

Purdue Aquaculture

Illinois - Indiana Sea Grant



A Guide to Marketing for Small-Scale Aquaculture Producers

*Kwamena Quagrainie, Aquaculture Marketing Specialist
Department of Agricultural Economics
Illinois-Indiana Sea Grant Program
Purdue University*

**EXPERT
REVIEWED**

Sea Grant
ILLINOIS - INDIANA



Introduction

Small-scale aquaculture producers have income opportunities if they plan their production processes—and plan them well. One of the fundamental principles in marketing is to make it part of the overall planning process. Consider marketing decisions as important as production decisions. No matter how small your aquaculture operation, developing a marketing plan for what you will produce is the best strategy, because the fish have to be sold once they reach marketable sizes.

Unfortunately, many people have gone into aquaculture production and failed because they went into production without a marketing plan. Remember the adage, “failing to plan is planning to fail.”

This guide will help you to:

- Plan and develop a market for your aquaculture products
- Remain competitive as a small-scale aquaculture producer

The glossary at the end of this publication explains some of the terms used in this guide.

Small-Scale Aquaculture Production Has Its Place

Small-scale aquaculture has its place in the broad aquaculture business environment. Small-scale production has relatively lower overall operational costs compared to large commercial operations that involve large capital investments and large amounts of operating capital. Small-scale operations generally do not require expensive equipment or structures, and the resources needed for production could be available on your farm already. Some farm materials and structures have low opportunity costs or low costs associated with alternative uses and could be used as resources for fish farming. You can perform many activities associated with the production of fish on a small scale on a part-time basis, depending on the system of production, although some production systems, such as re-circulating systems, require close monitoring.



Tom Campbell

Indiana producer Jerry Pellman converted his cattle operation to aquaculture and now raises prawns.

Purdue Extension

Knowledge to Go

1-888-EXT-INFO

I UNIVERSITY OF ILLINOIS
EXTENSION
Helping You Put Knowledge to Work

Produce What You Can Market, and Grow the Market

Traditionally, marketing has been viewed as selling what you have, and many large aquaculture operations are trapped in that phenomenon because of dependence on independent processing plants. The modern marketing approach focuses on producing what you can sell, and that plays very well into the arena of small-scale production. That means small-scale operators can be successful if they find where the market is, understand the market, and know how to develop it.

Scale Economy Does Not Mean Larger Profit

The economic wisdom in many business operations is that the business has to be big enough to make a profit. This underlying logic comes from the advantages of economies of scale. Although large producers can purchase resources such as feed in larger quantities than smaller producers can, and can use the volume of resource they purchase and output they produce as leverage in price negotiations, having a large operation does not necessarily translate into large profits. Profitability of a business depends on a number of factors. A smaller aquaculture enterprise can be complementary to an existing agricultural enterprise. Many large aquaculture operations in the South are struggling to survive because of market competition from cheap imported seafood.

You Are Raising Fish to Make Money

Besides having a relatively lower overall production cost, small-scale operations can take cost-saving measures like assuming more of the functions along the supply chain from farm to consumer. However, there are risks associated with assuming supply chain functions. Fish farming generally has low margins; therefore, you should think of making money from as many levels of the supply chain as possible and not just from producing fish. Fingerlings constitute one of the major cost components of production costs. Fingerling production requires knowledge and skill, but efforts expended to acquire the knowledge and skill can pay off. You can pool resources with other small-scale producers to produce your fingerlings. You could sell extra fingerlings produced as another source of income.

See Yourself as a Marketer Selling Fish

Most marketing functions in the supply chain are logistical and include: developing communications about the product; finding and communicating with prospective buyers; assessing the needs of buyers, which could include some processing and product packaging and negotiating prices and other terms of trade; physical distribution of products; and financing, if necessary. Assuming some or all of these logistical functions could result in some cost savings and

other additional income-generating opportunities for your small-scale aquaculture business. One of the keys to successful aquaculture operations and profitability is lower production costs through efficient use of available resources.

You Want to Capture More of What the Consumer Pays

Whether your aquaculture operations are large or small, your ultimate goal should be to capture more of what the consumer pays. Besides assuming greater marketing functions, you can also contract out processing of your farm products to add value to products you offer in the marketplace. Small-scale producers are better positioned than larger aquaculture operations to market directly to consumers and can establish a niche in the broader market. This permits more control over product prices and means you can retain a significant portion of the consumer dollar paid for the product. Small-scale operators can achieve this because of the relatively small volume of production and better personal customer service. Personal customer service is a great tool in marketing.

4 Ps of Marketing Apply to Aquaculture

Marketing of aquaculture products is no different from traditional marketing of any other commodity or product. The classic 4 Ps of marketing apply to aquaculture and should always be borne in mind: Product, Price, Place (Distribution), and Promotion are keys to successful marketing. Each of these variables is within the control of the small-scale producer. It is important that producers develop the relevant marketing mix or combination of these marketing tools to satisfy their customers and business objectives (Ehmke, Fulton, and Lusk, 2005). Different customers have different needs, so you should use different marketing mixes to reach diverse consumers within your target market. Creating a successful marketing mix that will increase results takes personal efforts in communications and market research.

Market Research

Developing a marketing strategy for an aquaculture enterprise begins with market research, which must be part of your marketing plan. See your product as competing in the general seafood marketplace. A successful small-scale aquaculture business involves spending time communicating with potential customers in your target market. Market research is a process and not a one-time activity.

Have a Marketing Plan

Begin your marketing plan by specifying the core product that you will offer to the market and the primary or key physical attributes that will be of value to consumers. Also

specify other key intangible attributes of the product like production method, e.g., farm-raised, natural fed. Analyze the current marketplace, including identifying the target market, analyzing the market situation in the target market, assessing the supply and demand situation, assessing the products on the market for potential substitutes and complements, and identifying any need or opportunities in the market place (Lusk and Marshall, 2005). As a small-scale producer, your target marketplace would be the local community, regional communities, or perhaps distant communities if you can receive premiums to cover transportation costs. Market segmentation should include all potential customers, including primary and secondary customers.

Assess the Nature of the Market and Your Competition

Is your product going to be the only product like it on the market, or are there similar products already on the market? Even if you have some certainty of having a monopoly in your market, it is important to have very good information on specific fish markets and the marketing strategies being adopted by your competitors. Even with a monopoly, having information on potential competitors is a good planning strategy.

What will be your strategy when other competitors come into the market? Assess the type of products on the market. One of the things to look for is what is being supplied or could potentially be supplied to the market. Consider whether your product would be a good substitute for existing or potential products on the market or if it will complement them. For example, there might be several retail stores in the community selling fish, but chances are that butcher shops in the community selling only meat would be good avenues to introduce fresh fish as an additional line of products.

You can conduct the market research process through the following means.

1. Direct Observations: The best information is personal knowledge of the marketplace. Directly observing the marketplace will provide many insights into potential marketing opportunities and challenges that you can use to develop marketing plans. Direct your observations at both sellers and buyers, e.g., observe shoppers' attitudes and behaviors as they walk past fish counters, their purchasing patterns, etc. For the sellers, observe their product promotion and advertisements, and especially the message accompanying them. That will reveal a lot about where the focus of the competition is.

2. Conversations with People in the Seafood Business:

Talking to individuals involved in the fish business can provide important market information on things like pricing, competing products, and general market trends. You can get a sense of important factors driving the market. Having an idea of the demographic makeup of the market environment is useful in the planning process. It is important to research into the number of people in the area, their age distribution, income levels, family sizes, etc. This information provides an idea of the amount of money each potential buyer is likely to spend on fish or fish products.

Finding Niches

What Is Niche Marketing?

Niche marketing is focusing your marketing efforts towards a select target group of customers. Niche marketing does not necessarily mean a small market but rather a targeted marketing strategy. If you are pursuing a niche market, you focus on specialized segments of the market. It is a cost-effective way of competing in the seafood marketplace and achieving market share without the expenditures associated with mass marketing. Niche marketing incurs minimal costs in competitive marketing and could result in decent profitability.

Make Use of Market Research Findings

Findings from your market research will help you develop a niche for your product. Concerns, complaints, frustrations, and disappointments from seafood dealers and consumers are signs of niche opportunities. Analyze the findings obtained from current and prospective seafood dealers and consumers, and then determine if there are opportunities to create a niche. Niches are established as you meet specific customer seafood needs that have been ignored, overlooked, or neglected by the competition. Note that a niche satisfies an unmet customer need. Potential niches exist; take the time to build your market by developing them one at a time, and avoid trying to be all things to all customers.

Things to Look for in Developing a Niche Market

Look for un-serviced markets, poorly serviced markets, or partly serviced markets. You might even consider creating entirely new markets. Chances are that most markets are serviced, but it is common to come across poorly serviced or partially serviced markets. You can readily identify such opportunities from talking to seafood dealers and consumers.

For example, Growing Power Community Food Center is a community agriculture center in Milwaukee, Wisconsin, that produces a variety of agricultural products, including fish from its aquaponics/aquaculture facilities. The company has carved a niche tilapia fish market for itself for the supply of “natural” aquaculture fish products in the Milwaukee area. Whole tilapia produced under “natural” conditions attract premium prices of three to four times more than tilapia from conventional aquaculture facilities. Though there are no USDA certification standards for aquaculture, some tilapia producers produce fish without any chemicals and feed fish with “natural” food generated in the tanks and with naturally growing duckweed. Others feed their fish with formulated “natural” feed that does not contain chemicals.



Tilapia in Tanks at Growing Power Community Food Center, Milwaukee, Wisconsin

Direct Marketing

Available direct market techniques for aquaculture products include on-farm sales, farmers markets, and roadside sales. Other sales channels include processors, wholesalers, brokers, restaurants and catering establishments, and fish haulers. Each outlet has its advantages and limitations.

What Is Direct Marketing?

With direct marketing, you are assuming most marketing functions and the associated risks and payoffs. Direct marketing is a sure means of capturing a larger percentage of what the consumer pays for the product. It thrives on attracting and keeping customers, and that requires committing time to establish the market and secure customers. Through customer relations, you can build a relationship between consumers and their food sources, because more consumers want to know where and how their food is

produced and how to locate it. With the right product and assured quality, direct marketing attracts repeat customers and benefits from cost-free word-of-mouth advertising. Direct marketers should place high emphasis on getting marketing information through networking and personal communications.

Marketing Co-op as a Direct Marketer

Forming a marketing cooperative or alliance can be helpful in direct marketing. It affords the opportunity to have volume to meet needed supply or negotiate contracts. This is especially applicable for direct sales to restaurants, grocery stores, or other retail outlets. These outlets often require a constant supply, consistent size product, delivery convenience, and dependability. For example, the Illinois Fish Farmer’s Co-op is a marketing alliance that provides scheduled supplies of fish products to Asian food markets in

“Organic” Aquaculture Products

The USDA is in the process of formulating an organic certification program for aquaculture, and, until then, “organic” aquaculture products can be sold on the market, but without the USDA seal of approval. Seafood is currently being sold under the “organic” label (or other eco-labeling program) in the U.S. under various foreign- and industry-defined standards for labeling fish and shellfish “organic.” Such seafood products originate from Central America, Scotland, and Canada, where several farmed “organic” fish and shellfish species are raised under various standards.

While the industry awaits USDA’s certification program, aquaculture producers can operate under the guidelines of some of the industry and independent certifiers to produce and sell “organic” aquaculture products. Industries that have established international “organic” standards for aquaculture include the International Federation of Organic Agriculture Movements (IFOAM), Naturland, and Soil Association. Naturland, for example, has standards on organic pond farming, salmonides and other cold-water fish, mussels, and shrimp production. However, states like California prohibit the use of the “organic” label on any seafood products sold in the state until such time as either the federal or California state government establishes organic standards for fish and shellfish. Other organizations such as The Marine Stewardship Council (MSC), The Aquaculture Certification Council (ACC), and The World Wildlife Fund (WWF) are looking into formulating guidelines for producing eco-labeled farmed seafood.

Prawn Marketing

Freshwater prawn production in the Midwest is an example of a small-scale aquaculture enterprise that markets directly to consumers. Many prawn producers sell their prawns live at pond-banks, with prices ranging from \$6 to \$10 per pound. This has been the most profitable market available to most Midwestern prawn farmers. The success of pond-bank sales has been attributed to the freshness of prawns and consumers' preference for freshly harvested product, repeat customers, and word-of-mouth advertising. Pond-bank sales require some public advertising through the local media and road signs to inform the public about the sale. Because buyers need to drive to the farm to make purchases, it is essential to have good access roads to the sale location and ensure sufficient supply products.

Prawn harvesting involves draining production ponds completely and collecting prawns in a catchment for sale. Adequate supply of prawns is essential for attracting and maintaining customers. There have been instances where farmers have done all the advertising about a sale, only to drain the ponds and realized few prawns are available for sale. You do not want a situation where people drive to your facility and do not find any prawns to purchase. Some farmers do join together to have bigger sales events. Farmers involved in such arrangements transport their prawns to the farm that has space, access and roads, and is conveniently located.

Pond-side sales of prawns have their challenges. Over-supply can result when there is low patronage by customers. This usually occurs with bad weather. Prawns have poor storage qualities. Any unsold products must be



Freshwater Prawn Sale at Connor Farms, Martinsville, Indiana

frozen or processed, and that entails additional costs. The risks involved in direct marketing of prawns suggest that advance planning is a necessity.

On-farm prawn festivals modeled after food festivals are commonly used to market prawns. The festivals involve selling prepared prawns in a variety of dishes. Prawn dishes could include cooked prawn meals with side dishes such as potatoes, rolls, fries, rice, or vegetables. Festivals should be widely publicized and could include live music. It is advisable to join with other prawn producers to have multiple markets or multiple festivals to increase marketing opportunities and marketing success. Multiple markets or festivals could help you and your fellow producers avoid some of the challenges with direct marketing of prawns. Other possibilities for retail sales of prawns include food fairs and county festivals. (Read more about prawn marketing in Dasgupta, Wynne and Meyer, 2003, and Dasgupta, 2003.)

Toronto and Montreal. The co-op coordinates supply to ensure timeliness and consistency in supply. Individually, none of the farmers in the co-op would have the stock to meet the needs of these markets, but as a group, the alliance is able to meet the demands of this market.

Customer Service

The seafood market is very competitive. Excellent customer service is required to attract and keep customers. It is about demonstrating to customers that you care about your product. One good example that pertains to the ornamental fish industry is the addition of 5 - 10% more fish in orders to compensate for mortalities during shipment. Some ornamental fish producers guarantee replacements of every dead fish on arrival or within 2 weeks of arrival. Realize that few customers will do business with you if you provide poor

service, but many more will return again and again to do business if you respect and treat them fairly and value them as customers.

Qualities of Good Customer Service

Reliability, warmth, and friendliness are requirements for efficient customer service. The success of prawn sales events is not only due to consumers' preference for freshly harvested product, but also to the experiences they enjoy at these sales events—the mini festivals, music, and prawn meals. Some small-scale farm operations keep track of their customers and maintain communications through mailings to inform them of product availability. Price or quality alone is not enough for a sustainable competitive advantage; service is necessary for the success of almost every business.

Little Extras Matter

Besides providing major services, you can win loyalty of customers with “little extras.” Recipes, for example, can be a good way of introducing new customers to fish products. Most of the species associations or organizations have published free recipes and cookbooks. You can order some of these and distribute them to your customers. Personal contacts and customer relations secure loyalty and repeat customers. Good salesmanship requires that the customer comes first.

Reputation and Quality

Repeat customers are those who have good/excellent overall experience with a product or service. Have you heard the adage “a quality product sells itself?”

Importance of Reputation

Food is generally considered an “experience good,” i.e., consumers only know the true quality after consuming it. Therefore, reputation is very important. Be aware of the reputation your services and products are building with your customers or consumers. In planning your long-term marketing strategy, decide what you will be known for. This is not about slogans, logos, or branding! What will be your strengths compared to the competition?

Don't Rely on Cosmetics

Branding, slogans, logos, etc., are good tools you can use to make connections to consumers, but the important thing is how the consumer feels after consuming your product. When consumers identify with a quality product, price will not always be the deciding factor. The loyalty developed based on experiences makes it less likely that customers will look for alternatives. Also, premiums you obtain from your products may be enough to cover the additional costs of maintaining product quality and reputation. The Growing Power Community Food Center in Milwaukee has built a reputation for producing “all natural” food products, which attract premium prices over conventional products.

On this page is a matrix of quality and price that can assist you in planning your market. The matrix illustrates different combinations of product attributes you can adopt. Examine this quality-price matrix and determine your starting point and the path you want to take to develop and position your aquaculture product. For example, if you have a “good-value” product, you can work to capture more market and move to “medium-value,” and eventually, you can position your product as a “high-value” product.

		Pricing		
		High	Medium	Low
Quality	High	Premium	High-Value	Super-Value
	Medium	Overpriced	Medium-Value	Good-Value
	Low	Rip-off	False-Economy	Economy

A Quality-Price Matrix for Positioning Your Product

Diversification

Raising fish from fingerlings to market size generally has low margins. Diversification could be a key to increase income, profitability, and sustainability for a small-scale aquaculture business. You should look for ways to make money from aquaculture-related businesses and not only from producing fish. Diversification is also a risk management tool for your business. You should view diversification from three perspectives: marketing, production, and income sources.

Diversification in Marketing

Direct marketing for aquaculture products can be challenging for a fish farmer. On-farm sales, farmers markets, roadside sales, and sales to restaurants and catering establishments are the profitable alternatives available, but you can find your niche by diversifying the marketing alternatives for your products. Processors, wholesalers, brokers, and fish haulers are alternative marketing outlets, but these usually pay lower prices. The price you obtain from some outlets will be better than others, so you should choose the best economically viable marketing alternatives and/or mix.

If you have a large-sized pond or lake, fee fishing is an attractive marketing alternative. Fee fishing tends to yield premium prices paid for fish. A successful fee fishing operation must have the species customers want, but species preference varies from region to region. Location of the fee fishing operation is very important because patronage will be high if the facility is accessible from major highways or is close to an urban center.

Diversification in Production

Monoculture, i.e., raising one species of fish, has been a common practice in aquaculture. The catfish industry, the

largest aquaculture industry in the U.S., is comprised of one-species operations, particularly in the South, but import competition has changed the dynamics of production, with some farmers in Mississippi getting into freshwater prawn production, as well. Producing at least two species of fish could be a viable way of sustaining a small-scale aquaculture enterprise.

In 2003, when catfish prices were at record low levels, some southern catfish producers made some income from the sale of grass carp to live markets in Canada, which helped their overall farm income. Some fish farmers in Illinois and Indiana do double cropping; they raise freshwater prawns in the summer and trout in the winter months in the same production facilities. Some of the successful small-scale aquaculture operations in the Midwest produce at least three fish species, which may include ornamental fish production such as gold fish and koi. Producing at least two species of fish spreads production, marketing, and price risks for the producer.



Koi Fish Aquaculture, Fredricktown, Ohio

Diversification in Income Sources

The major cost components in raising fish include stocking/fingerlings costs, feed costs, energy costs, labor costs, and post-harvest handling costs. You may minimize some of these costs by handling many of these cost items yourself. Such diversification would minimize cost as well as provide other sources of income.

Most established midwestern aquaculture producers are not only full-time fish producers making their living from aquaculture operations, but they are also involved in other aquaculture-related businesses. For example, Rainbow's End Fish Farm in Sullivan, Ohio, has a HACCP certified

small-scale processing facility, so the business is involved in raising fish, buying fish, processing fish, and selling value-added fish products. AquaRanch Industries in Illinois has integrated tilapia production into a certified greenhouse organic vegetable production.



Integrated Recirculating Aquaculture and Aquaponic Systems at AquaRanch Industries, Flanagan, Illinois

Some fish producers are involved in cooperatives or alliances that produce their own fingerlings and sell extra fingerlings, and others are involved in alliances that market their products. Some are involved in fish feed distribution, aquaculture equipment manufacture, and service, while others are involved in fish stocking and hauling services. Other established fish farm operations using recirculating systems are also equipment designers, systems managers, and sellers of recirculating aquaculture systems, e.g., Advanced Aquacultural Technologies Inc., and Aqua-Manna Farms in Indiana. Some of these establishments offer paid training workshops on starting and operating an aquaculture facility.

Conclusion

This guide for small-scale aquaculture entrepreneurs provides some helpful economic and business principles to develop a market. Following these principles will help you remain competitive. Remember, small-scale aquaculture can be profitable and sustainable if you do not try to expand your business too fast. Appreciate the value of time and take time to master the necessary production and marketing skills before you consider expansion. Any expansion should focus on diversification because it is key to increasing income, profitability, and sustainability of a small-scale aquaculture business.

Glossary of Terms

market segmentation: The process of dividing a market into distinct subsets (segments) that behave in the same way or have similar needs.

marketing mix: A mix/blend of marketing strategies to achieve a specific marketing objective.

marketing plan: A plan for how you want what you have (product) to get to where you want it to be (market), i.e., an account of the path you plan to take to get your product to market.

monoculture: The growing of a single species fish.

monopoly: A market situation where there is only one provider of a product or service.

niche market: A specific place within the broader market.

opportunity cost: The cost of something in terms of an opportunity forgone and the benefits that could be received from that opportunity, i.e., costs associated with or benefits obtainable from the alternative use of resources.

scale economy (economies of scale): The decreased per unit cost as output increases, i.e., capital is spread over an increasing number of units of output.

supply chain: Coordinated system of moving a product or service in physical or virtual manner from supplier or producer to customer.

References and Further Information

Cline, D.J. 1996. *Marketing Options for Small Aquaculture Producers*. Alabama Coop Ext Publication# ANR-962, Alabama Cooperative Extension System, Auburn University, Auburn AL.

Dasgupta, S. 2003. *Selling Freshwater Prawns at Kentucky Festivals*. KSU Bulletin, Kentucky State University, Frankfort, KY. Available at: <http://www.ksuaquaculture.org/PrawnFestival.pdf>

Dasgupta, S., F. Wynne, A. Caporell and L. Meyer. 2003. *Processing and Marketing Aquaculture Products On a Small Scale*. USDA Risk Management Agency Report, Kentucky State University, Frankfort, KY. Available at: <http://www.ksuaquaculture.org/PDFs/Process%20%26%20Market.pdf>

Edwards, S. 2005. *Direct Marketing to Restaurants*. Ag Opportunities, Volume 16, Number 4, October 2005. Available at: <http://agebb.missouri.edu/mac/agopp/arc/agopp065.txt>

Ehmke, C., J. Fulton, and J. Lusk. 2005. *Marketing's Four P's: First Steps for New Entrepreneurs*. Purdue Extension Publication # EC-730, Purdue University, West Lafayette, Indiana. Available at: <http://www.ces.purdue.edu/extmedia/EC/EC-730.pdf>

Engle, C.R. and K.K. Quagraine. 2006. *The Aquaculture Marketing Handbook*. Blackwell Publishing, Ames, Iowa.

Lusk, C., and M. Marshall. 2005. *How to Use Goals to Achieve Business Success: First Steps for New Entrepreneurs*. Purdue Extension Publication # EC-726, Purdue University, West Lafayette, Indiana. Available at: <http://www.ces.purdue.edu/extmedia/EC/EC-726.pdf>

Morris, J.E. 1994. *Niche Marketing Your Aquaculture Products*. Publication # TB-107, Iowa State University, Ames, Iowa.