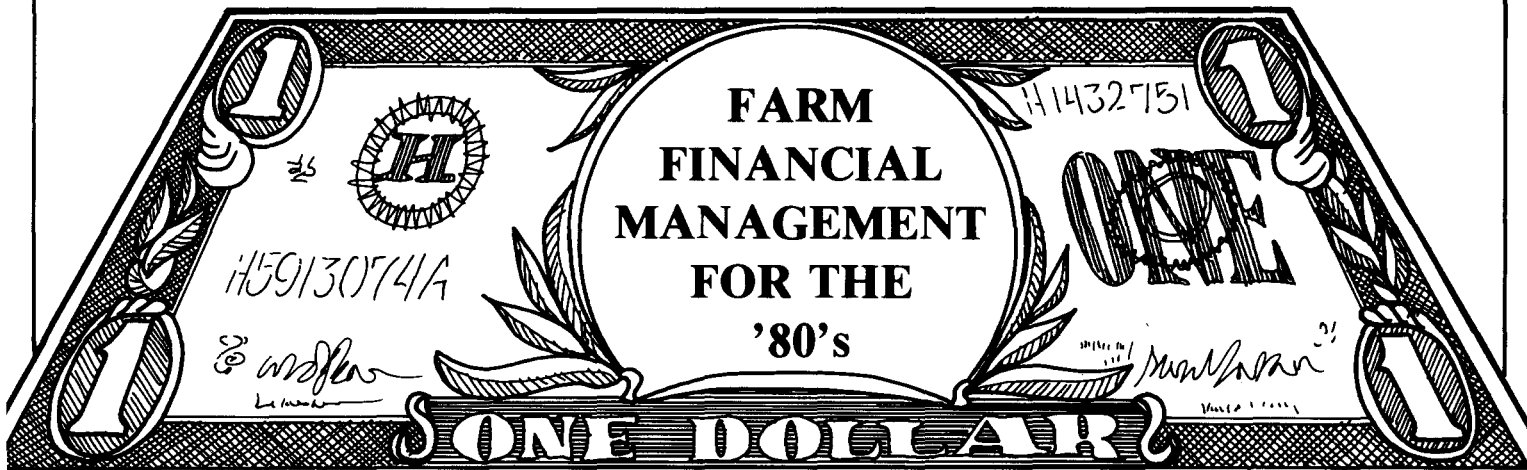




Your Income Statement

An Important Financial Tool

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YOUR INCOME STATEMENT

An Important Financial Tool

YOUR FINANCIAL TOOL KIT

Managing money is an important part of operating a farm. As this management becomes more important to you, your financial tools become more valuable.

The three most common financial tools include: the balance sheet; the income statement; and the cash flow sheet.

This circular shows you how to prepare an income statement and how to use it in making financial decisions. (Extension Circular 818 describes the balance sheet and Extension Circular 820 describes the cash flow statement.)

The income statement can help you determine your farm's financial performance. It can help you determine how much progress you are making on the farm.

Most farmers keep farm records on the cash basis. The records of cash receipts and expenses, plus a depreciation record, are usually adequate for filing income taxes but tell very little about farm profitability. When the family finds that they can't quite make ends meet, it's difficult to identify where the problem is. Is it because of low net income, excessive spending for family living, or large investments in the farm business?

WHAT IS AN INCOME STATEMENT?

An income statement, sometimes called a profit and loss statement, is a summary of the cash and non-cash income and expenses incurred during a given time period, usually a calendar year (this coincides with the tax year for most farmers). Net farm income (NFI) is the single most important measure of performance for a farm business and can only be determined from an income statement. Net farm income measures farm profitability from year to year. It (NFI) is the return to operator and unpaid family labor, equity and management. In simpler terms, it is the money available for family living, principal payments on loans, payment of income taxes, and for savings or investment. Net farm income must be greater than family living expenses for the farm business to grow.

Non-farm sources of income are also identified on the income statement. Not only are these important for income tax purposes, but it helps the family identify and compare the sources of income. There may be significant differences for some farm families between NFI and total family income including income from other sources.

WHAT IS ITS PURPOSE?

The main purpose of the income statement is to determine whether you are making money and, if so, how much.

A second objective is to determine the sources of net income and how much came from farming and how much came from non-farm activities.

The third objective is to enable you to determine what became of your net income.

HOW TO PREPARE THE INCOME STATEMENT

The income statement is usually prepared on a calendar year basis, since most farm records are kept, and income taxes filed, on a calendar year.

Use Your Records

To start with, you will need a completed record of cash receipts and expenses and a depreciation record, as well as beginning and closing inventories. If you have filed income taxes for the year, your Form 1040-F and supporting schedules will have much of the information summarized. Balance sheets for the beginning and end of the year will have the inventory data needed.

Example Income Statement

Bob and Betty Farmer

To analyze the profitability of their business, Bob and Betty Farmer assembled the following from their farm records.

Cash Farm Income (includes all cash income to the farm business, except that derived from the sale of machinery, equipment, improvements which have been carried in the depreciation schedule, and land).

1. Bob and Betty gathered all their cash receipts information from their record book for 1983.

Wheat sales amounted to \$55,541, barley receipts were \$12,240, and sunflower sales were \$18,200 — a total of \$85,981.

Sale of calves and cull cows amounted to \$22,030.

Storage payments received were \$2,650.

They received a refund of \$210.

Cash Farm Expenses — Bob and Betty transferred cash expenses from their record book to Schedule 1 (on the back side of the income statement). They will use this schedule later when they file their income tax.

After recording all expenses they determined the farm share of the family car expenses, which amounted to \$510.

Other expenses which were lumped together were those for farm magazine subscriptions, money paid to have their income tax forms prepared, bank charges, farm account books, and out-of-town business expenses in the amount of \$420.

They examined their cancelled checks to see if anything had been missed, and agreed the total cash farm expenses came to \$57,683.

Adjustments — (changes in inventory values on the balance sheets, see Extension Circular 818, between the beginning and the end of the year). Bob and Betty next compared their balance sheets for the beginning and end of 1983, entering the totals on Schedule 2 (on the back of the income statement).

The net change in inventory was found to have decreased in the amount of \$6,878.

Next they checked the depreciation schedule in their record book and brought it up to date. Depreciation on machinery and equipment for 1983 amounted to \$30,934. Depreciation on buildings and improvements was \$3,000.

Bob and Betty did not sell any machinery or land.

Betty had a large garden and valued the production at \$400.

Gross adjustments to income showed a negative \$40,187. This was somewhat startling to Bob and Betty since the net cash income appeared to be good.

Net Farm Income — (this is net cash income plus or minus gross adjustments).

Their net farm income for 1983 was calculated to be \$12,776.

Non-Farm Income (off-farm wages, interest and dividend income, gifts or inheritances, gain or loss on securities or stocks, or other non-farm income).

Next Bob and Betty checked their records for any non-farm income. The only income of this kind was from interest on their savings account amounting to \$200.

Net Income Before Taxes (net farm income plus non-farm income).

Adding the \$200 of non-farm income to the net farm income of \$12,776 gives net income before taxes of \$12,976.

Income and Social Security — From the income statement information, Bob and Betty determine their self-employment income:

1. Cash farm income	\$110,871
2. Less cash farm expenses	57,683
3. Less depreciation	33,934
4. Self-employment income	<u>\$ 19,254</u>

The Social Security tax for 1983 is 9.35 percent of this amount, which comes to \$1,800.

Bob estimates his taxable income by adding the \$200 interest income to self-employment income of \$19,254 for a total of \$19,454. He deducts the \$1,000 personal exemption for himself, his wife and two children (\$4000 total exemptions) and the "zero bracket" amount of \$3,400. This gives him an **estimate** of taxable income of \$12,054. (He will have his tax advisor prepare his tax statement later. Right now an estimate is satisfactory).

Bob estimates his federal income tax to be \$1,175. The state tax will be about 10.5 percent of the Federal tax, which amounts to \$123.

Total income taxes are estimated to be \$1,298.

NET INCOME (net income before taxes minus income and Social Security taxes).

Subtracting estimated taxes from the \$12,976 income before taxes, Bob and Betty arrive at Net Income.

Name Bob and Betty Farmer
 Address _____

For 12 Months
 Ending Dec. 31 19 83

Income Statement

Cash Farm Income		
Grain and hay sales	<u>\$85,981</u>	
Livestock sales (market and breeding)	<u>22,030</u>	
Livestock product sales		
Government payments	<u>2,650</u>	
Custom work		
Other cash farm income (include refunds on purchases)	<u>210</u>	
Gross Cash Farm Income		<u>\$110,871</u> (1)
Cash Farm Expenses		
Cash operating expenses (see schedule 1 on reverse side)	<u>57,683</u>	
Breeding livestock purchases		
Gross Cash Farm Expenses		<u>(-)57,683</u> (2)
Net Cash Farm Income (Line 1-Line 2)		<u>\$53,188</u> (3)
Adjustments		
Inventory change (see schedule 2 on reverse side)		(±)-6,878 (4)
Depreciation on machinery and equipment (depreciation record)		(-)30,934 (5)
Depreciation on buildings and improvements (depreciation record)		(-) 3,000 (6)
Gain or loss on machinery and equipment:		
Gross sales of machinery and equipment	a. _____	
Less remaining cost (as per depreciation record)	b. _____	
Gain or loss (a-b)		(±) _____ (7)
Adjustment for sale of real estate		
Gross sales _____, less cost of selling _____	c. _____	
Less net beginning of year value from balance sheet	d. _____	
Net adjustment for real estate (c-d)		(±) _____ (8)
Value of products consumed at home		(±) <u>400</u> (9)
Gross Adjustments To Net Cash Farm Income (add lines 4 through 9)		(±)-40,412(10)
NET FARM INCOME (Line 3 + Line 10)		<u>+ 12,776</u> (11)
Non-Farm Income		
Operator's wage off farm minus expenses		_____ (12)
Wife's wages off farm minus expenses		_____ (13)
Interest and dividend income		<u>200</u> (14)
Gifts or inheritances		_____ (15)
Gain or loss on securities (see schedule 3 on reverse side)		_____ (16)
Non-farm inventory change		_____ (17)
Net income: other farms or non-farm real estate		_____ (18)
Net Non-Farm Income (add lines 12 through 18)		<u>200</u> (19)
Net Income Before Taxes (Line 11 + Line 19)		<u>12,976</u> (20)
Income and Social Security Taxes		<u>(-)3,098</u> (21)
NET INCOME (Line 20-Line 21)		<u>\$9,878</u> (22)

Schedule 1 — Farm Operating Expenses

(from farm records or tax form 1040-F)

Labor hired	<u>\$1,000</u>
Repairs and maintenance	<u>5,603</u>
Rents, leases	<u> </u>
Feed purchased	<u>500</u>
Seed purchased	<u>2,138</u>
Fertilizer	<u>8,009</u>
Chemicals	<u>6,648</u>
Machine hire	<u>2,963</u>
Supplies	<u>1,500</u>
Livestock expenses	<u>1,315</u>
Gas, fuel, oil	<u>10,126</u>
Real estate taxes	<u>1,960</u>
Interest	<u>13,241</u>
Insurance	<u>500</u>
Utilities	<u>1,200</u>
Freight, trucking	<u> </u>
Conservation expenses	<u> </u>
Pension, profit sharing plans	<u> </u>
Auto, farm share	<u>510</u>
Storage, warehouse costs	<u> </u>
Feeder livestock purchased	<u> </u>
Other	<u>420</u>
Total Farm Operating Expense	<u>\$57,683</u>

Schedule 2. Inventory Changes From Beginning to End of Year

Expense Adjustment (unused assets)	<u>Beginning Inventory</u>	<u>Ending Inventory</u>	<u>Change</u>
Grain and feeds	<u>\$84,050</u>	<u>\$70,750</u>	
Livestock to be sold	<u>15,373</u>	<u>13,481</u>	
Breeding livestock	<u>25,000</u>	<u>25,000</u>	
Prepaid expenses			
Seed, supplies	<u>5,000</u>	<u>5,000</u>	
Cash invested in growing crops		<u>5,500</u>	
Farm accounts receivable	<u>900</u>	<u>1,250</u>	
Other			
Total	(a) <u>\$130,323</u>	(d) <u>\$120,981</u>	
Expense Adjustment (unpaid items):			
Farm accounts payable	<u>3,850</u>	<u>2,900</u>	
Accrued interest	<u>8,619</u>	<u>7,105</u>	
Accrued taxes	<u>1,960</u>	<u>1,960</u>	
Accrued cash rent			
Total	(b) <u>14,429</u>	(e) <u>11,965</u>	
Unused assets — unpaid items	(c) <u>\$115,894</u>	(f) <u>\$109,016</u>	
Net Inventory Change			(g) <u>\$6,878</u>
Line a-line b = line c			
Line d-line e = line f			

If line c is greater than line f, line g is (-)
 If line f is greater than line c, line g is (+)
 *Do not include current loans.

Schedule 3 — Gain or Loss on Marketable and Unmarketable Securities

End of year value	_____	
Sales during year	_____	
Total		(+) _____(1)
Purchased during year	_____	
Beginning of year value	_____	
Total		(-) _____(2)
Gain or Loss (1-2)		_____ (3)

PREPARING THE INCOME STATEMENT

This is a step-by-step procedure and discussion on how to complete the income statement.

Cash Farm Income

Cash farm income includes all cash income to the farm business, except that derived from the sale of machinery, equipment, improvements which have been carried in the depreciation schedule, and land. NOTE: If all costs of selling grain, livestock and livestock products are included in expenses, be sure to include the gross amount of sales and not the amount left after selling expenses have been deducted. For example, suppose a dairyman receives a check of \$4,800 for milk sold. Expenses for hauling, testing, etc., of \$500 have been deducted. In this case the dairyman should either report \$5,300 as income and \$500 under expenses, or \$4,800 as income and \$0 under expenses.

Government payments include all types of farm program payments (soil conservation, diversion and deficiency, etc.).

Custom work refers to work done for others with your machinery and labor. Assuming all expenses on such equipment will be included as cash operating expenses, the gross income should be used.

Other cash income includes rebates, cash patronage dividends, rent received for use of machinery, crop insurance proceeds, tax refunds, and other income not shown elsewhere.

Cash Farm Expenses

Cash farm expenses should first be listed on Schedule 1 on the reverse side of the income statement, then totals transferred to the income statement. If you have filed your income taxes, all the data can be taken from the Form 1040-F with the exception of the cost of purchased feeder animals and breeding livestock purchased. If income taxes have not been filed you will need to refer to your record book, cancelled checks, or receipts for bills paid.

Note there is a place on Schedule 1 to record the cost of animals purchased for resale. This should include all feeder livestock regardless of whether they were sold during the year or included in the ending inventory.

Any animals bought for breeding purposes should be recorded on the line for "breeding livestock purchased."

Net Cash Farm Income

Net cash farm income is the difference between cash farm income and cash farm expenses.

ADJUSTMENTS

Net cash farm income is not an accurate measure of farm earnings. Adjustments must be made for changes in inventory. The reason for these adjustments is that part of the cash income may be from sales of grain and livestock on hand from previous years. Also, part of the year's production may not have been sold and is kept or stored for sale in the following year(s). Even if the same number of bushels of each crop are on hand in both the beginning and ending inventories, they will likely have different values because of price changes.

Net Changes In Inventory

Schedule 2 on the reverse side of the income statement is provided to summarize the changes which took place in inventory items during the year. Information on these inventory items can be taken from the beginning and end of year balance sheets.

If the value of your inventory at the end of the year is greater than at the beginning, you had a positive adjustment (inventory increase). This means that part of your year's earnings was in the form of a growing inventory value.

A lower inventory value at the end of the year means a decrease in the value of inventory and a downward adjustment to net farm income.

Some items are discussed further, as examples, to clarify how to treat them:

1. **Prepaid expenses** are items you have shown in Schedule 1 as expenses but have not been received. Such expenses must also be shown on Schedule 2.
2. **Accounts receivable** occur where a sale is made but you have not been paid (Schedule 2). This represents income which has been earned but not received. An example would be a bull sold to a neighbor with payment expected in January of the following year.
3. **Accounts payable** (Schedule 2) are exactly the opposite. You have received the bull, for example, but have not paid for it.

Do not confuse an account payable with a loan. If you had borrowed the money and paid for the bull, you would not show it as an account payable, but your loans outstanding would be higher by the amount of the loan.

4. **Accrued interest** is the amount of interest accumulated on notes and loans between the last payment date and the end of the year. It must be considered as an adjustment to income even

though the payment is not due at the time the income statement is prepared.

The easiest way to obtain total accrued interest is to have the lender(s) tell you. (Accrued interest is also necessary in preparing the balance sheet.) You can calculate it yourself if you have the following information: Principal balance owed, interest rate, and date of last payment.

For example, suppose you paid \$40,000 on an operating loan on October 15, leaving a balance of \$42,000 at 13 percent interest. From October 15 through December 31 there are 77 days. Accrued interest is:

$$\$42,000 \times .13 \times \frac{77}{365} = \$1,152$$

5. **Accrued taxes** and **accrued cash rent** are simply those due but unpaid.

Depreciation

Depreciation is the loss in value of machinery, buildings and improvements as a result of use and obsolescence during the year. It is an income tax deduction which should not be confused with changes in market value. (Depreciation can be more or less than changes in market value.) Since 1981, tax laws allow a much faster method of depreciation than was allowed before 1981. Because of the faster write off, there is likely to be a large difference between book value (that is, cost minus depreciation) and market value. Book value is used by accountants, and this is the figure used to calculate a true profit and loss on the farm operation. Depreciation is treated as a farm business expense and must be subtracted from net cash income. It is a non-cash expense, however, since it does not come from "out-of-pocket." Obtain depreciation amounts from your farm records or income tax records.

Gain or Loss on Machinery and Equipment

A gain or loss may result from sale of machinery and equipment. If the sale price is greater than the remaining undepreciated book value, a gain results and should be added to net cash income. If the undepreciated value is greater than the sale price, a loss results and should be subtracted. On a trade-in no gain or loss occurs, so no cash adjustment is necessary; you simply have a new basis for the new machine.

Adjustment for Sale of Real Estate

Real estate is seldom sold — maybe once in a lifetime — but when these sales do occur they should be handled as described here. This adjustment should not be mistaken for those which are necessary for filing your income tax return and determining capital gain, nor are we considering changes

in land value. Changes in land value belong on the balance sheet, not the income statement. What we are concerned with here is the disposal (sale) of real estate at a price different than the value on the balance sheet.

For example, you sell 80 acres for \$50,000 and have sales costs of \$3,000, netting \$47,000 on the sale. The value carried on the balance sheet is \$45,000. In the "adjustments" section of your income statement you would enter the information as follows:

Gross sales	<u>\$50,000</u>	less cost of selling	<u>\$3,000</u>		<u>\$47,000</u>
Less beginning of year value from balance sheet					<u>\$45,000</u>
Net adjustments for real estate sold					<u>+ \$2,000</u>

Value of Products Consumed At Home

Many farm families consume part of the livestock and livestock products that were raised. Since they could have been sold, credit should be given for these products at the value net to the farm. Garden products should be considered in the same manner.

NET FARM INCOME

Net farm income can now be calculated. It is the net cash farm income plus or minus the sum of the adjustments discussed.

NON-FARM INCOME

While NFI is the major source of family income for many farms, it may not be the only source. Non-farm income can be significantly greater on part-time farms, some beginning farms, and on those receiving mineral payments, for example. The inclusion of non-farm income on the income statement allows a comparison of the sources and magnitude of income.

Wages earned by the operator and spouse, less costs of travel to and from work and other related expenses, should be listed.

Income from interest and dividends should be listed. Yearly statements are usually provided by businesses, savings and loan associations, etc., and should be readily available.

Record gifts or inheritances.

Use Schedule 3 to determine the gain or loss on marketable and non-marketable securities and list the gain or loss on the line provided. Nonmarketable securities should include the value of stocks such as Federal Land Bank or PCA. Marketable securities include stocks and bonds that can be easily sold.

Non-farm inventory change includes the value of the home and furnishings less any expected sale expenses if they were to be sold.

If there are incomes from rental of non-farm real estate or from other farms, the net value after expenses should be entered.

Net Income Before Taxes

Adding net non-farm income to NFI gives Net Income Before Taxes. Estimate (or use your tax return if completed) income and Social Security taxes and subtract to obtain Net Income.

Net Income

Net income is the **total** return from all sources to unpaid labor and to you and your spouse for labor, management and the use of your capital after deducting taxes.

INCOME STATEMENT INTERPRETATION

How Much Did You Make During The Year?

Too frequently people rely on the income tax statement (1040-F) as a measure of whether they are making money. This is a false and misleading picture because it ignores inventory changes.

Net Farm Income is a true reflection of how your business is doing. It is a net return from the farm business only, showing the return to operator and unpaid family labor, management, and money invested in the business.

Net Income Before Taxes is the total return from all sources.

Where Did Your Income Go?

The income you earned last year will go to three sources, (1) income taxes and Social Security taxes, (2) family living expenses and (3) savings or investment (increased net worth).

Income taxes and Social Security taxes can be easily determined.

If you prepared a balance sheet at the beginning and end of the year, increases or decreases in net worth are readily determined.

What may not be known is the amount spent for family living (unless accurate family accounts are kept). The amount spent for family living can be determined if we know the other amounts discussed above:

Net Income Before Taxes (from example income statement)	\$12,976
Less income and Social Security taxes (paid during past year, 1983)	(-) 4,650
Change in net worth	(±) + 7,503
Amount spent for family living	\$15,829

Net Income Before Taxes is always equal to amounts spent for income and Social Security taxes, family living, and the change in net worth.

Living on Depreciation

Suppose you worked out your income statement and found Net Income Before Taxes was zero. And yet you managed to buy groceries and had money for other family living items during the year.

What has happened? Most likely net cash income has been offset by depreciation (and perhaps erosion of other equity). The non-cash business deduction for depreciation is used to determine Net Farm Income; this depreciation deduction is not an out-of-pocket expense and in the short run is available for spending. Such a situation is possible and can continue until the machinery and buildings need to be replaced.

At that point, however, the business may have to be liquidated because the business has consistently failed to make money and the allowance for depreciation (for machinery replacement, for example) has been used for family living. No money is available for replacement unless part of the remaining assets are liquidated. This cannot be allowed to happen or the business will go broke.

Assuming there are no significant sources of non-farm income, income must be greater than family living costs for the business to grow.

Prorating Net Farm Income

Net Farm Income is the return to several resources: operator and unpaid family labor, management, and equity (net worth). Returns to each of these resources can be determined by prorating what a fair return to each resource should be. To do this we use the concept of "opportunity cost," i.e., the return each resource could earn in its best alternative use. Each of the resources could be used to earn a return elsewhere. An estimation needs to be made of what each of these returns could be.

The analysis procedure is as follows:

Net Farm Income	\$18,000
Less operator and unpaid family labor (opportunity cost)	\$12,000
Return to capital and management	\$6,000
Less interest on average equity capital at opportunity cost rate of _____% (\$150,000 × 9%)	\$13,500
Return to operator management	-\$7,500

The return to capital and management and return to management are "residual" returns, i.e., what is left after first deducting a cost for labor and then deducting a rate of return on equity (net worth) at an opportunity cost rate.

Labor (operator's and family) and management are difficult to separate in a farm business. It may also be difficult to place a value on the family labor. Another method of analysis is to substitute family living expenses in place of family labor and management. If this is done we are assuming the amount of family living expenses is the return to labor and management.

The procedure, then, is:

Net Farm Income	\$18,000
Less Family Living Expenses	\$10,000
Return to Equity (residual)	\$8,000

$$\left[\frac{\text{Return to Equity } \$8,000}{\text{Average Net Worth } \$150,000} \right] \times 100 = 5.33\% \text{ Rate of Return to Equity (residual)}$$

Comparisons of these returns may be made from one year to the next for the farm business and with other farms for a given year. You can better evaluate your returns in relation to other alternative uses of your resources.

While it is often useful to measure returns to resources such as labor, management and capital, the amount of net farm income is all important, as well as its relative size compared to family living expenses and debt principal payments.

If NFI is adequate to meet obligations and pay for the family's living, there is little problem. If NFI is **not** adequate, steps must be taken to correct the situation.

What Can Be Done?

Start with crop enterprises first. Are you growing the most profitable crops? How many acres (within farm program regulations) of the most profitable crops do you grow? Can you grow? Can you expand

output per acre by better management, adding fertilizer without increasing costs more than income? Can output be maintained with less cost?

What can be done to increase livestock income (if you have livestock)? Can cheaper gains be put on without greatly affecting performance?

Do you have a marketing plan?

Look at crop share leases in lieu of cash rent. It may not be possible to change, but a change might improve cash flow.

Use preventive maintenance on machinery. Timely small repairs are less expensive than major overhauls.

Use credit wisely. Shop for terms — i.e., length of loan, interest rate, effect of size of downpayment on principal and interest payments.

Can you cut family living costs when times are tough? Delay large outlays for family living?

Can you custom hire or lease equipment cheaper than owning it?

Are there off-farm employment opportunities for husband and/or wife?

INCOME STATEMENT ANALYSIS

For many farmers, just knowing that net farm income is positive may be sufficient analysis to satisfy the question, "How am I doing financially?" However, with just a little more effort a more accurate measure of the farm's financial pulse can be determined.

Two financial ratios measure your farm's profitability: (1) return on investment and (2) return on net worth.

$\text{Return on investment} = \frac{\text{Net Farm Income} + \text{Interest Paid} - \text{Value of unpaid family and operator labor}}{\text{Average Total Farm Assets}}$

Return on investment ratio measures net farm income, plus interest paid, minus unpaid family and operator labor, against the farm's average total assets — including both debt and equity capital. Average total farm assets are derived from the beginning of the year total assets plus the end of the year total assets divided by 2. The total farm assets infor-

mation can be found in the beginning of the year and end of the year balance sheets. It measures profitability in terms of return on total investment. This ratio is useful in answering the question, "How is my farm business doing compared to other farms?" This ratio may be of keen interest to your banker.

$$\text{NET PROFIT} = \text{NET FARM INCOME} + \text{INTEREST PAID} - \text{UNPAID FAMILY AND OPERATOR LABOR}$$

$$\text{Return on net worth} = \frac{\text{Net Farm Income} - \text{Value of operator and unpaid family labor and management}}{\text{Average Net Worth}}$$

Return on net worth ratio describes the returns per dollar of equity invested in the farm business and provides a basis for comparisons with rates of return on non-farm investments. Return on net worth ratio is equal to net farm income less returns to operator and unpaid family labor and management divided by the average net worth in the farm business. Average net worth is derived from the beginning of the year net worth plus the end of the year net worth divided by 2. Net worth information can be found in the beginning of the year and end of the year balance sheets. The rate of return to owner equity capital is an important consideration in determining the profitability of the farm business relative to other investment alternatives.

Once net profit is determined, the return on investment ratio may be determined for the entire business: the determination of net farm income comes directly from the income statement. The value of unpaid family labor should reflect what the operator's labor is worth, plus the value of labor contributed by the wife and children in the farm business. The operator's labor may be thought of in terms of an opportunity cost — that is, what could be earned either as a hired farm worker or in some other job? In calculating net farm income, interest expenses were deducted as a cash expense; but interest payments represent a return to debt capital, so we must add interest expenses back in to obtain an accurate measurement of return on investment. Total assets can be obtained from the balance sheet.

To determine return on net worth we need to calculate net farm income minus withdrawals as follows:

$$\text{NET FARM INCOME} - \text{UNPAID FAMILY AND OPERATOR LABOR}$$

Profitability Ratios

From the income statement and balance sheet several meaningful financial profitability ratios can be obtained. To determine return on investment we need to calculate net profit as follows:

The following table illustrates a general ranking of the financial profitability condition of a farm business using return on investment and return on net worth ratios.

Income Statement Analysis			
Ratios	Financial Profitability Condition		
	Strong or favorable	Satisfactory or weak	Weak or unfavorable
A. Net profit = $\frac{\text{Return on investment}}{\text{Average total assets}}$.06 or more	.02-.06	less than .02
B. $\frac{\text{NFI} - \text{Value of operator \& unpaid family labor}}{\text{Average net worth}} = \text{Return on net worth}$			

Percent return on net worth may be in the same range as return on investment depending on the farm's ownership (equity) position, the total interest paid, and the unpaid operator and family labor charge. The return on net worth will likely be higher than return on investment for farms in high ownership positions (greater than 60 percent) and low interest costs. Return on net worth will likely be lower than return on investment for farms in low ownership positions (less than 35 percent) and high interest costs.

Prices received for farm products vary considerably. This fluctuation will cause these ratios to also vary from year to year. The average return on investment in farming the past few years has been in the "weak or unfavorable" category, and for some farmers it has been negative (that is net profit has been negative). Depending on the financial position of the farmer (high equity versus low equity), a negative net profit in one year may be only a temporary setback or may be intolerable.

mally a calendar year). It shows income from all sources during the same time period. When used in conjunction with beginning and ending balance sheets, the distribution of income can also be determined.

Finally, analysis of the income statement offers you some insights into the level of income which your resources are earning in farming compared to what they might earn elsewhere.

SUMMARY COMMENTS

The Income Statement reveals the financial success of your farm business for a period of time (nor-

Name _____
 Address _____

For 12 Months
 Ending _____ 19____

Income Statement

Cash Farm Income		
Grain and hay sales	_____	
Livestock sales (market and breeding)	_____	
Livestock product sales	_____	
Government payments	_____	
Custom work	_____	
Other cash farm income (include refunds on purchases)	_____	
Gross Cash Farm Income	_____	(1)
Cash Farm Expenses		
Cash operating expenses (see schedule 1 on reverse side)	_____	
Breeding livestock purchases	_____	
Gross Cash Farm Expenses	(-) _____	(2)
Net Cash Farm Income (Line 1-Line 2)		_____ (3)
Adjustments		
Inventory change (see schedule 2 on reverse side)	(±) _____	(4)
Depreciation on machinery and equipment (depreciation record)	(-) _____	(5)
Depreciation on buildings and improvements (depreciation record)	(-) _____	(6)
Gain or loss on machinery and equipment:		
Gross sales of machinery and equipment	a. _____	
Less remaining cost (as per depreciation record)	b. _____	
Gain or loss (a-b)	(±) _____	(7)
Adjustment for sale of real estate		
Gross sales _____, less cost of selling _____	c. _____	
Less net beginning of year value from balance sheet	d. _____	
Net adjustment for real estate (c-d)	(±) _____	(8)
Value of products consumed at home	(±) _____	(9)
Gross Adjustments To Net Cash Farm Income (add lines 4 through 9)		(±) _____ (10)
NET FARM INCOME (Line 3 + Line 10)		(±) _____ (10)
		===== (11)
Non-Farm Income		
Operator's wage off farm minus expenses	_____	(12)
Wife's wages off farm minus expenses	_____	(13)
Interest and dividend income	_____	(14)
Gifts or inheritances	_____	(15)
Gain or loss on securities (see schedule 3 on reverse side)	_____	(16)
Non-farm inventory change	_____	(17)
Net income: other farms or non-farm real estate	_____	(18)
Net Non-Farm Income (add lines 12 through 18)		_____ (19)
Net Income Before Taxes (Line 11 + Line 19)		_____ (20)
Income and Social Security Taxes	(-) _____	(21)
NET INCOME (Line 20-Line 21)		_____ (22)

Schedule 1 — Farm Operating Expenses

(from farm records or tax form 1040-F)

Labor hired	_____
Repairs and maintenance	_____
Rents, leases	_____
Feed purchased	_____
Seed purchased	_____
Fertilizer	_____
Chemicals	_____
Machine hire	_____
Supplies	_____
Livestock expenses	_____
Gas, fuel, oil	_____
Real estate taxes	_____
Interest	_____
Insurance	_____
Utilities	_____
Freight, trucking	_____
Conservation expenses	_____
Pension, profit sharing plans	_____
Auto, farm share	_____
Storage, warehouse costs	_____
Feeder livestock purchased	_____
Other	_____
Total Farm Operating Expense	_____

Schedule 2. Inventory Changes From Beginning to End of Year

Expense Adjustment (unused assets)	Beginning Inventory	Ending Inventory	Change
Grain and feeds	_____	_____	
Livestock to be sold	_____	_____	
Breeding livestock	_____	_____	
Prepaid expenses	_____	_____	
Seed, supplies	_____	_____	
Cash invested in growing crops	_____	_____	
Farm accounts receivable	_____	_____	
Other	_____	_____	
Total	(a) _____	(d) _____	
Expense Adjustment (unpaid items)¹			
Farm accounts payable	_____	_____	
Accrued interest	_____	_____	
Accrued taxes	_____	_____	
Accrued cash rent	_____	_____	
Total	(b) _____	(e) _____	
Unused assets — unpaid items	(c) _____	(f) _____	
Net Inventory Change			(g) _____
Line a-line b = line c			
Line d-line e = line f			

If line c is greater than line f, line g is (-)
 If line f is greater than line c, line g is (+)
¹Do not include current loans.

Schedule 3 — Gain or Loss on Marketable and Unmarketable Securities

End of year value	_____	
Sales during year	_____	
Total		(+) _____(1)
Purchased during year	_____	
Beginning of year value	_____	
Total		(-) _____(2)
Gain or Loss (1-2)		_____ (3)

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