

**To Can or Not to Can?**  
**Feasibility Study for a Cannery in Scott County**  
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**Abstract**

In Scott County, a community cannery has been proposed. This cannery would allow current canners to continue canning more efficiently at a lower cost, and would likely draw new people to canning. In this study, the economic feasibility of the cannery was studied and a plan for further study and an action plan based on the data collected to this point were developed. Although canning activities are on the decline, canning is likely still prevalent in the area due to the large population over the age of 55. Through a survey, the likely usage of the cannery can be determined, which is necessary to determine the ideal size for the cannery. Based on the data collected on likely usage and the county's economy, a co-operative seems to be the best form of management for the cannery.

**Introduction**

A community cannery has been proposed in Scott County to allow safer canning at a lower cost for the population. The county passed this idea on to Virginia Polytechnic Institute and State University for study. This study is the preliminary look at whether a cannery is feasible for the county, and what would be the ideal form of management for the cannery. The study also proposes a further course of action.

**Materials and Methods**

The goal of this study was to assess a preliminary evaluation of the Scott County market for a community cannery. In this study, general statistics about canning, and information about other canneries were used to determine what kind of population would be needed for a cannery. Since Scott County adjoins Russell County, which currently has a cannery, a comparison of census data between the counties and a study of the effectiveness of Russell County's cannery allowed a slightly more in depth study of whether or not Scott County's population would make a cannery feasible. Also studies included a course of action that should be taken for a more in depth study, and what action should be taken to utilize that information after it has been gathered.

## **Results and Discussion**

In our study we used several different methods to analyze the market for a community cannery. These methods include the SWOT analysis, market potential as well as size, trends, and a phone interview with Connie & Ronnie Milton, which established our results in the cannery proposition.

### **SWOT Analysis**

#### **Strengths:**

- Providing high quality goods.
- Investing in a cooperative.
- Locality for some residents of Scott County.
- May help the local economy by producing more commerce within Scott County.
- More sanitary than home canning.

#### **Weaknesses:**

- Location of the cannery within Scott County to those residents that are in closer domain to canneries in neighboring counties.
- This cannery will be a fruit and vegetable cannery, and will therefore not produce canned meat products.
- In order to start this cannery a loan may have to be established due to the economy of Scott County at this time.
- As a cooperative the cannery may be double taxed on their income if filed incorrectly.
- Our personal weaknesses in the process of finding this study was the time limit which did not allow our group to produce a much needed survey of agriculture, population, and interest in a cannery. Another personal weakness was the transportation factor, without transportation our group was not able to establish possible cannery sites for Scott County.
- Another personal weakness we have found when researching was that of calling for estimates for glass jars some companies would not give use estimates due to the fact that we were not a company.

#### **Opportunities:**

- A small percent in job employment.
- Provides a place for the home gardener to process and can their harvest.
- Provides a place for the average household to take their fruits and vegetables to can to their liking.

- A cannery will allow those citizens of Scott County especially the young to experience the canning process in person, which many young people today are unable to see.
- Will assist the elderly as well as those families with large numbers in saving money by allowing them to can at a lower cost than it would cost for those people to purchase a year supply of canned goods from a store.

**Threats:**

- Competition with other local canneries such as the Russell County Cannery.
- The economical trend in food preservation is on a downfall, which may make it hard for Scott County to start and maintain a successful cannery at this time.
- Competition with large retail food stores such as Sam's Club, Wal-Mart, and other grocery stores, which sell preserved products at a low price.

**Market Potential and Size**

Russell County has a population of 30,098 while Scott County only has a population of 23,402, meaning Russell County has a greater population from which to draw potential users of the cannery (Quickfacts). Counteracting this and adding potential to the prospect of a cannery in Scott County is that the population of the two counties' populations in the age group 55 and older is virtually identical. Since the typical canner is older, this means that Scott County actually has a similar group of residents who are likely to be current canners and others who know how to can and may begin canning again if a community cannery gave them the opportunity. Unfortunately, Scott County's population's trend to be over 55 years of age that Scott County is lacking in people under the age of 55, that would keep the cannery viable in the future when the older population has passed away (American Fact Finder). This will cause a temporary respite, but it will eventually be a cost effective system.

Scott County average household size is 2.35 people while Russell County's average household is 2.44 people. Also, 98.5% of Scott County's population lives in houses while only 95.7% of Russell County's population does. This indicates that Scott County may have more people who live on small farms where they are more likely to have home gardens, from which they could can (American Fact Finder).

In Russell County, out of the 1026 farms, only 97 of them are smaller than 10 acres while in Scott County, 136 of the 1400 farms are smaller than 10 acres. This does not include small gardens, which also could affect the use of the cannery (Census of Agriculture, 1997).

## **Trends in Canning**

According to the *National Gardening Survey 1997-1998*, “the most important consumers for food preservation products in 1997 were households fifty years of age and older, retirees, households in the Midwest and South, married households with no children, rural households with annual incomes of \$75,000 and over” (Butterfield, 1998).

From 1995 to 1997 the trends in males purchasing canned products have decreased whereas the trends in females purchasing canned products have increased (Butterfield, 1998).

In 1995 the 18 to 29 year old age group purchased the most canned products, however by 1997 the 50 and older age group purchased the most canned products. While the 30 to 49 year old age group’s interest in purchasing canned products has increased from 14% to 18% in 1996, but quickly decreased to 15% in 1997 (Butterfield, 1998).

The trend of educational purchasing of purchased canned products varies from college to high school and to grade schools. Colleges purchased the least canned products at 14% in 1997, grade schools next at 16%, and high schools purchased the most canned products at 17% (Butterfield, 1998).

Community size is another factor that plays in the trend of purchasing canned products. In 1997 cities purchased the least at 10%, then small towns at 14%, suburbs purchased more canned products than small towns at 17%, and rural purchased the most canned products at 22% (Butterfield, 1998).

In 1995 the occupations that purchased the most canned products was the farmer, however that instantly changed in 1996 when the farmer purchased no canned products. Then in 1997 the farmers purchased 18% of canned products in the market. At the same time the retirees purchased 16% of the canned products in 1995, 22% in 1996, and 18% in 1997. This shows that the retired occupation steadily purchased the most canned products (Butterfield, 1998).

## **Phone Interview**

Damara Fields conducted the phone interview, interviewing Connie & Ronnie Milton, residents of Russell County.

*What sort of products do you can?*

Red cabbage, apples, peaches, strawberries, salmon, candy, cakes (orange slice, banana bread), chicken, beef, pork, meatloaf, chili, etc.

*What kind of people uses the cannery?*

Everyday people. It isn't necessarily gardeners or farmers. People sometimes go to the grocery store and buy fresh fruits, vegetables, meats, etc. and bring them to the cannery and can them there.

*Are they a cooperative or private organization?*

I'm pretty sure we are a cooperative. I do know we have a board of supervisors.

*Is there a membership fee?*

No, you do have to pay a fee if you live outside of the county but I'm not sure how much it is.

*How many cans do people use daily?*

It depends. One person can come in and can only 10 different cans, while another person can come in the same day and can 300 cans.

*What is the size/capacity of the cannery?*

Approximately 1800 sq. ft.

*How many employees are there?*

Three, including the manager.

*How was the location of the cannery determined?*

There used to be a cannery in Lebanon and when that one shut down people needed one nearby and it just happen to be Castlewood.

*How many people use it a week?*

Sixty people use the cannery per week.

*What are the operating hours?*

Open Tuesday, Wednesday, and Thursday and they usually open from July to January.

*Can you give an estimate of how much you think it would cost to start a cannery of the same size?*

Approximately \$300,000.

*Can you give me any other helpful information?*

Pint tin cans sale for 25 cents and quarts sale for 40 cents.

There was actually talk a while back about shutting down the Castlewood Cannery because it wasn't making much profit, but the fact that it is a

community cannery and not a profitable cannery saved it from shutting down.

There are several people who come from Scott County to use the cannery. I know people who come from the tip of Scott County (Weber City) just to can.

## **Cannery Proposition**

### **Planning Assumptions**

- People in Scott County would travel the distance to reach the cannery
- Consumers would be willing to pay a small fee to utilize the machinery
- As people grow older, they will prefer to use a machine for their canning rather than use older techniques which require more work
- People will be canning fruits and vegetables instead of meat
- Residents would use facilities rather than canning at home

### **Mission Statement**

The mission of the Scott County cannery will be to provide a place where residents can affordably can using modern technology, continue canning in a more efficient and sanitary manner, and where others can discover a new the joys of canning the products of their home gardens and small farms.

### **Cannery Organization**

Based on the economy of the nation as well as Scott County we feel that a cooperative community would be the best form of government for this cannery. A cooperative is, "an association of people who have particular needs or interest" (Gibson et al., 2001). A cooperative is chartered by the government and managed, and the type of co-op that would be used for this cannery would be a supply and services co-op. Supply and services co-op is formed by people who produce agricultural products as imputes in our economy (Gibson et al., 2001). However there are some set backs in having a co-op. These set backs are a limited returns on investments when there is profit, and a company must pay patronage dividends to stockholders. Based on the suggested cooperative ownership of the cannery, all members automatically own the cannery. However, this does not mean the cannery is not open to the community, this simply means that the community does not directly run the cannery, and do not hold individual stock in the cannery. Note that most industrial cannery co-ops are formed with a profit in mind for a goal a community cannery does not need to make a profit every year to stay open.

## **Suggested Staffing**

One manager can cover all of these positions with the assistance of two or three other employees in a community cannery:

- Should be headed by a manager or superintendent whom oversees all of production (Lock, 1969).
- The manager provides all needed supplies such as metal trays and bins, boxes, bags, etc. (Lock, 1969).
- There should be approximately two to three employees in the preparation department with a foreman overseeing their work. The reason for this is because a community cannery will not need people to ship goods or label them. The manager coordinates the preparation stages, and delivers materials that are ready for the canning process (Lock, 1969).
- A manager is in charge of the syrup and brine should be experience in the sterilization of fruits and vegetables. This person also must be qualified to adapt the time and temperature for each product (Lock, 1969).
- In the labeling department a creative yet neat person is needed. The duties of this person are to supply machines, labels, paste, glue, etc. Also he or she must insure that all cans are labeled correctly (Lock, 1969).

## **Action Plan**

### **Suggested Viable Objectives for Measurement of Progress**

To monitor the cost of production one should keep in mind these four factors:

- Cost of raw packing, which would be food, cans, etc. (Rogers, 1974).
- Labor cost (Rogers, 1974).
- Cost of energy, which are steam, water, heat, and power (Rogers, 1974).
- Fixed overheads, which are rent, rates, and other machinery needs (Rogers, 1974).

To monitor efficiency of production one should follow these suggestions:

- On the subject of efficiency one should focus on the hour- to- hour variations in the production rate (Rogers, 1974).
- One should look at all areas of production in the cannery to make sure everything is running efficiently (Rogers, 1974).
- One must study the motion of each operation, and change jobs or duties around when needed (Rogers, 1974).
- The manager should make sure that all jobs are maintained with high standards (Rogers, 1974).
- The manager should also monitor cleanliness of each department (Rogers, 1974).

- One should monitor the feeding operations of the machines (Rogers, 1974).

### **Summary**

According to the phone interview, SWOT analysis, market potential and size, and trends we feel that a community cannery in Scott County would be feasible. In the phone interview with Connie & Ronnie Milton, residents of Russell County, stated that Scott County residents travel to the Castlewood canning facility from the farthest tip of Scott County which gave use the impression that there is an equal amount of Scott County residents using the cannery as there are Russell County residents. We also found out that “everyone” uses the cannery not specifically small gardeners or large farmers. Therefore, we concluded that a cannery in Scott County would be feasible with the assistance from the state government.

### **References Cited**

- American Factfinder. July 29, 2002. <http://factfinder.census.gov> Butterfield, Bruce W, NGA Research Director. 1998. National Gardening Survey 1997-1998. Gallup Organization: Princeton, NJ.
- Census of Agriculture in Scott County and Russell County Virginia. 1997. <http://www.hass.usda.gov/cenus97/highlights/va/vaco81.txt>.
- Gibson, J.D. Hass, L.W. Liles, R.T. Moore, G.E, and Vsery, R.H. Agribusiness. Interstate Publishers Inc. Danville, Illinois.
- Lock, Arthur. 1969. Practical Canning. Food Trade Press, LDT: London, England.
- Milton, Connie and Ronnie. Personal interview. 30 July. 2002.
- Rogers, John L. 1974. A Course in Canning. Food Trade Press, LDT: London, England.
- US Census Bureau on Scott and Russell Counties. July 29, 2002. <http://quickfacts.census.gov/qfd/states151/51169.html>.