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Aquaculture Record Keeping

AQUACULTURE FACT SHEET

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Any analysis of the aquaculture business, whether financial or biological, is dependent upon sound information. Aquaculture farm records are often the most reliable form of information available. Accurate, detailed and complete records can help the aquaculturist to:

- Provide control over the business and improve the management and efficiency of the farm.
- Provide a basis for farm credit and financing.
- Determine the relative profitability of various production techniques or systems.
- Provide information for government programs.
- Provide information for tax purposes.

Farm record keeping methods range from the "cigar-box" method to sophisticated computer accounting systems. The manual farm record book remains the old stand-by for farm record keeping due to its ease of use. While the computer accounting systems vary in complexity and need for technical assistance, many of the programs available require a minimum of computer knowledge yet offer fast and accurate management records.

There are many forms of farm records, but most simply list the input and output of the farm operation both in physical (pounds, kilograms, ton) and monetary terms. Farm records can be broadly classified into two kinds: daily and annual (seasonal). It is important to keep farm records as simple as possible but to record all necessary details in order that the performance of the farm operation can be fully evaluated. Daily records of each pond or a number of ponds in similar conditions should be kept.

The following types of records should be kept:

A. Farm expense or input records

There are two kinds of expenses or inputs – variable and fixed. Due to their various uses in financial analysis, separate records should be kept of variable, fixed, and labor expenses or inputs.

Variable expenses or inputs are those that vary with the level of production, such as fingerlings, seeds, feed, labor, chemicals, fuel, electricity, and water. Each expense or input item should be described in as much detail as possible. For example, stocked species and size, type of feed, or equipment repair. Each item used, its amount, its unit cost, and its total cost should be recorded.

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Sample Daily Record of Variable Inputs

Date	Lease or pond number	Item	Kind	Quantity	Unit cost	Total cost

Fixed expenses or inputs are those that do not change with the level of farming activity, such as land rent, tax, insurance, docking charge, salary of employees, and depreciation of fixed assets. Fixed costs are usually payable on an annual, quarterly or monthly basis and should be recorded separately.

Sample Daily Record of Fixed Inputs

Date	Item	Monthly Cost	Annual Cost	Remarks

Labor records provide management with an understanding of the type of labor employed, type of work performed, wages paid and hours worked.

Sample Daily Record of Labor Input

Date	Lease or Pond No.	Economic activity	Kind of labor	Total man/day or man/hour	Wage rate – cash/in-kind	Total labor cost

B. Loan and Credit Account Records

If the farmer obtains a loan or credit for the aquaculture enterprise, a separate record should be kept for each loan. This record should include a statement of the amount of the loan, the purpose of the loan, the source of the loan, the outstanding amount, the payment schedule, and the interest payment.

Sample Record of Loans:

- Date borrowed
- Amount borrowed
- Source of loan
- Purpose of loan
- Pond number or lease used for
- Loan increment
- Terms of loan
    - Length
    - Interest rate

C. Record of Fixed Assets

A list of fixed assets of the farm (ponds, bags, boat, buildings, nets, machinery) with their initial or current costs and their estimated year of economic life is required to calculate depreciation. If the fixed assets are shared between different enterprises, an appropriate proportion of their use in each enterprise should be calculated before determining depreciation.

Inventory of Assets

Lease or pond no.	Acquisition cost	Prevailing market value	Salvage value	Depreciable balance	Estimated economic life	Proportion used for aquaculture

D. Inventory of Aquaculture Product

When continuous stocking and harvesting is practiced, the change (increase or decrease) in the number and value of inventory should be calculated. Therefore, a record of beginning and ending inventory is necessary.

Beginning and Ending Inventory of Product

Lease or pond no.						
	Date	Species	Kind of stock	Numbers or lb/kg	Unit price	Value
Beginning inventory						
Ending inventory						
Change in inventory						

E. Farm Receipt or Output Records

The intent of these records is to provide management with an accurate list of products sold. As each lease or pond is harvested, the following items should be recorded – date of harvest, species harvested, amount harvested, price received per unit, and the disposition of the product. Gross revenue of the production should include the cash and credit sales of the products and the imputed values of the quantities consumed on the farm.

Sample Record of Output

Lease or pond no.	Date	Species harvested	Quantity harvested	Amount sold			Amount consumed or given away		In-kind payment		Total value of production
				Quantity	Unit price	Value	Quantity	Value	Quantity	Value	

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F. Lease or Pond Utilization Schedule

If a farm has a number of leases or ponds and/or multiple species in production, records should be kept of the use of each lease or pond. This includes date stocked, species stocked, and expected harvest date.

G. Capital Transactions

Records should be kept of the purchase and sale of equipment, capital purchases and sales, and the purchase and sale of breeding stock. In addition to the above records, feed, oxygen and water quality records should be kept.

Accurate information is the foundation upon which useful and correct farm, production and financial analysis is performed. While keeping records requires additional effort and time on the aquaculturist's part, the information is critical for the successful farm operation. Records developed by management are the initial starting point for enterprise budget and other financial management analysis.