

(1) A Community Supported Kitchen (CSK)
Farmer/Grower Grant Final Report FNE01-367

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(2) Project Goals:

1. Produce and sell vacuum packaged, frozen organic fruits and vegetables.
2. Develop 12 "convenient to use" frozen products.
3. Test market products through local pre-order delivery businesses—Food Express and Real Food Network

(3) Updated information on my farm:

1. Grass finished beef is grown on my ten acres of pasture land with fencing used to protect the stream from the animals. I use this meat and my neighbor's meat in my stir fry meals.
2. My small acreage of raised bed gardens is used to test new "freezer friendly" vegetables.
3. Several organic farmers grow fruits and vegetables for the first time for my products.
4. I grow uncertified organic vegetables that other farmers were not interested in growing this year, such as peppers, onions, and zucchini.
5. I have a new 8' X 10' walk in storage freezer.
6. My acreage is reduced from 30 to 18 acres.

(4) My Cooperators and their role in the project:

1. Marci Gardner (Community Agriculture of Columbia County) listed my products on the "Real Food Network" order form for delivery to local CSA members in the county.
2. Terry Dix (Food Express) delivers local foods to a small number of buyers and rents my kitchen one day a month to sort his orders that include NE Coop orders that are dropped off here. He includes "Real Food Network" foods on his order form and fills orders for my kitchen from NE Coop.

(5) What I did on my project and how it was done:

EXTENSION GIVEN FOR SARE REPORT:

I asked for a one year grant but needed it extended to do more test marketing. My cooperators sold little of my product in 2001 and 2002. CSA members are Food Express and Real Food Network customers. These consumers are used to dealing with their fresh vegetables and do not need the convenience of my frozen products. Plus many do their own freezing. I asked for an extension to explore other marketing venues and responses to my products.

YEAR 1--FREEZING EXPLORATIONS:

The first year was spent working with cooks to explore freezing a variety of vegetables: butternut squash, carrots, celery, cabbage, onions, leeks, string beans, daikon radish, rutabaga, celeriac, parsnip, acorn squash, stuffing tomatoes, eggplant and peppers. The focus was on common frozen products like stuffed peppers—items that consumers would heat up in a microwave. Numerous trial and error mistakes were made from squashed frozen bread to crushed pepper halves. Or, picture liquid tomato sauce splattered all over the vacuum packager.

YEAR 1--SYSTEMATIC, UNIFORM PACKAGING OF A FEW PRODUCTS:

Creative problem solving transformed problems into opportunities. Crushed peppers became chopped multi-colored pepper chunks packaged in four ounce and 2 oz. quantities. Small organic growers do not produce enough peppers of uniform sizes for stuffed peppers. Whole or half peppers are difficult to freeze because of crushing.

Package filling evolved from two inches thick to a thin layer of vegetables or fruit that would pan fry quickly in a wok for stir fry meals or break up easily for microwaving.

Labeling evolved from a piece of paper inserted into the top part of the 4 oz. package to a small Avery label $\frac{1}{2}$ inch by $\frac{3}{4}$ inch affixed to the outside of the package.

Many vegetables became a few vegetables selected for

1. their satisfactory color, texture and shape in the finished product
2. their cooked performance from their frozen state
3. year round availability from commercial distributors or stores
4. ease of freezing.

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I explored freezing fruits for microwaved fruit cobblers, fruit compotes, smoothie concentrates and sauces.

1. whole strawberries
2. whole peaches
3. $\frac{1}{8}$ inch thick sliced rhubarb
4. pureed apricots

Almost all of the grant was expended in the first year for cooks. I discovered that freezing entailed little technical support from the Center for Food Entrepreneurship or from a Food Technologist. Vacuum packaging frozen foods requires an Ag. & Mkts. approved kitchen and a permit to do the products in my county. That makes freezing very easy to do in a Community Supported Kitchen.

SECOND YEAR:

In my second year, I overcame a number of problems perfecting stir fry meal prototypes, frozen fruit dessert kits and smoothie concentrates.

1. I designed a combination frozen food storage/shipping/display box for store freezer shelves and for my storage freezer shelves.
2. I purchased a SATO printer for \$500 to create my own interior label information for my evolving small runs of products.
3. I changed my printed outer label from a home computer generated Inkjet Avery Label to a more professional pre-printed label logo.
4. I developed "Cooking Direction" labels for the back of my products.
5. I paid for a UPC code for my company so I could test products in large stores.
6. I changed the name of my company from Fresh Beginnings to Hudson Valley Hometown Foods.
7. I developed one, two to three and four serving stir fry meal sizes.
8. I freeze and vacuum package carrot coins, multi-colored peppers, chopped spring and fall onions, frenched green beans, parsnip coins, yellow and green zucchini and purchase frozen corn kernels and cheese for stir fry meals with and without meat.
9. I buy and freeze organic blueberries, rhubarb and strawberries for cobblers and smoothie concentrates.

10. I buy fresh grass finished ground beef and organically grown pork slaughtered at USDA facilities for sausage and pork strips for my stir fry meals . I make the patties and cut the pork strips by hand and freeze them at a nearby USDA approved meat cutting facility. I weigh out 2 oz. and 4 oz. packages for my stir fry meals. I put on the ingredient list, the safe handling label and receive a USDA authorized sticker for the meat that comes from nearby farms so I can have others resell my product.

11. I marketed my frozen foods to a farmers market, a local farmstand, a local luncheonette, and a large super market.

(6) What were my findings?

1. Smoothie concentrates are a great way to sell fruits instead of as jam.
2. Dietitians and doctors are interested in having the overweight, diabetic, and food allergic patients access these food products.
3. Many requests were made for single serving meals.
4. Monthly school and hospital coop frozen food sales is a market worth exploring.
5. Special "freezer friendly" varieties of fruits and vegetables need to be grown for these products.
6. Four basic vacuum bag sizes proved useful for these products. Plastic bags are cheaper than jars for food preservation.
7. The following freezing principles were discovered:
 - a. If the food is soft or liquid, freeze it before vacuum packaging (blueberries, strawberries, blanched asparagus, sauces, fruit purees, meat).
 - b. If the food is hard, you can vacuum package it before freezing (carrots, parsnips, peppers, onions, rhubarb, celery, fennel bulb)
 - c. Frozen products must be attractive with varied shapes, colors, textures and flavor combinations.
 - d. These meals are designed to have the cook finish the product in twenty minutes or less on top of the stove. Frozen smoothies require a blender. Fruit desserts can be done on top of the stove or in the microwave.
8. Labor was the highest cost for making my products.
9. The cost of equipment for tray freezing (\$1000-\$1200) and commercial vacuum packaging equipment (\$1500), plus a storage freezer are basic for someone to duplicate this model. Add this equipment to a firehouse, church, senior citizen meal preparation kitchen and a community is ready to freeze 21st century style.
10. Unusual "new" vegetable varieties such as purple cauliflower work well fresh. However, blanching turns the cauliflower blue if the water is basic. Appetizing colors are important.
11. Vegetables and fruits requiring too much handwork were eliminated.
12. String beans were frenched because the farmer does not have a sorter for sizing.
13. Senior citizens receiving overcooked vegetables from meals on wheels might be better served by receiving a frozen package of assorted 2 oz. portions of vacuum packaged vegetables with an herb butter or olive oil packet for pan frying.
14. Frozen products must be attractive with varied shapes, colors and textures.
15. Pan frying frozen vegetables produces the best tasting final product rather than boiling in water.

16. It helped sales to provide insulated bags for frozen foods. Aldi bags cost just a few cents over \$1. To have special insulated bags that say, "Buy local year round" would be cost prohibitive for a small processor.
17. Nutrition labels are important to consumers especially since my products are designed to be the healthiest that can be produced. Portion sizes are controlled. Organic, hormone and antibiotic free meats are provided in 2 oz. amounts per serving. Rice servings are 2 oz. per person. Four servings of vegetables are provided in each stir fry. Hard cheeses are provided in small amounts for flavoring. Spices and sauces are high in flavor and healthy fats, low in sodium and sugar.
18. Many nutritionists have nutrition labeling programs. However, if you are going to have a product in stores, an industry nutrition labeling professional is the only person who can keep updated about the constant labeling changes that are imposed regularly. I have researched a suitable resource to share.
19. Red and yellow stuffing tomatoes make thick "ketchup like sauce" simply by putting through a food processor, straining and freezing for future sauces.
20. The longer the carrot, parsnip or daikon radish, the easier to slice in a small food processor.

(7) Describe any site conditions or growing season problems that may have affected your results.

1. Drought conditions in 2002 reduced crop yields at CSA farms willing to grow crops for my products. Contract growing must include irrigation as a necessary component of the contract. I could not buy local crops for freezing like daikon radish, carrots and parsnips.

(8) Describe your economic findings.

1. The cost of selling to a store is greater than selling to a coop or direct to consumers. The freezer safe printed labels add about \$.80 to a product. The cost of putting the food in the package was about \$5. I could sell the product at \$8 to the store. The store would mark up 30% or more making the product cost the consumer around \$12 for a per serving cost of \$3 to \$4.
2. The largest cost was the meat since it was purchased from a meat cutter with his profit added. A cheaper route would be to buy the beef or pork animal direct from the farmer, pay him above the prices he could get for hanging weight at the slaughter house. Then pay the meat cutters to process the meat into the cuts that suit my product. If I could use the whole de-boned animal in a variety of products, the cost of the ingredient would be reduced 50% from about \$6 per pound to \$3 per pound.
3. I did not perfect my meals sufficiently nor find reliable suppliers of meat or vegetables to demonstrate significant sales information. Primarily I did test marketing to see where, to whom and how to market my frozen products.
4. If I had adequate supplies, I anticipate my kitchen could produce 400 meals per week at a \$3 profit per meal providing me with a \$1200 per week profit. However, I am more interested in franchising this idea to similar community supported kitchens and working out the bugs so others can benefit.
5. I believe the products that I am developing could be profitable for others to copy. These meals take 15-20 min. to prepare. The value added piece is that we do the

shopping, recipe creation, and time consuming preparation piece while the home cook gets to create the final product with a freshly prepared taste—rather than a warmed up taste.

6. Also the fruit desserts and smoothie concentrates have proven very appealing for nutritious after school snacks. The smoothies are especially good for a breakfast drink for young and old interested in nutritious eating and drinking.
7. If a consumer were to eat my stir fry for the main meal, eat a microwaved fruit dessert and drink a smoothie to complete the meal, they would have had their 4-5 servings of fruits and vegetables in one sitting.

(9) New ideas of what is needed to solve the problem you are working on.

1. In order to access locally grown fruit and vegetables from small farmers, I need to create a teen/retiree crew that is trained to harvest. Small farmers can plant more but have difficulty with harvesting.
2. New recipes for “crock pot” meals or meal components need to be created to use the less tender cuts of meat. For example: Backs and legs of poultry, combined with frozen celery, onions, carrots, etc. plus spices provide the basics for homemade soup like a modern grandma could provide from her community supported kitchen.
3. Local meat cutters need to mechanize the cutting of de-boned meats ready for smaller vacuum packages of meat. This machine could be used on large turkey breasts, chicken breasts, tender and less tender roasts of pork, beef and lamb. This sliced meat could be sold in smaller portions for smaller families or single people to use in cooking. Such a machine could be rotated locally to various meat cutters for the benefit of all concerned.
4. Marketing with the involvement of teens and retirees through “tasting parties” would teach valuable skills and provide entrepreneurial opportunities for both age groups. Begin in the 5th grade with after school cooking classes and end with college business students doing web sites and videos—including retirees and career changers.
5. These “tasting parties” also provide a vehicle to educate consumers about good nutrition and local agriculture’s importance.
6. Create a web site for consumers to provide local farmers and food processors a virtual meat market that can sell information and value added products. Model it after the Pennsylvania Ag Map—www.aginfo.psu.edu/psa/w2002/agmap.html. Check out [HTTP://AGMAP.CAS.PSU.EDU](http://AGMAP.CAS.PSU.EDU) with the slogan “Put your product on the map.” Here the AgMap connects crop buyers and producers on the web. We could create one that connects consumers with value added products and producers. The beauty of the AgMap model is that the producers can list their products as they are available in a timely fashion. They do not have to wait for some Mon. through Friday employee of some bureaucracy to input the data. Teens could be a great help on such a web site. Lets get teens involved. Lets get retirees helping them grow into valuable citizens focused on local food systems.
7. Focus on local food producers and food processors in “Student employment training” programs for young people. Involve the over 55 training programs with the teen programs. Let them learn, earn and eat together. 20% of all jobs are

food related.

8. Youth bureaus around the Northeast have funds for not for profit organizations to carry out programs after school and in the summer. Let them focus on food related activities led by trained retired farmers, teachers, master gardeners, etc. Send someone with foods experience ideas to the youth bureau conferences.
9. Train retired Family and Consumer Science teachers to head local community supported kitchens in school district area territories.
10. Find existing kitchens in firehouses, churches, schools, senior citizen centers and use them efficiently to produce the meals developed in this project.
11. Update new family and consumer science teachers and Home Economics extension personnel in the possibilities of 21 st century freezing as a way to have local foods year round.
12. Help ethnic communities develop their own frozen food recipes.
13. Have researchers check out the freezer friendly capacity of new and heirloom varieties of fruits and vegetables available today.
14. Develop regional cooperatives that do more than offer a fresh produce market. Do value added meals at regional facilities focused on using local products. We have a 20,000 square foot facility five miles away that is for sale and could be developed into such a center after the marketing was figured out.
15. My kitchen should become a product development and entrepreneur development center, plus a food processor, food demonstration and sales training center for young and older community members.

(10) Why I plan to continue the practice investigated.

1. The freezing techniques used are effective and easy to do. The meals work that have been created. Sales could support new product development.
2. I will be offering a "student employment training" program to my local school through a mental health organization for 16-18 year olds. The training will happen two days after school and through the summer. It will involve greenhouse work, raised bed gardening, food demonstrations, sales, farm visits for harvesting and video creation.
3. Production of meals, smoothies, fruit desserts etc. could be done year round.
The following products can be done with certainty:
 - A. asparagus gems and stems
 - B. sliced rhubarb
 - C. straight yellow and green zucchini
 - D. long carrots
 - E. basil pesto
 - F. yellow & red stuffing tomato puree
 - G. butternut squash
 - H. parsnips
 - I. onions
 - J. multi-colored peppers
 - K. frenched green beans
 - L. sliced fennel
 - M. blueberries
 - N. whole peaches & sliced

- O. sliced apples
- P. frozen herb butters and olive oils to sell with a variety of different vegetables
 - 1. chive
 - 2. dill
 - 3. garlic scapes
 - 4. taco
 - 5. rosemary
- R. fruit smoothie concentrates
 - 1. mixed fruit
 - 2. peach orange
 - 3. apricot orange
 - 4. blueberry, rhubarb, tart cherry
 - 5. strawberry, rhubarb
 - 6. raspberry peach without the seeds

7. OUTREACH:

Conferences: Slide show created

1. February 20-23, 2002 the Mid Atlantic Direct Marketing conference
2. March 2002 I presented at the NY Farmer's Market Conference and at the Hudson Mohawk RC&D regional meeting.
3. I will be presenting at the January 2003 NY Farmer's Market Conference/Small Scale Food Processors Conference

Table Displays:

1. Dutchess County Hudson Valley Harvest Farm Sustainability Conference in January 2002.
2. Fall 2002 Columbia County Chamber of Commerce Brunch in Hudson, NY
3. Fall 2002 NY State Family and Consumer Science Conference in Albany, NY

Teacher Inservice Workshops:

I presented my products at two teacher inservice workshops for Family and Consumer Science teachers. Both were in the Hudson Valley in NY state.

Newspaper Articles: An article was written about Hudson Valley Hometown Foods in the Hudson River Sampler, a monthly newspaper. Another was written in the Register Star, a daily paper in the area. There was interest expressed by Country Folks, and a Boston and NY City newspaper. Also, I was approached to write a chapter in a new book. However, they were not pursued, since there are many problems to still overcome.

Garden Clubs: I did presentations to two local garden clubs in 2002.

Kitchen Visitors:

1. Northeast Center for Food Entrepreneurship
2. Washington County Economic Development Director and County Board members
3. NY Small Scale Food Processors Association
4. Columbia-Greene County Student Employment Training
5. Columbia-Greene Community College
6. Family and Consumer Science Teachers
7. Vegetable and fruit farmers

Shared Recipes: Two small organic farmers were given my Blueberry Rhubarb Smoothie recipe for their own production. An experienced jam and fruit spread maker was given one too. In addition, the names of ingredient suppliers was given.

Anna Dawson 12/09/02