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ALABAMA A&M AND AUBURN UNIVERSITIES

Marketing Options for Small Aquaculture Producers

Innovative approaches to marketing are usually the key to financial success or failure of smallscale aquacultural producers. In essence, the crop must be sold for more than it cost to grow. Regardless of the size or type of venture, marketing is an essential component and requires a plan. The information contained in this publication will help the small-scale aquaculture producer to formulate a marketing plan.

Most producers would like to sell to one or two high-volume buyers such as a processing plant or distributor. This is a good marketing strategy if you are producing large quantities of fish. However, small-scale producers are not on the same economic level as larger producers are and, therefore, must usually sell for a higher price to remain profitable. Their best option is to establish niche markets for their products.

Niche markets have advantages and disadvantages. The main advantage in niche marketing is that producers become wholesalers, and, in some cases, retailers. Consequently, producers have more control over the prices they set for their products, and they retain some portion of the profit that otherwise would have gone to middlemen. The main disadvantage of niche marketing is that considerable time must be spent analyzing and developing these markets. A number of critical factors should be analyzed before marketing begins.

- What Species?
- The Competition
- Product Forms
- Price
- Type Of Promotion
- Unique Ideas For Market Share
- Where To Market The Product
- Aquaculture Product Regulations

What Species?

When deciding on which species to produce, keep three things in mind.

1. Choose a marketable species. A good example of a species that is easy to produce, but can be difficult to market is common carp. It is advisable

to consider other, more widely accepted species. Of the sixty or so potential aquaculture species used for food, only channel catfish, crawfish, rainbow trout, and salmon have large, established industries in the United States. Other species such as hybrid striped bass, tilapia, and various sunfishes also offer considerable potential.

2. Know the complete production cycle. Without complete production information, trying to raise some species can be a very risky venture. Although species such as walleye, shrimp, and lobsters have wide public appeal and are widely consumed, each has production peculiarities and problems.

3. Try to produce a variety of species. Variety is extremely important to small-scale producers. Many market outlets prefer buying small quantities of many species. Production of more than one species may offer a competitive edge over singlespecies operations. If production of a variety of species is not feasible, pooling resources with other producers may enhance species availability. Once you have accurate knowledge of the market and feel there is a niche for your product(s), take the next step.

The Competition

The seafood industry is well established and very competitive. Producers must compete with wild-caught and farm-raised products of both domestic and foreign origin. Understanding your competition helps you develop production and marketing programs around specific species and markets that will provide the greatest profits. Also, remember that other seafood products are not the only competition you will have to consider. You must consider competition from all protein products, such as poultry, beef, and pork .

Use all your resources—industry experts, the telephone book, and your own energy—to help evaluate the competition. Talk with potential customers to determine their level of interest. Realize that the development of a new market requires substantial effort.

Product Forms

A unique product form can make your product stand out. The size of the product can also be important to the selected market. One of the best ways to select a product form is to find out what the customers want and give it to them. For instance, channel catfish are usually sold after reaching a live weight of 1 to 2 pounds. At this size, a 1.5 pound fish will yield two 4.5-ounce fillets. Following is a list of the more common fish product forms with descriptions and specific information related to each one (Figure 1).

Live fish are sold to live-haulers who stock fee-fishing lakes or farm ponds or sell to consumers who dress them at home for consumption.

Fish in the round are put on ice and sold just as they come out of the water.

Drawn fish have their entrails removed and are usually sold on ice.

Dressed fish are sold completely cleaned with the entrails removed. Heads may be left intact, as trout are often sold, but generally the head is removed. Fins and tails may be removed or left intact. Species such as channel catfish have the skin removed. On trout and other scaled fish, the skin is usually left intact.

Steaks are cross sections of dressed fish around 1-inch thick. Larger catfish (more than 3 pounds) are sometimes sold as steaks.

Nuggets come from the belly flap after it is cut free from the fillet. Channel catfish nuggets are common in supermarkets. Their popularity may be a result of their lower price. In general these nuggets have a stronger flavor than fillets.

Fillets are boneless pieces of fish. **Flank fillets** are the two sides of the fish cut away from the backbone. Rib bones and skin are usually removed. **Butterfly fillets** are the two skin-on flank fillets held together by the belly flap or across the back (with the backbone removed). Trout are sometimes sold as butterfly fillets.

Strips are smaller pieces of fish cut from fillets. Strips are usually breaded, marinated, or used for other value-added treatments.

Deboned fish have the rib and back bones removed, with the rest of the body intact.

Smoked fish is a value-added product (Figure 2). Two smoking methods (hot and cold smoking) are employed. Hot smoking never produces enough drying to ensure safe keeping without refrigeration. Hot smoking involves temperatures of 250° to 300°F for a period of 4 to 5 hours. Cold smoking, on the other hand, preserves fish by drying. Cold smoking requires as little as 24 hours or





Figure 2. Rack of smoked fish.

as long as three weeks at temperatures never exceeding 80°F. If you decide to get involved in smoking, there are a number of potential regulations that must be addressed. Proposed FDA regulations are described in subpart A of 21 CFR part 123 of the *Federal Register*.

Breading fish also adds value (and weight) to a fish product. The fish are generally dipped in liquid batter (usually milk or egg mixtures) and rolled in seasoned bread crumbs or corn meal.

The most common processed product forms are dressed, fillets, nuggets, and steaks. The preferred product size will depend on individual customer preferences. Fillets, for example, are generally cut into prescribed proportions that yield a single serving (4 to 8 ounces) from one or two fillets. As a rule, the whole fish needs to be at least 1.25 to 2.5 pounds to obtain the appropriate size fillets. The dress-out percentage or yield on fish such as channel catfish, hybrid striped bass, tilapia, or trout range from 33 percent on some fillets to more than 60 percent for whole dressed fish.

Regardless of the product form you choose to offer, it is very important to establish and maintain a reputation for quality and reliability. Be sure to gain an accurate understanding of each customer's needs before delivering the first fish.

Price

Putting a price on your product is not as simple as you might think. Often pricing a product is an agonizing, lengthy decision that will likely require periodic adjustments to reflect new market environments. The lowest price to charge would be equal to your cost per pound, including both fixed and variable costs. The highest price would be what one or two customers could be talked into paying. In reality, the appropriate price to charge is probably somewhere in the middle of the range. Following are a number of factors to consider when establishing a product's price:

• How will the product be positioned in the food fish market? Is it more like caviar or carp?

• Who are the customers? What are they accustomed to paying? Are they individual consumers, up-scale restaurants, or food wholesalers.

• What species and prices are competitors offering?

• What quality perceptions and uniqueness, if any, are associated with the chosen species or culture method.

Many systems have been developed to aid in pricing products. Following are descriptions of the systems most relevant to small-scale marketing. **Cost-plus** pricing simply adds a constant percentage of profit above the cost of producing a product. The problem with cost-plus pricing is that it is difficult to accurately assess fixed and variable costs. This pricing system works fine in the absence of severe competition.

Competitive pricing is probably the easiest, and, in retail marketing, the most common form of pricing. In this system, producers gather market information on prices and quantities of competing products and then price their products accordingly.

Skimming involves introducing a product at a relatively high price for more affluent, quality-conscious customers. Then, as the market becomes saturated, the price is gradually lowered.

Discount pricing offers customers a reduction from advertised prices for specific reasons. For example, a fish farm advertises in the local newspaper that prices will be 25 percent less if they bring the advertisement from the paper. Or, a producer who advertises on local radio offers customers a discounted price when they mention the advertisement. Discount pricing also often applies to purchases of larger quantities.

Loss-leader pricing is offering a limited selection of the products at a reduced price for a limited time. The goal is to attract more customers to the producer's place of business so that they might also buy non-discounted products as well. This pricing method is seen in farmers markets and supermarkets to introduce a new product or to create consumer interest.

Psychological pricing involves establishing prices that look better or convey a certain message to the buyer. For example, instead of charging \$3.00 per pound, the producer charges \$2.99 per pound. This will make the product appear to be more of a bargain. Or, instead of charging a price close to production costs the producer charges a higher price that buyers associate with higher quality or a more desirable fish species.

Perceived-value pricing is positioning and promoting a product on non-price factors such as quality, healthfulness (clean water, no contaminants), or prestige. Then the producer must decide on a price that reflects this perceived value. An example of this strategy would be promoting farmraised versus wild-caught fish or any species you could portray as having non-price attributes.

Type Of Promotion

Once a product and price have been chosen, a promotional strategy needs to be developed. Promotion is a way to attract customers.



Figure 3. Example of generic promotion, reprinted courtesy of The Catfish Institute.

Theoretically, a high-quality product in demand will sell itself. However, if no one is aware that the product is for sale (when and where), no sales will be made. Time allocated to promoting a product is well spent. The two general methods of promoting aquacultural products are generic and personal promotions.

Generic promotion is commonly performed by large commodity groups such as The Catfish Institute, or the Beef Producers Council (Figure 3). This type of advertising promotes a certain type of product but does not endorse any particular brand or company.

Personal promotion is used to distinguish your product from other products. A number of methods of personal promotion are available to smallscale aquacultural marketers. Word-of-mouth advertising is one of the best types of personal promotion. One customer who is satisfied will tell friends about your product. The multiplying effect of word-of-mouth promotion can be tremendous, but often slow and further promotion will be required. It is also important to remember that a *dissatisfied* customer will also tell friends.

Other common channels for advertising include radio, newspaper, TV, magazines, handbills, flyers, and posters. The promotional message must be clear, to the point, and focused (Figure 4).

> FARM-RAISED HYBRID STRIPED BASS: Raised free of contaminants, highly nutritious, priced to sell. Saturday, 8 a.m.-12 noon, State Road 38 and 900 East, Tipp City.

Figure 4. An ad under "Farm Produce" in the classifieds of a newspaper.

Point-of-purchase materials such as recipes, samples, or instructions on processing will help maximize sales. Before creating your own pointof-purchase materials, decide if available materials can be adapted for your use. For example, a variety of recipes and general information are available about farm-raised catfish. Information of this kind can generally be obtained from state, regional, or national trade associations related to your product.

The form of promotion you choose will depend on the scale of your operation, available resources, availability of the product, and geographic location of the operation. In addition to public advertising, it is important to consider on-site product promotion, both visual and verbal. Remember to include the non-price attributes of the product that will help develop repeat customers.

Unique Ideas For Market Share

A small producer or marketer often finds it necessary to provide some unique product or service to carve out a piece of the market. Custom processing or special delivery schedules may help provide this uniqueness. Be careful not to commit to any schedules or make promises that can't be fulfilled. Where the product is marketed can also provide some interesting possibilities.

Where To Market The Product

This factor can involve considerable creativity. There are many different marketing and product outlets for the small-scale aquaculturist. Your choices will be affected by costs such as processing, delivery, advertising, overhead, materials, equipment, and personal time. Species selection, product form, target market, and company location will also have a profound effect on this issue. Selling the fish (or other aquaculture product) to a large processor is often not desirable or possible for the small producer. This does not mean, however, that there are not available markets.

Direct retail sales

Direct retail sales where the producer sells directly to the customer is generally where the greatest per-unit profit is realized. Direct retail sales to consumers is a good place to start if supplies are small or availability of the product is uncertain. A list and description of several direct retail sales options follow.

Local customer base. This is the simplest of all direct marketing options. Individual sales are made to customers on a repeat basis. Clients pick

up from the farm or you deliver. A customer base takes time to develop, but using advertising materials such as the local newspaper or a direct mailer containing news on availability, new products, nutrition information, and recipes can speed the process.

Roadside market. This option has many variations. The product can be live, fresh iced, or, in some cases, dressed and iced. A small market may be operated at the farm site, or a live tank can be set up at a more populated, heavier traffic location (Figure 4). The fish may be kept in a live tank on the truck or in a tank set up at the remote location with permission of the property owners. Off-farm locations may include busy intersections, convenience stores, gas stations, farmers markets, flea markets, and liquor stores. The mobile marketing technique brings the product to the people and increases the potential market area. Check with local officials to determine if permits or other local restrictions apply.

Fish fry fund-raiser. Many groups use a fish fry to raise money. They include churches, schools, hospitals, civic groups (scouts, YMCA, Lions Club, etc.), political groups, and other non-profit organizations. Marketing to these groups may require large quantities of fish of similar size. You may provide just the fish products or cater the entire event for a percentage of the ticket sales. Other opportunities for aquaculture catering include events such as birthday parties, weddings, and other private parties.

Office building markets. Tall buildings hold lots of people who go home from work hungry but often don't want to stop at the store or fish market. Contacts are made in offices through bulletin boards, flyers, word-of-mouth, and direct sales. A sales force can even be recruited from clerical workers who can make sales during the course of the work day. Sales are made during the early part of the week with delivery on Thursdays or Fridays. Ice, coolers, and individual packing are required for this type of marketing.

Fairs and festivals. This is a proven marketing option. County and state fairs are excellent target markets. A list of these events can generally be obtained from the local or state chamber of commerce. These events draw hungry crowds. Much of the food is overpriced and not very good. Good, healthy aquaculture samples or plates provide an opportunity to promote and educate the public on the benefits of aquaculture. On the downside, often a commission or fee is paid to the fair organization.

Value-added market. Each of these marketing techniques could be considered value-added if the fish are processed to customer specifications. Other value-added products include smoked, breaded, or marinated fish. Customers in this market will pay premium prices for quality products and services (Figure 5).

Pond-draining sale. This is a popular marketing technique used by producers with small ponds. By planning ahead and advertising in local papers and radio, a farmer may be able to sell an entire crop in one day. Prepare holding facilities for sale of any left-over fish.

Fee fishing. Patrons pay to fish in a fee-fishing pond, which is separate from the production facility. Fee-fishing ponds can be a retail outlet if a non-producer is the operator. Running a "pay lake" requires a willingness to deal with the public and significant management skill. For more information on fee-fishing ponds see SRAC Publication No. 480, available from an Extension Aquaculture Specialist.



Figure 4. A roadside market.



Figure 5. Packaged fillets, an example of a value-added product.

Direct wholesale sales

Wholesaling to other businesses that sell directly to the consumer is another option. The direct-wholesale option usually reduces the per-unit profit but can increase the units sold.

Set up appointments with managers of every restaurant, grocery store, and food wholesaler within a 50-mile radius of the production site. Find out beforehand, if possible, individual preferences for species, product form, size, volume, availability, and prices. Have a strong sales pitch prepared and a fresh sample of your product. Pricing in the wholesale market is usually based on individual negotiation, so have a negotiation strategy.

Some managers will be immediately interested while others will not. For those who are interested, customize the product to fit individual needs. Keep your customers satisfied by supplying the size, form, quantity, and quality of product that the customer expects. A list and description of several direct wholesale options follow.

Live hauling. Live haulers generally purchase fish on the pond bank and transport them to other outlets, including processing plants, pay lakes, recreational lakes, or retail outlets. Small-scale producers often have difficulty working with live haulers because the producers lack the necessary harvesting and loading equipment or lack large quantities of fish. There are, however, companies that charge a fee for custom harvesting. These companies are generally in large production areas, and it may be difficult to get them to your small production facility. Live haulers prefer not to handle small quantities of fish (less than 1,000 to 2,000 pounds), and in some areas not less than 5,000 to 10,000 pounds. One advantage of selling to a live hauler is that there is no additional personal investment of time or equipment to process, transport, or sell your fish. A word of caution: you should probably deal with live haulers on a cash basis, especially if you have not worked with them before.

Sales to local restaurants. Restaurants can be an excellent market for fish farmers.Grow fish to match the desired plate portion as well as the weekly volume. The typical restaurant will take 10 to 80 pounds of fish per week. Restaurants like unique and new items for their "catch of the day" menu. Learning to produce a popular seasonal seafood and marketing it out of season can bring big dividends. Work with a chef to develop a new dish using your product. It is good advertising for both you and the restaurant.

When deciding which businesses to contact, remember that many businesses serving food are

not necessarily identified as "restaurants." Do not overlook the country club, the VFW, caterers, or the corner pub.

Once a restaurant becomes a customer, make a point of helping to educate the staff about your product. Educating the head of the serving staff and providing a short brochure or other printed information may be a key to continued success.

Supermarkets. Many seafood markets and supermarkets buy locally produced fish. Retail chain supermarkets offer a good market for larger quantities of fish. Unless a supermarket is locally owned and operated, it might be necessary to supply part or all of the chain stores. This may be more volume than the small producer can handle. A number of the large superstore markets now have live fish tanks that need a consistent supply of quality live fish (20 to 50 pounds per week). Smaller supermarkets and seafood stores are generally easier to work with, and they like to sell local products. Educating the staff about your product in these settings is also extremely important. It is a good idea to offer point of sale information for use at the seafood counter.

Specialty stores. These stores include ethnic grocery stores, gourmet shops, and health food stores. Fish is an important part of people's diets in some cultures. Health food stores may be willing to try your product because the perceived quality of farm-raised products is usually higher than that of wild-caught. Ethnic markets are usually more willing to purchase whole fish.

Each of these markets has special demands for equipment, capital, time, and effort. Table 1 provides some information as to the types and estimated costs of some of the equipment and supplies that might be necessary for each of these marketing options.

Aquaculture Product Regulations

Regulations are one matter that must not be overlooked. Fish marketing activities may be regulated at the local, state, and even federal levels. Depending on your operation, health inspection, business, and sales tax permits may be required. Following are health permit sources for several kinds of operations.

• Retail outlets and restaurants: County Health Department

• Processing facilities: Alabama Department of Public Health (through County Health Department)

• Interstate commerce: U.S. Food and Drug Administration

Equipment	Approx. Cost	LCB	RdMkt	FFF	OfBldg	Fairs	Val Ad	Pond	Fee Fsh	Live H	Whsle
	•			TRANS	PORT						
Live Haul Truck	\$5,000-20,000	X	X	X	X	X	X		X		X
Hauling Tank	\$3,000	X	X	X	X	X	X		X		X
Tank Aerators	\$250	Х	X	X	X	X	X	Х	X		X
Dip Nets	\$75	X	X	X	X	X	X	Х	X	Х	X
Baskets	\$35	X	X	X	X	X	X	Х	X	Х	X
Gloves	\$25	Х	X	X	X	X	X	Х	X		X
Oxygen	\$100	Х	X	X	X	X	X	Х	X		X
Ox System	\$300	X	X	X	X	X	X	Х	X		X
Fish Slide	\$50								X		X
H ₂ 0 Pump	\$250	X	X	X	X	X	X	Х	X		X
				HOLD	ING						
Building	\$5,000-10,000	Х	X	X	X	X	X		X		X
Tanks	\$700						X	Х			X
Water/Elec.	\$100	X	X	X	X	Х	X	Х	X	Х	X
	•			PROCES	SSING				•		
Facility	With holding	X	X	X	X	X	X				X
Skinners, Knives											
Brushes	\$75	X	X	X	X	X	X				X
Shock Box	\$25	X	X	X	X	X	X				X
Chain/Hooks	\$10	Х	X	X	X	X	X				X
Packaging	\$200	Х	X	X	X	Х	X				X
Labels	\$20	X	X	X	X	X	X				X
Labor	variable	Х	X	X	X	Х	X	Х	X		X
Protective Clothing	\$75	Х	X	X	X	Х	X	Х			X
Ice Machine	\$2,500	Х	X	X	X	X	X	Х			X
Certified Scale	\$500	Х	X	X	X		X	Х	X		
Cold Storage	\$200	Х	X	X	X	Х	X				X
				DELIV	ERY						
Coolers	\$100			X	X	X	X		X		X
Vehicle	variable			X	X		X				
				RETAII	LING	•					
Roadside Stand	\$200-1,000		X								
Site Rental	variable		X	X		X					
Cooking Equipment	\$500			X		X					
Vending Trailer	\$20,000			?		X					
Fish Smoker	\$1,000						X				
Cash Register	\$250		X		X						
Permits	variable		X	X	X	X	X		X		X
Insurance	variable	?	?	?	?	X	?		X		
Approx. Marketing											
Investment		\$17,800	\$18,600	\$18,500	\$17,850	\$38,700	\$25,000	\$2,400	\$20,000	\$310	\$23,20

NOTE: This table is a guide only and does not include equipment requirements for fish production.

LCB Local Customer Base Fairs Fairs and Festivals

Live H Live Haul

RdMkt Val Ad Whsle

Roadside Market Value Added

FFF Fish Fry Fund Raiser Pond Pond Draining Sale Wholesale Markets, Restaurants, etc.

OfBldg Office Building Markets Fee Fish Fee Fishing Lake

7

Also check with the chamber of commerce (local regulations), city hall (business licenses), and the Alabama Department of Conservation and Natural Resources ("privilege" license for operating a state fish wholesaling establishment) during the formulation of any marketing plan. For retail sales, a sales tax permit may be required, and for mobile operations the department of transportation should be consulted.

In addition, a new seafood inspection law may come into effect in the near future. A program proposed by the FDA will use a system of inspection called Hazard Analysis of Critical Control Points (HACCP, called hassip). This method involves random inspections at critical points along the processing line instead of inspecting every fish. Processors must keep records of their testing, and the government makes periodic inspections. Depending on the size and scope of the processing service provided, this inspection policy may or may not apply to your operation. Check with your county Extension office or Fisheries Specialist for updates regarding this inspection policy.

Summary

The marketing effort associated with aquacultural products or any other product can be summarized in one word—**planning.** Before any production begins, establish a marketing plan. One of the primary considerations in developing this plan is the time and effort that you can devote to marketing your product. This time is often limited by the time demands of aquaculture production and product preparation. Evaluate the market for the chosen species keeping in mind your personal situation (including finances, experience, and time availability).

In addition to the big "P" of planning, the four classical Ps—product, price, promotion, and place—of traditional marketing apply to aquacultural products. These critical issues must be evaluated prior to the onset of production. One of the best ways to address these and other critical questions discussed is to develop a written marketing plan.

This plan should include many of the same items as a business plan. The plan should detail the market option(s) chosen, include the four "Ps," goals, financial data including capital required, budgets, and cash flow analysis; how regulatory requirements will be met; a detailed list of necessary equipment; and a feedback system to monitor the progress of the venture. Haphazard business planning will lead to an inefficient and often failed enterprise. A detailed plan provides direction and helps avoid some of the pitfalls associated with any new venture.

Regardless of the market avenues chosen, target specific markets. Determine what size market you can service **well** and limit your initial marketing program. Develop more than one market outlet. The key to niche marketing success is to develop and maintain a reputation for quality and dependability. Rewarding aquacultural business opportunities are always open to those creative individuals who are willing to plan ahead, work hard, and persist.



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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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