

FARM BUSINESS RECORDS: An Introduction

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Farming West of the Cascades

INTRODUCTION

A farm business large enough to adequately support a family is much too complex to manage from notes on a calendar or tablet. A detailed set of records is essential to making sound farm management decisions. This publication discusses the importance of farm records, explains the basics of bookkeeping, and outlines other major record keeping components and concepts including asset inventory, depreciation, profit and loss, enterprise accounting, and cash flow.

While computer software to do farm records is readily available, a manual system is discussed here to better illustrate concepts. Understanding a manual system will directly transfer to understanding a computer based system. Computer based record systems are widely available and should be considered when setting up a record system. Software capability to support farm records has grown dramatically in recent years. Different software packages differ in complexity and price. However, the output—balance sheets, cash flow, income statements and enterprise accounts—provide the information necessary for farm business planning and management. Computers can be used to generate these documents; however, information on process and accounting is often absent. This publication will focus on process and basic concepts necessary to understand computer-generated output.

IMPORTANCE OF KEEPING RECORDS

There are a number of reasons for keeping farm records. First, farm records are a **management tool**. Farm records allow you to measure how efficiently you are using resources and to determine whether or not you are making any money. They help you define and evaluate success as measured by income generated for family living, retirement, and other needs and desires. Financial success is measured by profitability; if the farm business is not profitable it is not sustainable. Farm records are also essential for planning and decision making.

A second reason for keeping farm records is for **income tax management**. Good records simplify tax

reporting and facilitate tax management to increase after-tax income. If you keep poor records, you may pay more taxes.

A third reason for keeping farm records is for **obtaining credit**. A good set of farm records allows you to determine credit needs and support loan requests. Properly kept records provide bankers financial information they need for making credit decisions, and good records also demonstrate your management ability.

Miscellaneous uses of farm records include pricing products for sale at a farmers' market, estimating the value of a CSA share, evaluating land leases, deciding whether to hire services or buy equipment, avoiding embarrassment from bounced checks, and evaluating farm insurance needs.

CHARACTERISTICS OF GOOD RECORD KEEPING SYSTEMS

What are the characteristics of a good farm records system? Farm records should be easy to keep. They should provide essential information on a timely basis. They should contain an appropriate level of detail; complex farming operations with many and varied enterprises, such as multiple crops and livestock, require more detailed records. Other farms with few enterprises, perhaps a single crop, require less detail. A record keeping system should include:

- A **business checking account** to handle all business transactions.
- An **income ledger** to record all business income by calendar month.
- An **expense ledger** to record all business expenses by calendar month.
- An **inventory** that involves both the physical counting and valuation assignment.
- A **depreciation schedule** pro-rating the original costs of assets over more than one accounting period.
- A **net worth statement** or balance sheet summarizing assets and liabilities of the farm.

- An **income or profit and loss statement** that lists receipts and expenses by type (and the result is **net profit or net loss**).
- **Cash flow statement** measures the flow of funds into the business and the flow out of the business over the accounting period.
- **Enterprise records** list receipts and expenses by enterprises.

In the following pages, each of these major components of a farm record keeping system will be discussed in detail. Additional components and, in particular, a cash flow statement can be an advantage depending on individual farm business needs. Each of these will be discussed in more detail.

Bookkeeping

Bookkeeping is the essential first step in organizing business transactions. Your books are simply a record of the money you spend and the money you earn. The information is written on a set of ledger sheets, which contain several columns, to keep track of where money goes and from what source it is earned. Categories can be used that correspond to those on form 1040F to simplify tax reporting.

Getting Started

A number of decisions need to be made about farm record systems. The desired level of detail and number of enterprise accounts need to be determined. An enterprise account might be a group of similar crops like flowers, a single crop like broccoli, or a service provided to others. Determining the level of detail includes defining how many business enterprises to include under the farm business, deciding about home and living expense records, and about business interests outside the farm.

A decision needs to be made about the choice of accounting period. Should records be kept on a calendar basis or on a fiscal year? The time period selected should be the one that is the most suitable for the type of farm business. For example, some crop seasons end in midsummer, and this may be the best time to balance accounts. As a practical matter, many farm records

are kept on a calendar basis to coincide with income tax reporting requirements. These and other record decisions will be discussed.

If your business is a one-family operation without partners or employees you will need only a bank account, a set of ledger sheets, and a few worksheets. The ledger sheets you will need are widely available at stationery stores. You can also make your own, patterned after the example sheets in this publication. If you sell your products on credit, you'll need a record file for each customer. If you hire employees you will need a payroll record, and you'll have to withhold social security, federal and state taxes, nearly doubling your bookkeeping time. Partnerships (other than husband and wife) will have to keep track of each partner's contributions and withdrawals and each partner will file a separate income tax return. Regardless of how complicated your bookkeeping may be, your first step is to maintain a separate checking account for your business. Business and personal finances must be separate, and having a business checking account will make keeping them separate much easier.

Business accounts often incur higher service charges than personal accounts. You may be able to open an "expense account" checkbook, which is just another regular account at a lower cost than a business account.

Once you have a separate checking account for your business, follow these important rules:

- **Pay all your business bills by check.** Expenses documented by cancelled checks are easier to record. You may make some small payments in cash, but keep them to a minimum and keep receipts.
- **Deposit all your income.** Depositing all checks and cash received will give you a good record of all your income.
- **Avoid using the business account to pay personal expenses.** If you must take money out of your business account for a non-business purpose, call it a "personal draw" and withdraw the money by writing a check payable to yourself. Doing so gives you a record of money used for personal purposes and keeps it separate from your business records.

- **Balance your bank account every month and file the statements monthly.** Mistakes in addition or subtraction are easy to make. By balancing your checkbook with the statement the bank sends you monthly, you will discover any mistakes. A mistake as simple as thinking you have \$10 in your account when you actually have only \$1.00 may make you accidentally bounce an important check to your best supplier. After balancing your checkbook, file statements and cancelled checks for each month in an envelope. At the end of the year, you will have 12 separate envelopes to add up.
- **Keep your bank statements and cancelled checks at least three years.** Three years is the normal statute of limitations for tax audits. Your cancelled checks and statements are excellent documentation.
- **Never write checks payable to “CASH.”** Such checks leave no record of how the money was spent.
- **Pay expenses that are partly personal and partly business from your personal account.** Sometimes your rent or pickup truck falls into this category. Pay these from your personal account. If you need to, make a “personal draw” and then deposit that into your personal bank account to cover the expenses. You will eventually add the expenses to your business ledger; that process will be discussed under expenditure ledgers.

Bookkeeping Systems

There are two kinds of bookkeeping systems: single entry and double entry. Most farm bookkeeping does not require the refinements or the work of the “double-entry” system. The “double-entry” method is a perfected system with built-in cross checks and automatic balancing. It requires two entries for every transaction: a debit and a credit. This method is elaborate and usually requires a full semester of college to understand, plus it turns bookkeeping from an occasional nuisance into a full-time job.

This publication describes “single-entry” bookkeeping. Single-entry bookkeeping requires you to make only one entry for every transaction, keeping paperwork and math to a minimum. This system will still provide you with the basic information you need to manage your farm and prepare your tax returns.

Accounting Methods

“Accounting method” refers to how you record transactions within the bookkeeping system. There are two accepted accounting methods: cash and accrual. Under cash accounting you record all taxable income, whether received in cash or as property, when it is received. With the accrual accounting, you record income when you earn it and expenses when you incur them, whether cash has changed hands or not. An example follows:

Farmer Jones uses the accrual method of accounting. He sells some processed product in December 2001, but the customer does not pay until January 2002. He records the expense of producing the product and the income from selling the product in his ledgers for the current year. Even though he did not receive the money until the following year, the transaction (expense and sale) occurred in the previous year. For income, the timing of the sale is not important. It is the value of the inventory that accrues as expenses are incurred.

Farmer Brown, on the other hand, uses the cash method of accounting. She, too, sells farm products in December 2001, but does not get paid until January 2002. Farmer Brown records the expense of producing her product in 2001 because that is when she actually paid the expense. But, she does not record the income from selling the product until January 2002, when she actually received the payment.

Most farmers choose cash accounting. They find the record keeping easier and the greater flexibility of reporting income and expenses can be used to manage income taxes. Businesses which stock parts or keep inventories, such as retailers or manufacturers, are required to use accrual accounting because it provides a more accurate picture of business performance. Because this publication is for farmers, it focuses on cash accounting; however, some accrual concepts for measuring business performance are described later.

Posting

“Posting” is the process of recording information in ledgers. When you sell goods or buy supplies, you must “post” the information on the ledger sheets.

Posting on a regular basis keeps your records current. Posting becomes difficult when a backlog accumulates.

The keys to posting are:

- Find a place to put all receipts and cancelled checks—a cigar box or file folder for example.
- Post regularly. If you have a busy sales or purchasing period, post more frequently. Try not to get behind.
- Post all ledgers in *pencil*, and keep an eraser handy.

You should record all income in two places—on a sales receipt and in an income ledger. Receipts and expense ledgers are described below.

Recording Income

❑ *Step 1: Sale Receipts.* Any time that you sell something from your farm you need to make a sales receipt, also known as “invoices,” “sales slips,” or “cash receipts.” You should write the receipt in duplicate—one copy for the customer and one copy for your records. Stationery or office supply stores sell books of pre-numbered duplicate receipt blanks. You can also buy personalized business receipt books or you can make your own. As Figure 1 shows, each sales receipt should include:

- ✓ Your name, address, and telephone number
- ✓ Date of sale
- ✓ Customer’s name and address

Figure 1. EXAMPLE OF SALES RECEIPT

Your Business Name							
Address, Phone, Fax, E-mail, etc.							
No. 6425		Dept. _____			Date _____ 20____		
Name _____							
Address _____				Phone _____			
SOLD BY	XXXX	XXXX	CHARGE	ON ACCT.	XXXXX	PAID BY	
QUANTITY	DESCRIPTION				PRICE	AMOUNT	
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
	11						
	12						
CUSTOMER SIGNATURE							
KEEP THIS SLIP FOR REFERENCE							

Figure 3. TAX FORM

SCHEDULE F
(Form 1040)
Department of the Treasury
Internal Revenue Service (99)

Profit or Loss From Farming

OMB No. 1545-0074

2000
Attachment
Sequence No. **14**

▶ Attach to Form 1040, Form 1041, Form 1065, or Form 1065-B.
▶ See Instructions for Schedule F (Form 1040).

Name of proprietor _____ Social security number (SSN) _____

A Principal product. Describe in one or two words your principal crop or activity for the current tax year. _____

B Enter code from Part IV

D Employer ID number (EIN), if any _____

C Accounting method: (1) Cash (2) Accrual

E Did you "materially participate" in the operation of this business during 2000? If "No," see page F-2 for limit on passive losses. Yes No

Part I Farm Income—Cash Method. Complete Parts I and II (Accrual method taxpayers complete Parts II and III, and line 11 of Part I.) Do not include sales of livestock held for draft, breeding, sport, or dairy purposes; report these sales on Form 4797.

1	Sales of livestock and other items you bought for resale	1				
2	Cost or other basis of livestock and other items reported on line 1	2				
3	Subtract line 2 from line 1	3				
4	Sales of livestock, produce, grains, and other products you raised	4				
5a	Total cooperative distributions (Form(s) 1099-PATR)	5a			5b Taxable amount	5b
6a	Agricultural program payments (see page F-2)	6a			6b Taxable amount	6b
7	Commodity Credit Corporation (CCC) loans (see page F-3):					
a	CCC loans reported under election	7a				7a
b	CCC loans forfeited	7b			7c Taxable amount	7c
8	Crop insurance proceeds and certain disaster payments (see page F-3):					
a	Amount received in 2000	8a			8b Taxable amount	8b
c	If election to defer to 2001 is attached, check here <input type="checkbox"/>	8d			8d Amount deferred from 1999	8d
9	Custom hire (machine work) income	9				9
10	Other income, including Federal and state gasoline or fuel tax credit or refund (see page F-3)	10				10
11	Gross income. Add amounts in the right column for lines 3 through 10. If accrual method taxpayer, enter the amount from page 2, line 51	11				11

Part II Farm Expenses—Cash and Accrual Method. Do not include personal or living expenses such as taxes, insurance, repairs, etc., on your home.

12	Car and truck expenses (see page F-4—also attach Form 4562)	12			25	Pension and profit-sharing plans	25
13	Chemicals	13				26	Rent or lease (see page F-5):
14	Conservation expenses (see page F-4)	14				a	Vehicles, machinery, and equipment
15	Custom hire (machine work)	15				b	Other (land, animals, etc.)
16	Depreciation and section 179 expense deduction not claimed elsewhere (see page F-4)	16				27	Repairs and maintenance
17	Employee benefit programs other than on line 25	17				28	Seeds and plants purchased
18	Feed purchased	18				29	Storage and warehousing
19	Fertilizers and lime	19				30	Supplies purchased
20	Freight and trucking	20				31	Taxes
21	Gasoline, fuel, and oil	21				32	Utilities
22	Insurance (other than health)	22				33	Veterinary, breeding, and medicine
23	Interest:					34	Other expenses (specify):
a	Mortgage (paid to banks, etc.)	23a				a
b	Other	23b				b
24	Labor hired (less employment credits)	24				c
						d
						e
						f
35	Total expenses. Add lines 12 through 34f	35					
36	Net farm profit or (loss). Subtract line 35 from line 11. If a profit, enter on Form 1040, line 18, and also on Schedule SE, line 1. If a loss, you must go on to line 37 (estates, trusts, and partnerships, see page F-6)	36					
37	If you have a loss, you must check the box that describes your investment in this activity (see page F-6). • If you checked 37a, enter the loss on Form 1040, line 18, and also on Schedule SE, line 1. • If you checked 37b, you must attach Form 6198.					37a	<input type="checkbox"/> All investment is at risk.
						37b	<input type="checkbox"/> Some investment is not at risk.

Part III Farm Income—Accrual Method (see page F-6)

Do not include sales of livestock held for draft, breeding, sport, or dairy purposes; report these sales on Form 4797 and do not include this livestock on line 46 below.

38	Sales of livestock, produce, grains, and other products during the year				38		
39a	Total cooperative distributions (Form(s) 1099-PATR) 39a _____			39b Taxable amount	39b		
40a	Agricultural program payments 40a _____			40b Taxable amount	40b		
41	Commodity Credit Corporation (CCC) loans:						
a	CCC loans reported under election				41a		
b	CCC loans forfeited 41b _____			41c Taxable amount	41c		
42	Crop insurance proceeds				42		
43	Custom hire (machine work) income				43		
44	Other income, including Federal and state gasoline or fuel tax credit or refund				44		
45	Add amounts in the right column for lines 38 through 44				45		
46	Inventory of livestock, produce, grains, and other products at beginning of the year.	46					
47	Cost of livestock, produce, grains, and other products purchased during the year.	47					
48	Add lines 46 and 47	48					
49	Inventory of livestock, produce, grains, and other products at end of year	49					
50	Cost of livestock, produce, grains, and other products sold. Subtract line 49 from line 48*				50		
51	Gross income. Subtract line 50 from line 45. Enter the result here and on page 1, line 11 ▶				51		

*If you use the unit-livestock-price method or the farm-price method of valuing inventory and the amount on line 49 is larger than the amount on line 48, subtract line 48 from line 49. Enter the result on line 50. Add lines 45 and 50. Enter the total on line 51.

Part IV Principal Agricultural Activity Codes

Caution. File **Schedule C** (Form 1040), Profit or Loss From Business, or **Schedule C-EZ** (Form 1040), Net Profit From Business, instead of Schedule F if:

- Your principal source of income is from providing agricultural services such as soil preparation, veterinary, farm labor, horticultural, or management for a fee or on a contract basis or
- You are engaged in the business of breeding, raising, and caring for dogs, cats, or other pet animals.

These codes for the Principal Agricultural Activity classify farms by the type of activity they are engaged in to facilitate the administration of the Internal Revenue Code. These six-digit codes are based on the North American Industry Classification System (NAICS).

Select one of the following codes and enter the six-digit number on page 1, line B.

Crop Production

- 111100 Oilseed and grain farming
- 111210 Vegetable and melon farming
- 111300 Fruit and tree nut farming

- 111400 Greenhouse, nursery, and floriculture production
- 111900 Other crop farming

Animal Production

- 112111 Beef cattle ranching and farming
- 112112 Cattle feedlots
- 112120 Dairy cattle and milk production
- 112210 Hog and pig farming
- 112300 Poultry and egg production
- 112400 Sheep and goat farming
- 112510 Animal aquaculture
- 112900 Other animal production

Forestry and Logging

- 113000 Forestry and logging (including forest nurseries and timber tracts)



Recording Expenditures

Recording expenditures is no more difficult than recording income. However, more discipline is required to keep “personal” and “business” expenses separate, and to be certain all expenses are recorded. Some commonly overlooked expenses are:

Account books	Interest on farm debt
Accountant’s fees	Legal expenses
Advertising	Litter and bedding
Bank service charges	Livestock fees
Business cards	Office supplies
Certification fees	Repairs to buildings
Contractor fees	Small tools (useful life less than one year)
Contribution to charity or youth organizations	Special clothing not suitable for streetwear, e.g., equipment, bee-keeper’s suit
Education expenses	Stamps and stationery
Electricity & utilities	Tax preparation fees
Farm business travel	Telephone (business portion)
Farm magazines	Tying material and containers
Farm organization dues	
Farm security	
Fire alarms and extinguishers	
Fire insurance	

Again, pay all business expenses by business check, and keep receipts for absolutely everything you purchase. Remember, cash register tape from the hardware store may not indicate what you purchased, only the amount you paid. On the back of each receipt write what you purchased. When you record expenses, you will then know what column or columns in which to post them.

The expenditure ledger is your record of all business expenses, business loan payments, and personal draws. The most important function of the expenditure ledger is to separate different types of expenses. A sample farm expense ledger is presented in Figure 4. The following is a summary of the column entries.

Column	Purpose
1	Date
2	Identify the vendor
3	Number of units purchased
4	What was purchased
5	Check number (if you pay by currency, write “cash” in this column; if you pay by money order, write “M.O.”)
6	The total amount of the payment (all payments will be posted to this column)

Next are numbered columns with labels. As with the income ledger, label your own columns according to your needs. Use as many or as few columns as necessary. You may want to leave a few columns blank when you first set up your ledger adding more columns later. The columns represent categories of expenditures such as labor, fuel, etc., and each item must be posted to its appropriate column. The secret of simplicity is to use only the categories of expenditures necessary (lines 12 through 34f). The IRS identifies 25 or more categories on Form 1040F. (Some categories must have their own column because they are required to be shown separately on your income tax return.) Others should be listed separately because they are used repeatedly or are in large dollar amounts. Occasional or small expenses can often be combined under a single heading. Some farmers will need only six or eight columns; others will need a dozen or more.

Some expense categories that apply to farms and can be used to head columns in expense ledgers are listed below:

- **Hired Labor.** Payments to employees, where you withhold income taxes, social security, should be entered in this column. Any employee benefit program costs also belong here. (You will need to use a separate “payroll ledger” to record withholding taxes, social security taxes, etc.) Payroll taxes that you withhold from your employees are also recorded in this column, but only at the time you pay them to the government. If you become an employer, you should obtain “The Employer’s Tax Guide” (Circular E) from the IRS.
- **Gasoline, Oil, Diesel, Grease.** If you buy 300 gallons of fuel, use 250 gallons for your tractors, chain saws, and other equipment, and the other 50 gallons goes into the family minivan, you should record only the 250 farm use gallons in this column.
- **Repairs and Supplies.** In this column you should record expenses which are incidental to your work but are not major expenses which warrant a column of their own. Incidental expenses, for example, include office supplies, pencils, small tools that will not last longer than one year, postage, farm magazines, and disinfectant. They also include all expenses for upkeep of fences, buildings, tractors, and other equipment. Normal maintenance and repairs, which do not extend the useful life of the

- **Loan Payment.** Record the amounts paid for principal and interest separately.
- **Fertilizer and Chemicals.** All lime, fertilizers, synthetic chemicals, and organic pesticides should be recorded under this heading. Enter the cost of materials here. If the materials are custom applied, record the application cost under machine hire, custom work.
- **Rent.** If you rent your farmland, the cost of the rent is a business expense. If the rent includes your homesite, you must record only that portion of the rent that is attributable to the farm.
- **Utilities.** Utilities include gas, electricity, water, garbage service, e-mail, Internet service, and telephone. As with rent, only the business portion of your utility expense should be recorded. The portion that is for personal use is not considered a business expense.

FARM BUSINESS RECORD COMPONENTS

Farm business record components including asset valuation, depreciation schedules, and financial statements are explained in this section. Bookkeeping, explained in the previous section, provides the basic information necessary for business performance assessment and forward planning.

Asset Valuation

There are many methods for valuing farm assets. Commonly used methods follow; each will be discussed in turn.

- Market costs
- Net market price
- Cost or market
- Farm production costs
- Cost-minus-depreciation
- Capitalization
- Replacement cost for equivalent function

The **market cost** method values assets at their purchase price. Use this method for recently purchased assets that will be used in a relatively short time (i.e., feed, fuel, fertilizer, and seed). This method must be used to value inventories for tax purposes.

The **net market price** method uses the market cost less transportation and marketing charges. The net market price is the money the farm would have left after selling a product and can be used when liquidity estimates are needed. As examples, net market price could be used for livestock and farm produced crops.

The **cost or market**, whichever is lower, method is tied to the first two methods. Its major advantage is that it is related to the principle of conservatism in valuing assets.

With the **farm production costs method**, valuation is determined by the cost of producing a commodity on the farm. It is useful for farm produced commodities that in turn will be used in other farm enterprises. An example would be farm-raised hay fed to livestock. The production costs would not include a profit or interest on investment, or the operator labor and management charge.

The **cost-minus-depreciation** method applies to investments that have a useful life longer than a year. Examples include machinery, buildings, and breeding livestock. These assets decrease in value over time, and the change in value becomes a business expense allocated to individual accounting periods.

The **capitalization** method uses the time value of money to estimate current asset value. Value is based on an annual income stream that an asset can produce in its present use. This method could be used on income producing assets such as rental property or investments.

The **replacement cost for equivalent function** method takes into consideration the changing function of some assets over time. For example, a building originally constructed for hay storage might now be used for machinery storage. The replacement cost considered should be related to its current use.

Accuracy in valuing assets is only approximate. For items that are liquid, such as cash, government bonds,

Figure 6. RECOVERY PERIOD FOR COMMONLY USED ASSETS

Recovery Periods for Commonly Used Assets (See note 1 below)		
	Recover Period (Years)	
	GDS/MACRS	ADS/AMT
Agriculture		
Farm machinery and equipment (see note 3)	7	10
Breeding or dairy cattle	5	7
Breeding or work horses (less than 12 years old)	7	10
Breeding or work horses (12 years of age or older)	3	10
Race horses, more than 2 years old	3	12
Breeding hogs	3	3
Breeding sheep and goats	5	5
Farm buildings, other than single purpose	20	25
Fences (agricultural)	7	10
Grain Bins	7	10
Single-purpose agricultural or horticultural structures (placed before 1986)	7	15
Single-purpose agricultural or horticultural structures (after 1986)	10	15
Citrus groves, orchards, vineyards (see note 2)	10	20
Drainage tilt, culverts	15	20

Notes:

1. See IRS Publication 946 for the complete listing of class lives and recovery periods.
2. Trees and vines bearing fruit or nuts must use the straight-line method over the regular MACRS recovery period.
3. Class Life for computers is 6 years, for autos and taxis is 3 years, and for light general-purpose trucks is 4 years. Otherwise ADS/AMT is generally the same as Class Life.

poses affects taxable income. While rapid depreciation may result in tax advantages, it may also result in an undervalued inventory, causing problems in using the farm records for management decisions.

Common causes

The common causes of depreciation are wear and tear, obsolescence, and deterioration. Wear and tear is the simple wearing out of an item through use. Obsolescence relates to technological advancements: A machine (like a computer) may not be worn out, but it becomes less valuable than new, more advanced equipment on the market. Deterioration is a change in value due to aging, rusting, and weathering.

Methods

There are three basic requirements for property to be depreciable for tax purposes: It must be used in a trade or business for the production of income, its useful life must be greater than one year, and it must wear out, get used up, become obsolete, or otherwise lose its value. See IRS publication 946 for more details. Depreciation rules depend on when the asset was placed in service. For assets put in service after 1980, but before 1987, the ACRS (accelerated cost recovery system) rules apply. For 1987 and beyond, the MACRS (modified accelerated cost recovery system) rules apply.

Within MACRS there are two sets of depreciation recovery periods. The first is the general depreciation

system (GDS). GDS uses the shortest period and the most rapid cost recovery. The second recovery period is alternative depreciation system (ADS). ADS involves longer recovery periods. See Figures 5 and 6 for more detail on IRS depreciation rules and a sample depreciation record form.

Net Worth Statement

The *net worth statement*, commonly called a *balance sheet*, is a summary of the assets, liabilities, and equity in a business. Its primary use is to establish the financial solvency of the business, or the extent to which

Figure 7. BALANCE SHEET

BALANCE SHEET*			
Example Farm			
December 31, 20____			
ASSETS		LIABILITIES	
Current		Current	
Cash, checking account, savings account	5,100.00	Accounts payable	853.00
Supplies	500.00	Bank note	4,500.00
Securities readily marketable	5,000.00	Intermediate & long-term, not due in 1 year	6,400.00
Cash value of life insurance	4,000.00	Accrued taxes, interest	2,693.00
Accounts receivable	4,074.00		
Total Current	\$18,674.00		\$14,446.00
Intermediate		Intermediate	
Poultry—200 birds @ \$3.00	600.00	Machinery (3-year note)	10,234.00
Machinery, equipment, vehicles	41,800.00	Pickup (3-year note, 10%)	3,714.00
Personal vehicles	15,000.00	Equip. (6-year note, 9%)	3,479.00
Household & personal effects	10,000.00		
IRA	30,000.00	Total Intermediate	\$97,400.00
Fixed		Long-term Liabilities	
Farmland (30 acres @ \$5000)	150,000.00	Farm real estate	
Buildings & improvements	82,000.00	(30-yr. note, 7%)	57,600.00
Non-farm real estate	25,000.00	Building (10-yr. note, 8%)	14,000.00
Total Fixed	\$257,000.00	Total long-term liabilities	\$71,600.00
Total Assets	\$373,074.00	Total Liabilities	\$103,473.00
		Net Worth	\$269,601.00
		Total Liabilities & Net Worth	\$373,074.00

* Note: Even though our goal is to separate personal and business expenses, personal assets should be listed on the balance sheet for purposes of supporting credit requests.

debt obligations would be covered if the business were terminated and assets liquidated.

The balance sheet represents a financial snapshot of the business at a specific point in time. The three components of the balance sheet are assets, or things owned; *liabilities*, or things owed; and the difference between these, the *owner's equity* or net worth. The basic accounting equation is

$$\text{Assets} - \text{Liabilities} = \text{Net Worth} \\ \text{(Owner's Equity)}$$

Assets are usually classified into one of three categories: current, intermediate, or fixed assets. **Current assets** are cash or other liquid assets and operating inputs that are used up during the production period or are held for resale. **Intermediate assets** have useful lives that extend beyond a year and they are not attached to land (e.g., machinery, breeding livestock.) The third category of assets is **fixed assets**. Fixed assets include land or land improvements, including permanent buildings.

Valuation methods used for intermediate and fixed assets depend upon the purpose of the net worth statement. If it is to be used to measure business performance, assets including land should be valued at their purchase price. For this reason, it is important to maintain a cost basis balance sheet. If the purpose is to estimate solvency or obtain credit based on collateral, assets should be assigned a current market value, less expenses of sale. In Figure 7, the Example Farm Balance Sheet, purchase prices are used to estimate values.

Liabilities are also grouped into one of three categories. **Current liabilities** are those corresponding to current assets, like bankcard debt and also include other debt payments due within the calendar year. **Intermediate liabilities** relate to working assets, like farm equipment, and include the liabilities or balances due on intermediate assets with terms from one to ten years. **Long-term liabilities** include land and contracts on real property exceeding ten years in duration.

There are a number of cautions that should be kept in mind when preparing or evaluating a net worth statement. First, the balance sheet only shows assets owned and debts owed. It does not consider leased

capital, such as leased vehicles or equipment; hence, the net worth statement doesn't completely indicate the total business size, nor does it indicate financial obligations associated with lease payments.

Second, it is important to have assets valued at market value to properly reflect net worth and, hence, the solvency of the business. If ending inventories reflect price increases during the year, net income will be increased by that amount if these inventories are sold. The problem is that in the latter case the income statement does not properly reflect income produced by farm assets. Further, increased asset prices do not represent income that can be withdrawn from the business without affecting business size.

Profit and Loss

The second important financial statement is the income statement or profit and loss statement. This is a summary of receipts and expenses and the resulting profit or loss during an accounting period, usually a year. Earlier in this publication, the choice between accrual and cash account was mentioned. For purposes of estimating profit or loss, the accrual system presents a much better estimate of business performance. Accrual accounting requires that adjustments be made for inventory changes. These adjustments are illustrated in the Example Farm Profit and Loss Statement (Figure 8).

The following material (1) explains the components of the profit and loss statement: receipts, expenses, and inventory adjustment; and (2) discusses measures of business profitability contained in the profit and loss statement. Letters in parentheses correspond to values on the example profit and loss statement (Figure 8).

Profit and Loss Statement Components

Receipts are gross returns from the sales of farm products (crops, livestock, and livestock products, miscellaneous sources) and the value of farm products used in the home. The receipt section of the income statement assigns a value to gross farm production. A comparison between gross receipts and farm investment on one farm is often used to compare other farms in a given geographic area. To accurately state gross income, receipts must be adjusted for inventory changes. Gross

Figure 8. PROFIT AND LOSS STATEMENT

PROFIT AND LOSS STATEMENT					
Example Farm					
January 1, 20__ to December 31, 20__					
FARM RECEIPTS			FARM OPERATING EXPENSES		
CSA 200 @ \$520	104,000.00		Seed	3,200.00	
Flowers	3,000.00		Feed purchased	6,500.00	
On-farm sales	7,200.00		Hired labor	28,000.00	
Misc. income	693.00		Repairs, maint.	4,063.00	
Farm produce used @ home	1,400.00		Property taxes	4,800.00	
Eggs	12,000.00		Insurance	3,900.00	
			Utilities	3,800.00	
Gross Farm Receipts	\$128,293.00(1)		Supplies	3,051.00	
			Chemicals	450.00	
			Gas, oil	3,210.00	
			Manure	5,019.00	
			Compost	1,100.00	
			Custom work	3,182.00	
			Miscellaneous	731.00	
			Interest paid	8,351.00	
			Total Farm Cash Operating Expense	\$79,357.00(2)	
			Net Cash Operating Income (1-2)	\$48,936.00	
ADJUSTMENT FOR INVENTORY					
	<u>Seed</u>	<u>Market Livestock</u>	<u>Accounts Receivable</u>	<u>Supplies & Prepaid Expenses</u>	<u>Accounts Payable</u>
Ending inventory	\$390	—	\$4,246	\$500	\$975
Beginning inventory	<u>560</u>	—	<u>3,876</u>	<u>728</u>	853
Net adjustment	-\$170	—	+\$370	-\$228	+\$122
					+92 (4)
(Add to net cash if plus, subtract if minus)					
			Net Operating Profit (3 +/- 4)		\$49,028 (5)
ADJUSTMENTS FOR CAPITAL ITEMS					
	<u>Machinery & Equipment</u>	<u>Buildings & Improvements</u>			
Ending inventory	\$41,800	\$82,200			
Plus sales	<u>500</u>				
Subtotal (6)	\$42,300	\$82,200			
Beginning inventory	\$47,177	\$87,577			
plus purchases	<u>\$4,000</u>				
Subtotal (7)	\$51,177	\$87,577			
Net Capital Adjustment (6-7)	-\$8,877	-\$5,377			-\$14,254 (8)
			Farm Profit or Loss (5-8)		\$34,774
			Net Non-Farm Income		\$10,500 (10)
			Total Farm & Non-Farm Income (9+10)		\$45,274 (11)
			Income & Social Security Taxes		\$2,693 (12)
			Net after-tax Income (11-12)		\$45,581

receipts should also be adjusted for purchases of livestock, feed, and supplies, since inventory changes between accounting periods represent income changes. These adjustments are made to prevent overstating gross farm income.

Expenses are all the outlays for items paid for and used during the time period covered by the income statement. The expenses include all the cash operating expenses as well as the fixed expenses incurred during the accounting period.

For the purposes of the Profit and Loss Statement, cash operating costs are “**Farm Operating Expenses**,” and fixed expenses are considered under “Adjustments for Capital Items.” Depreciation is considered in net capital adjustments. It should be pointed out that the same valuation procedures should be used for beginning and ending inventories to prevent a distortion of income. Depreciable asset inventories should be valued using purchase cost less accumulated depreciation.

Inventory adjustments for prepaid operating expenses such as seed, chemicals, and insurance must be made. Also, inventory adjustments are necessary for capital assets such as machinery and building improvements and to reflect purchases and sales that occurred during the year.

Measures of Business Performance

Net cash operating income is determined by subtracting the cash operating expenses from gross receipts. Because fixed costs are not included, net operating income can be used to compare operating efficiencies across farms with different debt structure. Comparisons are not confused by differences in mortgage financing or depreciation methods used in similar farms. The primary use of the net income figure is related to cash flow and to estimate cash returns when taxes are calculated on a cash basis.

Net operating profit (5) is obtained by adjusting cash operating income for accounts receivable, payable, and inventory changes. These adjustments are illustrated in the “Adjustment for Inventory” Figure 8 of the Example Profit and Loss Statement. The purpose for making these adjustments is to determine

an accrued accounting of income produced during the period.

Farm Profit or Loss results from adjusting net operating profit for “Net Capital Adjustments” (8). To compute net income on an accrued basis, adjustments must be made for capital assets. These adjustments involve both cash transactions, such as purchases and sales of capital assets, and depreciation which is a non-cash transaction. The “bottom line” profit or loss is the before-tax return to the operator’s management, capital, risk, and unpaid family labor.

The basic components of the income statement are again—**receipts**, **expenses**, and **profit or loss**. The trend of the receipts, expenses, and profit over time is valuable in analyzing the financial progress of the farm business

Enterprise Accounting

Enterprise records can help you make decisions about particular components of your farm business. Use enterprise accounting to pinpoint sources of profit in your farm business and factors affecting profitability. Comparing enterprise records over time also indicates success in maintaining enterprise profitability. Judgment should be exercised in determining how much and how detailed enterprise data should be collected and maintained. Focus only on the most meaningful data. A rule of thumb in collecting and recording enterprise data or farm records in general is to ask whether the information value in terms of improved decision making equals or exceeds the cost of data collection and analysis.

An enterprise can be defined as any entity that can be readily separated according to its receipts and expenses from other segments of the farm business. Castle and Becker (1987) define three enterprise classifications:

- **Production Enterprises.** Typically, these are crop and livestock enterprises that produce marketable commodities. Examples of production enterprises within a farm business might be berries, tree fruit, greenhouse crops, poultry, or custom farm work performed for others.

- **Service Enterprises.** These include machinery and equipment services, an on-farm retail market, and the farm shop. These enterprises are internal to the farm business and provide services not directly marketed.
- **Holding Enterprises.** These are storage facilities, buildings, capital—enterprises that hold the inputs or farm-produced commodities until they are ready for use in a particular enterprise or are ready for sale.

Each of the enterprises can be considered a separate business. These individual enterprises purchase inputs and sell products to other enterprises. For example, the beef cow production enterprise would purchase hay from the hay production enterprise and machinery services from a machinery service enterprise.

In deciding what costs to allocate to an individual enterprise, a good practice is to allocate only those costs that are going to change because of the enterprise or those costs that would be avoided if the enterprise were discontinued.

There are a number of factors to consider in evaluating crop and livestock enterprises (listed below).

Livestock enterprises:

- Returns per hundred dollars of feed fed
- Feed costs per pound of meat or milk produced
- Feed efficiency, pounds of feed per pound of product
- Total enterprise profits per head or per unit
- Other factors that might include such things as pigs weaned per litter, percent calf crop, pounds of milk produced per cow, etc.

Crop enterprises:

- Yield per acre
- Returns above cash costs
- Net enterprise profit per acre
- Gross value of crop produced per acre
- Machinery and power costs per acre
- Fertilizer costs per acre

These factors can be used for year-to-year comparisons within the same farm business or to compare similar farms.

Cash Flow Statement

The balance sheet and income statement previously discussed are important tools for measuring the financial position and progress of the farm business; however, a good balance sheet and high net farm income do not necessarily mean you can meet your financial obligations. You must also know the flow of income and expenses during the accounting period to ensure you can meet your financial obligations on time. A cash flow statement helps you assess your ability to pay bills on time.

There are some important differences between the cash flow and income statements. The cash flow statement includes non-farm items such as non-farm income, living expenses, and income taxes. The cash flow also more fully reflects breeding stock and machinery purchases and a more complete accounting of principal payments and loans (the income statement only shows interest). In essence, the cash flow can be defined as the sources and uses of funds or a flow-of-funds statement because it summarizes all the transactions during a given accounting period. In the sample cash flow statement, sources of funds are called “cash flow” and uses of funds are called “cash outflow.” Instructions for completing the cash flow statement are on the back of the form.

The sources of cash can include receipts of farm, crop, and livestock products, sale of capital assets, non-farm receipts (such as income from non-farm employment or government programs), and loans. Cash uses include payment of cash operating expenses, purchases of capital items such as machinery and equipment, family living expenses and income tax payments. Comparing the sources and uses of funds determines cash surpluses or deficits during the period during which the cash flow statement is completed, indicating your ability to make loan payments or identify your credit needs.

Cash flow statements can be completed on an annual, semi-annual, quarterly, monthly, or bimonthly basis depending on the size and type of business. If only

annual cash flow statements are used, the seasonal cash variations and short-term credit needs will be masked. The larger the business and the more dollars involved, the more important cash flow planning becomes.

While the cash flow statement is useful on a continuing basis to analyze sources and uses of funds, it is also very useful for analyzing business adjustments. For example, it can be used to test the “cash flow” feasibility of proposed business changes, or to change payment dates on loans.

Figure 9 is a sample of a cash flow statement. Instructions for completing it are as follows:

1. Complete the summary, column by column, starting with the column corresponding to the first period of the year.
2. Total lines 1 through 12 to get Total Cash Available in the period. Place the result on line 13.
3. Total lines 14 through 40 to get Total Cash Required for the period. Place the result on line 41.
4. Subtract line 41 from line 13 and place the result on line 42. If the result is negative, place a minus sign in front of it or place the value in brackets.
5. If line 42 is negative, show at least enough new borrowings (line 43) to cover the deficit.
6. If line 42 is positive, show projected principal and interest payments on the operating loan(s) in lines 44 and 45.
7. If line 42 is negative, subtract it from the amount of money borrowed (line 43) to get the ending cash balance (line 46). If line 42 is positive, subtract principal and interest payments (lines 44 and 45) to get the ending cash balance.
8. Increase the operating loan balance (line 47) by the amount of new borrowings during the period, or decrease it by the amount of principal payments, whichever is appropriate.
9. Transfer the ending cash balance (line 46 for the period you have just completed) to the beginning cash balance (line 1) for the next period.
10. Repeat steps 1 through 9 for each period of the year.
11. One column should be completed for the total year’s operation. The figures in this column reflect your total cash flow for the year. Each figure in this column is the sum of the figures in the individual time periods for most of the lines. But, the figures in lines 1, 13, 42, 45, and 46 do not necessarily “add across,” due to the transfer of cash balances from the end of one period to the beginning of the next. If the beginning and ending cash balances were all equal, these lines would also add across.

Field Records

In addition to financial records, field or production records provide valuable information. These records might include crop operations and livestock records for poultry or beef enterprises. Field records for crop production might include such items as:

- ✓ field identification or description
- ✓ parcel size
- ✓ cropping history
- ✓ crops grown, cultural practices used and yield information
- ✓ current field activities
- ✓ soil test data
- ✓ labor hours by activity

Livestock or poultry records also provide useful information. Poultry records should include:

- ✓ chicken purchases and dates
- ✓ mortality rates
- ✓ feed records, quantities purchased, and quantities fed
- ✓ production records, eggs per day
- ✓ cull or damaged eggs
- ✓ rodent control activities
- ✓ sale of pullets or hens

Special attention should be focused on labor hours by activity since hired labor costs are often the largest

Figure 9. CASH FLOW STATEMENT

CASH FLOW STATEMENT

Use pencil—round to dollars

Name _____

Date Completed _____

Address _____

CASH INFLOW		Period	Jan 1–Jan 15	Jan 16–Jan 31		
1.	Beginning cash balance					
2.	Crops					
3.						
4.						
5.	Livestock					
6.						
7.						
8.	Custom Work					
9.	Agricultural program payments					
10.	Patronage dividends					
11.	Other					
12.						
13.	Total cash available (add lines 1 through 12)					
CASH OUTFLOW						
14.	Rents and leases					
15.	Gas, fuel, oil					
16.	Labor hired					
17.	Machinery repair					
18.	Machinery hire					
19.	Fertilizer and chemicals					
20.	Seed					
21.	Feed purchased					
22.	Livestock expense (vet, breeding, etc.)					
23.	Building and fence repair					
24.	Supplies					
25.	Utilities					
26.	Insurance (property, liability, hail)					
27.	Real estate taxes					
28.	Livestock purchased for resale					
29.	Other					
30.						
31.						
32.						
CAPITAL EXPENSE OUTFLOW						
33.	Machinery purchase					
34.						
35.	Breeding livestock					
36.	Other					
37.	Family living expense					
38.	Income and social security tax					
39.	Fixed loan payments—principal					
40.	Fixed loan payments—interest					
41.	Total cash required (add lines 14 through 40)					
42.	Cash available less cash required (13 through 41)					
43.	Money to be borrowed - - - - - (if line 41 is negative)					
44.	Debt payments (if line 42 is negative)	Principal				
45.		Interest				
1.	Ending cash balance					
47.	OPERATING LOAN BALANCE (at end of period)					

single expense on small farms. Even if no labor is hired, a labor log is very useful to estimate returns to labor by enterprise. Record hours daily by activity with an indication of productivity such as acres cultivated or feet of row hand weeded.

CONCLUDING COMMENTS

All businesses need to keep records for tax reporting. The burden of proof is on the taxpayer—if an expense or deduction cannot be documented, IRS auditors will simply disallow them. Record keeping for tax reporting does represent a minimum required effort. To assist planning and analyze business performance, you need to keep the other records discussed in this bulletin.

Figure 10 summarizes the record information needed for various types of analysis.

We have covered important components of a record keeping system, but have not discussed record keeping systems. Basic systems include hand-kept ledgers, like the examples included here, and an array of computer based systems.

Hand kept systems range from a shoe box system where bank statements, cancelled checks, invoices and receipts are accumulated and annually delivered to an accountant or bookkeeper to reconcile. This may work for filing income taxes, but provides no information on business performance during the year. Hand kept ledgers are still in use; however, there are many good computer-based accounting packages available that can be used for farm businesses.

Figure 10. INFORMATION REQUIRED FOR BUSINESS ANALYSIS AND TAX REPORTING

Record Information Needed	Type of Analysis Desired					
	INCOME TAX	PROFIT OR LOSS	NET WORTH	CASH FLOW	ENTERPRISE ANALYSIS	FAMILY LIVING
FINANCIAL TRANSACTIONS	X	X		X	X	
FARM INCOME AND EXP.	X					
NONFARM TAX DEDUCTIONS	X			X		X
NONFARM INCOME AND EXP.				X		
DEBT PAYMENTS						
INVENTORY						
DEPRECIATION SCHEDULE	X	X	X			
OTHER FARM ASSETS		X	X		X	
NONFARM ASSETS			X			X
RECORD OF DEBTS			X			
PRODUCTION RECORDS						
FEED RECORDS					X	
LIVESTOCK PRODUCTION					X	
LIVESTOCK EXPENSES					X	
CROP YIELDS					X	
CROP EXPENSES					X	

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NOTES



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