



Aquaculture Business Planning

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Remote Setting



Bottom Cage



Longline



Surface Float

Aquaculture Business planning


- The Business of Aquaculture and Impacts on Farm Profitability
- Financial Tools for Aquaculture Planning
- The Business Plan

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The Business of Aquaculture
and Impacts on Farm
Profitability

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The Business of Aquaculture and Impacts on Farm Profitability


- Introduction to thinking about aquaculture as a business
- Recordkeeping
- Costs associated with aquaculture production
- Predicting sales and marketing
- Discussion and questions

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Thinking About Aquaculture
as a Business

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Thinking about your business

1. Set your goals
2. Develop a plan to reach the goals
3. Evaluate your business over time
4. Adjust your plan to meet the goals, if needed

Do this periodically so that you can evaluate your progress, make changes or modifications where needed and react to new or learned situations

Goals

- Specific

- Increase profit
- Decrease production costs

- Measurable

- How much of a change do you want to see?
- Percentage or amount of money

- Achievable

- Must be realistic
- Improve by 200% isn't realistic

- Relevant

- Is the economy right for this?
- Is the goal too large

- Timeline

- Can I do it in 1 week, 1 month or 1 year?
- Depends on your goal and how complex it is

Develop a plan to reach the goals

- Gather information about your business
 - Production information
 - Financial information
 - Marketing information
- Evaluate the current state of your business is currently (financial position is a good indicator)
- Determine what steps it may take to reach your goal
- Estimate benefits of the changes versus the cost of implementing them

Write your business plan

- Compile all the information you have gathered into a single document
- *This will be your business plan*
- This plan is a “map” of where you have been and where you want to go
- Your business plan helps you and others, such as financial institutions, understand your business, your goals and your planned aquaculture operations

Evaluate your business

- This can be done weekly, monthly, seasonally, or annually
 - It depends on your markets and production schedule
- Recommendation → a yearly business evaluation
- Determine which goals you have met and which you did not meet, whether they are still relevant, why you didn't reach them and how you are going to proceed for the next time period

Make adjustments

- After evaluating the success of your plan, you should make adjustments to meet the goals you did not reach
- You should also set new goals, or attempt to improve on goals you have already met
- Update your business plan to reflect these new changes and goals

Your business plan is a dynamic document that provides guidance for your operations while being always open to modification and improvement



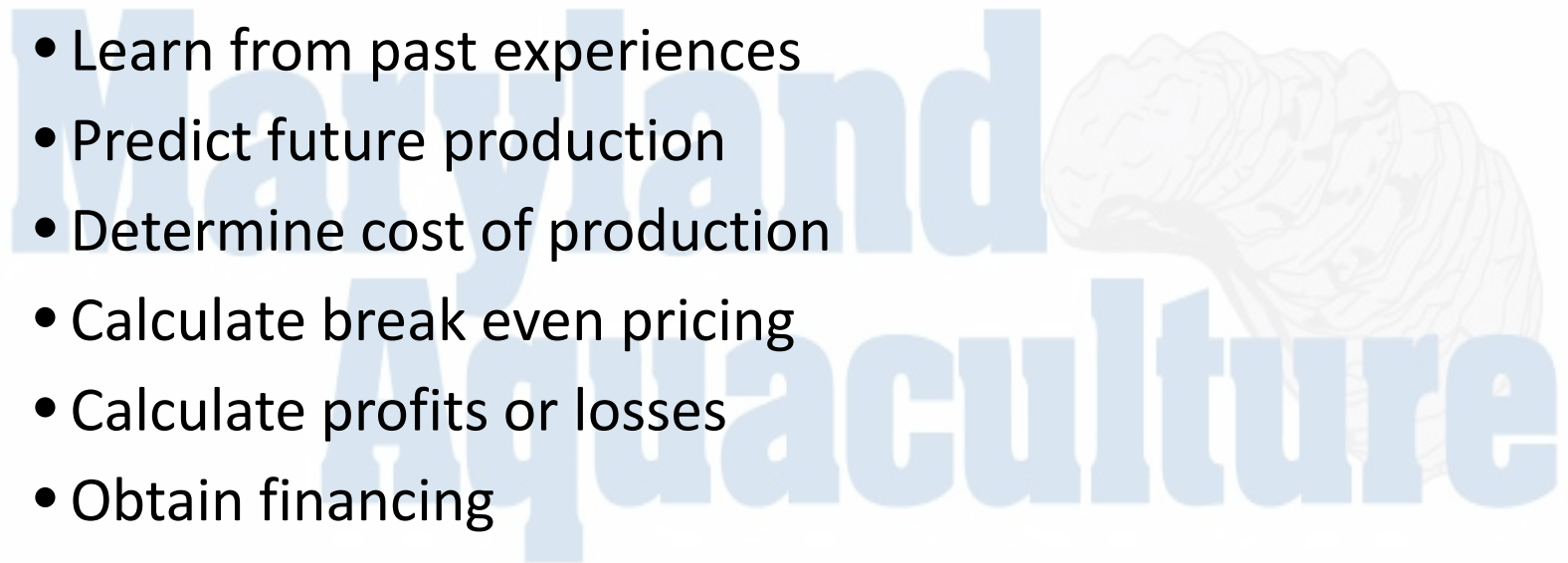
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Why Keep Records ?

- Learn from past experiences
- Predict future production
- Determine cost of production
- Calculate break even pricing
- Calculate profits or losses
- Obtain financing
- Predict future sales
- Evaluate the success of your aquafarm

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Types of Record Keeping

Production Records

- Daily harvest
- Seasonal harvest

Financial Records

- Sales
- Cost of supplies
- Labor
- Equipment purchases
- Loan payments
- Tax payments

Types of Record Keeping

Daily Records

- For each lease
 - Water Quality (may want to collect temperature, salinity, water clarity, weather observations)
- Harvest
- These are used to determine your production costs

Seasonal Records

- Chronological record of what goes on and comes off your lease(s)
 - Seed and shell
 - Harvest
 - Mortality
 - Personal consumption
 - Shellfish sample data

Example Record Sheet

Date	Stocking	Harvests	Dissolved Oxygen	Salinity	Notes
May 1	150,000 spat		6.7	30	Stocked quadrant 1
June 1		200 oysters	5.8	33	Sent for disease testing
July 1	150,000 spat		6.0	29	Stocked quadrant 2
Aug 1		10,000 oysters	5.2	34	Sold to Wegmans from quadrant 3

Financial Records

Sales Records

- Total number of shellfish sold (number or bushels)
- Price received
- Purchaser
- Product form
 - shell
 - shucked

Cost of Supplies

- Seed
- Electricity/utilities
- Fuel
- Total amount and price for each production input

Financial Records

Labor Records

- Paid labor
 - Hours and payment rate for each person
- Unpaid labor
 - Hours for each person
 - Estimate an hourly cost

Equipment Purchases

- Type of equipment and cost
- Loan information for equipment
- Percentage of time it is devoted to farm work
- Estimate the useful life of the equipment

Financial Records

Loan/Rent Payments

- Principle amount
- Interest amount
- Who you pay
- Date
- New loan balance
- Receipt number


Tax Payments

- Sales tax, income tax, property tax
- Total amount paid
- Date
- Receipt number
- Who was paid
 - City, State, Federal

Why do I need to collect so many records?

- We'll learn how to combine production records and financial records to determine:
 - Financial position of the business
 - Profitability of the business
 - Cost of production
 - Sales price
 - Market demand

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The logo for Maryland Aquaculture is a light blue oval containing the text "Maryland Aquaculture" in a large, bold, light blue font. A faint, stylized illustration of a scallop is positioned behind the text on the right side. The main text of the slide is centered over the logo.

Costs associated with
aquaculture

Costs associated with aquaculture production

- We go into more detail on costs associated with aquaculture production
- Many of these will sound familiar from the previous section on record keeping

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Variable costs

- Costs are incurred as a result of your farming operations
- They may increase or decrease as production increases or decreases
- Some variable costs may be allocated to individual leases
 - Examples: shellfish seed, shell, vessel operations, labor
- Some production costs may be allocated to the operation
 - Examples: fuel, electricity, labor

Tracking Variable Costs

Date	Lease #	Item	Quantity	Unit Cost	Total Cost
<i>17 July 15</i>	<i>WF602</i>	<i>Seed</i>	<i>3.5m</i>	<i>\$10,000/m</i>	<i>\$35,000</i>
<i>18 July 15</i>	<i>WF615</i>	<i>Shell bags</i>	<i>1,000</i>	<i>\$2.50</i>	<i>\$2,500</i>
<i>20 July 15</i>	<i>WF615</i>	<i>Larvae</i>	<i>3m</i>	<i>\$210/m</i>	<i>\$630</i>
<i>22 July 15</i>	<i>WF724</i>	<i>Clam shell</i>	<i>300 cu yds</i>	<i>\$150/yd</i>	<i>\$45,000</i>
<i>23 July 15</i>	<i>WF602</i>	<i>Seed</i>	<i>4.5m</i>	<i>\$7,500/m</i>	<i>\$33,750</i>
<i>27 July 15</i>	<i>WF724</i>	<i>Clam shell</i>	<i>500 cu yds</i>	<i>\$150/yd</i>	<i>\$75,000</i>

Seed Costs

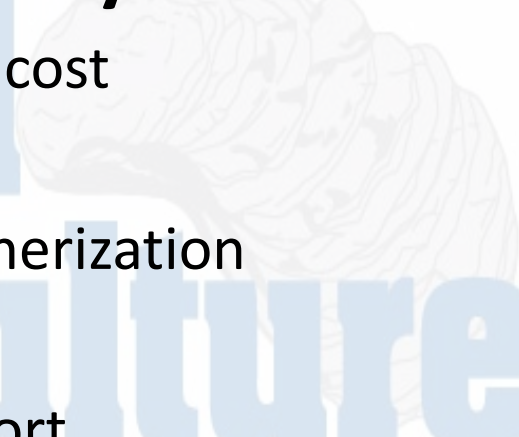
Buy larvae or seed

- Purchase of item
- Delivery charges

Produce your own

- Larvae cost
- Cultch
- Containerization
- Setting
- Transport

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Electricity

- Pumps for setting tanks
- Setting tank aeration
- Setting tank heaters
- Tumbler/washer
- Lights
- Other equipment

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Fuel

- Powers loaders
- Trucks
- Boats
- Pumps and Generators

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Labor

- Full time
- Part time
- Seasonal
- Family
- Owner's
- All labor types should be considered whether or not they are paid
- Exchanging goods and services for labor is still a cost

Date	Worker	Lease Number	Activity	Type (F,P,S)	# Days or Hours	Rate	Total Cost
17 Jul 15	T. Jones	WI602	Planting	F	8.0	\$15.00	\$120.00
17 Jul 15	B. Jones	WI602	Planting	F	8.0	\$12.00	\$96.00
18 Jul 15	T. Jones	WI615	Dredging	F	8.5	\$15.00	\$127.50
18 Jul 15	B. Jones	WI615	Dredging	F	8.5	\$12.00	\$102.00
21 Jul 15	L. Smith	WI724	Shelling	P	6.5	\$10.00	\$65.00
21 Jul 15	M. Cadiz	WI724	Shelling	P	6.5	\$8.00	\$52.00

Maintenance

- Cost to repair equipment
- Costs to maintain equipment
 - Routine items like tires, oil and fluid changes
- Costs to maintain buildings or structures

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Fixed Costs

- Costs that don't change with production
- Costs that tend to remain the same on a yearly or monthly basis
 - Loan repayments
 - Lease rental
 - License fees



Types of Fixed Costs

- Rent or Lease Payments
 - Shellfish lease
 - Dockage
- Government Fees
- Loan Payments
 - Equipment
 - Land and buildings
- Annual Depreciation
 - Non-cash expense (value equipment loses due to age)

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Capital/Investment Costs

- Large purchases used to expand your business
- You may need to borrow money for these
 - Equipment
 - Land
 - Construction materials

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Depreciation

- Annual devaluation of equipment over time
- Non-cash expense
- Shows how much you may need for replacement
- Straight line depreciation

Purchase Price ÷ Years of use = Annual depreciation


Example

$\$100,000 \div 10 \text{ years} =$
\$10,000 loss of value each year for 10 years



Predicting Sales and
Marketing

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Marketing Basics

“5 P’s of Marketing”

1. **Product**

2. **Place**

3. **Price**

4. **Promotion**

5. **Politics**

- Types of market outlets
 - Wholesale
 - Direct to consumer *
 - Restaurant sales *
(* requires Shellfish Shipper license from Dept. of Health & Mental Hygiene)
- Key components
 - Evaluate your competition
 - Branding
 - Writing a marketing plan

Marketing and Sales

- Good marketing can generate sales
- High sales volume does not mean your marketing is good
- There is a difference

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Sales

- The way to make money in shellfish aquaculture is to **sell shellfish**
- If you're not making money, **it's an expensive hobby**
- You should sell for **more than it costs** to produce
- How do we know what is a good price?
- From our recordkeeping!

Sales

- Review your history of past sales
 - How much was sold?
 - What size(s) were sold?
 - What price did we sell for?
 - Do we sell more at certain times of the year?
 - Who bought our product(s)?
 - Customer feedback is critical for good decisions

Sales

- Answers from previous questions can help determine **market trends**
- Knowing sales trends can help you **plan production** to receive the **best prices**

Sales Trends



https://www.google.com/finance/s/M6XiRzNjYn0/images/retail_predict.png

Supply and Demand

By analyzing supply and demand we can:

- **Plan production** for times of high demand
- Take advantage of **higher sales** prices
- Increase **profitability**
- Better predict **cash flow**