



Financial Considerations in Starting Your Farm

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**Food and
Resource
Economics**

Sea Grant
Florida

Overview

Estimated startup costs and income assuming min. required planting density to meet Florida's lease rules

Floating bags and floating cages

Lots of assumptions – Take numbers with a grain of salt!!!



Assumptions

Plant 70,000 seed per acre (105,000 total) evenly over 6 months

Triploid seed, 8-10 mm shell height, R6 (\$25.67 per thousand)

Owner/operator (\$12/hr wage assumed)

Not included in startup costs:

Boat, motor, trailer, truck

Tumbler/pressure washer

Lease survey/marketing costs

Owner/operator labor costs

10 months from plant to harvest

80% survival and 90% of final oysters are marketable

72% of what you plant you sell

Receive \$0.50 per oyster

Startup costs are self-financed (no loans)

10% of capital equipment has to be replaced each year

Risks not included (hurricanes, red tides, etc.)



Floating Bag Start Up Cost Estimates

	<u>1.5 Acre Lease Site</u>	
	# of Units	Seed Planted Per Year: 105,000
Site Set-Up/Regulatory Costs		
FL Aquaculture Cert.	1	\$ 100.00
Lease Rental Fees	1	\$ 65.19
Total Site Set-Up/Regulatory Costs		\$ 165.19
Seed and Bag Costs		
8-10 mm (R6) triploid seed	105 (sold by the thousand)	\$ 2,695.00
4, 9, and 14 mm bags	363	\$ 2,087.25
Total Seed and Bag Costs		\$ 4,782.25
Total Float and Tie Costs	(floats, zip ties, id tags, hog rings, pucks and clips, baskets and gloves)	\$ 9,205.72
Total Longline Costs	(rope, screw anchors, buoys, #10 neobraid)	\$ 1,058.00
Total Other Costs	(fuel, administrative)	\$ 683.00
<u>TOTAL INITIAL START UP COSTS</u>		<u>\$ 15,894.16</u>

Floating Bag Income Statement Estimates

<u>YEAR 1</u>			
<u>Revenue</u>	Oysters Sold	Price/Oyster	Total
Sales Revenue	12,600	\$0.50	\$6,300
<u>Expenses</u>			
Certificate and Lease Rental Fees			\$165
Oyster Seed			\$2,695
Zip Ties			\$447
Labor (341 hours)			\$4,092
Fuel			\$513
Capital Replacement			\$1,190
Administrative			\$150
<u>Total Expenses</u>			\$9,252
<u>Net Income before Taxes</u>			-\$2,952
INCOME PER ACRE:			-\$1,968
INCOME PER OYSTER:			-\$0.23

<u>YEAR 2</u>			
<u>Revenue</u>	Oysters Sold	Price/Oyster	Total
Sales	75,600	\$0.50	\$37,800
<u>Expenses</u>			
Certificate and Lease Rental Fees			\$165
Oyster Seed			\$2,695
Zip Ties			\$447
Labor (341 hours)			\$4,092
Fuel			\$513
Capital Replacement			\$1,190
Administrative			\$150
<u>Total Expenses</u>			\$9,252
<u>Net Income before Taxes</u>			\$28,548
INCOME PER ACRE:			\$19,032
INCOME PER OYSTER:			\$0.38

Floating Bag Sensitivity Analysis

				\$0.50 (BASELINE)			
<u>OYSTER PRICES:</u>	<u>\$0.35</u>	<u>\$0.40</u>	<u>\$0.45</u>	<u>\$0.50</u> (BASELINE)	<u>\$0.55</u>	<u>\$0.60</u>	<u>\$0.65</u>
Year 1 Net Income before Taxes (\$ Value)	-\$4,842	-\$4,212	-\$3,582	-\$2,952	-\$2,322	-\$1,692	-\$1,062
Year 1 Net Income before Taxes (% Change)	-64%	-43%	-21%	0%	21%	43%	64%
Year 2 Net Income before Taxes (% Change)	\$17,208	\$20,988	\$24,768	\$28,548	\$32,328	\$36,108	\$39,888
Year 2 Net Income before Taxes (\$ Value)	-40%	-26%	-13%	0%	13%	26%	40%
<u>LABOR COSTS:</u>	<u>-75%</u>	<u>-50%</u>	<u>-25%</u>	<u>BASELINE</u>	<u>25%</u>	<u>50%</u>	<u>75%</u>
Year 1 Net Income before Taxes (\$ Value)	\$117	-\$906	-\$1,929	-\$2,952	-\$3,975	-\$4,988	-\$6,021
Year 1 Net Income before Taxes (% Change)	104%	69%	35%	0%	-35%	-69%	-104%
Year 2 Net Income before Taxes (% Change)	\$31,617	\$30,594	\$29,571	\$28,548	\$27,525	\$26,502	\$25,479
Year 2 Net Income before Taxes (\$ Value)	11%	7%	4%	0%	-4%	-7%	-11%

Floating Cage Start Up Cost Estimates

	<u>1.5 Acre Lease Site</u>	
	# of Units	Seed Planted Per Year: 105,000
Site Set-Up/Regulatory Costs		
FL Aquaculture Cert.	1	\$ 100.00
Lease Rental Fees	1	\$ 65.19
Total Site Set-Up/Regulatory Costs		\$ 165.19
Seed and Bag/Cage Costs		
8-10mm (R6) triploid seed	105 (sold by the thousand)	\$ 2,695.00
4, 9, and 14 mm bags	363	\$ 2,087.25
Floating Cages	54	\$ 11,880.00
Total Seed and Bag Costs		\$ 16,662.25
Total Float and Tie Costs	(zip ties, id tags, hog rings, baskets and gloves)	\$ 571.20
Total Longline Costs	(rope, screw anchors, buoys)	\$ 650.00
Total Other Costs	(fuel, administrative)	\$ 683.00
<u>TOTAL INITIAL START UP COSTS</u>		<u>\$ 18,731.64</u>

Floating Cage Income Statement Estimates

YEAR 1			
<u>Revenue</u>	Oysters Sold	Price/Oyster	Total
Sales Revenue	12,600	\$0.50	\$6,300
<u>Expenses</u>			
Certificate and Lease Rental Fees			\$165
Oyster Seed			\$2,695
Zip Ties			\$100
Labor (623 hours)			\$7,476
Fuel			\$513
Capital Replacement			\$1,509
Administrative			\$150
<u>Total Expenses</u>			\$12,443
<u>Net Income before Taxes</u>			-\$6,143
INCOME PER ACRE:			-\$4,095
INCOME PER OYSTER:			-\$0.49

YEAR 2			
<u>Revenue</u>	Oysters Sold	Price/Oyster	Total
Sales	75,600	\$0.50	\$37,800
<u>Expenses</u>			
Certificate and Lease Rental Fees			\$165
Oyster Seed			\$2,695
Zip Ties			\$100
Labor (623 hours)			\$7,476
Fuel			\$513
Capital Replacement			\$1,509
Administrative			\$150
<u>Total Expenses</u>			\$12,443
<u>Net Income before Taxes</u>			\$25,357
INCOME PER ACRE:			\$16,905
INCOME PER OYSTER:			\$0.34

Floating Cage Sensitivity Analysis

				<u>\$0.50</u> (BASELINE)			
<u>OYSTER PRICE:</u>	<u>\$0.35</u>	<u>\$0.40</u>	<u>\$0.45</u>	<u>\$0.50</u> (BASELINE)	<u>\$0.55</u>	<u>\$0.60</u>	<u>\$0.65</u>
Year 1 Net Income before Taxes (\$ Value)	-\$8,033	-\$7,403	-\$6,773	-\$6,143	-\$5,513	-\$4,883	-\$4,253
Year 1 Net Income before Taxes (% Change)	-31%	-21%	-10%	0%	10%	21%	31%
Year 2 Net Income before Taxes (% Change)	\$14,017	\$17,797	\$21,577	\$25,357	\$29,137	\$32,917	\$36,697
Year 2 Net Income before Taxes (\$ Value)	-45%	-30%	-15%	0%	15%	30%	45%
<u>LABOR COSTS:</u>	<u>-75%</u>	<u>-50%</u>	<u>-25%</u>	BASELINE	<u>25%</u>	<u>50%</u>	<u>75%</u>
Year 1 Net Income before Taxes (\$ Value)	-\$536	-\$2,405	-\$4,274	-\$6,143	-\$8,012	-\$9,881	-\$11,750
Year 1 Net Income before Taxes (% Change)	91%	61%	30%	0%	-30%	-61%	-91%
Year 2 Net Income before Taxes (% Change)	\$30,964	\$29,095	\$27,226	\$25,357	\$23,488	\$21,619	\$19,750
Year 2 Net Income before Taxes (\$ Value)	22%	15%	7%	0%	-7%	-15%	-22%

Key Takeaways

You need at least \$15,000 to \$20,000 to get started (even if you have a boat and a truck and don't pay yourself a salary during the first year)

You are probably going to lose money in the first year while you wait for your oysters to grow to market size (~10 months)

Income is sensitive to oyster market prices and labor costs

This is a relatively new industry and estimated costs are extremely rough estimates



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