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THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXTENSION SERVICE

PB 1540

Establishing and Using a Farm Financial Record-Keeping System

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For years farmers have been reporting financial information on a variety of forms for various reasons. Effective management of a farming operation today requires that records be kept so managers can make informed decisions affecting the profitability of their farms.

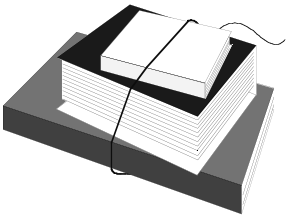
Some lending institutions require detailed business and personal information on everything a farmer owns, as well as the status of unpaid loans. They may also require production records and an estimate of expected sales and expenses for the next year. Increasingly, regulations point toward the keeping of chemical application records and soil and water conservation plans for environmental concerns. The Internal Revenue Service (IRS) requires farmers to report cash sales, expenses, depreciation and information on government program participation.

Farm records are often maintained only for IRS filing purposes. While tax records are necessary, additional information may be needed for informed management decisions. Farm business decisions that are not based on accurate farm records may lead to less profit. The efficient management of a farm operation requires sound record-keeping and record analysis.

Why keep records?

Records are important for many reasons:

Proof: The IRS can ask for proof of income, expense and inventory items reported on tax returns.



Decision-Aids: Farm managers use records to construct balance sheets, cash flow and income statements, and other financial aids for making more informed decisions in such areas as machinery purchases, adding or deleting enterprises, size expansion, etc.

Institutional Requirements: Some lending agencies and governmental bodies require financial and/or production records be maintained over a number of years. For example, the government farm program requires certain production and acreage records be reported and maintained by the farm owner. Also, “planning” for conservation compliance and other aspects of soil and water management essentially become historical records over time.

Environmental Regulations: Increasingly, farm owners are being asked to keep records about chemical use, livestock waste applica-

tions and irrigation water use on their farms.

In this publication, both hand and computerized record-keeping methods are introduced. Not all record-keeping systems allow records to be kept for all the reasons stated above. The farm owner or manager needs to decide on the system which best fits his/her farm situation. Terms in bold print are defined further in the appendix section of this publication.

Record-keeping or record analysis?

Record-keeping refers to keeping, filing, categorizing and maintaining farm financial and production information. Record-keeping can be accomplished through a variety of methods, from a basic hand record-keeping method to an elaborate computerized system.

Record analysis refers to evaluating farm records. The evaluation process allows a farm manager to make informed decisions based on actual (or projected) farm performance. Obviously, record analysis cannot take place without first keeping records. Therefore, establishing and using an effective farm record-keeping system for an ongoing farm operation aids in farm planning, informed decision-making and analysis of both production and financial records.

Production or financial records?

On the farm, there are two distinct types of records—financial and production. Financial records relate primarily to money or the financial interactions of the farm. Financial records justify or prove farm **income** or **expense** transactions. Product sales, operating expenses, equipment purchases, accounts payable, accounts receivable, inventories, depreciation records, loan balances and price information are all examples of financial records.

Production records are items that relate to quantities of inputs and levels of production by enterprise and/or by resource type. They consist of crop yields, plant populations, calves born, pounds of milk produced, weaning weights, death loss, etc.

Both production and financial records are important to the efficient management of today's farm business. When such information is accurately maintained and categorized, it can be used to produce useful decision-making information.

Keeping and analyzing accurate production records are important and essential aspects of farm management; however, this publication will only address financial records. Therefore, all references to records in the remainder of this publication refer specifically to financial records.

Selecting a record-keeping system

Selecting a record-keeping system should depend on the expected use of the records. There is no "best" record keeping system for all situations, but, at minimum, a farm records system should:

- provide accurate and necessary information
- fit into the farm organization or framework,
- be available in a form to aid decision-making

The person responsible for keeping the records should develop a habit of regularly and accurately posting transactions. Making all financial transactions through a bank (checking) account can be useful. For an accuracy check,

the monthly statement should be reconciled with the checkbook and record-keeping system.

A **double-entry accounting system** provides the most detailed accounting of farm business transactions. A significant amount of time is usually needed to learn and implement such a system. The simpler **cash accounting system**, with inventory adjustments, will suffice for most farm operations, and is an accepted method of reporting income and expenses for tax purposes.

Comparing the hand and computer system

The use of computers and computer software has expanded on farms in recent years. However, a hand recording system is still useful for many farmers. When selecting a record-keeping system, both hand and computer systems should be considered. Some characteristics of each are as follows:

Hand

- low initial out-of-pocket expense
- easy to implement
- time-consuming
- more opportunities to make mistakes
- limited in extent of analysis without extraordinary investment of time and effort

Computer

- higher initial out-of-pocket expense
- may require significant amount of study
- fast
- accurate
- can be a powerful analysis tool

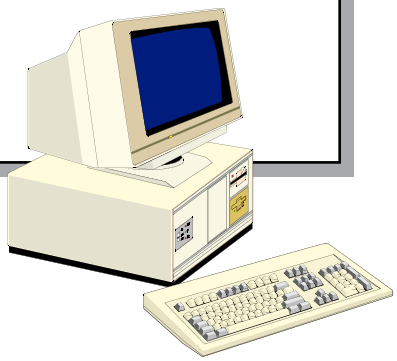


Figure 1. Example of Whole-Farm Record Keeping

		Income			Expense		
Date	**Description**	**Calves**	**Cull Cows**	**Corn**	**Feed**	**Supplies**	**Fuel**
10/1	Sold 10 calves @ 500 lbs/hd	$4,000					
10/1	Purchased feed (2 tons)				$475		
10/3	Sold 2 cows @ 1050 lbs/hd		$1,250				
10/6	Purchased Supplies					$165	
10/8	Purchased 1500 gals of diesel						$1,400
10/11	Sold 2000 bu of corn			$4,600			

Figure 2. Example of Enterprise Record Keeping

		Income			Expense			Enterprises			
								Cow/calf		Corn	
Date	Description	Calves	Cull Cows	Corn	Feed	Supplies	Fuel	Income	Expense	Income	Expense
10/1	Sold 10 calves @ 500 lbs/hd	$4,000						$4,000			
10/1	Purchased feed (2 tons)				$475				$475		
10/3	Sold 2 cows @ 1050 lbs/hd		$1,250					$1,250			
10/6	Purchased Supplies					$165			$125		$40
10/8	Purchased 1500 gals of diesel						$1,400		$200		$1,200
10/11	Sold 2000 bu of corn			$4,600						$4,600	

A hand system

A large number of hand systems are available. One of the simplest systems involves the recording by hand of all financial transactions in a journal format. Purchase and sales activities are listed by hand as they occur. The entries show 1) the date, 2) the item involved (quantity, size, etc.) and 3) cash involved in sale or purchase. For example, figure 1 portrays a whole-farm record-keeping system.

The date and a short description of each transaction are listed first, followed by the dollar amount of each transaction under the appropriate income or expense category. The number of income and expense categories depends on the amount of specificity desired by the farm manager.

Figure 2 is similar to figure 1, but adds an **enterprise accounting** section. In addition to the income and expense categories, the transaction is also listed in an enterprise category. For example, the "purchased supplies" expense of $165 is first listed under the "supplies" category. But $125 of the expense is listed under "Cow/calf" expenses, and $40 is listed under "Corn" expenses. Again the number of enterprises used depends on the amount of detail desired by the farm manager.

To learn how the farm business stands on a cash basis, income

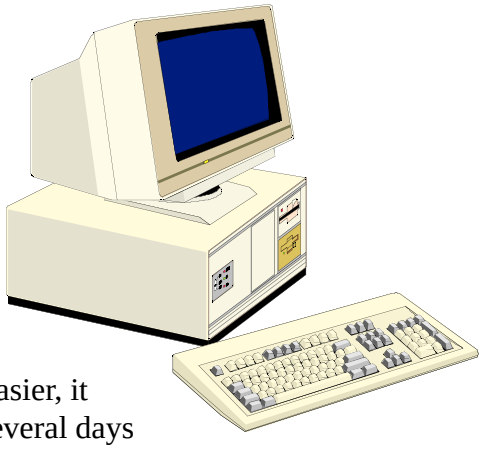
and expense categories can be totaled weekly, monthly or during any time period desired. The difference in the two totals is the cash balance.

A number of record-keeping manuals or record books can be obtained from private or government lending agencies. Regardless of the system selected, entries should be made regularly.

In addition, disciplining oneself to make every transaction through a bank checking account will ease record-keeping difficulties. And reconciling bank statements with farm records insures accuracy.

Computerized record-keeping system

Historically, many farm managers have found keeping and analyzing financial records a challenge. However, a number of challenges have been addressed through computerized record-keeping systems. The advantages of using such a system depend on the expectations of the accounting system, the amount of time available to keep records and the attitude toward initial investment costs.



While a computerized record-keeping system may make entering income and expense items easier, it may also take several days to learn the computer software. There is also a cost to purchase both the computer and the record-keeping software.

In a 1994 report, Pena, et. al., evaluated six computerized farm record-keeping programs. The range of prices among the six programs was $6.95 to $79.95. Each program had unique features, but all six performed the basic record-keeping functions.

Selecting a computerized record-keeping program should be done on the basis of features needed. Some programs will allow for enterprise accounting. Some programs will calculate payroll reports for employees. Many will have income tax options, but may vary on the completeness of the tax information supplied. Few financial record-keeping programs allow for production records to be kept simultaneously with financial records. For example, in many programs, sales of grain or livestock can be reported in dollars only, with no accounting for bushels or pounds.

A computerized record-keeping system will not necessarily save time. Its real advantage is in record analysis. Once the information is posted in the computer software, reports and analyses can be created, changed and printed. Computerized systems quickly and accurately sort and report a great deal of information. They can also provide monthly or annual summaries for identifying strengths and weaknesses of an operation.

If a hand system can provide the detailed information required by the manager to make quality farm decisions, it may be the best choice. However, if a hand system does not give the desired level of financial information, a computerized system should be considered.

Analyzing farm records

Once a farm record-keeping system has been established, analyzing the records can begin. Decision-making can be greatly enhanced by analyzing both production and financial records and their impact on profitability.

A number of financial analysis tools can be used when accurate and complete farm records are available. These tools include the **balance sheet**, **income statement** and **projected monthly cash flow statement** (including family living expenses). These three financial statements provide information for making short and long term financial decisions.

Table 1. Financial Statements and List of Required Records	
Statement	**Records Required**
Balance Sheet	Farm Assets Cost & Value Farm & Personal Asset Changes Livestock, Crop & Other Product Inventories Loan Balances
Cash Flow	Farm Income and Expenses Non-Farm Income & Expenses Debt Payments
Enterprise Analysis	Farm Income and Expenses Livestock & Crop Yields
Income Statement	Farm Income & Expenses Interest Payments Livestock & Grain Inventories Accounts Payable & Receivable
Income Taxes	Farm Income & Expenses Non-Farm Income & Expenses Interest Payments Depreciation Schedule

The balance sheet gives the farm manager a "snapshot" of the net worth on a specific date. The **net worth** is the value of all assets on the farm less the amount of money owed against those assets.

Year-to-year profits are calculated on the income statement, also known as the profit/loss statement. The income statement is used to calculate net cash income, adjusted by changes in inventories and capital items.

The projected monthly cash flow statement is used to look ahead to the next year of operations. By projecting a cash flow for the next year, potential cash shortfalls can be noted and appropriate changes in the farm operation can be analyzed.

Table 1 was constructed to illustrate the kinds of records that go into the making of financial statements and production summaries. The left column contains the financial or production statement desired by the farm manager. The right column contains the records required to complete the statement. Records can be used for more than one statement. For example, "Debt Payments" are used in the Income Statement, Cash Flow Statement and in Income Taxes. Likewise, "Farm Income and Expenses" are used in the Income Statement, Cash Flow Statement, Enterprise Analysis and Income Taxes.

Summary

Keeping and analyzing farm financial records are essential to the efficient management of a farm business. Accurate records and resulting analyses help farmers make financial and production decisions, comply with tax laws and other governmental regulations and support loan applications. Traditional hand record-keeping systems continue to work well for many farmers. Computerized record-keeping and analysis programs have been accepted and used by a number of farmers also. Developing and using a farm record-keeping system will allow the farm manager to make more informed decisions affecting the profitability of the farm.

Additional information on keeping and using farm records is available through the MANAGE program of The University of Tennessee Agricultural Extension Service. Contact your local Agricultural Extension office for more information.

Appendix

Defining The Terms

Balance Sheet - Also known as the financial statement or statement of net worth, the balance sheet provides an overall financial snapshot of the farm business on a specific date. It lists all of the assets (property) and liabilities (loans) of the business as of the balance sheet date. Income and expense records are not needed for the balance sheet. A value for each asset and the outstanding balance for each liability is given in the balance sheet. Ideally, the balance sheet should separate assets and liabilities into current (less than one year of life), intermediate (one to seven years of life) and long-term (longer than seven years of life, mainly buildings and land) categories and should list cost (original cost less depreciation) and market value (current expected sale price) for each.

Cash Accounting System - Cash accounting systems list income and expense items in a general ledger framework. Individual income and expense accounts are not used or reconciled. Enterprise analysis can be achieved, however, and inventory adjustments allow for accurate calculations of an accrual income statement. For accuracy, reconciling records back to a bank statements is important.

Double-Entry Accounting System - Double-entry accounting contains individual income and expense chart of accounts. Each income or expense entry is actually entered twice, reconciling individual accounts back to the general ledger. While accurate and detailed, these systems can be tedious and time-consuming to maintain.

Enterprise Accounting - Enterprise accounting requires that income and expense information be assigned to the farm enterprise that generated that income or expense. “Enterprise,” as used in this publication, refers to the different kinds of farm production. For example, a farm may have a corn enterprise and a soybean enterprise. Enterprises may be divided within one single commodity, such as dividing a corn enterprise between no-tillage and conventional tillage fields. This division may be helpful in deciding which production system is more cost-effective for the farm.

In addition, records of farm-produced feeds fed to livestock and crop acres and yields must be reported within appropriate enterprise accounts. Income may include produce grown but not sold. For example, corn grown and fed to livestock would be credited as income to the corn enterprise and an expense to the livestock enterprise.

Expenses - These items include direct production expenses, fixed or overhead expenses, capital expenditures and personal and family living expenses. Basically, expenses refer to any and all money spent. Direct production expenses are also referred to as variable expenses because they vary with the amount and level of production. Feed, seed and fertilizer expenses are examples of costs that will vary as the production program changes. Fixed expenses have to be made each year regardless of the production level. That is, these expenses will be incurred whether anything is produced or not. Such items include taxes, insurance, interest and rent. Capital expenditures are for items that have a useful life of more than one year. Such items include machinery purchases, breeding stock, facilities and structures, equipment and land improvements. Personal expenditures may also be referred to as family living expenses. These items, such as food, clothing, donations, etc., are not necessarily related to the farm operation, but do have a direct impact on the financial condition of the farm.

Income - This term means money received for selling product or service(s). It includes sales of purchased, breeding or raised livestock. It also includes sales of crops, government program proceeds and proceeds from cost-share projects. Custom work by the farm owner and family members would also be included as income. In short, all income that is generated by the farm or farm family is included as income.

Income Statement - Also known as the profit and loss statement, the income statement lists all expenses and income for the farm during an accounting period. In addition, the income statement accounts for changes in certain inventory items. For example, for a cow/calf operation, if heifers were held in the herd for breeding, cash income would not reflect their worth. But the change in the value of the cow herd would reflect their worth. This change in the inventory would be included on the income statement as farm revenue. Income, direct expenses, depreciation expenses, gains or loss on liquidated assets and non-farm income and expenses are included in the income statement.

Net Worth - The net worth is calculated on the balance sheet. It is the value of everything a business owns, less any loans or liabilities the business incurs. In essence, the net worth is the value of total farm assets minus total farm liabilities on a given date.

Projected Monthly Cash Flow Statement - The projected cash flow statement indicates the source and amount of income and expense activities for a given period. It also shows when money will be borrowed and when it will be repaid. The cash flow demonstrates the ability to repay a loan in a timely manner.

Reference

Pena, Jose, “Financial Record-Keeping Software Review,” Texas Agricultural Extension Service Bulletin B-5089, Texas A&M University System, May, 1994.

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