

- Fla. A & M University.
6. Fla. Citrus Processors Assoc. 1981. Statistical Summary, 1979-80 Season.
 7. Haushofer, H. and W. Meier. 1976. Test report on a mobile combined grape gathering, washing and pressing machine. *Fd. Sci. Technol. Abst.* 9:2H327. 1977.
 6. Kesterson, J. W. and R. J. Braddock. 1976. By-Products and specialty products of Florida citrus. *Bull.* 784 IFAS, Univ. Fla. Gainesville.
 9. Lanier, M. R. and J. R. Morris. 1979. Evaluation of density separation for defining fruit maturities and maturation rates of once-over harvested muscadine grapes. *J. Am. Soc. Hort. Sci.* 104: 249-252.
 10. Mortensen, J. A. 1978. Grapes in Florida: Past, present and future. *Fruit South, March*, 1978:86-89.
 11. Thomas, B. 1979. The cost of energy could devour agriculture. *Fla. Trend* 21(11):62-65.

Proc. Fla. State Hort. Soc. 94:347-350. 1981.

MUSCADINE GRAPE MARKETING ALTERNATIVES: FRESH VS. PROCESSED VS. DIRECT MARKET

W. K. MATHIS, F. E. STEGELIN, AND R. L. DEGNER
*University of Florida, IFAS,
Food and Resource Economics Department,
Gainesville, FL 32611*

Additional index words. commercial market, consumer acceptance, returns, prices, management.

Abstract. Marketing considerations are paramount for a profitable business and should permeate and influence production decisions. The appropriate marketing channels best suited for the respective varieties should influence the grape grower's decisions of which varieties to plant. Cultural practices in the vineyard and economic conditions will critically influence the grower's marketing decisions and returns expectations. The major factors affecting these returns and managerial marketing decisions are presented via a decision-tree framework to assist grape growers in either the fresh commercial, processed, or direct marketing of Florida's muscadine grapes.

"Marketing is so basic that it cannot be considered a separate function . . . it is the whole of business seen from the point of view of its final product—that is, from the customer's point of view."

This statement by Peter Drucker emphasizes the importance of consumer response and acceptance for the success of a business. Producing and marketing muscadine grapes is a business whose success depends upon customer sales and sound marketing management. A marketing plan which analyzes the mix of marketing decisions is as important as a production plan. A proper marketing plan evaluates decisions on products, pricing, promotion, and place. These considerations will be discussed as they relate to the Florida muscadine grape grower. The focus of this paper is on 1. comparing fresh commercial, processed, and direct market alternatives, 2. managerial marketing decisions and strategies and 3. the major factors affecting grape grower returns.

Marketing Mix

Commercial production of muscadine grapes has increased in the last decade, with most grapes marketed directly to consumers, primarily through pick-your-own (PYO) outlets. As more growers, both hobbyists and commercial producers, discover the profit opportunity and enter the market with more PYO operations, muscadine grape

growers will need to analyze marketing alternatives and marketing strategies.

Product Decisions

Marketing decisions must be made along with production decisions when selecting the varieties to plant. Some muscadine varieties are better suited for processing as a wine or juice grape, while others were developed primarily for fresh consumption (3). Consequently, planting a particular variety may dictate the market the grower must pursue for a profitable and successful venture.

Pricing Decisions

"Everything is worth what its purchaser will pay."

This thought sounds reasonably simple, yet it embodies complex considerations. Not only are pricing decisions based on consumer responses, but also on competitive actions (pricing, volume or quantity discounts, services rendered, purchase incentives, other merchandise available, etc.) and internal cost considerations. Rational economic decisions mean that, at a minimum, a grower would price above average variable costs and, for an economic profit, price above average total costs. Enterprise budgets can aid in evaluating production and marketing costs and prices (5). Dividing total costs by the yield indicates the breakeven price; similarly, dividing the total costs by the expected market price reveals the yield necessary to break even.

Promotional Decisions

Promotional decisions are concerned primarily with advertising, publicity, and selling or sales support. Failure to address these decisions adequately has led to losses for some grape growers. In some cases unsuccessful PYO or direct market operators have not advertised their vineyards either in the media (newspapers, radio, etc.) or with eye-catching, easy-to-read roadside signs. Successful direct markets do not just happen, they are planned and nurtured. Selling does not just involve getting the customer to the market (PYO, roadside, farmers') but also the proper display and handling of produce and the proper treatment of the customer. Guidelines for successful and profitable direct markets are available (4,6). A recent study showed word-of-mouth as the principal means by which customers learned of a particular vineyard (2). However, many had simply noticed the vineyard while driving, which emphasizes the need for roadside advertising.

In the fresh market, point-of-sale (POS) materials and/or packaging are important for catching a customer's interest and conveying what the product is, its price, and other factors such as color, variety, Florida-grown, etc. Super-

¹Florida Agricultural Experiment Stations Journal Series No. 3525.

market produce departments do not have persons promoting products or answering questions; the POS materials, the package, and the grapes must do the selling.

In the processing market, the sales or promotional decisions must be addressed prior to harvest. This involves commitment to the processor for a quantity and quality of a particular variety that will be delivered, and commitment by the processor to accept the grapes at an agreed upon price and under other specified conditions for delivery.

Place Decisions

The methods and channels of distribution to optimize sales and profits are the place decisions faced by the muscadine grape grower. As mentioned earlier, these decisions may be predetermined by the grape varieties in the vineyard. For muscadine grapes, these distribution channels are either fresh commercial (through retail food stores), processing, or direct to consumer. Regardless of the approach, the grower should analyze the market by identifying the various segments or classes of customers who have unique characteristics as muscadine grape purchasers so that marketing programs can be adapted to these customers. Several studies provide suggestions (1, 2, 8).

Marketing Alternatives

The marketing system has become more complex, with chain stores handling most of the produce sold at retail. Growers with smaller acreages have found marketing their products profitably through standard wholesale fresh market channels increasingly difficult. The cost of marketing is relatively high in the small fruits such as berries and grapes. The basic marketing alternatives for muscadine grapes are direct market (primarily pick-your-own), processed market (wines, juices, jams, jellies, and candies), and commercial fresh market in food store produce departments.

The grower's marketing decision tree (Figure 1) reflects these choices, assuming the variety is suited for all three markets. Once the decision is made to market next season's crop as PYO, representative production practices indicate little likelihood of successfully marketing via another alternative, especially as harvest approaches. The pick-your-own (direct market) operations can sometimes be used as residual or backup markets, but it may be virtually impossible to enter the fresh commercial channel because of quality considerations or time required to cultivate retail contacts.

Direct Market

The pick-your-own (PYO) concept has expanded rapidly in the past few years. In general, any crop which may be harvested all at once, or whose maturity may easily be determined by some obvious indicator, such as color or size, has become popular as a PYO crop; muscadine grapes are an example. PYO marketing, though, is not for every grower. When produce is marketed PYO, the farmer or producer becomes a retailer. As such he is confronted with many of the same problems that all retailers face. Many growers have neither the temperament nor the desire to retail their own produce. However, for those who do, the PYO method of marketing grapes is an alternative that should be considered.

The advantages of PYO markets to producers include 1. seasonal harvest labor is reduced, 2. grading, packing, and storage is eliminated, 3. container costs may be reduced, 4. cash is in hand when the produce leaves the vineyard, 5. middlemen are eliminated, 6. no labor housing is necessary,

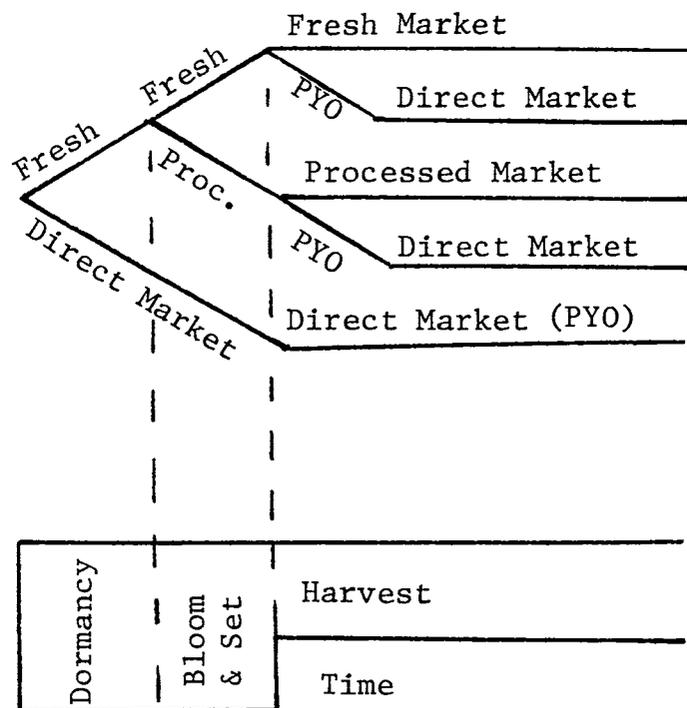


Fig. 1. Muscadine grape marketing alternatives decision tree.

7. less produce is lost because no grading is necessary and therefore yields may be higher, although customer "grazing" may occur, and 8. the producer has more control over prices. Included as disadvantages to producers are 1. the necessity for liability insurance for accidents, 2. longer work hours, at least during the advertised times, 3. the logistics of getting customers to the produce rather than the produce to the customers, and 4. all kinds of people must be dealt with including some disagreeable types.

Recent studies provide a basis for estimating sales opportunities for muscadine grapes in pick-your-own markets. Degner, Rodan, and Mathis found that customers at north Florida pick-your-own muscadine vineyards purchased an average of 14.6 pounds of grapes, with a range of five to 35 pounds per customer (Table 1). Numbers of customers

Table 1. Florida muscadine grapes: Daily sales per customer and for 20, 60 and 100 customers at pick-your-own vineyards.

	Customers			
	1	20	60	100
	Pounds			
Average	14.6	292	876	1,460
Low	5.0	100	300	500
High	35.0	700	2,100	3,500

Source: (2)

per day ranged from 20 to 100, so that total daily sales ranged from 292 pounds to 1,460 pounds, at average customer purchase amounts. Purchases on a given day ranged from a low of 100 pounds to as high as 3,500 pounds, depending on customer numbers and purchases (Table 1). Using these figures, it is possible to estimate weekly sales at different customer numbers, and to estimate total sales during a six week marketing season. Calculations for estimating sales at PYO vineyards with 20 to 100 customers per day, and average sales of 14.6 pounds per customer indicate sales during a six-day week could range from 1,752 pounds to 8,760 pounds, and from 5.26 tons to 26-28 tons during a six-week season. Thus, the grower evaluating

a PYO marketing enterprise could estimate likely sales if customer count could be predicted, or could determine numbers of customers needed for a particular size crop.

Alternatively, the number of customers required per day to purchase differing amounts of grapes during a six-day week can be determined. If a vineyard had 2000 pounds of grapes available during a week, an average of 23 customers daily would be necessary to purchase all the grapes if each customer bought the average 14.6 pounds determined by the Degner, et al. study. If 5000 pounds were available, 57 customers per day would be needed.

The decision to market muscadine grapes PYO involves not only pricing decisions but also promotional decisions to attract customers to the vineyard. Consideration as a PYO outlet affects production practices, production and marketing costs, and grower returns, and PYO is either the first alternative selected or the last (or residual) marketing activity that can be used if the other alternatives fail to materialize, assuming appropriate promotional decisions are made in a timely manner.

Processed Market

The processed market is either an alternative (or back-up) market to fresh commercial sales, or is selected initially due to market price, proximity to processor, or convenience in terms of simplified harvesting and marketing. The decision by the producer to market his grapes to the processor transfers outside the vineyard the merchandising risk of not selling the product at least for a season. The potential for mechanical harvesting in lieu of more expensive piece-rate hand harvesting labor also exists for the processor-destined grapes. In the processing market, contractual commitment is necessary between grower and processor.

The advantages of the processed grape market alternative include 1. minimal time necessary by grower for marketing activities, 2. grower is assured of market for his fruit once the contract is signed, 3. contracts can usually be negotiated for any quantity, 4. price and terms of sale are known in advance of harvest or delivery, 5. grower usually receives an average price over the harvest period, hence, timing of deliveries may be less important, 6. with a bulk contract, production uncertainty can be partially transferred, 7. seasonal harvest labor and associated costs may be reduced, and 8. grading, packing, storage, and containerization costs are reduced or eliminated.

Disadvantages of the processed grape market are 1. grower has reduced control over price received, 2. loss of marketing flexibility once the contract is negotiated, and 3. investment in expensive, yet experimental, mechanical harvesting equipment may be necessary to meet delivery requirements to the processor at the time specified.

Fresh Market

Current Florida production of muscadine grapes is widely dispersed over the state making it extremely difficult for the industry to provide commercial quantities of grapes by individual growers for significant retail marketing. However producers with larger acreages have been successful in marketing grapes through independent retail food stores and chain supermarkets. Packing, assembling, storing, and distributing consistent supplies of high quality muscadine grapes to supermarkets has been achieved by a few producers who have entered the fresh market. However, developing packing and refrigeration facilities, providing containers and transportation, and operating in the competitive pricing environment of commercial produce channels does not appear to be economically feasible for most growers acting independently.

Successful commercial fresh marketing of muscadine grapes involves all of the above, but supplying prescribed quantities of a specified quality of produce consistently throughout the marketing season is most important. This means delivering guaranteed quantities at agreed upon times and locations in the buyer's specified packaging, whether open lugs or cellophane-wrapped plastic pint containers or pre-packaged and prepriced or with point-of-sale materials. The quality must be uniform, meeting the produce manager's specifications as to color, variety, sizing, or absence of wet scarring or foreign materials. Communication with the producer buyer is essential, but producers should not eliminate repeat sales by arguing over minor details; such actions affect both the producer and the entire muscadine grape industry. Because many produce buyers may be unfamiliar with muscadine grapes, buyers must be educated as to their basic properties and qualities. This usually requires personal visits and samples of the product in order to get buyer commitment.

Advantages to producers from marketing muscadine grapes in commercial fresh market channels include 1. minimal grower time necessary for marketing activities after the initial buyer contact, 2. grower is assured of an outlet for his grapes once an agreement is reached, 3. exact price and terms of sale are usually known in advance of harvesting or delivery, and 4. usually a higher price (compared with processing) is received. Disadvantages include 1. employment of piece-rate seasonal harvest labor, 2. investment in grading, packing, and refrigerated storage facilities, 3. increased cost of containers and associated warehouse storage, and 4. loss of marketing flexibility once a commitment is made to a retailer.

Degner, Mathis, and Cubenas evaluated market potential for muscadine grapes in commercial retail channels. Muscadine sales volume in retail supermarkets averaged 12 pounds per day per store or 72 pounds for a six-day week. Daily store sales ranged from four to 19 pounds, and weekly sales from 24 to 114 pounds.

A grower considering the commercial market would use these sales figures with information on retail store numbers in a given market area to estimate possibly retail sales. Table 2 shows retail grocery store numbers in five Florida

Table 2. Retail grocery store numbers in selected Florida market areas.

Market area ^z	All stores ^y		Leading stores ^x	
	Number	Percent	Number	Percent
Tallahassee	52	62	10	50
Jacksonville	93	79	63	59
Gainesville	22	87	12	55
Orlando	222	84	61	50
Tampa	165	90	58	78

^zCovers county or counties: Tallahassee—Leon and Wakulla; Jacksonville—Duval, Clay, Baker, Nassau and St. Johns; Gainesville—Alachua; Orlando—Orange, Seminole, and Osceola; Tampa—Hillsborough.

^yIncludes chain and independent supermarkets and grocery stores but not convenience stores.

^xStores which account for at least half of the grocery sales.

Source: (7)

market areas accessible to many grape growers. Total numbers of retail grocery stores, and shares of grocery sales in each market area, are shown, along with a smaller number of leading stores which account for half or more grocery sales in each area. For example, 52 stores in Tallahassee accounted for 62 percent of grocery sales, but 10 stores accounted for half of the sales in that market area (Table 2). This illustrates the possibility of supplying grapes, not

to all stores, but only to larger-volume firms, thus simplifying many aspects of grower marketing.

Table 3 provides an example of how a grower could

Table 3. Example of estimating possible muscadine grape sales in two Florida market areas, using all grocery stores and only leading stores.

Market area ^z	Sales per store per 6-day week	All Stores ^z	Sales during		
	Pounds		Number	One week	Six weeks
Tallahassee	72	52	3,744	22,464	11.23
Gainesville	72	22	1,584	9,504	4.75
		Leading stores ^z			
Tallahassee	72	10	720	4,320	2.16
	24		240	1,440	0.72
	114		1,140	6,840	3.42
Gainesville	72	12	864	5,184	2.59
	24		288	1,728	0.86
	114		1,368	8,208	4.10

^zSee Table 2.

estimate possible grape sales to retail stores in a market area. With average sales per store of 72 pounds per week, the 52 stores in Tallahassee could sell 3,744 pounds of grapes in one week, or slightly over 11 tons over six weeks. If only leading stores were considered, sales in Tallahassee at 72 pounds per week would total 720 pounds, or could range from 240 to 1,140 pounds. Over six weeks, sales to the 10 stores might range from about three-fourths of a ton to almost 3.5 tons (Table 3).

Summary and Implications

The Florida muscadine grape grower has three primary market outlets: direct market or pick-your-own, commercial fresh market, and processed market. Factors to be considered when deciding which marketing alternative to pursue include variety, yield, production costs, harvesting

and marketing costs, management expertise, operator or owner goals, capital investment (past and planned), and an estimate of market potential. Considerations in determining the market potential include the population of consumers, the producing acreage within a few miles of the populace, the average yields for the acreage, and the customer purchases at direct market outlets or muscadine sales in supermarkets.

The direct market alternative does not generally require a large capital investment in marketing equipment and related activities, but it does require considerable personal time or hired labor and the vineyard must be accessible to customers. Conversely, entering the commercial fresh market and processed market requires the grower to adopt commercial production, and distribution techniques. Florida muscadine grape growers must decide, either individually or collectively, if they should pursue muscadine grape production and, if so, which market they wish to enter.

Literature Cited

1. Degner, Robert L., Kary Mathis, and Gervasio Cubenas. 1980. Fresh Market Potential for Muscadine Grapes. Florida Agricultural Market Research Center Industry Report 80-1. January, 1980.
2. ———, Lance W. Rodan, and Kary Mathis. 1981. Farmer to Consumer Direct Marketing of Grapes in Florida: Producer and Consumer Benefits. Florida Agricultural Market Research Center Industry Report 81-3. October, 1981.
3. Mortensen, J. A. 1978. Grape Varieties Recommended for Florida. Leesburg ARC Research Report GW 78-1. January, 1978.
4. Stegelin, Forrest. 1981. Advantages, Problems, and Suggestions for Pick-Your-Own Markets. Florida Cooperative Extension Service Fact-sheet FRE-36.
5. ———, 1980. "Comparison of Potential Returns from Grapes, Blueberries, and Strawberries for North-Central Florida." Proceedings of Florida State Horticultural Society. 93:155-9.
6. ———, and G. B. Wall. 1980. Management of Roadside Markets. Florida Cooperative Extension Service Fact Sheet FRE-34.
7. Supermarket News Distribution of Grocery Store Sales 1981. Fairchild Publications, New York, 1981.
8. Wall, G. B., Forrest Stegelin, and T. E. Crocker. 1980. Management of Pick-Your-Own Direct Market Outlets. Florida Cooperative Extension Service Circular 481.

Proc. Fla. State Hort. Soc. 94:350-352. 1981.

FLORIDA'S GRAPE INDUSTRY—A SLEEPING GIANT

THOMAS J. HUGHES

*Tom Hughes Vineyard & Nursery,
Rt. 2, Box 478, Dover, FL 33527*

Abstract. Our grape industry is no longer asleep—it is becoming an important sector of Florida's agricultural economy. New varieties of higher quality and larger fruit are forging this industry forward. The increasing population provides a ready local market for our grapes. As acreage increases the wine industry will follow. All these factors coupled with new production know-how will make the industry take on strides here-to-fore unheard of in our state.

Florida's grape industry is a fact not a fad. Native wild muscadines (*Vitis Rotundifolia*) stock used by the Spanish explorers and settlers in the late 1500's is being rediscovered in the form of new sophisticated varieties. These varieties are available today at a time that has unlimited potential. We have an increasing population of Florida consumers. We have a nation becoming more aware of domestic wines and we the Florida grapegrowers, who are planting these

new varieties which I call Supergrapes. It is these Supergrapes which will be the phenomenon of Florida Agriculture in the 80's, 90's and beyond.

This paper is personal and nontechnical. It is based on my twofold observations: My own as a grapegrower and vine producer for some twenty years and the gleaned thoughts of other growers I have visited in the Southeast. Further, so you will know my position, I believe in America, the goodness of Florida grapes, and profit. After all, that is the bottom line.

Every industry has growing pains and grapes are no exception. Our number one problem is supply. We need more grapes, good grapes and quality grapes. If there is a disgruntled grower who feels that we already have too many grapes, he's sleeping. There are not enough grapes being produced to satisfy any one of our four major uses or consumer groups. These consumers are: the grocery chains, the increasingly popular "Pick Your Own" operations, commercial wineries, and lastly but not insignificant is the food processors for jams, jellies, juices and the like.

I would like to evaluate each consumer in turn. As I