work on at home, in conjunction with the storybooks and other materials in the boxes.

Parents and children check out the boxes for use at home, where they read stories and play games that teach about food, nutrition, and agriculture. Then, they complete a series of lessons and hands-on activities outlined in the family learning units. For example, they grow vegetables; visit local farms, farm stands, and grocery stores; taste and compare different varieties of peaches or tomatoes; pick and eat berries; and prepare basic meals and snacks. The Learning Boxes serve as a resource that provides the necessary tools for families to learn together about local food, nutrition, and agriculture.

Three different Learning Boxes were developed and distributed to county libraries -- vegetables, fruits, and dairy cows. Educational messages for each box emphasized

- how foods are grown or produced,
- local farms that grow/raise the commodity,
- the nutritional value of the commodity, and the role it plays in a healthy diet,
- where to find the commodity, and
- how to select and prepare the commodity.

Registration counts for the three themed boxes (fruit, vegetables, dairy cows) indicated that 595 children participated by using a fruit, vegetable, or dairy products learning box to learn about food, nutrition, and the farm.

**Activity Days.** These educational workshops are offered to complement the Learning Boxes. Activity days incorporated hands-on activities to teach children and parents which foods are produced locally; how vegetables, fruit, and animal products are grown; and how to select, use, and prepare agricultural products. Registration counts for activity days conducted from 2000 to 2002 indicated that 1,613 children and adults participated.

### **Why a farm/food focus for nutrition education in New Jersey?**

New Jersey is one of the most densely populated states in the nation, with a total population of 8,143,412. Only 20 percent of the state's land area is designated for farming. Yet, despite its dense population and diminishing farmland, agriculture ranks as the third-largest industry in the state with total sales approaching \$700 million annually. Agriculture is particularly strong in the southern portion of New Jersey (in which Gloucester County is located), giving the state a strong national presence in the agricultural marketing of tomatoes, blueberries, cranberries, peaches, and peppers (USDA National Agricultural Statistics Service 1997).

With the initiation, and overwhelming public support, of New Jersey's farmland preservation program, farms will continue to be a mainstay in the landscape of suburban New Jersey. (Although once-rural farming areas are more suburban than ever before.) The "suburbanization" of our farming communities creates a significant retail market for agricultural products in all states. It also creates a tremendous vehicle that Extension educators can use to reach families with nutrition education messages. The "suburbanization" of our farming communities creates an ideal environment for a program like *From Our Farms*.

From a nutrition education perspective, active participation in nutrition education lessons at home with parents/caregivers may improve children's nutrition knowledge and adoption of healthful eating behaviors (Lytle and Acterberg 1995). Eating behaviors of young children and adolescents are strongly influenced by the attitudes and behaviors of family members and the family environment. The home environment provides opportunities for children to use techniques suggested by behavioral curricula and to receive the social support necessary to maintain adoption of healthful eating behaviors (Crockett and Sims 1995). *From Our Farms* provides Gloucester County parents/caregivers with the necessary tools to introduce children to food, the farm, and nutrition as a fun way of improving nutrition knowledge and adopting healthful eating behaviors.

From an agriculture perspective, local farmers and farm organizations (even local and state governments) have readily lent their support to developing and launching the program. The local Board of Agriculture and individual farmers provided funding to print the family learning units and purchase instructional materials to fill the boxes. They also donate their time, expertise, equipment, and food to support the program. In exchange, they see more families visiting their farms and farm markets because of the activities and programs presented in the *From Our Farms Learning Boxes*.

*From Our Farms* does not meet the true textbook definition of CSA. It does not serve as a shareholder farm or farm market. What it does, however, is involve the community in agriculture (something with which many new Gloucester County residents are not familiar), introduce residents to locally grown foods and farms, and teach them why those foods are good for us. It applies the principles of CSA to effectively reach children and families. Despite the popular interest in programs that apply high-tech, glitz, and glamour to reach an audience, *From Our Farms* has provoked a rural-turned-suburban community's interest because of its "back to basics" appeal.

In an era when consumers are becoming farther and farther removed from the basics of where their food comes from, the program's agrarian and back-to-nature appeal has attracted the interest of parents, kids, community groups, civic organizations, farmers, and government officials, alike. The program is basic: teach an increasingly suburban population (many of whom have relocated from nearby urban Philadelphia) about the appeal of the farm, and help them understand how it operates. The back-to-basics approach also promotes two results coveted by educators.

1. Public appeal and public support, which helps garner funding to develop and maintain a program.
2. Consumer interest and good participation in programs, which produces significant, meaningful impacts.

*From Our Farms*, through its second year of operation, has taught more than 2,000 Gloucester County, New Jersey children about the interrelationship of food, nutrition and agriculture. The program is clearly making an impact on local families. Formative evaluation of the library-based learning boxes was attempted via mail-in surveys provided by librarians when boxes were returned. This proved to be impractical, as library staff were unable to allocate the sufficient time to the project. Instead, a follow-up telephone survey was administered to 250 participants' parents 6 to 9 months after checking out a fruit or vegetable learning box. The telephone survey was completed by 77 parents (31 percent). The survey revealed that participation in the program resulted in the following behavior changes.

- 81 percent reported that their child tried a new fruit or vegetable
- 25 percent prepared/cooked locally grown foods with their children
- 83 percent reported that they or their child learned how fruits and vegetables grow
- 77 percent reported that they or their child learned which fruits and vegetables grow in New Jersey
- 80 percent planted a garden or fruit and vegetable plants with their child
- 90 percent visited a farm stand or farm market
- 97 percent purchased "Jersey Fresh" produce

### Next Steps . . .

An applied research intervention, planned to begin in 2003, will study the effectiveness on knowledge and behavior change of children who participate in the program. The study will seek to determine whether, as a result of the curriculum

- children learn to incorporate more fruits, vegetables, and low-fat dairy products into their diets, with emphasis on choosing locally grown foods.
- children try fruits, vegetables, and low-fat dairy products when offered.
- Children understand the agricultural process, and appreciate the role of the farmer in providing food.
- Children build new eating skills and behaviors that enable them to select, use and prepare more fruits, vegetables, and low-fat dairy products.

In the meantime, the program continues to grow. Expansion into local school systems is targeted for 2003, as is the publication of the peer-reviewed curriculum on CD-ROM, which will enable FCS educators from around the country to adapt *From Our Farms* for use in their particular states.

For more information on CSA or the *From Our Farms* program, contact Luanne Hughes at [hughes@aesop.rutgers.edu](mailto:hughes@aesop.rutgers.edu) or Rutgers Cooperative Extension, 1200 N. Delsea Dr., Clayton, NJ 08312.

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## Author

**Luanne J. Hughes**, M.S., R.D., Assistant Professor and FCS Educator, Rutgers Cooperative Extension

**Cite this article:**

Hughes, Luanne J. 2003. Applying the principles of community supported agriculture to an Extension nutrition education program. *The Forum for Family and Consumer Issues* 8(2).



