

Industry Report 91-1

**Marketing Alternatives for
North Florida
Shiitake Mushroom
Producers**

by

**Robert L. Degner
and
M. Beth Williams**

November, 1991

**Florida Agricultural Market Research Center
Institute of Food and Agricultural Sciences
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TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
TABLE OF CONTENTS	ii
SUMMARY	iv
INTRODUCTION	1
FINDINGS	3
ASIAN GROCERY STORES	3
RESTAURANTS	4
ORIENTAL	5
ITALIAN	5
HIGH-VOLUME INDEPENDENT RESTAURANTS	6
Produce Wholesalers	8
CONCLUSIONS	9
REFERENCES	12
APPENDIX	13

Florida Agricultural Market Research Center
A Service of the
Food and Resource Economics Department
of the
Institute of Food and Agricultural Sciences

The purpose of the Center is to provide timely, applied research on current and emerging marketing problems affecting Florida's agricultural and marine industries. The Center seeks to provide research and information to production, marketing and processing firms, and groups and organizations concerned with improving and expanding markets for Florida agricultural and marine industries.

The Center is staffed by a basic group of economists trained in agriculture and marketing. In addition, cooperating personnel from other IFAS units provide a wide range of expertise which can be applied as determined by the requirements of individual projects.

SUMMARY

- * A joint research and demonstration project by Florida A & M University and the University of Florida has shown that Shiitake (Japanese) mushrooms can be successfully grown in North Florida using abundant hardwoods that presently have little economic value.
- * The objective of this study was to explore the market potential for direct sales of Shiitake mushrooms to retail Asian grocery stores and restaurants where prevailing market prices are in the \$5.00 to \$6.00 per pound range.
- * Telephone interviews of 48 Asian grocery store managers revealed that only one store was selling fresh Shiitake mushrooms. For this one store, sales were intermittent and volume was only 3 pounds per week.
- * Less than 10 percent of the Asian grocers handle fresh produce. Only four expressed any interest in selling fresh Shiitake mushrooms, and projected weekly sales were 10 pounds or less. Thus, the market potential for direct sales to Asian grocery stores appears to be very limited.
- * Approximately 100 Oriental, Italian and mixed menu high volume independent restaurants were contacted by telephone and 30 were successfully interviewed.
- * Of the 14 Oriental menu restaurants interviewed, only half used fresh mushrooms of any kind, and none used Shiitake mushrooms in any form. among Oriental restaurants using common mushrooms, volume was relatively low.
- * Oriental menu restaurant managers expressed little interest in using Shiitake mushrooms, because of their cost and lack of familiarity with Shiitakes. The market potential for direct sales to this market segment appears to be quite low.
- * Among Italian restaurants, those that are classified as "white tablecloth" use modest quantities of fresh mushrooms, including Shiitakes. Current users of Shiitakes are generally satisfied with their quality, but they expressed interest in buying directly from growers if prices were competitive. Quantities used ranged from 2 to 40 pounds per week.
- * Italian restaurants, with the exception of the white tablecloth type, represent limited market potential.

- * Among the high volume independent restaurants, those with French menus have the greatest incidence of Shiitake mushroom usage. Even so, typical volume is small, usually about 5 pounds per week.
- * Of 25 foodservice suppliers interviewed, 16 sold fresh mushrooms and 10 handled Shiitakes.
- * Of the 10 produce wholesalers currently selling Shiitake mushrooms, 8 were interested in buying directly from North Florida growers. Weekly volume ranged from 35 to 200 pounds, and averaged slightly over 100 pounds.
- * About three-fourths of the produce wholesalers' supplies currently come from suppliers in Pennsylvania, with the remainder coming from North Florida growers. Thus, North Florida producers are likely to have a competitive edge with respect to shelf life and transportation costs.
- * The immediate focus for market development should be on sales to produce wholesalers because usage by Asian grocery stores and restaurants is very limited. Serving individual business establishments is likely to be costly and sales volume low.
- * Longer term market development should include educational materials, recipes, and product samples for chefs.

INTRODUCTION

In 1986, the Center for Cooperative Agricultural Programs (CCAP) at Florida A & M University initiated a multi-year research and demonstration project in conjunction with the University of Florida which focused on the Japanese edible mushroom, commonly known as the "Shiitake mushroom." This project sought to adapt Shiitake mushroom production technology to North Florida conditions and provide small-scale agricultural producers with a profitable alternative enterprise. Clay Olson, County Extension Director of Taylor County, coordinated the project.

Although there were some production problems at the outset, it soon became apparent that Shiitake mushroom production was technically feasible in North Florida. By 1990, the Florida Mushroom Growers Association had been formed with thirty-four (34) active members. One of the Association's priorities was to identify viable market outlets. The Florida Agricultural Market Research Center (FAMRC) was asked to assist with this task.

OBJECTIVES

The original objective of this research was to explore the market potential for direct sales of Shiitake mushrooms by producers to Asian grocery stores in the North Florida trade area. The scope of the project was later expanded to include independent ethnic restaurants and produce wholesalers, especially wholesalers catering to the

foodservice trade. The trade area was defined as encompassing the Tampa-Orlando-Tallahassee geographic region.

Specific objectives were to: (1) Determine current quantities of exotic mushrooms handled by each major type of buyer, i.e., Asian grocery stores, ethnic restaurants and produce wholesalers (2) Determine current marketing channels for Shiitake mushrooms and identify major handlers (3) Determine prevailing prices for Shiitake mushrooms and estimate potential direct sales at selected price levels.

PROCEDURES

Asian food stores and Oriental restaurants were identified in the 1991-92 Florida Business Directory (American Publishing Company, 1991). The restaurant contact list was also augmented with Tablecloth/Gourmet listings from the 1990-91 Directory of High Volume Independent Restaurants (Business Guides, Inc., 1990). Finally, foodservice distributors handling fresh produce in the North Florida region were identified from the 1990 Directory of Foodservice Distributors (Business Guides, Inc., 1990).

Asian grocery managers, restaurant kitchen managers and managers of foodservice distributors handling produce, gourmet and specialty items were interviewed by telephone in April and May, 1991 by FAMRC staff. Separate questionnaires were developed for each of the three types of respondents.

FINDINGS

ASIAN GROCERY STORES

Forty-eight Asian grocery store managers were interviewed, and only one was found to be selling fresh Shiitake mushrooms and only one other had ever tried selling them. Both of these stores complained that sales volume was too low to make it worth their while, and shelf life was too short. The one store currently selling Shiitake mushrooms sold them intermittently, and weekly sales were usually one three-pound container. Both said small restaurants were their best customers for Shiitake mushrooms. Two wholesale suppliers of Shiitake mushrooms were identified by the Asian stores: Orlando Specialties based in Orlando, and T & S Mills Research Center, located in North Carolina. Only three stores were found to be selling dried Shiitake mushrooms. During the six month period prior to the interviews (late 1990 and early 1991) the dried mushrooms were retailing for an average of \$4.75 per pound, with a range of \$4.00 to \$5.50 per pound. As for other exotic mushrooms, one firm was selling canned straw mushrooms.

The market potential for fresh Shiitake mushrooms appears quite limited among the Asian stores. One firm expressed a willingness to buy them at a delivered price of \$6.00 per pound, and a total of four were willing to buy at \$5.00 per pound. At \$4.00 per pound, no additional store managers were willing to buy. As for projected sales at various price levels, the four managers expressing an interest in handling fresh Shiitake mushrooms were reluctant to make estimates; at \$4.00 per pound, one manager said weekly sales would be about 10 pounds. All managers interested in Shiitake mushrooms said they would have to see samples before buying.

A major limiting factor is the lack of fresh produce departments in the Asian stores. Only four of the forty-eight carry fresh produce of any kind, and most of these have very limited produce departments. For the most part, Asian grocers are not interested in stocking fresh produce of any kind, particularly relatively expensive mushrooms with low turnover and short shelflife.

Based upon the limited expression of interest in Shiitake mushrooms and extremely low anticipated volume by Asian grocery stores, it appears that they are not likely to be a significant market outlet for North Florida mushroom producers.

RESTAURANTS

It was hypothesized that Oriental and Italian restaurants would be most likely to use Shiitake mushrooms. Accordingly, 54 Oriental restaurants and 26 Italian restaurants were identified in the trade region that bought display advertising in the telephone Yellow Pages. It was assumed that display advertising would be done by larger firms. The interview cooperation rate for these firms was extremely low. Only four of the 26 Italian and 14 of the 54 Oriental menu restaurants identified through Yellow Page advertising were willing to be interviewed. The majority of the non-cooperators refused because they use no fresh mushrooms and had no interest in using them. In addition to the Italian and Oriental restaurants identified through Yellow Page advertising, a list of 44 high-volume independent restaurants (HVI) was obtained from a another trade directory (Business Guides, Inc. 1990). Several of the HVI restaurants had Italian menus, but there was considerable menu diversity. The HVI list included seafood, Spanish, general American and French menus. About half of the HVI restaurant

managers submitted to an interview. Results of the restaurant survey appear below in three sections: (1) Oriental, (2) Italian, (3) High-volume Independent Restaurants.

ORIENTAL

Of the 14 Oriental restaurants contacted, only half used fresh mushrooms of any kind and none used Shiitake mushrooms. Very few kitchen managers were familiar with Shiitakes. Several managers were curious about Shiitakes, and said they would like to have samples. However, when asked about their willingness to purchase them at prices of \$4.00 to \$6.00 dollars per pound, only one manager still appeared interested--at \$4.00 per pound. Most of the Oriental restaurant managers appeared to be extremely cost conscious, and several expressed concern over the relatively high price of Shiitakes. Further, the Oriental restaurants using fresh mushrooms tended to use relatively small quantities. Typical fresh white button mushroom volume ranged from 5 to 30 pounds per week, with most firms using 5 to 10 pounds. Thus, even if Shiitake mushrooms could be successfully introduced to Oriental restaurants, the volume per outlet would probably be quite small.

ITALIAN

Only six Italian menu restaurants were willing to provide information about their mushroom use. However, many of the uncooperative firms specialized in pizza. Five of the six cooperators were "white tablecloth" general menu Italian restaurants, and all used fresh mushrooms. Three used Shiitakes, and usage ranged from about 2 to 40 pounds per week, at a cost of \$5.75 to \$7.00 per pound. For the most part, they were

satisfied with the quality of Shiitakes they were receiving, although one expressed a preference for smaller sizes. One firm, the largest user of Shiitakes, expressed interest in buying them from North Florida growers at \$6.00 per pound; although the manager said he would be pleased to be able to buy them for \$4 and \$5 per pound, he did not expect a significant increase in the total usage of Shiitakes at the lower prices. The current users of Shiitakes were ambivalent as to the source of fresh mushrooms; they were willing to buy directly from producers or from produce wholesalers.

Non-users expressed little interest in buying Shiitake mushrooms. Their menus and the relatively high price of Shiitakes were the major reasons for lack of interest. High volume "white tablecloth" Italian restaurants offer some potential for direct sales by North Florida mushroom growers, but once again, low volume may make it difficult to serve this segment of the market efficiently.

HIGH-VOLUME INDEPENDENT RESTAURANTS

Approximately half of the 44 listed high-volume independent (HVI) restaurants in the market region were contacted, and 14 were successfully interviewed. Two of the cooperators had Italian menus, and their responses were included in the Italian section above. The remaining 12 restaurants represented a wide variety of menu types, including seafood, Spanish, general American menu, and French.

All of the HVI restaurants use the common white button mushroom, in quantities ranging from about 30 to 120 pounds per week. However, only four HVI restaurants were found to use Shiitake mushrooms. Three of the four using Shiitakes specialized

in French cuisine, and the fourth was a general American menu restaurant. Three of the four use about five pounds per week, and one about 15 pounds.

Prices paid by the restaurants for Shiitake mushrooms ranged from about \$4.70 to \$6.00 per pound. None reported problems with quality or service by current suppliers. All current users expressed an interest in buying Shiitake mushrooms produced in North Florida, but only at \$4.00 to \$5.00 per pound. Even at the lower price, volume would remain unchanged. All stipulated that quality would be an important consideration. For the most part, managers of the HVI restaurants were ambivalent as to their preferences with respect to direct grower deliveries or wholesaler deliveries, saying that price and dependability of supply and quality were the most important considerations. One was currently buying directly from a grower, but the others were getting their supplies of Shiitakes from area produce wholesalers.

Restaurants that do not currently use Shiitake mushrooms offered little encouragement for future potential. Managers of the HVI restaurants with seafood or Spanish menus felt that Shiitake mushrooms could not be used advantageously in their traditional dishes. However, several managers of restaurants with American menus expressed an interest in seeing samples. But, given their relatively small volume of common mushroom usage, it appears very unlikely that these restaurants would use more than 5 to 10 pounds of Shiitake mushrooms if they could be convinced to try them.

Among HVI restaurants, the greatest potential appears to be among French and American menu establishments. Even so, the relatively small numbers of users, their geographic dispersion and weekly volumes of only five to 15 pounds would make it difficult for growers to serve this market efficiently with direct sales.

Produce Wholesalers

Twenty-five foodservice distributors handling produce, specialty or gourmet items serving the market region were identified through a leading trade directory (Business Guides, Inc. 1990).

Sixteen of the 25 firms currently handle fresh mushrooms, and 10 of the 16 sell Shiitakes. The nine wholesalers that do not sell fresh mushrooms said they were very unlikely to do so within the foreseeable future for various reasons; some were suppliers of processed gourmet items, others handled fresh produce but no mushrooms because their established clientele did not use them.

Of the 10 firms handling Shiitake mushrooms, 8 were interested in possibly buying directly from North Florida growers but two firms were not. One of the firms that was not interested in buying North Florida Shiitake mushrooms handled Shiitakes on a special order basis, and purchases were erratic and usually small. However, the other firm handled "hundreds of pounds" per week, receiving them from a supplier in Pennsylvania.

Of the eight wholesalers interested in buying Shiitake mushrooms from North Florida growers, two handled relatively small quantities on a special order basis for their customers. However, the remaining six handled them on a regular basis, with weekly volumes ranging from 35 to 200 pounds and averaging slightly over 100 pounds per week. About one-fourth of the total quantity handled by these six wholesalers was supplied by a mushroom producer in North Florida, with the remainder supplied by mushroom growers in Pennsylvania, largely Elite Mushrooms (Avondale, PA) and Jim Paxon & Sons (Oxford, PA). All eight firms currently selling Shiitake mushrooms reported having

no quality problems. Although many of the produce wholesalers sell to retail food stores as well as foodservice customers, virtually all Shiitake mushrooms go to upscale "white tablecloth" restaurants. Many are independent restaurants, but some are affiliated with hotels or country clubs.

The prevailing wholesale prices at the time of interviewing were consistent with those obtained from the restaurants, i.e., \$5.33 to \$7.00 per pound, with most around \$5.50. Most of the eight wholesalers favorably predisposed to buying North Florida Shiitake mushrooms were noncommittal on prices they were willing to pay, but three expressed interest at \$5.00 per pound and four at \$4.00. Several said quality was a critical factor and that they would negotiate price after seeing samples. As with the restaurants, price elasticity of demand appears to be quite low, that is, volume sold is not very responsive to price. For example, lowering the price to wholesalers from \$5.00 to \$4.00 per pound is not likely to result in significantly larger sales.

CONCLUSIONS

The initial target market of retail Asian grocery stores in the Tampa-Orlando-Tallahassee marketing region proved to be a disappointment. Very few such stores handle fresh produce, and many managers were unfamiliar with Shiitake mushrooms. Only one of 48 stores contacted was currently selling Shiitakes, and sales volume was extremely low. A few managers of Asian grocery stores expressed interest in selling Shiitake mushrooms, but potential sales are likely to be 10 pounds or less per week per

store. Thus the market development opportunities for this type of outlet appear to be very limited.

The next phase of this study focused on independent restaurants, and proved equally disappointing. A survey of Oriental, Italian, Spanish and American menu restaurants found few users of Shiitake mushrooms. However, French menu restaurants appear to have considerably more potential. Weekly sales among French restaurants ranged from 5 to 40 pounds, which may make this market segment attractive to mushroom growers if enough French restaurants can be identified in a given geographic area to make direct sales economically worthwhile.

The greatest potential for immediate sales is to produce wholesalers that serve the foodservice trade. Eight produce wholesalers expressed interest in obtaining Shiitake mushrooms directly from North Florida growers, and these firms are listed in the appendix. Six of these firms reported weekly sales ranging from 35 to 200 pounds, with virtually all Shiitake mushrooms going to upscale restaurants. Deliveries to produce wholesalers would likely be more stable and more efficient than sales directly to restaurants. Because most Shiitake mushrooms are obtained from distant, out-of-state sources, Florida growers may have a slight shelf-life advantage as well as a transportation cost advantage which should make them more competitive.

The immediate focus for market development should be on product wholesalers, but the restaurants should not be forgotten. Growers can target upscale continental restaurants which can be served efficiently. Further, the North Florida mushroom growers should develop educational materials directed at chefs because many are unfamiliar with Shiitake mushrooms. Personal calls on restaurant managers and chefs,

product samples and educational materials including recipes should be integral components of future market development plans for the rapidly growing Florida industry. Educational materials for chefs can benefit the entire industry by increasing total demand for Shiitake mushrooms, but such materials can be particularly effective for individual growers that invest their own time and money in sales calls. A combination of joint and individual market development efforts can assure the Florida mushroom industry of a profitable future.

REFERENCES

1. American Directory Publishing Company. 1991-92 Florida Business Directory. Omaha, Nebraska, 1991.
2. Business Guides, Inc. 1990 Directory of Foodservice Distributors. New York, New York, 1989.
3. Business Guides, Inc. 1990-91 Directory of High Volume Independent Restaurants. New York, New York, 1990.

APPENDIX

Appendix Table --Potential Shiitake Mushroom Customers^a

<u>CUSTOMER TYPE</u>	<u>BUYER'S NAME</u>	<u>PHONE</u>	<u>ADDRESS</u>	<u>ANTICIPATED VOLUME</u>
<u>WHOLESALERS^b</u>				
BASS & SWAGGERTY	BOB CONE	904-255-0423	330 CARSWELL AVE., HOLLY HILL, 32017	LOW
CITY PROVIDIONERS, INC.	TONY POWERS	904-673-2443	PO BOX 2246, DAYTONA BEACH, 32015	LOW
GULF PRODUCE	NEIL SANDLER	904-356-0026	3335 BRIGHT AVE., JACKSONVILLE, 32205	LOW
RED FISHER	PAUL	813-621-3481	5302 E. DIANA, TAMPA, 33610	HIGH
UNITED PRODUCE OF PINELLAS, INC	SAMUEL V. LUMIA	813-822-4051	1830 3RD AVE. SOUTH, ST PETE., 33712	LOW
MOVSOVITZ	PAM WHOOTEN	904-764-7671	3100 HILTON ST., JACKSONVILLE, 32209	MEDIUM
EAST COAST FRUIT CO.	JERRY PORTNOY	904-355-7591	3335 N. EDGEWOOD AVE., JACKSONVILLE, 32205	LOW
ORLANDO SPECIALTY	BARRY	407-856-1611	1213 E. PINE AVE., ORLANDO, 32824	HIGH
CREWS & GARCIA	RICK	813-236-5536	2801 E. HILLSBOROUGH, TAMPA, 33610	HIGH
<u>ASIAN GROCERY STORES^c</u>				
MANDARIN SUPER MARKET	BETTY	904-268-5215	11408 SAN JOSE BLVD., JACKSONVILLE, 32217	
ORIENTAL FOOD & GIFTS	KOCHA ADAM	813-924-8066	7280 TAMAMI TRAIL S., SARASOTA,	
DONG & PHOUNG ORIENTAL	ROSE	407-894-7013	1121 VIRGINIA DR., ORLANDO, 32803	
WONG KAI IMPORTS INC.	JOHN WONG	813-758-1432	8959 US HWY 301, SARASOTA,	
<u>RESTAURANTS^d</u>				
LE POMPANO RESTAURANT	ANDREW DENNIS	813-596-0333	19325 GULF BLVD, INDIAN SHORES, 34635	LOW ^d
BENTLEY'S	KEN	813-797-1177	2516 MCMULLEN-BOOTH RD., CLEARWATER, 34621	LOW
CHRISTINI'S RISTORANTE ITALIANO	CARLO FILANDE	407-345-8770	7600 DR.PHILLIPS BLVD., ORLANDO, 32819	HIGH
THE INN BETWEEN	MANUEL CANTHO	813-349-7117	431 BEACH RD. SARASOTA, 34242	LOW
ENZO'S	ENZO	407-834-9872	1130 S. HWY 17-92, LONGWOOD, 32750	MEDIUM
MONTE CARLO	ROMEO	813-879-6245	3940 W. CYPRESS ST., TAMPA, 33607	LOW
SPANISH PARK	CHRIS VALDEZ	813-248-6138	3517 E. 7TH AVE., TAMPA, 33605	LOW
LE CORDON BLEU	GEORGE	407-647-7575	537 W. FAIRBANKS AVE., WINTER PARK, 32789	LOW
BON APETIT	KARL RIELL	813-733-2151	150 MARINA PLAZA, DUNEDIN, 34689	MEDIUM
BOB HEILMAN'S BEACHCOMBER	GORDON	813-442-4144	447 MANDALAY AVE., CLEARWATER, 33515	LOW
CHINA DRAGON	JAMES CHIN	904-252-3839	1415 N. RIDGEWOOD, DAYTONA BEACH, 32014	LOW

^a The firms appearing here consented to be listed as potential customers for Shiitake mushrooms grown in North Florida.

^b For wholesalers, potential volume is defined as follows: low = less than 50 pounds per week, medium = 50 to 100, high more than 100 pounds per week.

^c All Asian grocery stores had sales of 10 pounds per week or less.

^d Restaurants' potential volume is defined as follows: low = less than 15 pounds per week; medium 15 to 20 pounds and high = more than 20 pounds per week.