

Danny Klinefelter and Greg Clary*

As for any developing industry, financing for aquaculture has been limited because both lenders and producers are inexperienced and the industry infrastructure has developed slowly. Despite the obstacles still to be overcome, prospects are brighter today than ever before. An important factor encouraging growth in the industry is the shift in political environment toward an emphasis on diversifying the state's economy.

Those seeking financing for aquaculture need to know the changes in financing requirements, issues specific to aquaculture, sources of financing and ways to increase its availability.

Financing environment changes

The significant loan losses and financial institution failures of the 1980s led to tighter regulatory requirements that affect all agricultural borrowers. Most of the changes borrowers are experiencing fall into five areas:

- Lenders require additional and more accurate information.
- Lenders are more thorough in analyzing and verifying information provided.
- *Professors and Extension Economists, The Texas A&M University System.

- Lenders place greater emphasis on repayment ability and risk management.
- Lenders have stricter requirements for monitoring business performance after loans are made.
- Borrowers must adhere strictly to the lending institution's policy guidelines, and there are fewer exceptions to the rules.

These changes mean that agricultural producers (including aquaculture) are beginning to be treated like other commercial borrowers. They must develop detailed business plans incorporating general economic and specific enterprise outlook analysis and relying on trends and past performance. Borrowing becomes more complex when operations are vertically integrated or involve multiple ownership. Loan analysis also requires more evaluation of contractual arrangements between entities, and financial statement consolidations when ownership interests involve a variety of businesses.

Many borrowers tend to view much of the information lenders request as just more red tape. Actually, the marketing, production and financial information a lender needs is even more important to borrowers if they are to manage their businesses successfully.



In preparing a loan request and a business plan, prospective borrowers should address the following questions:

- How much will be borrowed over the planning period?
- What will it be used for?
- How will it affect your financial position?
- How will the loan be secured?
- How will it be repaid?
- When will the money be needed and when will it be repaid?
- Are projections reasonable and supported by documented historical information?
- How will changes in prices and quantities affect repayment ability?
- How will the loan be repaid if the first repayment plan fails?
- How much can you afford to lose and still maintain a viable business?

- What risk management measures have been or will be implemented?
- What are trends in the business's key financial position and performance indicators? And if these trends are adverse, what are specific plans for reversing them?

Another shift is that lenders are becoming more selective about whom they finance. This change is in response to lender liability lawsuits and legislation increasing borrowers' rights and liberalizing bankruptcy laws. Because lawsuits usually arise from situations in which borrowers are in financial trouble, marginal and higher-risk borrowers will find it harder to qualify for credit. As malpractice lawsuits are changing the practice of medicine, so the fear of legal action is changing the lending environment, making lenders more cautious and conservative.

Issues in financing aquaculture

Several issues are specific to financing aquaculture:

Lack of aquacultural experience

Because risk is a function of uncertainty, the less lenders understand about a business or an industry, the greater the risk they perceive. This risk is compounded if both the lender and the aquacultural operation manager lack prior experience. While part of the problem is perception, the risk of problems arising is actually greater until experience is gained, because mistakes are naturally made during the learning process.

Early stage of development

A second problem concerns the rate at which the industry infrastructure is developing and the size of the market. The problem centers on the collateral value of specialized equipment and improvements required for aquacultural production. If a market is expanding or well-established, specialized items tend to have a more ready market. However, the current situation in Texas aquaculture usually requires a large discount from the construction or purchase price to protect lenders from a limited or illiquid market.

The marketability of an aquacultural operation can be judged roughly by the number of processors or marketing channels bidding for the farm's product. Having only one processor or marketing channel means less competition and lower assurance of a continuing market. Therefore, in a market where a farm's production has only one processor, improvements may be valued at as little as 10 to 20 percent of cost or book value, while having three or more processors may increase the value to 40 to 60 percent. Obviously, these valuation factors are also influenced by the processors' size, reputation and financial strength. These factors affect the collateral value of contractual arrangements between producers and processors.

Inventory questions

Also affecting the availability of financing for aquaculture is the difficulty of establishing a value for growing products. Despite many jokes about lenders using scuba gear and glass-bottom boats, it is difficult to inventory growing products, a requirement for setting their value.

This is less a problem with established aquacultural products such as catfish, which have been produced successfully on a large commercial scale for years, and which have well-established markets. Although a lender or producer may lack experience with catfish, published information is at least available, as are consultants and experienced managers and loan officers. Establishing value is a greater problem with new aquacultural products.

Factors outside the business

A well-developed business plan is important for obtaining credit, but it should focus on more than just the business's internal/technical aspects. Many lenders think the greatest risks may be related to factors outside the business. Thus, prospective borrowers must address these areas in their plans.

Two particular areas outside the aquacultural firm should be considered: general environment and specific industry. The general environment should be evaluated for social, cultural, economic, technological, government/legal and

international issues. The specific industry should be examined for market forces represented by substitute products, potential new entrants, degree of existing competition and supplier and buyer market power.

Social and cultural issues include general attitudes toward farm-raised aquacultural products, religious beliefs, education, etc. Economic issues are based on the end-users' ability to buy the product, including disposable income, leisure time, spending priorities and changes in interest, inflation and unemployment rates.

Government/legal issues, which can play a major role in an aquacultural project, include water rights, environmental regulations, taxing authorities and exotic species permits. All should be addressed in the planning process.

Competition

Competitive forces in the industry also require close examination. Consider the ease with which new competitors can enter the industry. How rapidly will new entrants come in or existing capacity expand in response to favorable prices? How much will prices fall if production increases significantly? Although estimating price response is difficult, producers should at least conduct a break-even analysis to determine how far prices could fall and still allow the project to be viable.

If the aquaculture project relies on outside sources for such supplies as feed, seed stock, etc., pay particular attention to the potential market power of those suppliers. The same applies to the market power of buyers or processors. How able and likely are suppliers or buyers to squeeze margins if they have or obtain significant market power because of either their size or limited numbers? Competitive advantage is also affected by the number of available substitute products. How sensitive is the market to price differences among competitive products?

Market contracts

In addition to these factors and the biological risks involved in production, one factor affecting a lender's willingness to finance an aquaculture project is the borrower's ability to obtain market contracts for his products. Lenders will examine contracts for length, pricing terms and quantity and quality restrictions, as well as for reputation and financial strength of the contracting firm. Currently, Texas aquacultural producers have only limited contracting opportunities. However, processing capacity is increasing here, and new processors may be interested in contracting.

Sources of financing

Several sources of financing are available. Aquaculturists with established operations or sufficient financial strength can usually qualify for credit from

various types of commercial lending institutions, such as commercial banks, production credit associations, federal land bank associations and life insurance companies. Those wishing to begin aquacultural ventures involving products with successful track records (e.g., catfish) may be unable to secure loans from such sources because the borrower lacks management experience or financial strength, or because lenders are unwilling to loan for businesses in which they have no previous experience. However, these producers may be able to obtain

assistance through the Small Business Administration (SBA) or the Farm Service Agency (formerly FmHA). Several state programs also can provide limited assistance.

A third group of aquaculturists includes those interested in high-risk but potentially high-profit operations such as shrimp farming. Support for such ventures can be obtained from SBA or FSA, but many such operations will be forced to seek venture capital or obtain outside guarantors to provide additional financial strength. Finally, some aquaculturists are interested in obtaining funding to develop commercial operations based on technology not demonstrated outside research laboratories. Such projects include artificial upwelling and closed culture of various species. Little or no credit is available for these types of ventures. Funding must be obtained almost



entirely through venture capital or by placing the developer's own equity capital at risk.

Non-government funding sources

Commercial banks

Commercial banks lend for operating expenses, capital improvements and real estate purchases. Such financing sometimes requires a loan guarantee, depending on the borrower's financial strength and previous experience and the bank's perception of the project's riskiness. Guarantees, whether personal or through a state or federal program, ensure repayment of a certain percentage of the loan. FSA and SBA, for example, guarantee loans for up to 90 percent of their value for qualified borrowers.

Two factors will make commercial banks more interested in diversifying their loan portfolios, but at the same time may make them more reluctant to take risks. They are the reform of the federal deposit insurance system designed to vary FDIC premium rates according to perceived risks, and the raising of capital requirements for higher risk banks. These changes will encourage greater reliance on loan guarantees and reinforce the need for more education and a better understanding of aquaculture by both lenders and regulators (bank examiners).

Farm Credit System

The banks and associations that make up the borrowerowned cooperative Farm Credit System provide credit and related services to farmers, ranchers, producers and harvesters of aquatic products, agricultural and aquacultural cooperatives, rural homeowners and certain businesses processing agricultural and aquacultural products.

The United States is divided into seven farm credit districts. The seven Farm Credit Banks provide funds, supervision and support services to Federal Land Bank Associations (FLBAs), Production Credit Associations (PCAs) and Agricultural Credit Associations (ACAs).

FLBAs make 5- to 40-year first-mortgage loans for land and capital improvements. Loans may not exceed 85 percent of the market value of property taken as security unless guaranteed by a federal agency. PCAs make shortand intermediate-term loans for operating expenses, capital purchases and capital improvements. Producers and harvesters of aquatic products may receive terms of up to 15 years. ACAs are associations created by the merger of one or more FLBAs and PCAs. Currently, Texas has no ACAs.

The Farm Credit System's other lending arm comprises the Banks for Cooperatives (BCs). BCs offer a complete line of credit and leasing services to agricultural cooperatives, rural utility systems and other eligible customers. They require that at least 80 percent of the cooperative's voting control be in the hands of farmers, ranchers, producers or harvesters of aquatic products. A cooperative

must also conduct at least 50 percent of its business with or for its members. BCs also may finance joint ventures between eligible cooperatives and private firms as long as the cooperative has a controlling interest. Two banks, each with a national charter, constitute the BC system. CoBank, the National Bank for Cooperatives, is head-quartered in Denver, CO. CoBank also finances agricultural exports and provides international banking services for the benefit of U.S. farmer-owned cooperatives. The other BC is the St. Paul Bank for Cooperatives headquartered in St. Paul, MN.

Life insurance companies

In the past, life insurance companies were primarily real estate mortgage lenders. But recently, several companies have broadened their lending activities to cover all phases of agriculture and aquaculture. The primary limitation for many borrowers is that these companies tend to limit their lending to larger loans and concentrate on only the most creditworthy borrowers.

Government funding sources

Small Business Administration

The SBA provides loan guarantees to aquaculture operators. SBA loans may be used for the purchase and improvement of land or buildings, construction, machines and equipment, operating expenses and refinancing of debts. SBA also provides disaster loans in authorized areas.

Economic Development Administration

The EDA makes loans or grants to the aquaculture industry to provide development and operating capital.

Farm Service Agency

The FSA provides both guarantees and direct loans to aquaculture operators. The FSA offers various types of loans for aquacultural purposes:

■ Farm ownership and loan guarantees are made to help eligible applicants become owner-operators of family farms; to make efficient use of land, labor and



other resources; to carry out sound and successful operation on farms; and to enable farm families to have a reasonable standard of living. These loans can be made to buy and develop real estate, including water resources. The loan limit is \$200,000 for direct loans and \$300,000 for guaranteed loans.

- Operating loans and loan guarantees are made to operators of family farms and to applicants wanting to become operators of such farms. These loans can be used to finance or refinance equipment, to buy livestock or fish, to pay family living and farm operating expenses and to make minor land or water improvements. The program's goals are to improve living and economic conditions and to help operators become established in a sound system of aquaculture or agriculture. The loan limit is \$200,000 for direct loans and \$400,000 for guaranteed loans.
- Emergency loans are made in counties where property damage or severe production losses result from a natural disaster or because of other emergency situations. The funds can be used for major adjustments, operating expenses and other essentials to enable borrowers to continue their operations. This program involves only direct loans and is limited to \$500,000 or the amount of loss sustained, whichever is less.

Borrowers under direct farm ownership and operating loan programs may qualify for the special limited resource loan program. Eligible borrowers qualify for initial interest rates of about half the normal loan rate, but this rate increases as the borrower's ability to pay improves.

Rural Development

RD provides only loan guarantees under the Business and Industrial Loan Program. The B and I guarantees promote development of business and industry, including aquaculture, in cities and towns of less than 50,000 population. However, applications for projects in open country, rural communities and towns of 25,000 people or fewer receive preference. These loans can be made for conservation, recreation, tourism and the development



and use of water for aquacultural purposes. These loans also may be made for aquacultural related businesses such as processing plants. Loans of less than \$2 million are eligible for a 90 percent guarantee; those between \$2 million and \$5 million, 80 percent guarantee; between \$5 million and \$10 million, 70 percent; and between \$10 million and \$25 million, 60 percent.

State loan programs

The state of Texas offers a few financial assistance programs administered by the Texas Department of Agriculture for the Texas Agricultural Finance Authority that could be used by producers of aquacultural products. Current loan programs include:

Young Farmer Loan Guarantee Program. This program provides financing for applicants establishing their first farm or ranch. Applicants must be Texas residents between 18-40 years old with a minimum of four years of practical farm or ranch experience. Guarantees are limited to loans for operating purposes, i.e., proceeds cannot be used to buy farmland. Currently guarantees cannot exceed the lesser of \$50,000 or 90 percent of the total loan amount. Legislation is pending, however, to increase the amount to \$100,000, so check with TDA before applying. Repayment terms cannot exceed the lesser of 10 years or the useful life of the assets being financed. An applicant must provide at least 5 percent equity in the total project.

Farm and Ranch Finance Program. This program provides financial assistance for the purchase of farm or ranch land for agricultural use. Applicants must have at least three years of relevant agricultural experience and a net worth of less than \$400,000. The maximum loan cannot exceed the lesser of 95 percent of the appraised value, 95 percent of the purchase price, or \$150,000. Legislation is pending that would raise the limit to \$250,000, so again, check with TDA. This is not a loan guarantee program but rather a program in which the state participates with a commercial lender, which makes the loan. Repayment terms cannot exceed 20 years.

Loan Guaranty Program. This program provides financial assistance through loan guarantees to businesses engaged in innovative, diversified or value-added production, processing, marketing or exporting of an agricultural product. Loan funds may be used for the purchase of real estate, improvements, equipment and work capital. Refinancing of existing debt is prohibited, except in cases of further expansion or development of the project. Guarantees cannot exceed the lesser of 90 percent of the loan, 90 percent of the total project or \$5 million. Guarantees greater than \$2 million require approval by two-thirds of the TAFA board. Repayment terms cannot exceed the lesser of 20 years or the useful life of the assets being financed. Applicants must provide at least 10 percent equity in the total project for existing businesses and 25 percent equity in the total project for start-up businesses.

Texas Linked Deposit Program. Under this program, the state treasury is authorized to deposit a total of \$5 million in state-approved commercial lending institutions for money to be loaned for new or expanding non-traditional businesses using agricultural or aquacultural products. The legislature identified three areas which qualify for Linked Deposit loans: non-traditional alternative crops, including aquaculture; processing facilities for agricultural products; and direct marketing initiatives. Under this program, the state accepts a reduced return on its deposit. The lender in turn passes on these reduced rates to borrowers qualifying for loans under the program. The loan limit is \$250,000 for production of non-traditional crops and \$500,000 for processing and marketing loans.

Recommendations

There are several ways to help aquacultural producers obtain necessary financing. First, a coordinated effort should be made to educate lenders, producers, potential investors and financial regulators about the industry. Second, SBA, FSA and city banks handling the overline portion of large loans for rural banks need to develop or hire specialists who can review and evaluate both new aquaculture loan pro-

posals and existing loans. This expertise could be used both internally and provided on a fee basis to outside users. Third, qualified appraisers with experience and training are needed to assess the collateral value of equipment and improvements employed in aquaculture. A fourth area is the need for a readily available insurance program to insure producers of established aquacultural products against potential disasters. Although commercial insurance is now available, federal crop insurance does not cover aquacultural enterprises.

Also needed are other ways to use assets if a venture fails, alternatives to ownership of land and capital improvements, and market/production contracts. One alternative for assets is using ponds to store water for agricultural irrigation or municipal use. Alternatives to land and capital purchases include long-term renewable

leases for land and leasehold improvements. This would include analyzing risks to the lessor and lessee and studying alternative lease terms and arrangements. Contractual arrangements need to be studied and evaluated in terms of risks involved, their impact on market performance and economic costs and benefits to the parties involved.



Educational programs of the Texas Agricultural Extension Service are open to all people without regard to race, color, sex, disability, religion, age or national origin.

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Zerle L. Carpenter, Director, Texas Agricultural Extension Service, The Texas A&M University System.

2M–8-97, Revision ECO 5, M&MR