



## Financial Statements – The Cash Flow Statement<sup>1</sup>

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There are four primary financial statements used in agriculture: (1) balance sheet or statement of net worth; (2) income statement; (3) statement of cash flows; and (4) statement of owner's equity. Each financial statement has a specific purpose for managing a farm's or ranch's finances. This fact sheet explains the cash flow statement. Other fact sheets and accompanying spreadsheets are available at the ABM web site (<https://abm.extension.colostate.edu>).

### The Cash Flow Statement: What is it?

The cash flow statement summarizes the cash inflows (receipts) and outflows (expenditures) of a business over a specific time. The accounting period is usually one year divided into 12 monthly periods. The cash flow statement can be used in either of the following ways:

- As a long-range projection or forecast of future operations (called pro forma or planning analysis).
- As a historical (after the fact) record containing actual financial data.

Ideally, a manager will make use of both procedures and develop a yearly projection followed by an actual record of each month's financial transactions as they occur.

The cash flow statement is a projection of the amount and timing of cash expected to flow into and out of the farm business during the next accounting period. It allows the farm manager or lender to estimate the amount and when cash will be available; determine the time and amount of any borrowed funds that might be needed; and estimate the debt repayment capacity of the business. The cash flow helps determine, not only the amount of debt the borrower can incur, but also the timing of repayment and the proper repayment schedule (i.e. the number of years to repay the loan).

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## Cash Flows in Commercial Agriculture

Each agricultural enterprise has its own special financial needs: livestock, row crops, dairy and fruit have different and unique cash flow problems. This, of course, is due to the timing and nature of costs that are incurred between starting an enterprise and the sale of the goods produced. A corn producer incurs costs in the spring and receives receipts when the crop is sold in late fall or early winter. A peach producer in Western Colorado will have to wait several years between planting and the first harvest before realizing any income. This is why cash flow analysis is so important. It requires a good planner who has mastered the technical aspects and seasonal peculiarities of their farm enterprise. A cash flow analysis forces managers to consider seasonal differences and allows him or her to develop alternative plans in search of the most feasible combination of enterprises. A cash flow analysis, however, does not indicate the profitability or wealth position of the business and should be used in conjunction with the income statement (to determine profitability) and the balance sheet (to show wealth).

## Preparation of the Cash Flow Statements

Many computerized farm accounting systems contain a budget module that can aid in developing a cash flow statement. One way to think of a cash flow statement is as a checkbook. Your checkbook accounts for all your cash inflows (deposits) and all your outflows (checks). At the end of each month a remaining cash balance is shown. A cash flow statement is very similar except it is more organized and systematic. Also, a cash flow statement having greater detail will be more effective as a management and planning tool. The formats of such cash flow statements are essentially the same, i.e., the upper half of the budget contains all the cash inflows (receipts and sales) and the lower half includes the cash outflows (costs and expenses).

The purpose of a cash flow statement will determine the difficulty and time necessary to prepare one. A person who has never prepared a cash flow statement will be well advised to first prepare one that is based on historical information. For example, using past bank statements (canceled checks and deposits) as the source of data -- both outflows and inflows. If the farm or ranch operator has separate business and personal bank accounts, both sets will be used to prepare the cash flow statement.

The cash flow statement accounts for both the business and personal/family living expenses and income. Thus, it is quite important when preparing a projected cash flow statement for the farm or ranch business not to overlook family living expenses. A projected cash flow statement or a statement of future operations can be prepared in two ways:

1. Project future income and expenses for the whole farm based on last year's receipts and expenditures.
2. Project income and expenses for the enterprises of the farm with a detailed analysis of inputs, outputs, prices, etc.

The first method requires the least effort while the second method is extremely detailed, requiring much planning and hard work.

The first method involves using last year's cash flow statement and projecting expected price changes. For example, if livestock receipts and livestock prices are projected to increase 10 percent this year, livestock income from the previous year would be increased by 10 percent. Of course, this also assumes production levels this year will be the same as last year's. If price and output stability could be

anticipated, this method would be quite adequate. However, price, cost, and output variance in the agriculture sector may make this method too imprecise for planning and budgeting needs

The second method is very detailed. What is done is to break the business down into the various enterprises and develop a budget for each enterprise. This entails developing a cropping plan -- including the acres, expected yields, and total production (if the producer has sufficient data on yields, use them or use a county or area average). In addition to yields and output prices, the preparer must estimate the seed, fertilizer, chemical, labor, and other input requirements and associated costs. A livestock plan is prepared much in the same manner as the crop plan. The expected production associated raised or purchased livestock must be estimated. The costs of operating the livestock enterprises must be determined and the marketing activities, with quantities and prices, must be estimated. The livestock plan requires careful consideration. As the crop program decided upon, determining sales prices for products may be the most frustrating requirement.

Other items which must be addressed are: crop usage and feed requirements; capital expenditures and repairs; projecting intermediate and long-term loan payments; and lastly, the family living budget. Planning crop usage and feed requirements involves estimation of supply (inventory plus production) and calculation of seed and feed use. Knowing the feed requirements for livestock will assist in determining surplus quantities of grain and hay which can be marketed. It will also assist in identifying feed or grain shortages which require purchase of supplies to meet feeding requirements. It is important that producers have a capital replacement and repair plan. Rather than wait until machinery, equipment, or buildings become unusable, so that the producer is faced with large replacement costs, a schedule for replacement should be developed. There may be production years when replacement is not feasible due to low income but it is important to plan replacement of capital assets over the long term. Planning for capital replacement and regular, annual contributions to a reserve for replacement will help one avoid big dollar outlays in the year of replacement. The anticipated capital purchases and repairs for the upcoming production year should be accounted for in the cash flow budget.

Repayment of debt is another important element to account for in the budgeting process. This element may be difficult to estimate for loans with a variable interest rate structure. If one anticipates buying capital assets in the upcoming year and financing the purchases, then the loan repayments (principal and interest) should be included in the cash flow budget. Lenders will be able to provide assistance when the preparer is projecting his debt repayment schedules.

Lastly, farm/ranch cashflow statements should include family living costs, whether the family takes a money draw from the farm account or the individual expenses are paid directly by the farm account. Agricultural families should plan their living costs, just as other people should. It is very important not to overlook this aspect of the cash flow preparation process. As much attention should be directed at this aspect as one would spend in determining a budget for the other components.

The two methods of preparing a cash flow budget suggested earlier are effective. However, the second method provides more detail and is more effective as a management tool. A starting point for those who have not prepared a cash flow budget before would be to use the first method. For some producers with only one or two enterprises (e.g., dryland wheat and sorghum) the first method is sufficient. However, producers with multiple enterprises may find the second method more useful and meaningful to their management needs.

## Use and Analysis

The cash flow statement has a number of uses. The most important use is for planning. It provides an estimate of how the farm or ranch business will be operated for the next production period/year. It also establishes definite expectations that can be utilized as the framework for measuring or monitoring performance over the time period for which the cash flow statement was prepared.

Monitoring is particularly important if the cash flow statement/budget is to be followed closely. Periodic monitoring (e.g., monthly) allows the farmer or rancher to identify potential cash flow problems. For example, if a rancher observes that his veterinary expenses are exceeding what were anticipated, he can adjust cash outflow in other areas to keep within his budget. A primary use of the statement is to identify cash flow difficulties when they are occurring. Once a cash flow problem has been identified, corrective measures can be instituted. Many times such problems go unnoticed until severe cash shortages occur. The cash flow statement can greatly assist the farmer or rancher in maintaining sufficient liquidity in the business. This, of course, assumes the preparer closely monitors and adheres to the cash flow budget in a timely manner.

Another important use of the cash flow statement is the projection of revenue and expenses for a projected (pro forma) income statement. Since a cash flow statement does not reflect profitability or loss, it is important to associate pro forma cash flow with a pro forma income statement. The uncertainty of prices, yields, cost, etc., makes this technique rather difficult. A farm/ranch manager will find it useful to develop several different sets of assumptions based on an optimistic outlook, the status quo, and a pessimistic outlook. Also, care must be taken to identify all costs which must be charged to the operation. Data on inventory changes and depreciation are also necessary to complete the income statement. The cash flow statement (both actual and projected) is integral to preparing a profit or loss (income) statement.

The cash flow statement is particularly useful for the evaluation of borrowed capital and the estimation of ability to repay. The cash flow statement (projected) identifies the level of capital necessary to operate the business, the requirement for borrowed capital, and the best method or time to repay the loan. The cash flow statement will identify the periods of time (e.g., months) where cash surpluses or shortages are expected to occur. Having such knowledge will greatly assist the lender in evaluating credit needs and repayment capacity. For agricultural producers using line-of-credit financing, cash flow statements are extremely useful.

If producers are considering new enterprises in the business, a cash flow statement will determine the impact on the cash flow. Adding, adjusting or eliminating an enterprise(s) will change the current flow of receipts and expenses. Projection of cash flows with changes in the farm business greatly facilitates management of operations.

Lastly, management of cash surpluses is important to agricultural producers. If cash surpluses occur, one may be concerned with investing these temporary funds in money market instruments (bonds, commercial paper, etc.). Producers must take advantage of the available financial options when cash surpluses exist. Interest earnings on such funds will add to the overall financial position of the business.

## Management Uses

A cash flow projection has several features making it especially useful as a management tool:

- The projected cash flow analysis formalizes the planning process for next year and provides a basis for developing other projected financial management tools such as the income statement and balance sheet.
- It provides an estimate of borrowing requirements and repayment capacity and scheduling, and
- It allows you to monitor actual cash flow and identify potential problems.

Once farmers/ranchers become familiar with a cash flow analysis, they will find it is a necessary reference and planning tool. Some microcomputer accounting systems have the ability to prepare a cash flow analysis or the use of an electronic spreadsheet can accomplish the same objective. Such software programs provide valuable management information.

## Resources

There are myriad resources available to help a farm or ranch owner manages the business's finances. Colorado State University Extension (and most other land grant universities) have fact sheets and spreadsheet templates for completing farm or ranch financial statements and analyzing the information from the statements. Such resources available from CSU can be found at

<https://abm.extension.colostate.edu> and include:

- *Financial Statements – The Farm/Ranch Balance Sheet* (fact sheet and Excel spreadsheet)
  - *Financial Statements – The Income Statement* (fact sheet and Excel spreadsheet)
  - *Analyzing Financial Information using Ratio Analysis* (fact sheet and Excel spreadsheet)
  - *Getting on Track: Financial Statements* (on-line course)
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