

Marketing Lavender to Tennessee: A Feasibility Study



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Introduction

The past ten years have seen a surge of herb supplements and product use. With 14% of the United States population taking herbal supplements, herbs have become big business for grocery store chains, health food stores and pharmacies.¹ One such herb is the flowering plant lavender. Lavender is considered both a life enhancer and a medicinal herb. Its proponents attest to lavender's abilities as a calming agent, antiseptic, and mood enhancer, as well as gourmet and hygienic properties. Presently, lavender is grown throughout the country. Sellable forms include: fresh stems and flowers, dried stems and flowers, essential oil, laundry products, personal care, and culinary products.

Company Background

Increasingly, farmers are attempting to grow new and innovative crops. Many smaller farms that look to these crops, as opposed to traditional crops, find it necessary to vertically integrate through the supply chain. These small farms are moving from simply producing the crop to processing and retailing the crop. This study farm is one example. The farm and its owners will remain anonymous, and herein will be referred to as Middle Tennessee Lavender Growers (MTLG). MTLG is an example of the small farm discussed above. The primary income earner works off the farm and income from farming enterprises merely supplements the off farm income. The farm consists of one acre of well-established lavender and is viewed as a

¹www.cnn.com

hobby that may have a financial payoff in the future. This presents a problem, how does one market such a crop?

MTLG has discovered some complications in the selling of their product. The primary problem is associated with the harvest season. The entire acre must be harvested within a two-week time period. MTLG must find buyers for the fresh product who are willing to purchase a large volume in a very short time period. Luckily there is a potential secondary market, fresh product that misses the short-term sales window can be dried, or processed into oil and marketed as such.

Research Objective

The objective of this study is to aid MTLG in answering the question: how does one market a crop such as lavender? In order to answer this question three main areas were analyzed. First, the state of the present market was examined in order to understand how other lavender growers market their products. Second, the market potential for selling fresh lavender through floral wholesalers and other like outlets was assessed. Third, consumers were surveyed in order to understand preferences for lavender products.

Present Market Outlook

Lavender Markets

Lavender is grown worldwide with the majority of annual production being centered in Europe. Approximately 1000 tons of lavender oil is produced worldwide annually.² In the United States, growers range from Washington to Maine and down to



² Crop and Food Research

Florida. Per phone conversation, growers shared that they sell their lavender in fresh, dried and product form. They use wholesalers, retail shops, mail order and internet to sell their product. When asked what types of advertising and promotion they used, both said Internet, radio, and newspaper. The west coast grower also used local television and magazine. Both also prepared and sold gift baskets in their retail shops.

Competing Products

As noted before, herb use in various forms has increased recently. This is both beneficial and detrimental to the lavender market. It is reasonable to believe that other scented products are perfect substitutes for lavender products. Vanilla for example is a substitute for lavender in that its scent is suitable for candles, body care products and household fragrance. Many other scents and herbs could also be substituted in the same way.

Tennessee Population Information

The 2000 Tennessee Census provides insight into consumer buying patterns. Table 1 gives demographic information for the major metropolitan areas of Tennessee and counties neighboring Dixon County. Median household income is highest for Cheatham and Davidson Counties. Note that per capita retail sales is much lower for Cheatham county as compared to Davidson. This shows that residents of Cheatham county spend their shopping dollar in Davidson. MTLG should focus their marketing efforts in counties with high household incomes and high per capita retail sales.

Table 1: 2000 Tennessee Demographic Information

County	Population	% Change Population	% Under 18	Over 65	% Female	Median Household Income \$	Per Capita Retail Sales \$	Women-owned Firms
Cheatham	35,912	32.3	27.7	8.6	49.9	41,036	3,781	29.8
Davidson	596,891	11.6	22.2	11.1	51.6	39,112	14,440	25.2
Dickson	43,156	23.1	26.6	11.7	51.0	34,086	10,083	26.7
Dyer	37,279	7.0	25.7	13.4	52.1	31,092	9,954	18.3
Hickman	22,295	33.1	24.7	12.0	47.1	30,097	2,441	19.9
Humphreys	17,929	13.4	23.9	14.8	50.8	30,574	6,581	31.9
Madison	91,837	17.8	25.8	12.3	52.1	32,909	14,113	17.4
Maury	69,498	26.8	26.2	12.0	51.4	36,996	8,396	19.9
Montgomery	134,768	34.1	28.4	7.8	49.7	35,728	9,455	23.2
Robertson	54,433	31.2	26.8	10.8	50.3	38,432	6,432	23.1
Shelby	89,472	8.6	28.2	10.0	52.2	34,583	10,359	26.6
Knox	382,032	13.8	22.3	12.1	51.7	35,405	13,470	23.1
Tennessee	5,689,283	16.7	24.6	12.4	51.3	32,047	9,448	24

<http://quickfacts.census.gov/qfd/states/47000.html>

Lavender Market Research

Very little research has been done on marketing lavender in Tennessee. Other countries, namely Australia and New Zealand have generated industry research and production standards in response to growing interest. Both France and Australia have growing specifications similar to International Standards Organization (ISO) that allow for different oil qualities depending on their purpose (ie. perfume). Due to a lack of specific background information for Tennessee, three market studies were conducted to assess the market potential in Tennessee for lavender and its' products. They were a wholesale florist survey, a survey of specialty stores and a consumer survey.

Wholesale Florist Survey

In order to assess the demand for lavender products at the wholesale level, wholesale florists were surveyed (Appendix 1). The metropolitan areas surveyed were within a two-hour

drive from the lavender farm, and all of them were in the state of Tennessee. The objective was to sample wholesalers that MTLG could ship fresh product to in a short time period, thus reducing shipping cost and preventing spoilage. Out of 27 wholesale florists contacted, 25 completed the survey.

Table 2 summarizes the results of the first survey question “What type of wholesale products do you carry?”³ Eighteen indicated that they carry fresh cut flowers. Eight respondents carry dried flowers, and nine carry silk or artificial flowers. Seven wholesale florists indicated that they sold other products, such as floral supplies and equipment, or potted plants and nursery products. One respondent, a wholesale nursery indicated that they actually grew a limited amount of lavender for sale as a potted plants, or fresh cuttings.

Table 2: Wholesale Florist by Type

Florist	Number
Fresh	18
Dried	8
Silk	9
Other	7

The next questions were used to estimate florist demand (Table 3). When asked if they ever purchase lavender products for use in their wholesale business 60% of respondents replied yes. Respondents who indicated that they did not purchase lavender products were asked if they would be interested in using lavender products in their wholesale business. Only one respondent indicated that he or she would be interested in doing so. Over half of the survey respondents (60%) indicated that they would prefer locally produced products if price and quality were comparable to out of state products.

Table 3: Wholesale Florist Data

Question	# of “Yes”	Percentage of “Yes”
Do you ever purchase lavender products to use in your wholesale business?	15	60%
Would you be interested in using lavender products in your wholesale business?	1	4%
If given the option of purchasing locally (in-state) produced products at a price/quality comparable to out-of-state products, would you choose the locally produced product?	15	60%

Respondents who indicated that they did use lavender products were asked what types of products they used, and how much of each product they used in a typical month. Respondents were either not able, or unwilling, to share their exact monthly usage of lavender products. Most indicated that lavender volume was small, especially fresh cut lavender, and that they did not use very much. It was very common for respondents to reply with words or phrases such as “negligible,” “very little,” “only when it is in season,” “only for special orders,” and “occasionally, for a wedding.”

A summary of lavender usage by type of product is exhibited in Table 4.⁴ Eleven respondents indicated that they used fresh cut lavender. Six wholesale florists indicated that they used dried products; five used dried stalks and one used dried leaves. Surprisingly, only one respondent indicated the use of sachets, and four respondents used essential oil.

Table 4: Question: What types of lavender products do you purchase for your wholesale business?

Type	Fresh	Dried Stalks	Dried Leaves	Essential Oils	Sachets
# of Florists	11	5	1	4	1

³ Respondents had the option to choose more than one category.

One objective of conducting a wholesale florist survey was to estimate demand and determine what factors influenced demand. Even though a regression framework is not appropriate in this setting, survey results can still be used to make inferences. Because the survey was conducted person to person over the phone, respondents had the opportunity to share details about their experiences with lavender products. Many respondents indicated that fresh lavender shipped in from out of state was expensive due to shipping cost and the quality was low. One respondent indicated that "...it's just not very pretty, and the color is not very bright" Additionally, as stated above respondents indicated that lavender demand was not very strong. Two conclusions, therefore, may be drawn. First, currently there is very little demand for fresh lavender at the wholesale level. Second, a local producer may be able to take business away from out of state producers by providing a cheaper, higher quality product. Therefore, it may be beneficial to stimulate local retail demand through promotion.

Survey of Specialty Stores

After discovering that selling fresh products to wholesalers may not provide any immediate payoff to MTLG, other potential buying groups were identified and surveyed (Appendix 2). Bed and breakfast establishments and retail gift and specialty shops were surveyed in an attempt to find another market outlet. The same search methodology was used as in the above survey of wholesale florist.

Eight gift and specialty shops in Nashville were contacted and asked the same questions. Results were much more favorable. All of the shops except for two carry lavender products. Of the two that were not currently stocking lavender products, one was very interested in lavender saying that he had a customer come within the past week looking for lavender products. Table 5

⁴ Respondents were given the option of choosing more than one category.

summarizes the results of this survey. None of the respondents carry fresh or dried product. Two of the retail stores specifically carry essential oil and sachets. Many respondents indicate that they stock a branded lavender product. These included candles, bath products, hand creams and lip balm. Every respondent indicated that he or she would prefer a locally produced product if it were competitive on the grounds of price and quality.

Table 5: Profile of Gift Shops

Profile	Percent
Previously Purchased	75
Interested in Purchasing	13
Carried Fresh Lavender	0
Carried Dried Lavender	0
Carried Lavender Oil	25
Carried Lavender Sachets	25
Would Buy TN Product	100

Based on this information it appears that MTLG could find a market for its product outside of the traditional floral business. Gift and specialty shops are already familiar with lavender and its many derivative products. One potential draw back is the presence of competing scented products. A consumer may consider other lines of fragrances available at such retail outlets to be substitutes. One way of overcoming this drawback would be to market their lavender as locally grown, thereby differentiating the product.

The yellow pages search for “Bed and Breakfast” only provided three such establishments. None of the Bed and Breakfasts contacted were interested in lavender products. They stated that they already had a bundle of products and services that they offered customers. They did not feel that expanding their product line would provide them any additional benefit.

Consumer Survey

In order to assess consumer preferences and attitudes towards lavender, the marketing analysis team conducted a consumer survey (Appendix 3). Survey participants were faculty, staff and students at the University of Tennessee. Four items were provided for sampling: a two-ounce lavender sachet, a bundle of dried lavender stems, a bottle of culinary lavender, and lavender punch.

Forty-Seven individuals completed a brief 13-question survey. Respondents provided personal information and answered questions regarding lavender buying patterns, opinions about the taste and smell of the products, and willingness to pay.



- Eighteen out of 47 participants have purchased lavender products before. These products include soaps, potpourri, candles, lotion, and bath products. The other 29 participants had not previously tried these products.
- Questions rating the lavender characteristics (scent of lavender, scent of sachet, color of dried lavender stems) used a scale from 1-4 indicating good to bad was used. The average response was 2.5, which indicates that our participants' overall impression of lavender products are fairly medium.
- The question rating aromatherapy effects of lavender, 25 out of 41 participants rate it as more stimulating than relaxing.
- Lavender as a food enhancer, especially lavender punch in this survey, the largest percentage of voter rated it as 'Bad' (15 out of 46 responses). There were 12 persons

who rated it between ‘Good’ and ‘Bad’. Only 7 out of 46 rate it as ‘Good’. However, 63.8% of participants are willing to try lavender in food preparation as a food enhancer.

- Willingness To Pay: for all lavender products, including sachet, essential oil, and fresh lavender, our audience indicated that they would only pay the cheapest price given.

Table 6: Average WTP for Each Sampled Product

2 oz. Lavender sachet	\$2.00 or less
A bundle of dried lavender stems	\$3.00 or less
4 oz. Bottle of lavender essential oil	\$4.00 or less
A bundle of fresh lavender	between \$5.00 and \$8.00

- Quantity demanded per year. 36% of participants do not expect to purchase lavender products, 51% would be willing to buy once or twice in a year, while only 13% expect a purchasing of more than three times a year.
- Location - places to buy lavender products, was a multiple answer question. The survey results show that expected purchasing places were rated in the order of Specialty Store, Gift Shop, Florist and On-Farm.

With no fresh lavender available, this survey was focused primarily on dried lavender products. The single question involved in the questionnaire on fresh lavender was rated by past experience; therefore, it may not be a good indicator. Participants in the survey have a high education and income than is normal for the state of Tennessee. The order of products as displayed may have influenced choices of survey participants.

Based on the above observations, we could draw a brief conclusion of demand on dried lavender products for customers who may or may not be typical representatives of the entire customer group in market. Our specific customer profile is highly-educated, with an above average yearly household income (between \$35,000 and \$49,999), and evenly distributed

between male and female customers. This group of customers had little past experience in purchasing lavender products, nor would they be willing to increase their future purchases. Their willingness to pay for dried lavender products was low. Their preferences of dried lavender products were of a medium level because lavender products were not perceived as necessary in their daily lives. They expected to purchase dried lavender products mostly in specialty stores. Demand from this group of customers is small.

This information helps answer the objective question by indicating who buys the product and how much they are willing to pay. Table 7 summarizes which survey participants have previously bought the product by demographic group. Gender, Age and Education were all statistically influential indicators of lavender purchased. Expectedly, more women than men had bought lavender previously. Those with incomes between \$35,000-\$49,999 had the most frequent previous purchases. Also, those who had below college education were more likely to have bought previously.



Table 7: Question: Have you ever purchased lavender products before?

Category	Percent	Significant Association ⁵
Gender		
Male	23	Yes
Female	50	
Age		
Over 40	42	No
Under 40	30	
Income		
< \$24,999	36	Yes
\$25,000-\$34,999	67	
\$35,000-\$49,999	100	
\$50,000-\$74,999	25	
\$75,000-\$99,000	14	
>\$100,000	17	
Education		
below college level	53	Yes
to college and above	25	

Table 8 and Table 9 provide some basis for future product pricing. They summarize what survey participants said they were willing to pay for different sample products. Responses from this group were much lower than other market prices as indicated by producer websites.

⁵ Influential indicates that this test is statistically significant to a Chi-square of 0.10 percent

Table 8: Consumer Willingness to Pay for Sachet Product (Percent)

Price	\$2 or less	\$3.00	\$4.00	\$5 or more	Significant Association
Gender					
Male	82	18	0	0	Yes
Female	39	30	22	9	
Age					
Under 40	59	24	12	8	No
Over 40	65	25	10	0	
Income					
< \$24,999	46	23	23	8	No
\$25,000-\$34,999	50	33	17	0	
\$35,000-\$49,999	67	33	0	0	
\$50,000-\$74,999	50	38	0	12	
\$75,000-\$99,000	100	0	0	0	
>\$100,000	66	17	17	0	
Education					
below college level	50	33	11	5	No
to college and above	67	19	11	4	

Table 9: Consumer Willingness to Pay for Dried Bundles Product (Percentages)

Price	\$3 or less	\$6.00	\$9.00	\$12 or more	Significant Association
Gender					
Male	100	0	0	0	Yes
Female	67	29	4	0	
Age					
Under 40	73	23	4	0	No
Over 40	95	5	0	0	
Income					
< \$24,999	57	36	7	0	No
\$25,000-\$34,999	83	17	0	0	
\$35,000-\$49,999	67	33	0	0	
\$50,000-\$74,999	100	0	0	0	
\$75,000-\$99,000	100	0	0	0	
>\$100,000	100	0	0	0	
Education					
below college level	79	16	5	0	No
to college and above	85	15	0	0	

Pricing Strategies and Expected Revenue

The Tennessee consumer survey concluded that the test group was willing to pay below the market price for lavender products. Research into other market prices throughout the U.S. show higher prices than what were indicated by the survey. The following section is a calculation of what an acre of lavender could potentially yield in revenue given a combination of present market prices and the consumer survey

From information collected from the University of Tennessee Ag. Development Center and North Carolina State University, we know that an acre of English type lavender can produce 3200 plants and that each plant can potentially produce 300-1500 stems per plant. As dried flowers, one acre can produce between 150-200 lbs. For these calculations an average stem production of 1000 per plant was used. A conservative figure of 150 pounds per acre was used for calculations including dried flowers. Tables 10-13 show potential selling scenarios and their revenues. Scenario 1 represents what MTLG could produce if their existing acreage and products were fully utilized. Scenario 2 represents revenue if one fourth the lavender product was sold as fresh and three-fourths was sold as dried; given that the crop is fully harvested. The third scenario shows a situation where not all product is harvested for some reason. The harvested crop was calculated as if one half was sold as fresh product, and one half was sold as the three dried products.⁶

Table 10: Scenario 1 – 1/2 Crop Sold Fresh, 1/4 Crop Sold Dried Bundles, 1/4 Sold Sachets

Product	Units produced	Price per Unit	Expected Revenue
Fresh Lavender (120 stem bunch)	13,333	\$8	\$99,998
Dried stems (120 stem bunch)	6,667	\$6	\$40,002
Sachets (2 oz. product)	300	\$5.50	\$1,650
Total			\$141,650

Table 11: Scenario 2 – 1/4 Crop Sold Fresh, 3/4 Crop Sold as Dried Bunches, Bulk and Sachet

Product	Units produced	Price per Unit	Expected Revenue
Fresh Lavender (120 stem bunch)	6,667	\$8	\$50,003
Dried stems (120 stem bunch)[1/3]	6,600	\$6	\$39,600
Sachets (2 oz. product) [1/3]	300	\$5.50	\$1,650
Bulk Dried Flowers (lbs.) [1/3]	37.5	\$28.50	\$1,069
Total			\$92,321

Table 12: Scenario 3: 1/2 Crop Harvested – 1/2 Fresh Lavender, 1/2 Dried Product

Product	Units produced	Price per Unit	Expected Revenue
Fresh Lavender (120 stem bunch)	6,667	\$8	\$50,003
Dried stems (120 stem bunch)[1/3]	2,222	\$6	\$13,332
Sachets (2 oz. product) [1/3]	200	\$5.50	\$1,100
Bulk Dried Flowers (lbs.) [1/3]	25	\$28.50	\$713
Total			\$65,147

Feasibility Study Recommendations

Based on the market research, in the Tennessee area, a market for lavender must be created. Wholesalers could potentially be interested in a local grown, high quality product. The problem lies in the fact that their lavender use patterns are not in sequence with the harvesting patterns of MTLG. Wholesalers demand a uniform product that can be delivered on demand regardless of season. For this type of market, farm expansion and capital investment in green

⁶ For each calculation, a scenario price for each product came from averaging the web derived market price and the consumer survey willing to pay price.

houses would be necessary. Time and money would be better spent developing on farm marketing and sales.

Based on the consumer survey, customers for MTLG may be females over the age of forty who have a household income between \$35,000 to \$49,999. From this information, we assume that women will be the main consumer and that promotion should be focused toward them. Following are some suggestions for promoting the lavender in the Tennessee area.

Create a website. Visible lavender producers throughout the United States use websites to reach markets outside their immediate area. Websites also serve as a posting board for local upcoming events and as a place to keep contact with customers. They allow people inside and outside your area access to your product via mail orders. Visiting other producer's websites is a good way to get ideas for future expansion of your own business.

www.purplehazelavender.com
www.lavenderfarm.com
www.lavenderland.com
www.lavandula.com.au/right.htm
www.lyndochlavenderfarm.com.au/
www.lavande.com.au
www.portlandnow.net.au/portbaylavender
www.capecodlavenderfarm.com

Develop an on-farm market. One spillover of tourism is agri-tourism. People are looking for an unique experience. Allowing individuals and school groups to tour the farm and learn about how lavender is grown is an excellent way to add a selling opportunity. Cape Cod Lavender Farm in Mass. allows customers to help with harvesting. It is a yearly event and draws visitors who may or may not be previous consumers. This can create a



market in your area that was previously not there, by increasing interest.

Tie farm marketing in with creative advertising. Newspapers are always looking for unique human interest stories. They can be a source of cheap, effective advertising. Draw attention to the fact that harvesting fresh lavender is a special event that only happens two weeks out of the year. Other lavender producing areas such as Washington state, promote lavender with yearly festivals to encourage use and on farm visits. Increased on farm traffic also gives you a venue in which to sell additional lavender and gift store type products.

Distribute samples to increase experience with lavender. Lavender is an experience good. Consumers may not be aware of lavender's benefits without trying it first. Use of unsold product as promotional samples can generate future sales with little additional cost.

Invest in making oil. A commercial grade oil distiller can be purchased for as little as \$5000 or \$200 for homemade equipment. This capital investment would expand your product line. Essential oil is the basis for other products such as candles, lotions, and bath products. Adding products can add dimension to the above suggestions.

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