

# Fisheries Economy

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# Stock Turnover Ratio

- The turnover ratio provides a measure of how quickly the inventory of fish produced is sold, or “turned over” into cash revenue. It compares the value of the inventory of fish or shrimp on the farm to the value of the sales, and then multiplies that ratio by 365 days. The answer calculated is expressed in the number of days of inventory on hand. Lower values demonstrate more rapid turnover and are preferable. Higher values mean that fish inventories on the farm take longer to reach market size.

- Because the fish stocks in inventory on the farm must be fed regularly, longer turnover periods tie up working capital that could otherwise be used in more productive ways. Table shows a stock turnover ratio of 570 days. This is a long period and demonstrates a rather inflexible production system. Management changes that result in faster turnover, perhaps by switching to a faster-growing strain or reducing stocking density to obtain better growth, will reduce the stock turnover ratio. A lower stock turnover ratio improves cash flow, reduces financial risk, and may improve financial performance.

# PROFITABILITY

- A business that is both solvent and liquid will not necessarily be profitable. Profitability is calculated generally by subtracting total costs from total revenue. It is measured from the income statement. However, net farm income can be further partitioned into returns or profits attributable to each of the four primary factors of production: land, labor, capital, and management. Returns to capital can be further partitioned into returns to equity capital (capital owned by the farmer) and returns to debt capital (borrowed capital).

# Profit Margins

- Two profitability ratios commonly calculated include the gross profit margin and the net profit margin. The gross profit margin is calculated by dividing the gross profit by the sales and multiplying by 100. The gross profit margin measures the sales and production performance, can be tracked over time, and can be used to compare performance of other similar aquaculture businesses. The net profit margin divides net profits (gross profit minus operating costs) by sales and multiplies by 100.

# Net Farm Income

- The primary measure of farm profitability is net farm income. Net farm income measures the return to operator's equity, capital, unpaid labor, and management. It is measured from the income statement. Net farm income is measured as follows:
  - Total revenue – total expenses
  - = net farm income from operations
  - $\pm$  the gain/loss on the sale of capital assets
  - = net farm income

- For the example farm, net farm income from the income statement for the 256-acre catfish farm is \$2,792. This farm will need to improve its low net farm income over time to provide adequate compensation for the owners.