# **Developing a Business Plan for the**

## **Maryland Shellfish Aquaculture Financing Program**

**Developed by** 

University of Maryland Extension

Maryland Agricultural and Resource-Based Industry Development Corporation



Solutions in your community



#### For more information and assistance on shellfish aquaculture:

#### Maryland Aquaculture Conference 2010 Nov. 9-10, 2010

Doubletree Hotel Annapolis MD

For information contact: Don Webster or Martha Milligan, University of Maryland Extension Phone: (410) 827-8056 dwebster@umd.edu or mmilliga@umd.edu

http://www.mdsg.umd.edu/programs/extension/ aquaculture/conference2010/

# Maryland Oyster Aquaculture Education and Training Program

A three-year project funded by the Maryland Department of Natural Resources to assist watermen and others in becoming successful growers of quality shellfish to rebuild our industry

For more information contact: Don Webster , University of Maryland Extension Wye Research & Education Center Queenstown MD Contact: (410) 827-5377 or dwebster@umd.edu

## **INSTRUCTIONS**

A business plan provides a chance for you to develop your thoughts and concepts on paper. It gives you a chance to think through:

- who you and your partners are and what you will contribute
- what you have to put into the business
- what you know about the product(s) or services you will sell
- what you want to do in creating your business and
- how you are going to get your business started and growing

It provides an opportunity for you to put this information into a document that can be shared with financial institutions that you will seek to borrow from as well as giving you a chance to assess the chances for success. It will give you a roadmap to operating your business and let you know when you might expect it to become profitable. Above all, it gives you a tool for measuring how your business is progressing to let you make corrections as you become more familiar with the business and gain more experience in it.

This document will provide you with details on how to proceed in organizing your business plan as well as a template for some of the financial information that will be needed. This will be especially important if you are going to borrow funds to start your business.

In this document we provide you with an outline of the sections that will be contained in a good business plan. There are suggestions about the information that should be included. We have tried to develop a "road map" of how to write a strong plan that will not only provide you with the course of action in building an effective operation but enable you to use it to measure your progress. Additionally we have included a space for you to write down your thoughts as you progress through this template. Once you have all the sections are complete, writing your business plan should only be a matter of compiling them into one succinct document.

#### Additional online assistance with business planning may be obtained from:

MD Rural Enterprise Development Center www.mredc.umd.edu

> National Sustainable Agriculture Information Service www.attra.ncat.org

Purdue Extension's Ag Innovations Center www.agecon.purdue.edu/planner/

> MARBIDCO http://www.marbidco.org

Small Farm Success www.smallfarmsuccess.info

United States Small Business Administration www.sba.gov

University of Maryland Extension www.extension.umd.edu

United States Census Reports www.census.gov

#### Table of Contents

It is important to include a Table of Contents so that a prospective financier can go to the section required quickly without turning all the pages in the document. This also provides you with an organized outline of the sections that you need to develop. The principal topics are:

| I.    | Executive Summary                   |
|-------|-------------------------------------|
| II.   | Business Description                |
| III.  | Products and/or Services            |
| IV.   | Production                          |
| V.    | Market Analysis                     |
| VI.   | Personnel and Management            |
| VII.  | Financial Information               |
| VIII. | Appendices and Supporting Documents |
|       |                                     |

#### I. Executive Summary

This section is written after the plan is finished and placed at the front of the document before the Table of Contents and after any cover sheet that may be used. In it you briefly describe what you are going to do and how you will operate. The Summary should not take more than a few paragraphs and must highlight the strong points of your business. It should provide the reasons for what you are doing as well as why you believe you are going to be profitable.

The Executive Summary is always placed on a page by itself and should not take more than a single page to complete.

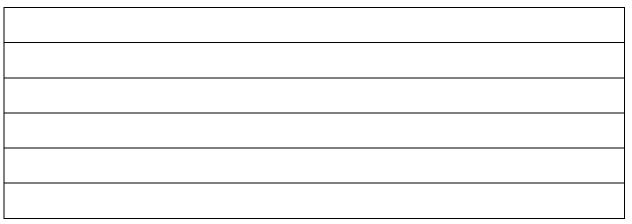
Executive Summary

#### **II.** Business Description

In this section you will want to describe your operation. Include historical information on how you came to identify this as an area where you can make a profit, as well as experiences that you have had that will serve to make you more potentially successful. Include information on:

• Mission statement: A mission statement succinctly defines your business. It describes what you are trying to accomplish and what you value. Mission statements must reveal more than a motive of profit. A mission should contain values, activities, and identity of the farm. Write your statement in a short paragraph with enough detail to provide clear direction while still being flexible. A mission statement is like a book cover. It provides the reader with a glimpse of what story lies ahead.

• Business Contact Information. This should include your business name, address, phone number, email, and the type of business structure you are setting up (i.e. sole proprietor, partnership, corporation, and coop).



• List the experiences you have had in learning about shellfish including working as a harvester, buyer or shipper; working in a shellfish hatchery or on a shellfish farm.

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• Provide the current status of your employment; whether you will go into shellfish farming on a full-time or part-time basis; knowledge you have gained about aquaculture through practical experience, workshops or courses, or online study.

• Describe the product(s) that your company will produce and sell; whether they will include farmed shellfish, equipment, or industry-related services; state if you will be raising shellfish for human consumption to market size or producing seed for sale; determine whether you will operate a shellfish hatchery as a stand-alone business or as part of a vertically integrated operation; state whether you will provide custom planting, harvesting or management services to others in the industry or operate solely on your own.

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• Describe where your business will be located; the body of water, local port facilities; advantages of certain transportation types available to you and your product(s) and the location of centers of consumption for your products.



• Determine the advantages that your company or product(s) will exhibit over other competitors and describe how you will position yourself to promote your products or services.

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• Determine any disadvantages your company or product(s) will exhibit when compared to other competitors and describe how you will position yourself to promote your products and services to overcome them.



- State the goals for your business. It is important to accurately state where you want to see your business at certain periods of time in the future. This allows you to track your progress and provides a guideline for how you are doing in relation to your plan. Goals should be:
  - Short term: from getting the business started to years 1 & 2 where some initial harvest could occur; if not, this should be based on the point at which you would place product on the market and gain cash flow in the business. For instance, your goals to develop a shellfish aquaculture business could include renovating acreage in the beginning years, with spat production and initial planting, and monitoring of the crop until first market harvest.



• Long term (3-5 years): these include further targets and reflect the continued growth of the business and, ultimately, profitable operation. In shellfish, this could include more ground placed in stable production with additional plantings along with the monitoring required to assure a healthy and quality crop.

### III. Products and/or Services

In this section you will describe the products and/or services to be provided by your company. These may include, as examples:

- Shellfish to be sold for human consumption
- Shellfish seed that you raise in a nursery for sale or excess seed that you have available (this can provide additional income to your business or get a cash flow started before your market oysters are ready for sale)
- Larvae from a hatchery
- Transportation services you provide for other planters with your vessel or vehicle
- Bottom maintenance services you provide for other growers
- Growout equipment that you fabricate for sale to others
- Services you provide such as the filling of shell bags for sale to other growers

Also in this section would be a description of licenses that you have in your business. These could include Tidal Fishing License, Shellfish Shippers License, or other government provided documents or permissions to conduct a business. Do not forget the most important one – your lease(s), which provide you with the areas needed to carry out your business.

Briefly discuss how the products and services that you are going to provide will be different from those of other companies. Are you going to do something that will set your business apart from others and create demand for your product(s)? Product/Service Description

#### IV. Production

This section provides an overview of the production methods that you are going to use in your business.

#### A. Methods

Describe the production techniques that you will use for your business, such as bottom culture of oysters, bottom culture of hard clams using predator nets or other methods. Use details to show how each phase of the operation will be used in the business. For example, if you are going to produce your own seed from larvae purchased from a hatchery, describe the methods you will use to set the larvae on cultch and nursery it prior to planting, or plant it directly from the setting tanks. Cover the management that you will use to track the success of your production, as well as monitor disease and deal with any potential outbreaks in your crop.

This should include a discussion of why these methods were chosen and how they present an advantage over other methods that you may not have decided to use. It is important to show that you have investigated these methods and determined that they will be best for your production and marketing plans.

Production Method Description

## B. Equipment Required

List the items that will be required in your business. Obviously you will need to include any vessels that will be owned and operated by you but you can also state the number of boats and trucks that you will need to hire to do specific tasks where additional input will be needed.

Some items that may be part of your business will include:

- Setting tanks with their associated gear (cover, water pump, piping and valves, blower or air pump, and heater)
- Containers for holding cultch (bags, cages, or other containers)
- *Measurement equipment (salinity meter or test kit, thermometer, dissecting scope or other magnifying device)*
- Vehicles (trucks, trailers, etc.)
- *Quality enhancement equipment (refrigeration, coolers, etc.)*

| Item | Number<br>needed | Years of Use | Cost | Supplier |
|------|------------------|--------------|------|----------|
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## C. Quality Control

Explain how you will control the quality of your product. It is important to note how you will keep the crop cool in warm months to prevent the growth of bacteria, as well as the storage and handling characteristics of your business so as to enhance the appearance and quality of it to the consumer. These practices will be important due to recent mandates of the US Food and Drug Administration for states to develop programs to ensure that potentially harmful bacteria are kept under control during warm months of the year.

## D. Inventory

What inventory will you expect in each of the years that you are forecasting? In shellfish, how many animals will you expect to have on your grounds and what is the growout period that you are expecting? Having an idea of your inventory will help in planning your cash flow so that you know when to expect income from your operation, as well as calculating your ultimate profitability.

Inventory in oyster aquaculture can be calculated by knowing the number of larvae placed into the setting tank along with the number of shells. Counts can be made to determine the setting success and the number of spat available to be planted on the grounds. Periodic checks of the crop can help you determine the ultimate survival of the seed, as well as its growth. It is also important to take samples for analysis of disease prevalence and intensity in order to make informed decisions about when to market your crop. Remember that the more accurate the numbers are, the better your management information will be and the higher the probability that you will become profitable and, ultimately, successful.

| Item | Inventory<br>Year 1 | Inventory<br>Year 2 | Inventory<br>Year 3 | Inventory<br>Year 4 | Inventory<br>Year 5 |
|------|---------------------|---------------------|---------------------|---------------------|---------------------|
|      |                     |                     |                     |                     |                     |
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## V. Market Analysis

Understanding the market(s) that you are going to target is extremely important for success. This is one of the most critical parts of developing your business and some time should be given to gathering information, analyzing it and developing a strategy for selling your products or services. A key factor is to realize that by properly marketing your products you can maximize your income and retain more profit in your business. Using the information in the sections below, you will better be able to complete the competitive analysis worksheet at the end of this template.

## A. Industry

Briefly describe the industry that you are going into in terms of what it is, the size of the competition, the outlook for the future and your place in it.

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### B. Customers

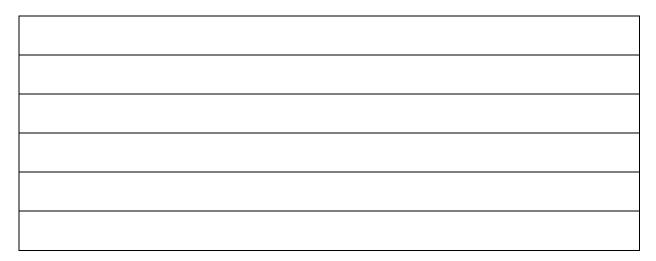
Identify the demographics of the customers that you are going to reach. There is a great deal of data that can be obtained from state and federal agencies, as well as chambers of commerce. It is important to understand who you are trying to reach with your products and services so that you can develop an effective market strategy. You should understand the regional and ethnic differences in patterns of consumption of certain food products so that you can take advantage of these and tailor your production practices and marketing approaches to those that will offer you the best potential for growth. Factors you should investigate for potential customers are:

| Retail                              | Wholesale   |
|-------------------------------------|---|
| Age                                 | Industry Segment  |
| Gender                              | Location  |
| Ethnic Background and Neighborhoods | Firm or business size                                     |
| Location                            | Preferences for quality, production practices<br>or price |
| Income level                        |   |
| Education                           |   |

Describe your target customer

## C. Market Size and Trend

Market size can be estimated by finding the number of potential consumers for your product in the area or areas that you are going to sell them and figuring out when their patterns of consumption rise and fall. For example, crab markets are strong in summer – especially around holidays such as Memorial Day and the Fourth of July – but fall off a great deal after Labor Day. Oyster markets are strong in the period before Thanksgiving and extending to Christmas. These are seasonal consumption patterns and there are others that affect shellfish production. A key factor in marketing is trying to find areas where your products will be salable throughout most of the year and tuning your production to meet the demand in those areas. One of the benefits of aquaculture is that you have the potential to market products on a year-round basis instead of the seasonal availability that affects most wild harvest crops.



## D. Location of Business

The location of your business can mean a lot to your bottom line. Being near your ultimate markets can help cut your transportation costs which, in these days of increased energy prices, can mean a lot to your bottom line. There are also benefits from being located in areas where there is a lot of traffic to your area. This can be effective if you are going to sell directly to consumers. Consider the location of your business and how it will aid or affect your bottom line. Properly sizing the vehicle with the load can also help cut costs.

#### VI. Management Personnel

The management of your business is very important and will affect the ultimate success or failure of it. Even in a small operation, you should have well thought out roles for each of the employees who will be involved in the operation. If you are going to have more than ten (10) employees you should create an organizational chart showing the relationships of the employees and the supervisory roles of the managers.

#### A. Owners and Management Personnel

Key to the operation of any business is the owners and managers. In most small businesses, these are the same individuals. Describe who these will be, as well as the experience and skills that they bring to the business. Include any special competencies they may possess or the licenses they may have that will be used in the conduct of the operations. It is also crucial to think about what will happen if any of the key managers becomes incapacitated or unable to continue working. Having a contingency plan will help the company continue.

| Position/Name | Duties/<br>Responsibilities | Address | Phone Number | Email |
|---------------|-----------------------------|---------|--------------|-------|
|               |                             |         |              |       |
|               |                             |         |              |       |
|               |                             |         |              |       |
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### B. Personnel Responsibilities and Duties

Describe the personnel in the company and what their roles and responsibilities will be. In most cases, this will be only a few positions. In larger companies, it will require more assistance and therefore more carefully thought out job descriptions. Seasonal, as well as full-time, employees should be considered when developing this section. Provide the resumes for key employees when developing this section so that investors can see the experience that they bring to it.

| Position/Name | Duties/<br>Responsibilities | Skills/Talents | Salary/Wages | Work Schedule |
|---------------|-----------------------------|----------------|--------------|---------------|
|               |                             |                |              |               |
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## C. Support

There are many support staff needed in even a small business unless you are going to do all jobs yourself. Consider the following that are a part of your business since you may employ all or some of them in the overall operation:

| Title                     | Individual | Address | Phone Number | Email |
|---------------------------|------------|---------|--------------|-------|
| Attorney                  |            |         |              |       |
| Accountant/<br>Bookkeeper |            |         |              |       |
| Insurance Agent           |            |         |              |       |
| Real Estate Agent         |            |         |              |       |
| Consultant/<br>Advisor    |            |         |              |       |
|                           |            |         |              |       |
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#### VII. Financial Information

This will be one of the most important sections in your business plan since it is here that you will project what you require, what you will spend, what you envision being made as income, and how that will affect the overall performance of the operation.

It is important for your aquaculture business to project financial statements for the next 2-5 years depending on a loan application, long-term goals, or a new enterprise decision. Projected financial statements are also referred to as *pro forma* budgets. By projecting your business's financial statements you discover whether your business will anticipate a profit over the long term.

Most often the income and/or cash flow statements are used to make projections. Projections are your best estimate of income and expenses over a period of time. Being conservative and realistic with your projections will help your business in the end.

The best way to start making any projections is to review your enterprise budgets and financial statements. From there you will be able to predict average costs and expenses over time. Your implementation strategy and sales projections should be reflected in the pro forma financial statement.

Along with projections on your aquafarm you may also want to conduct financial ratio analysis. This will look, long term, at projections and costs and answer questions regarding liquidity, profitability, and debt.

The financial position and performance of your business can be described with three financial statements. These are generated by organizing and analyzing your business's accounting activities. While financial statements take some research and homework, they are beneficial to your farm business.

The three financial statements show different financial measures for a business.

**Balance Sheet (Solvency)**—is a detailed listing of assets, liabilities, and net worth at a given point. It answers the basic question, "How much is your aquaculture business worth?"

<u>Importance</u>—Net worth is the best measure of an aquafarm's financial position. It organizes what the business owns (assets) and what it owes (liabilities), which ultimately determines farm solvency. *What is your business' financial position?* 

**Income Statement (Profitability)**—is a listing of income, expense, and profit for business operation in a calendar year. This statement includes inventories and depreciation.

<u>Importance</u>—Profitability is the summary of all resources that have come into the aquafarm (revenue) and all resources that have left it (expense). This equals the net income or net loss. *How did the aquafarm business do last year?* 

**Cash Flow (Liquidity)**—records time and size of cash inflows and outflows that occur over a calendar year. Liquidity differs from profitability because the cash flow statement only includes cash income or expenses, whereas the income statement also includes non-cash items such as depreciation and inventory adjustments.

<u>Importance</u>—Liquidity is the ability of your aquafarm to generate enough cash to meet financial obligations as they come due without disrupting the normal operation of the farm business. The cash flow statement is a critical component of the business plan and will be reviewed by lenders. *Where was the cash used?* 

The following table summarizes the differences between the projected income statement and cash flow budget:

| Projected Income Statement | Cash Flow Budget          |
|----------------------------|---------------------------|
| Cash income                | Beginning cash balance    |
| - Cash expenses            | + Cash income             |
| - Depreciation             | + Capital sales           |
| = Profit (Loss)            | - Capital purchases       |
|                            | + Loan receipts           |
|                            | - Loan principal payments |
|                            | + Nonfarm receipts        |
|                            | - Withdraws               |
|                            | = Ending cash balance     |

## A. Sources of Funding

It is important to consider how you plan to fund the start up, operation and/or the expansion of your current business. Sources of funding include personal funds, funds generated by the business, personal/business loans, grants, and private investors. Most businesses do not rely on one source of funding but instead use a mix of sources. It is also important to consider your living expenses since under some production methods, shellfish can take up to 3 years to reach a marketable size. Describe the methods you plan to use to fund the operations or expansion of your business.

| Source of funds | Estimated percentage of total funds needed |
|-----------------|--|
| Personal Funds  |  |
| Loans           |  |
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#### **B.** Balance Sheet (Solvency)

The balance sheet is formatted with assets on the left hand side and liabilities and net worth on the right hand side.

*Assets*—are items owned by the aquaculture business, such as land, buildings, vessels, equipment, machinery, shellstock, shellfish in production, and supplies. *Liabilities*—are the debts owed by the aquaculture business, such as notes payable, interest, taxes, loans and rent.

Aquafarm assets and liabilities are divided into three categories according to their length of life, cash liquidity, and effect on production in the aquaculture business. The categories are current, intermediate, and long term. A fourth category lists non-business assets.

When estimating asset value there are two possible methods: Market Value or Cost Approach:

Market Value: values assets at the estimated current market value.

Cost Approach: values assets at their original cost plus cost of improvements minus depreciation.

*Current Assets/Liabilities*—are those with a life less than one year. Assets include cash, accounts receivable, and other assets easily converted to cash within a year. These can include prepaid expenses, supplies, and shellfish on hand. Liabilities consist of accounts payable and accrued expenses such as rent, interest, and taxes that will be paid within one year. Short-term notes and the current principal due on longer-term liabilities are also listed.

*Intermediate Assets/Liabilities*—are those with a life more than one year but less than 10 years. Assets include tools, vehicles, machinery, and equipment. Liabilities consist of loans for machinery and equipment.

*Long-term Assets/Liabilities*—are those with a useful life of more than 10 years. Assets include land, buildings, and improvements. Liabilities consist of mortgages and contracts owed on land, and loans for buildings and improvements.

*Non-farm Assets/Liabilities*—these are personal items not considered part of the aquaculture operation. Assets include the home, furnishings, and vehicles.

Net Worth is sometimes referred to as owner's equity. It is the difference between the value of aquafarm assets and the liabilities against those assets.

| Balance Sheet                       | Name |       | Date                                  |           |
|-------------------------------------|------|-------|---------------------------------------|-----------|
| ASSETS                              |      |       | LIABILITIES AND NET WORTH             |           |
| Current Assets                      |      | Value | Current Liabilities                   | Value     |
| Cash                                |      |       | Accounts payable and accrued expenses |           |
| Savings                             |      |       | Credit cards:                         |           |
| Prepaid expenses &                  |      |       |                                       |           |
| supplies                            |      |       |                                       |           |
| Seed oysters                        |      |       | Current notes payable:                |           |
| Bushels/yards of shell              |      |       |                                       |           |
| Accounts receivable                 |      |       | Accrued interest                      |           |
| Remote Setting System               |      |       |                                       |           |
| Growout cages                       |      |       | Operating loan                        |           |
|                                     |      |       | Intermediate and long-term principal  |           |
| Other current assets                |      |       | due within 12 months                  |           |
|                                     |      |       | Other current liabilities             |           |
|                                     |      |       |                                       |           |
| Total current assets                |      |       | Total current liabilities             |           |
| Intermediate Assets                 |      |       | Intermediate Liabilities (amount due  | beyond 12 |
| Intermediate Assets                 |      |       | months)                               | beyond 12 |
| Commercial workboat(s)              |      |       | Equipment loan                        |           |
| Automobiles                         |      |       | Auto loan                             |           |
| Machinery and equipment             |      |       |                                       |           |
| Other intermediate assets           |      |       |                                       |           |
|                                     |      |       |                                       |           |
| Total intermediate assets           |      |       | Total intermediate liabilities        |           |
| Long-term Assets                    |      |       | Long-term Liabilities (amount due be  | word 10   |
| Long-ter in Assets                  |      |       | years)                                | yonu io   |
| Buildings                           |      |       | Real Estate loan                      |           |
| Land                                |      |       |                                       |           |
| Total long torm accets              |      |       | Total long-term liabilities           |           |
| Total long-term assets Total assets |      |       | Total liabilities                     |           |
| 1 otal assets                       |      |       |                                       |           |
| Non-business assets                 |      |       | Non-business liabilities              |           |
| Residence                           |      |       | Credit cards                          |           |
| Household goods                     |      |       | Other loans                           |           |
| Stock, bonds etc.                   |      |       |                                       |           |
| Total non-business assets           |      |       | Total non-business liabilities        |           |
| TOTAL ASSETS                        |      |       | TOTAL LIABILITIES                     |           |
|                                     |      |       | NET WORTH                             |           |

### **C. Enterprise Budget**

Small aquafarms can consist of several enterprises that contribute to the whole business operation. For instance, aquafarms may include a retail shellfish market, hatchery operations, and/or equipment sales. It is important to understand the various costs, returns, and ultimately the profitability of each enterprise versus another. The "Enterprise Budget" enables you to do that.

The enterprise budget separates and allocates the various expenses and receipts to a particular enterprise. As a result, you can understand break-even cost and pricing points for that part of the total business. It is also helpful to understand the input structure such as labor, raw material inputs, and fixed equipment cost per dollar returned. The enterprise budget also forces you to analyze the profitability of each enterprise so the proper mix can be achieved for the whole aquaculture business.

In order for enterprise budgets to be effective, you must have accurate information on each enterprise being planned. This requires careful recordkeeping of existing enterprises and detailed projection of activities of planned enterprises.

The budget is calculated based on a one-year time frame for a certain unit of production such as acre, per bushel, or per shellfish. Enterprise budget components are illustrated in the following graphic.

## **Components of an Enterprise Budget**

Total Income: The total sales of products or services from the enterprise. Revenue can be calculated with the following formula:

Price x Units Sold= Total Income

## Variable Cost: Cost of items that vary with production volume. Examples of such items include shell, seed, fuel, electricity, piece-work labor charges, equipment, packaging, and custom charges.

## $\square$

Fixed Cost: Those costs that you incur regardless of whether you produce anything. These costs are determined using the DIRTI 5 method which includes Depreciation, Interest, Repairs, Taxes, and Insurance. Often a piece of equipment or building will be used for more than one enterprise. In these cases it is important to estimate the percentage of use for each enterprise and allocate the cost accordingly.

Net Income: Net income is the money left after subtracting variable and fixed cost. This is the "bottom line".

NET INCOME = Total Income – (Variable + Fixed Costs)

| Enterprise Budget                    |           |          |        |       |
|--------------------------------------|-----------|----------|--------|-------|
| ITEM                                 | UNIT      | QUANTITY | PRICE  | TOTAL |
| INCOME                               |           |          |        |       |
|                                      | Bushels   |          |        |       |
|                                      |           |          |        |       |
| VARIABLE/OPERATING COSTS             |           |          |        |       |
| Shellfish seed                       | Seed      |          |        |       |
| Shell (or other cultch)              |           |          |        |       |
| Labor                                | Hours     |          |        |       |
| Utilities                            | Hours     |          |        |       |
| Fuel                                 | Gallons   |          |        |       |
|                                      | ADD       |          |        |       |
| Interest on operating capital        | APR       |          |        |       |
| TOTAL VARIABLE COSTS LISTED<br>ABOVE |           |          |        |       |
| FIXED/OVERHEAD COSTS (SEE FIXED      | COST SUMM | IARY)    |        |       |
| Equipment depreciation               | Business  | 1.00     |        |       |
| Interest payment                     | Business  | 1.00     |        |       |
| Repairs                              | Business  | 1.00     |        |       |
| Taxes                                | Business  | 1.00     |        |       |
| Insurance                            | Business  | 1.00     |        |       |
| TOTAL FIXED COST LISTED ABOVE        |           |          |        |       |
| TOTAL VARIABLE AND FIXED COST        |           |          |        |       |
| NET INCOME OVER VARIABLE & FIXE      | ED COSTS  |          |        |       |
|                                      |           |          | PRICES |       |
| NET INCOME ABOVE VARIABLE<br>AND     | YIELDS    |          |        |       |
| FIXED COSTS* LISTED ABOVE FOR        |           |          |        |       |
| VARIOUS YIELDS AND PRICES            |           |          |        |       |
|                                      |           |          |        |       |

Fixed Cost Worksheets

| <b>Depreciated Equipment</b>                |                           |                       |                 |
|---|---------------------------|-----------------------|-----------------|
| Equipment Item                              | Cost (Initial - trade-in) | Expected Life (years) | Per Year Charge |
| Production                                  |                           |                       |                 |
| Bags & containers                           |                           |                       |                 |
| Lines, buoys, anchors                       |                           |                       |                 |
| Nursery equipment                           |                           |                       |                 |
| Grading/sorting equipment                   |                           |                       |                 |
| Studing solving equipment                   |                           |                       |                 |
| Other:                                      |                           |                       |                 |
| Setting system                              |                           |                       |                 |
| <u>Transportation</u>                       |                           |                       |                 |
| Truck(s)                                    |                           |                       |                 |
| Storage Facilities                          |                           |                       |                 |
| Buildings                                   |                           |                       |                 |
|   |                           |                       |                 |
| Totals                                      |                           |                       |                 |
| Total Yearly Equipment                      |                           |                       |                 |
| Interest                                    |                           |                       |                 |
| Interest on Fixed Cost                      | Total Fixed Cost          | Dete                  | Dan Vaan Changa |
| Interest on Fixed Cost                      | Total Fixed Cost          | Rate                  | Per Year Charge |
| Total Interest Payment                      |                           |                       |                 |
| Repairs                                     |                           |                       |                 |
| Equipment                                   |                           |                       |                 |
| Equipment                                   |                           |                       |                 |
| Total Repairs                               |                           |                       |                 |
| Taxes                                       |                           |                       |                 |
|   |                           |                       |                 |
| Taxes, Tags, License Fees<br>Lease Payments |                           |                       |                 |
|   |                           |                       |                 |
| Total Taxes                                 |                           |                       |                 |
| Insurance                                   |                           |                       |                 |
| Commercial Liability                        |                           |                       |                 |
| Insurance                                   |                           |                       |                 |
| Property Insurance                          |                           |                       |                 |
| Auto Insurance                              |                           |                       |                 |
| Vessel insurance                            |                           |                       |                 |
| Total Insurance                             |                           |                       |                 |
|   |                           |                       |                 |
| Total Fixed Cost                            |                           |                       |                 |

#### **D. Projected Cash Flows**

Another important financial statement is the cash flow budget. This budget estimates the flow of money in and out of the business. It is similar to the projected income statement in that it estimates the cash income and cash expenses. However, there are important differences. The cash flow budget does not include depreciation since this is not a cash expenses. Rather it will include the actual purchase prices for capital purchases - machinery and buildings. It will include sales of capital assets. It will include cash flowing into the business from loans including loans for machinery and buildings. It will also include loan principal payments. It includes other receipts from non-business sources as well as withdrawals from the business.

The cash flow budget estimates the timing and size of cash inflows and outflows that occur over a given accounting period, normally one year. The period is broken down into smaller time periods such as quarters or months. Think of the cash flow budget as a checkbook for the farm with an accounting of deposits and withdrawals. Here is an explanation of these.

#### **Cash inflows**

- *Shellfish and equipment sales*—these are the primary source of cash for your aquafarm business and are critical to maintain the liquidity reserve.
- *Other aquafarm receipts*—this includes payments from government programs, custom work, and co-op dividends.
- *Non-business receipts*—include items such as income from an off-farm job, savings, investments, interest earned and capital.
- *Capital sales*—includes the sporadic cash inflows from the sale of land, buildings, machinery, broodstock, and tools.
- *Borrowed money*—is considered a residual source of cash used to maintain your liquidity reserve when cash outflows exceed the sometimes sporadic inflow.

#### **Cash outflows**

- *Production expenses*—are a large draw on your liquidity reserve. They include seed, shell, fuel, hired labor, and repairs.
- *Capital expenditures*—include cash outlays for replacing and adding machinery, land, and buildings. These are important to your aquaculture business but should be planned with care.
- *Loan payments*—are payments on borrowed money. Consider this when formulating your loan payment schedules and the seasonality of your aquafarm business.
- *Family living expenditures or withdrawal*—are sometimes overlooked as being secondary to the other cash outflows

The cash flow budget is projected at the beginning of the year to forecast the inflows and outflows and estimate the ending cash balance for each quarter or month. As the year progresses, keep an **actual cash flow statement** to record cash transactions as they take place. Then compare the actual cash flow statement with the projected cash flow statement to see if things are going as planned, to devise remedies for previously unforeseen problems, or to take advantage of opportunities not anticipated. At the end of the year, use the actual cash flow statement to estimate the projected cash flow for the next year. This is especially important for agricultural businesses because of production cycles and the seasonality of the business.

| Cash Inflow                               | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total |
|---|--------|--------|--------|--------|--------|-------|
| 1. Beginning cash balance                 |        |        |        |        |        |       |
| 2. Sales                                  |        |        |        |        |        |       |
| 3. Other income                           |        |        |        |        |        |       |
| 4. Capital sales                          |        |        |        |        |        |       |
| 5. Non-business receipts                  |        |        |        |        |        |       |
| 6. Total cash inflow (total 1 to 5)       |        |        |        |        |        |       |
| Cash Outflow                              |        |        |        |        |        |       |
| 7. Permit fees                            |        |        |        |        |        |       |
| 8. Gasoline, fuel, and oil                |        |        |        |        |        |       |
| 9. Freight and trucking                   |        |        |        |        |        |       |
| 10. Insurance                             |        |        |        |        |        |       |
| 11. Labor hired                           |        |        |        |        |        |       |
| 12. Lease Payments                        |        |        |        |        |        |       |
| 13. Repairs and maintenance               |        |        |        |        |        |       |
| 14. Supplies purchased                    |        |        |        |        |        |       |
| 15. Taxes                                 |        |        |        |        |        |       |
| 16. Utilities                             |        |        |        |        |        |       |
| 17. Marketing                             |        |        |        |        |        |       |
| 18. Other expenses                        |        |        |        |        |        |       |
| 19. Capital purchases                     |        |        |        |        |        |       |
| 20. Owners Salaries                       |        |        |        |        |        |       |
| 21. Term loan payments                    |        |        |        |        |        |       |
| 22. Total cash outflow (total 7 to 21)    |        |        |        |        |        |       |
| Cash Flow Summary                         |        |        |        |        |        |       |
| 23. Inflow minus outflow (lines 6-<br>22) |        |        |        |        |        |       |
| 24. New borrowing: term                   |        |        |        |        |        |       |
| 25. New borrowing: credit line            |        |        |        |        |        |       |
| 26. Credit line payments                  |        |        |        |        |        |       |
| 27. Ending cash balance (23+24+25-<br>26) |        |        |        |        |        |       |

| Factor        | My Business | Strength | Weakness | Competitor 1 | Competitor 2 | Market Importance |
|---------------|-------------|----------|----------|--------------|--------------|-------------------|
| Products      |             |          |          |              |              |                   |
| Price         |             |          |          |              |              |                   |
| Quality       |             |          |          |              |              |                   |
| Selection     |             |          |          |              |              |                   |
| Service       |             |          |          |              |              |                   |
| Reliability   |             |          |          |              |              |                   |
| Stability     |             |          |          |              |              |                   |
| Expertise     |             |          |          |              |              |                   |
| Reputation    |             |          |          |              |              |                   |
| Location      |             |          |          |              |              |                   |
| Appearance    |             |          |          |              |              |                   |
| Sales Method  |             |          |          |              |              |                   |
| Credit Policy |             |          |          |              |              |                   |
| Advertising   |             |          |          |              |              |                   |
| Image         |             |          |          |              |              |                   |

## E. Competitive Analysis: Use information you have researched about the market to complete this chart.

(Source: US Small Business Administration)

## F. 12-Income Statement (Profitability)

A projected income statement, sometimes called the projected profit and loss statement, is developed to forecast farm profitability. It estimates future income, expenses, and profit for the business. The projected income statement will cover a given accounting period such as a calendar year or other fiscal period.

Projecting an income statement is made easier if there are historical income statements to use as a reference point. The historical numbers can just be updated to reflect the changes in the business. Another aid in projecting an income statement is the enterprise budgets. Enterprise budgets estimate income and expenses on a per unit bases. Taking the various enterprise budgets for the business and multiplying the income and expenses by their respective total number of units in the business and then adding them together will approximate the projected income statement.

*Cash Farm Income* - List sources and values of your cash farm income. Include revenues from sales of shellfish, equipment, and government payments from commodity programs. Also include income received for custom work, co-op dividends, and others.

*Cash Operating Expenses* - Include those expenses associated with the operation of the farm business. In addition to variable production expenses such as spat, seed, fuel, short-term interest on operation capital and supplies, include fixed cash expenses such as taxes, insurance, and interest on intermediate and long-term loans.

*Depreciation* - Even though depreciation is not a cash cost to the operation, it should be included in the income statement because it represents the loss in value of buildings, machinery, and other assets that wear out as a result of production. Without it, the income statement will not account for these economic losses. Historical depreciation can be a starting point for estimating future depreciation, but you must also consider the depreciation for future machinery and building purchases that are included in the business plan. A simple way to estimate the annual depreciation is to take the purchase price (beginning value) of the equipment and buildings, subtract out the salvage value (ending value) that will exist at the end its life and divide by the number of years of useful life

Profit or Loss - The projected income statement should give a picture of future business profit. As the business changes there is often a transition period where profits may vary year to year. If this is the case, you may want to develop and projected income statement for each year until the business reaches a steady state. As your plans progress, you will want to have a good accounting system in order to construct historical income statements to analyze the progress of your business.