



Developing an Income Statement

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The income statement indicates whether a business has earned money or suffered a loss. Actual financial statements help evaluate past performance so that improvements can be made as needed. Projected financial statements allow for evaluating options from production to marketing strategies to risk management. It is important to keep good farm records throughout the year to help ease the burden of financial statement preparation and planning.

To be useful, analysis needs to be done at regular intervals using consistent reporting techniques. Annual reviews should be standard, but for some businesses monthly, quarterly, and/or semi-annual evaluations are necessary. Most people prepare tax information on a calendar year. Therefore, financial planning is often done on the same calendar year basis. The balance sheet, cash flow, and income statement planning periods need to align to be effective. The instructions that follow are generally consistent with the Farm Financial Standards Council recommendations.¹

The Income Statement

The income statement shows whether the farm operation returns a profit or a loss to unpaid labor, management, and equity. Profitability is defined as the extent to which an entity generates revenue over and above expenses with the available assets. Assets include land, capital, labor and management. Information from the income statement is also used to evaluate repayment capacity, capital investment potential, and financial efficiency (see OSU Extension Fact Sheet AGEC-790, Evaluating Financial Performance and Position).

This OSU Fact Sheet explains how to prepare the income statement. Information, like that found in balance sheets and a cash flow statement, is required to develop the income statement.² The cash flow statement should cover the same accounting period as the income statement. Balance sheets are required for the beginning and ending of the accounting period.

Two basic accounting methods exist for determining net income. Both the cash and accrual methods are acceptable

in tax reporting for farmers, and each has its advantages and disadvantages. Most farmers use cash accounting to compute income taxes. Cash accounting requires only single entry record keeping, which is achieved through maintaining receipts for income and expenses. Under the cash method, receipts and expenses are reported for the period during which cash or money actually changes hands. If feed is purchased and used during one accounting period, but not paid for until the next accounting period, the feed expense is not recorded until it is paid in the next accounting period. Here, profits are overstated during the first period and understated during the next accounting period. Reliance on cash income figures can delay recognition of financial problems.

The accrual method more accurately reports net income and is better for financial analysis. However, accrual accounting requires double-entry bookkeeping, which is more complicated. Accrual accounting "matches" associated expenses to revenue as they are earned. The Farm Financial Standards Council recommends that farm financial statements be developed using "accrual adjusted" accounting, a compromise between cash and accrual methods. Accrual adjusted financial statements are based on cash records with accrual adjustments to revenue (e.g., changes in inventories, accounts receivable, and prepaid expenses) and expenses (e.g., accounts payable, accrued taxes, and interest).

Example

A case study involving James and Dolly Madison is used in the examples of this fact sheet.³ The accrual adjusted income statement is being prepared for the fiscal year March 2014 through February 2015. The primary sections of the income statement are Gross Farm Revenue, Total Operating Expenses, Interest Expense, Net Farm Income From Operations, Gain/Loss on Sale of Farm Capital Assets, Gain/Loss Due to Change in General Base Values of Breeding Livestock, Net Farm Income, Nonfarm Revenue, Nonfarm Expenses, Gain/Loss on Sale of Capital Assets and Marketable Securities, Income Before Taxes and Extraordinary Items, Income Tax Expense, Extraordinary Items, and Net Income. Some key components for evaluation are Gross Revenue, Total Expenses, Net Farm Income From Operations, Net Farm Income, and Net Income.

¹ "Financial Guidelines for Agricultural Producers: Recommendations of the Farm Financial Standards Council (Revised)," January 2008.

² OSU Extension Fact Sheets AGEC-751, Developing A Cash Flow Statement and AGEC-752, Developing a Balance Sheet, discuss information requirements and include sample statements.

³ The FFSC recommends that income from nonfarm sources should not be shown on the farm income statement. Because the OSU forms are used for a variety of purposes, we have chosen to include them.

Note: The most efficient way to develop an accrual adjusted income statement is to have a completed cash flow statement and balance sheets for the beginning and end of the accounting period at hand. References to line numbers in the OSU Cash Flow and Balance Sheet forms (Extension Fact Sheets AGEC-751 and AGEC-752) are given both in the text that follows and on the income statement forms. For instance, CF 1 means information can be transferred from line one of the cash flow; BS 6 C means numbers can be taken from the balance sheet, line 6, column C.

Warning: If you customize the cash flow statement lines, be careful when transferring information to the appropriate lines in the income statement.

Revenue

Revenue is income generated by the farm operations. Not all cash inflows are income. Cash proceeds from an operating loan are an example of a cash receipt that is not income. Revenue includes proceeds from the sales of market livestock, livestock products and crops, plus government payments. Changes in inventories of market livestock, raised crops, and feed, gains or losses from the sale of culled breeding stock, changes in accounts receivable, and prepaid expenses are also recorded in the revenue section.

Gross Revenue from Market Livestock Sales. Sale of raised market livestock, livestock purchased for resale, and livestock products are recorded in the Gross Revenue section. Raised market livestock may include stockers, feeder pigs, and broilers. Livestock purchased for resale may include purchased stocker steers and heifers or feeder pigs. Examples of livestock products are milk, eggs, wool, and mohair. Note that sales of breeding livestock are not included in this section.

In the Madison example, sales of livestock purchased for resale are \$126,489 (CF 1), Livestock Product Sales are zero (CF 2), and Market Livestock Sales (raised livestock) are \$34,592 (CF 3). The accrual adjustment to livestock sales is the difference in the value of market livestock inventories at the beginning and ending of the accounting period. In other words, this is the change in Market Livestock Inventories (BS 5 C). Since the value of market livestock at the end of the year is the same, the change in market livestock inventories for the Madison example is zero. Decreases in inventory are subtracted from the cash sales figure when calculating gross revenue. This adjustment to revenue may result from either a decrease in the market value of livestock, a reduced number of animals, or both. Increases in market livestock inventories are added to the cash sales figures, increasing gross revenue. A positive change in inventory would suggest that more revenue was generated either due to an increase in market value and/or an increase in the number of livestock on hand. Gross Revenue from Market Livestock/Products is found by adding lines 1 through 5 on the Income Statement. The Madisons have gross revenue from market livestock products of \$161,081 (calculated from 34,592 + 126,489).

Gross Revenue from Crops. Total crop sales should be broadly interpreted to include income from the sales of raised crops: wheat, corn, soybeans, fruits and vegetables, as well as hay, straw, and silage. Revenue from sales of crops or feed purchased for resale would also be included in this section. The Madisons have Crop Sales of wheat and alfalfa hay, \$166,075; and prairie hay, \$5,700 (CF 4 and CF 5). The Change in Stored Crop and Feed inventories is an accrual

adjustment to the crop revenue (BS 6 C), summarizing the differences between beginning and ending values of raised crop and feed inventories. The Madisons recorded an increase in the value of inventories of \$200. An increase in inventory increases revenue for the accounting period. Gross Revenue from Crops sums the lines 7, 8, and 9 of this income statement section. The Madison total is \$171,975 which is 166,075 + 5,700 + 200.

Other Revenue and Accrual Adjustments to Revenue. Ag Program payments, cash rent for farm property, crop insurance claim proceeds, interest earned from farm savings and loans, patronage dividends from farm related entities (cooperatives, rural electric cooperatives, etc.), and custom work are other sources of farm revenue. Ag Program Payments, on line 10, include SURE, ACRE, CRP, disaster, and diversion payments (CF 6). The total for Other Farm Income is entered on line 11 (CF 7). Patronage dividends from farmrelated entities are entered on line 12 (CF 8). Custom work is farm-related use of machinery, equipment, or labor for pay (e.g., baling hay, harvesting wheat, hauling grain). The Madisons have other farm income of \$28,952 from custom work.

Gain/Loss from the Sale of Culled Breeding Stock sums gains and losses from sales of raised and purchased breeding animals culled (line 13). For raised breeding livestock, the gain/loss is calculated by subtracting the base value from the sale proceeds; for purchased breeding stock, subtract the cost basis from the sale proceeds to determine the gain or loss.⁴ A positive number indicates a gain on the sale; a negative number indicates a loss on the sale. Only the gain from the sale, not the gross revenue, is recorded; otherwise, the revenue will be overstated. The Madisons plan to cull 10 raised cows from the breeding herd. The raised cows are expected to net \$15,000, a loss of \$3,000 when compared to their base value (Table 1). If a material downsizing or complete liquidation of the herd occurs, the gain/loss on sale should be recorded on the income statement after Net Farm Income from Operations and before accrual adjusted Net Farm Income (line 61).

Change in Value Due to Change in Quantity of Raised Breeding Stock is the sum of the changes in value of raised livestock that are being retained for possible future use in the breeding herd, but for which the related cash costs have been expensed in the income statement.⁵ Raised livestock for breeding are not depreciated if using a base-value method. Instead, revenue is recognized each period when the animals are at a transfer point such as changing from market livestock to replacement heifer, replacement heifer to bred heifer, or bred heifer to cow. The value recorded on line 14 of the income statement is the gain in value (no cash exchanged) of market livestock as they change livestock classes within the breeding herd.

Table 1. Gain or loss on Sale of Raised Breeding Stock.

Animals Sold	Number of Animals	Base Value	Total Base Value	Total Cash Recieved	Net Gain/Loss
Cows	10	\$1,800	\$18,000	\$15,000	(\$3,000)

⁴ See OSU Extension Fact Sheet AGEC-791, Schedules of Assets, for more information on valuing assets and calculating gains and losses when assets are sold.

⁵ Changes in the value of purchased livestock (calves, chicks, etc.) that are purchased young to be raised for breeding should also be included.

Table 2 (columns 1 through 10) summarizes the Madisons raised breeding stock activities for the year and lists the base values (group approach) used for livestock.⁶ Replacement heifers are assigned a base value of \$1,150; bred heifers, \$1,500; and cows, \$1,800. This year the Madisons will transfer 10 calves into the raised replacement heifers class, 10 replacement heifers into bred heifers, and 10 bred heifers into cows. Because there was no change in the number of head in any category, and no change in the base value, no entry is needed on line 14 for the Income Statement.

The **Change in Accounts Receivable** (BS 2 C) is an accrual adjustment to the cash revenue, where accounts receivable represent the value of cash not yet received for sales made or custom work done during the accounting period that are likely to be collected. During the year, accounts receivable might increase as a result of the increase in money due from the sale of hay. Income due from the sale of livestock products, crops, supplies, or perhaps machine work could also be recorded. The net change in accounts receivable (BS 2 C) is reflected on line 15 of the income statement.

Accrual adjustments to other assets are recorded on lines 16 through 21 of the income statement. The values of these items are adjusted similarly to other inventories. The change in values (ending values minus beginning values) for prepaid expenses, cash investment in growing crops, supplies, other current assets, contracts and notes receivable, and investments in cooperatives can come from corresponding lines of the balance sheet. Prepaid Expenses include production input items or services paid for during the accounting period, but not yet received. The change in Prepaid Expenses (BS 4 C) is recorded on line 16 of the income statement.

Inventory changes associated with Cash Investment in Growing Crops, Supplies, or Other Current Assets can result from changes in quantities or prices. Inventory changes (ending values minus beginning values) are recorded on lines 17 to 19 of the income statement. All inventory adjustment figures are computed from the current asset section of the balance sheet.

Contracts and Notes Receivable might include farm rent on a long-term lease or income from a land sale that is expected to be earned in future years. The change in Investment in Cooperatives is the change in the value of stock owned in cooperatives (BS 20 C).

Gross Revenue is the total farm revenue including accrual adjustments. Gross Revenue from Market Livestock and Products (line 5) and Gross Revenue from Crops (line 9) is summed with Other Farm Revenue (line 22) to determine Gross Farm Revenue. The Madison farm has gross revenue of \$366,305.

Expenses

Operating Expenses are those expenses incurred to generate revenue. An expense is the amount of goods or services (cash or non-cash) used to produce a revenue generating item or service. Cash expenditures do not always constitute an expense. For example, principal payments on farm loans are cash expenditures and are recorded on the Cash Flow Statement; however, they are not operating expenses. Only the interest portion of a loan payment is recorded as an expense for the income statement.

⁶ See OSU Extension Fact Sheet AGEC- 323, Valuation of Raised Breeding Livestock, for more detail.

Table 2. Schedule of Raised Breeding Livestock, 3/1/2015.

	1	2	3	4	5	6	7	8	9	10	11	12
Raised Description	Number of Animals 3/1/14	Base Value per head	Total Base Value 3/1/14	Transferred In	Transferred Out	Sold	Died	Number of Animals 3/1/15	Base Value per Head	Total Base Value 3/1/15	New Base Value per Head Inventory	New Base Value of Beginning Inventory (Col. 1xCol.11)
Repl. Heifers	10	\$1,150	\$11,500	10	10	0	0	10	\$1,150	\$11,500	1,165	\$11,650
Bred Heifers	10	\$1,500	\$15,000	10	10	0	0	10	\$1,500	\$15,000	1,515	\$15,150
Cows	80	\$1,800	\$144,000	10	0	10	0	80	\$1,800	\$144,000	1,815	\$145,200
			\$170,500							\$170,500		\$172,000

MADISON INCOME STATEMENT

Business
Consolidated
Personal



Actual
Projected



For the period: March 2014 through Feb 2015

REVENUE

		Line		
Sales of Livestock Bought for Resale	CF 1	1	126,489	
Sale of Livestock Products	CF 2	2		
Livestock Sales (raised)	CF 3	3	34,592	
Change in Market Livestock inventories	BS 5C	4	0	
Gross Revenue from Market Livestock and Products	(1+2+3+4)	5		161,081
Crop Sales				
a. Wheat and Alfalfa	CF 4	6	166,075	
b. Hay	CF 5	7	5,700	
Change in Stored Crops/Feed Inventories	BS 6 C	8	200	
Gross Revenue from Crops	(6+7+8)	9		171,975
Ag Program Payments	CF 6	10	7,567	
Other Farm Income	CF 7	11	28,952	
Patronage Dividends	CF 8	12	280	
Gain or Loss from Sale of Culled Breeding Stock		13	(3,000)	
Change in Value Due to Change in Quantity of Raised Breeding Livestock		14	0	
+/- Change in Accounts Receivable	BS 2 C	15	(900)	
+/- Change in Prepaid Expenses	BS 3 C	16	0	
+/- Change in Cash Investment Growing Crops	BS 4 C	17	0	
+/- Change in Supplies	BS 8 C	18	0	
+/- Change in Other Current Assets	BS 9 C	19	0	
+/- Change in Contracts & Notes Receivable	BS 19 C	20	0	
+/- Change in Investment in Cooperatives	BS 20 C	21	350	
Other Farm Revenue	(sum 10 thru 21)	22		33,249
GROSS FARM REVENUE	(5+9+22)	23		366,305

EXPENSES

		Line		
Purchased Market Livestock	CF 40	24	<u>85,000</u>	
Car, truck	CF 17	25	<u>0</u>	
Chemicals	CF 18	26	<u>5,768</u>	
Custom Hire	CF 20	27	<u>1,066</u>	
Purchased Feed/Grain	CF 22	28	<u>9,796</u>	
Fertilizers, Lime	CF 23	29	<u>38,018</u>	
Freight, Trucking	CF 24	30	<u>935</u>	
Gas, Fuel, Oil	CF 25	31	<u>29,938</u>	
Insurance	CF 26	32	<u>7,001</u>	
Labor Hired	CF 27	33	<u>13,975</u>	
Rents, Leases	CF 29	34	<u>10,918</u>	
Repairs, Maintenance	CF 30	35	<u>28,408</u>	
Seeds, Plants	CF 31	36	<u>15,912</u>	
Storage, Warehousing	CF 32	37	<u>1,547</u>	
Supplies	CF 33	38	<u>163</u>	
Taxes (Ad Valorem)	CF 34	39	<u>3,332</u>	
Utilities	CF 35	40	<u>1,320</u>	
Vet, Breeding Feeds, Medicine	CF 36	41	<u>1,251</u>	
Other Expenses	CF 37	42	<u>607</u>	
Marketing Expenses	CF 38	43	<u>2,465</u>	
Sale Commission	CF 39	44	<u>0</u>	
+/- Change in Purchased Feed Inventories	BS 7 C	45	<u>0</u>	
+/- Change in Accounts Payable	BS 30 F	46	<u>0</u>	
+/- Change in Ad Valorem Taxes	BS 34 F	47	<u>0</u>	
+/- Change in Employee Payroll Withholding Taxes	BS 35 F	48	<u>0</u>	
+/- Change in Other Accrued Expenses	BS 38 F	49	<u>0</u>	
+/- Change in Other Current Liabilities	BS 39 F	50	<u>0</u>	
+/- Change in Other Non-Current Liabilities	BS 47 F	51	<u>0</u>	
Depreciation Expense		52	<u>39,517</u>	
Total Operating Expenses	(Sum lines 24 through 52)	53		<u>296,937</u>
Cash Interest Paid	CF (49+51+53+66)	54	<u>21,005</u>	
+/- Change in Accrued Interest	BS 33 F	55	<u>6,991</u>	
Total Interest Expense	(54+55)	56		<u>27,996</u>
TOTAL FARM EXPENSES	(53+56)	57		<u>324,933</u>
NET FARM INCOME FROM OPERATIONS	(23-57)	58		<u>41,372</u>
Gain/Loss on Sale of Farm Capital Assets		59	<u>42,451</u>	
Gain/Loss Due to Change in Base Values of Breeding Livestock		60	<u>0</u>	
NET FARM INCOME, Accrual Adjusted	(58+59+60)	61		<u>83,823</u>
NONFARM REVENUE				
Wages, Salaries	CF 13	62	<u>21,600</u>	
Other Non-Farm Income	CF (14+15)	63	<u>960</u>	
+/- Change in Nonfarm Assets	BS (11+12+13+25+26+27)	64	<u>4,893</u>	
Total Nonfarm Revenue	(62+63+64)	65		<u>27,453</u>
NONFARM EXPENSES				
Cash Interest Paid	CF 55	66	<u>3,739</u>	
+/- Change in Accrued Interest	BS 41 F	67	<u>(33)</u>	
Depreciation Expense		68	<u>1,200</u>	
Other Cash Payments	CF 48	69	<u>3,000</u>	
Total Nonfarm Expenses	(66+67+68+69)	70		<u>7,906</u>
Gain/Loss on Sale of Nonfarm Capital Assets & Marketable Securities		71		<u>0</u>
Total Nonfarm Income	(65-70+71)	72		<u>19,547</u>
INCOME BEFORE TAXES & EXTRAORDINARY ITEMS	(61+72)	73		<u>103,370</u>
Cash Income Taxes Paid	CF 46	74	<u>10,350</u>	
Change in Accrued Income Taxes	BS 36 F	75	<u>0</u>	
Change in Current Portion of Deferred Taxes	BS 37 F	76	<u>121</u>	
Total Income Tax Expense	(74+75+76)	77		<u>10,471</u>
Income Before Extraordinary Items	(73-77)	78		<u>92,899</u>
Extraordinary Items (Net of Tax)		79		<u>0</u>
NET INCOME	(78+79)	80		<u>92,899</u>

INCOME STATEMENT

Business
Consolidated
Personal

Actual
Projected

For the period: _____

REVENUE

Sales of Livestock Bought for Resale	CF 1	1	_____
Sale of Livestock Products	CF 2	2	_____
Livestock Sales (raised)	CF 3	3	_____

Change in Market Livestock inventories	BS 6 C	4	_____
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Gross Revenue from Market Livestock and Products

(1+2+3+4)	5	_____
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Crop Sales			
a.	CF 4	6	_____
b.	CF 5	7	_____

Change in Stored Crops/Feed Inventories	BS 6 C	8	_____
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Gross Revenue from Crops

(6+7+8)	9	_____
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Ag Program Payments	CF 6	10	_____
Other Farm Income	CF 7	11	_____
Patronage Dividends	CF 8	12	_____
Gain or Loss from Sale of Culled Breeding Stock		13	_____

Change in Value Due to Change in Quantity of Raised Breeding Livestock		14	_____
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+/- Change in Accounts Receivable	BS 2 C	15	_____
+/- Change in Prepaid Expenses	BS 3 C	16	_____
+/- Change in Cash Investment Growing Crops	BS 4 C	17	_____
+/- Change in Supplies	BS 8 C	18	_____
+/- Change in Other Current Assets	BS 9 C	19	_____
+/- Change in Contracts & Notes Receivable	BS 19 C	20	_____
+/- Change in Investment in Cooperatives	BS 20 C	21	_____

Other Farm Revenue

(sum 10 thru 21)	22	_____
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GROSS FARM REVENUE

(5+9+22)	23	_____
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Name: _____

Date Prepared: _____

EXPENSES

Purchased Market Livestock	CF 40	24	_____
Car, truck	CF 17	25	_____
Chemicals	CF 18	26	_____
Custom Hire	CF 20	27	_____
Purchased Feed/Grain	CF 22	28	_____
Fertilizers, Lime	CF 23	29	_____
Freight, Trucking	CF 24	30	_____
Gas, Fuel, Oil	CF 25	31	_____
Insurance	CF 26	32	_____
Labor Hired	CF 27	33	_____
Rents, Leases	CF 29	34	_____
Repairs, Maintenance	CF 30	35	_____
Seeds, Plants	CF 31	36	_____
Storage, Warehousing	CF 32	37	_____
Supplies	CF 33	38	_____
Taxes (Ad Valorem)	CF 34	39	_____
Utilities	CF 35	40	_____
Vet, Breeding Feeds, Medicine	CF 36	41	_____
Other Expenses	CF 37	42	_____
Marketing Expenses	CF 38	43	_____
Sale Commission	CF 39	44	_____
+/- Change in Purchased Feed Inventories	BS 7 C	45	_____
+/- Change in Accounts Payable	BS 30 F	46	_____
+/- Change in Ad Valorem Taxes	BS 34 F	47	_____
+/- Change in Employee Payroll Withholding Taxes	BS 35 F	48	_____
+/- Change in Other Accrued Expenses	BS 38 F	49	_____
+/- Change in Other Current Liabilities	BS 39 F	50	_____
+/- Change in Other Non-Current Liabilities	BS 47 F	51	_____
Depreciation Expense		52	_____
Total Operating Expenses	(Sum lines 24 through 52)	53	_____
Cash Interest Paid	CF (49+51+53+66)	54	_____
+/- Change in Accrued Interest	BS 33 F	55	_____
Total Interest Expense	(54+55)	56	_____
TOTAL FARM EXPENSES	(53+56)	57	_____
NET FARM INCOME FROM OPERATIONS	(23-57)	58	_____
Gain/Loss on Sale of Farm Capital Assets		59	_____
Gain/Loss Due to Change in Base Values of Breeding Livestock		60	_____
NET FARM INCOME, Accrual Adjusted	(58+59+60)	61	_____
NONFARM REVENUE			
Wages, Salaries	CF 15	62	_____
Other Non-Farm Income	CF (14+15)	63	_____
+/- Change in Nonfarm Assets	BS (11+12+13+25+26+27)	64	_____
Total Nonfarm Revenue	(62+63+64)	65	_____
NONFARM EXPENSES			
Cash Interest Paid	CF 55	66	_____
+/- Change in Accrued Interest	BS 41 F	67	_____
Depreciation Expense		68	_____
Other Cash Payments	CF 48	69	_____
Total Nonfarm Expenses	(66+67+68+69)	70	_____
Gain/Loss on Sale of Nonfarm Capital Assets & Marketable Securities		71	_____
Total Nonfarm Income	(65-70+71)	72	_____
INCOME BEFORE TAXES & EXTRAORDINARY ITEMS	(61+72)	73	_____
Cash Income Taxes Paid	CF 46	74	_____
Change in Accrued Income Taxes	BS 36 F	75	_____
Change in Current Portion of Deferred Taxes	BS 37 F	76	_____
Total Income Tax Expense	(74+75+76)	77	_____
Income Before Extraordinary Items	(73-77)	78	_____
Extraordinary Items (Net of Tax)		79	_____
NET INCOME	(78+79)	80	_____

The cost of Purchased Market Livestock such as stocker steers and feeder pigs purchased for resale are recorded on line 24 of the income statement. The Madisons purchased stocker steers for \$85,000 (CF 40).

Other cash operating expenses (lines 25 through 44) include costs associated with operating the farm business such as car/truck; chemicals; gas/fuel/oil; insurance; and utilities. Purchased Feed/Grain is the value of supplements, hay, corn, silage, etc. purchased during the reporting period (CF 22). Labor hired includes all employer costs: wages, social security, unemployment taxes, medical premiums, and pension costs. Repairs and maintenance should not include items that are a capital improvement. Capital improvements should be capitalized and be expensed through a depreciation schedule. Rents and leases record payments made under an operating agreement. If a capital lease is made, the depreciation expense and the interest portion of the capital lease payments are recorded.⁷ The line item for taxes is for personal property and real estate taxes only. (Taxes related to labor hired are recorded on line 33, as stated above.)

Accrual adjustments (lines 45 through 51) record differences in beginning and ending balances of an asset (purchased feed) and several liabilities (accounts payable, ad valorem taxes, and so on). The Change in Purchased Feed Inventories (BS 7 C) adjusts the cash expense (an increase in inventory is a negative expense, hence the negative sign) to better match feed purchases to the time period in which they are used to generate revenue.

Accounts Payable include the value of accounts payable to others for operating inputs purchased on credit, accrued property tax, accrued interest, and other expenses such as unpaid cash rent.

Ad valorem taxes include property and real estate taxes due (BS 34 F). The amount of Other accrued expenses payable did not change from the previous years levels, hence no adjustment is necessary. Note again that changes in operating loan principal balances, personal and self-employment tax due is not recorded on the income statement. These items are not farm production expenses.

Depreciation is considered an operating expense and it is reported on a separate line (line 52) in the income statement. Economic depreciation is used for the income statement because it tends to better estimate the useful life of assets.⁸ It differs from depreciation used for tax purposes. Economic depreciation is a systematic and rational method of allocating the non-recoverable cost of breeding stock, machinery, and buildings over the estimated number of years that the item will generate revenue. Economic depreciation is based on a known quantity and cost, an estimate of the useful life of an asset, and the salvage value at the end of the useful life. As an example, the Madisons have a hoedrill bought in April 2014 at a cost of \$31,750. The estimated useful life is 12 years, and the estimated salvage value is \$6,000. The annual depreciation expense, calculated using the straight line method, is:

$$\text{Depreciation } \$31,750 - 6,000 = 2,146 \text{ per year}$$

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Only the appropriate amount of depreciation for the

reporting period is recorded. For instance, if a new piece of equipment is purchased mid-year, only one-half the annual farm depreciation is recorded. The Madisons have several pieces of equipment and machinery. For the Madisons, the total depreciation expense for this time period is \$39,517 (includes depreciation on assets owned March 1 and held through the year, plus a partial year for the combine purchased). Only the depreciation expense for farm assets is recorded on this line. Land is not depreciated, since it is assumed that land will not be depleted and will continue to generate revenue.

Interest Expenses include cash interest expenses plus the change in accrued interest. Cash Interest Paid on line 56 is the sum of cash interest payments for farm loans, including operating notes, line of credit, machinery and equipment notes, and real estate loans (CF 49, 51, and 66). Accrued interest is the amount of interest outstanding at the reporting date from all farm notes and loans. The Change in Accrued Interest is the accrued interest at the end of the accounting period minus the accrued interest at the beginning of the accounting period (BS 33 F). Principal payments are not a farm operating expense; rather they are repayment of cash that was received from loan proceeds and so are not included on the income statement. (Principal payments are a cash expenditure on the cash flow statement.) The Madisons project cash interest payments of \$21,005 plus an increase in interest accrued of \$6,991; thus, total interest expense is \$27,996.

Total Farm Expenses are the sum of operating expenses (line 53) and interest expenses (line 56). In the Madison case, total expenses equal \$324,933.

Net Farm Income From Operations (NFIFO) is the amount of profit (loss) strictly from the farm operations not including gains or losses on the sale of farm capital items or personal and income tax. Thus, net farm income from operations equals Gross Farm Revenue (line 23) minus Total Farm Expenses (line 57). NFIFO is useful for comparisons over time periods as it focuses on the net returns to normal farm operations (capital sales are expected to be occasional).

Gain/Loss on Sales of Farm Capital Assets (line 59) sums gains and losses from the sale of farm vehicles, machinery, equipment, buildings, etc. While not a routine operating item, sales of capital assets and marketable securities are used to determine the overall farm profit or loss for the accounting period. The difference between the value for which the item is sold and the adjusted cost or basis is the amount of depreciation that was over or under expensed in previous time periods. The Madisons plan to sell a combine and expect a \$42,451 gain.

Gain/Loss Due to Change in Base Values of Breeding Livestock sums changes in the base values of the raised breeding livestock from the beginning to the end of the accounting period if the base value method has been used. Base values are expected to remain constant for several years, but when costs of raising livestock change significantly, an adjustment in base values is appropriate. The adjustment to income for the change in general level of base values of one or more of the age categories will be based on the change in value of the raised breeding livestock on hand at the beginning of the accounting period. For example, if the base values of raised livestock increased to the values shown in column 11 of Table 2, the herd would have a beginning value of \$172,000 (column 12) rather than \$170,500 (column 3). The difference between

⁷ See OSU Extension Fact Sheet AGE-935, Capital Leases.

⁸ More information on valuing assets and estimating depreciation is in OSU Extension Fact Sheet AGE-791, Schedules of Assets.

these two values (\$1,500) would be entered as the gain/loss due to change in general base values of breeding livestock in the income statement (line 60). Because the Madisons did not change their values, zero is entered in line 60 of their income statement.

Net Farm Income is a standard measure of profitability for a farm business, calculated by matching revenue with expenses incurred to generate the revenue, plus the gain or loss from the sale of farm capital assets, before taxes. It is a residual return to the unpaid labor and management and owner equity. Net Farm Income equals Net Farm Income from Operations (line 58) plus/minus Gains or Losses on Sales of Farm Capital Assets (line 59) and Gains or Losses Due to Changes in Base Value of Breeding Livestock (line 60). Net farm income must be positive for the farm to be profitable. A profit shows that operating expenses and debt interest are paid and that owner and family labor and management have earned a positive return. Generating profits over time allows the farm business to expand, replace capital, and reduce debt. The Madison net farm income is \$82,823.

Nonfarm Revenue includes all sources of cash and non-cash income attributable to something other than farm production: income from wages or salaries, interest, dividends, rents and cash profits realized from nonfarm businesses, changes in the cash value of the life insurance policy, gifts and inheritances, nonfarm capital gains and losses, and accrual adjustments.

Change in Current Assets (line 64) includes changes in the value of marketable stocks, bonds, securities, and other personal assets.

Although farm creditors may focus on net farm income as they prefer to lend to farms able to generate a profit, they may also be interested in the net income to further validate the borrowers ability to repay. Nonfarm income is often looked at as a source of funds for family living which can supplement the farm if necessary. The Madisons have off-farm wages of \$21,600. Other nonfarm income is \$960 from royalty payments received. The nonfarm accrual adjustments are an increase in savings, cash value of life insurance, and investments in other entities of \$4,893.

Nonfarm Expenses are the expenses incurred to generate the nonfarm revenue. For the Madisons, items that must be deducted from nonfarm income are cash interest paid on the health care business loan of \$1,447, cash interest paid on the house loan of \$2,292, a decrease in non-farm interest of \$33, and withdrawals for savings of \$3,000.

Gain/Loss on Sale of Nonfarm Capital Assets and Marketable Securities (Line 71) sums gains and losses from the sale of nonfarm assets (home, rental houses, stocks, bonds, etc.). As with farm capital assets, the difference between the value for which the item is sold and the adjusted cost or basis determines the gain or loss and reflects the amount of depreciation that was over- or under-expensed in previous periods.

Income Before Taxes and Extraordinary Items (line 73) is the sum of net farm income (line 61) and nonfarm income (line 72). The Madisons' income before taxes and extraordinary items is \$103,370.

Total Income Tax Expense is then subtracted from the income before taxes and extraordinary items. Income taxes are based on the profit (loss) of the reporting entity. The Madisons have a cash income tax expense of \$10,471. As with inter-

est, accrual adjustments must be recorded to note changes in accrued income taxes (BS 36 F) and the current portion of deferred taxes (BS 37 F) and the non-current portion of deferred taxes (BS 46 F). The Madisons have an increase in the current portion of deferred taxes of \$121. Thus, the total income tax expense is \$10,471 (line 77).

Income Before Extraordinary Items is the income before taxes and extraordinary items less income tax expense.⁹ In the Madison example, income before extraordinary items is \$103,370 - \$10,471 = 92,899.

Extraordinary Items are revenue or expenses that are unusual in nature and infrequent in occurrence. Both criteria must be met to qualify as extraordinary. The amount is net of tax because the tax liability should have been accounted for earlier. An example of extraordinary items would be the gains or losses from an extinguishment of debt or proceeds from winning the lottery. Extraordinary items should be noted. Losses are entered as a negative number and will be added to the previous section to arrive at Net Income. The Madisons do not have any extraordinary items.

Net Income (line 80) is calculated by subtracting extraordinary items (net of tax) (line 79) from Income Before Extraordinary Items (line 78). Net income is the amount of income available for paying personal income and social security taxes, family living expenses, and reinvesting in the business. The amount of income reinvested in the business is equal to retained earnings on the balance sheet. A reduction in owner equity occurs when Net Income (line 80) is not adequate to pay the combined taxes and family living expenses. The Madisons have a net income of \$92,899.

The income statement is one of the most commonly used financial tools. The income statement indicates the progress of the business for a particular period of time, usually a year, and is used to analyze the financial success of the business. It summarizes the effects of activities, transactions, and events on the business. The income statement (also known as profit and loss statement or operating statement) measures profitability.

Computerized Farm Financial Statements

An OSU spreadsheet program, "Integrated Farm Financial Statements (IFFS)," facilitates calculation of farm enterprise cash flows, balance sheets, and income statements. The computer program utilizes data from farm enterprise cost and return budgets and additional information from input forms completed by the farm or ranch operator. For additional information, contact the Department of Agricultural Economics, Room 515 Agricultural Hall, Oklahoma State University, Stillwater, Oklahoma 74078-6026 or the local Cooperative Extension area agricultural economics specialist, or see agecon.okstate.edu/iffs.

Related Publications

AGEC-752, Developing a Balance Sheet
AGEC-751, Developing a Cash Flow Statement
AGEC-302, Farm Record Systems Available to Oklahoma Farmers
AGEC-323, Valuation of Raised Breeding Stock

⁹ Note that a reduction in accrued taxes could result in a negative tax expense. Subtracting a negative tax expense is equivalent to adding the amount to income before taxes and extraordinary items.

The Oklahoma Cooperative Extension Service

Bringing the University to You!

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

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