



UNIVERSITY OF MINNESOTA
EXTENSION

Ag Business Management

Informing farm families and ag businesses about management issues.

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Income Statement

Prepared By:
James N. Kurtz, Extension Educator

A complete set of financial statements for agriculture include: a Balance Sheet; an Income Statement; a Statement of Owner Equity and a Statement of Cash Flows. The FINPACK software, developed by the University of Minnesota, generates each of these statements. Other software and paper products generate similar information. Key ratios and measurements covering Liquidity, Solvency, Profitability, Repayment Capacity and Efficiency have become standards in the agricultural industry, and are generated from these financial statements.

An "Income Statement" measures profit (loss) in a given length of time. In the case of farms, this length of time is usually one year. The year should be the same as the "tax year". Farmers that do not have a good Income Statement often rely on the Schedule F from their tax return to measure their income. Since most farmers are on a cash basis for taxes, their Schedule F only shows the amount of cash sales less cash purchases, and an allowance for depreciation. Being on the cash basis for income taxes is good, in that it gives the farmer a lot of flexibility in controlling the amount of taxable income that he has for the year. However, the Schedule F is a poor tool to rely on to measure profitability. It measures the amount of cash that was handled, but gives no hint as to whether only a portion of a crop was sold (or perhaps two crops were sold), whether all of the year's bills were paid (or perhaps some of the previous year's bills were also paid), whether all income earned was collected (or if it is still owed), etc.

An "accrual adjusted Income Statement" combines the cash basis farm records with the inventories from the Balance Sheets (the beginning and end of the year) to give a true measure of profitability. The Income Statement produced by the FINPACK software is called FINAN, and is an accrual adjusted Income Statement. Other accrual adjusted Income Statements exist that measure income in a similar way. The process for producing an "accrual adjusted Income Statement" is explained in a 1, 2 & 3 step process in the following paragraphs.

Step 1: The Cash Farm Income and the Cash Farm Expenses are shown on the Income Statement. Each is totaled. The Total Cash Farm Expense is then subtracted from the Cash Farm Income, to get the "Net Cash Farm Income". This is an accurate measure of the dollars of income and expenses that were handled during the year, but it has not yet measured "profit".

Step 2: The Balance Sheets from the beginning and end of the year lists the farmer's inventories of production assets and liabilities. The values of the farm inventories at the beginning and end of the year, by category (Crop and Feed, Market Livestock, Receivables and Other Income Items, Prepaid Expenses and Supplies, and Payables and Accrued Expenses) are then shown on the Income Statement. The increases or decreases are calculated. The changes for each category are totaled. This Total Inventory Change is then combined with the Net Cash Farm Income, to produce the farm's "Net Operating Profit". This is "profit", without any "depreciation of assets" expense taken.

Step 3: A "Depreciation and Other Capital Adjustments" expense is calculated. This depreciation could be the farmer's actual "tax" depreciation, or it could be the "book" depreciation based more on gradual and realistic "wear and tear" decrease in value over time. The Depreciation is then subtracted from the Net Operating Profit, to calculate the "Net Farm Income". This is your farm's "Profit" or "Loss". This "Net Farm Income", plus any "Non-Farm Income" that exists, is what is needed to provide for family living, payment of income taxes and cover the principal payment obligations that have been committed to.

If we think of our Balance Sheets and the money we spend, here are some questions we need to ask ourselves: 1.) Do the dollars spent for family living show up on Balance Sheet? Of course not. They are gone. 2.) What about the dollars spent for income taxes? Same thing. They are gone. 3.) What about the dollars spent on principal payment of term debt? They do appear on the Balance Sheet, because now

the Liabilities are smaller. That is the logic behind the formula Net Income minus Living and Taxes equals Net Worth Change. However, the Net Income must be sufficient to cover the living, taxes and principal payment of term debt. If the net income is not adequate to also cover these term debt principal payments, either they will: 1.) not get paid, 2.) will get paid, but will be borrowed elsewhere (perhaps on the operating loan), or 3.) will be paid from the liquidation of assets.

The existence of adequate Net Income is absolutely key to the survival of a farm business. How do you measure whether it exists? The "accrual adjusted Income Statement". Without a good accrual adjusted Income Statement, how would you know if there was a profit? That is a good question.

Liquidity and Solvency ratios and measurements are calculated from your Balance Sheet. When we have a good Income Statement, ratios and measurements on Profitability, Repayment Capacity and Efficiency can be calculated. Some of these measurements come only from the Income Statement, while others require both a good Balance Sheet and a good Income Statement. See *Financial Management Series #5- Ratios and Measurements*.

It is important for the farmer to have good financial statements and analysis, and to understand them. After all, it is his financial life.

Resource: FINPACK User's Manual, Center for Farm Financial Management, University of Minnesota

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