Financial Records:
Properly Measuring Financial Health

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Producers keep financial records for bankers, the Internal Revenue Service (IRS) and—most important of all—to make sound management decisions. In order to make good financial decisions, the financial records need to be accurate and understood. This paper is written for producers who have a basic understanding of financial statements, yet have trouble determining the effect of financial transactions on profit, equity and cash flow. The paper provides an overview of common errors that occur when recording financial information and developing and using financial statements.

Recording financial transactions requires that the information be properly categorized as income, expense, asset, liability, or equity, and recognizing the effect of financial transactions on the financial statements. The term "Financial Statements" refers to the Statement of Cash Flow, Income (Profit/Loss) Statement, Balance Sheet and Statement of Owner Equity. These statements are interrelated and form the financial base of the business. An error in one of the statements could cause an error in the other financial statements.

A major issue in financial record keeping is whether to include personal and business records together or separately. The Farm Financial Standards Council (FFSC) says it is preferable to have separate financial statements for business and personal items. Separating business assets from the personal assets better facilitates farm business analysis (FFSC, 1997). However, FFSC acknowledges that in smaller operations, this may not be possible.
**Statement of Cash Flow**

The statement of cash flow provides information about the cash receipts and payments as a result of operating, investing and financing activities of the farm/ranch.

**Operating Activities**: Cash provided or used from operating the farm/ranch, such as calf sales or business expenses.

**Investing Activities**: Cash provided or used from buying or selling capital assets such as land, breeding livestock, machinery or securities (stocks, bonds, etc.).

**Financing Activities**: Cash provided or used by borrowing activities, off farm income or uses, or gifts and inheritances.

The statement of cash flow does not measure profit or loss. It does not include non-cash expenses like depreciation or non-cash incomes such as calves or feed held over for sale the following year. It may include non-business cash such as outside wages that are invested in the business. The statement of cash flow includes distributions to owners (money taken out of the business for the owner’s personal use) or investment by owners (money invested into the business by the owner but not generated by the business), which affect cash flow and business assets, but not profit.

**Common Mistakes**

1) Not including all sources of cash inflow or outflow that affects the business in statement of cash flow.

2) Using the financial transactions on the statement of cash flow to show profit/loss.

**Income Statement**

The objective of the income statement is to measure the profitability of the business by comparing the income against the expenses of the business.

**Income** is cash or products produced by the business. Examples of income are sales of cattle or feed. A change in inventory that is generated from production in one year but sold in subsequent years is also included in income on an accrual income statement (ex: retained ownership of calves or hay produced in one year but sold in the next).

**Expenses** are the costs that occur from operating the ranch. These expenses include feed, fertilizer, vet and medicine, equipment, and labor, to name a few.

**Common Mistakes**

1) Including income from non-ranch sources as profit generated by the ranch. This includes outside wages, bank loans or inheritances. These transactions affect cash flow and/or equity of the ranch, but not profitability. Remember to measure the true profitability of the ranch the income must be generated by the ranch.

2) Charging expenses or cash outflows against the ranch that are not a direct result of operating the ranch. This may include personal living or recreational expenses. Although these are cash outflows from the business, they are not an expense incurred directly from operating the ranch. They are a reduction in owner equity.

3) Not recognizing that a cash based income statement rarely reflects the actual net income of the ranch as the accrual income statement does.
4) Using a depreciation method that does not allocate the expense of the asset in a systematic and rational manner over its useful life¹.

**Balance Sheet**

The Balance Sheet measures the assets, liabilities and equity (net worth) of the ranch. It shows what assets the ranch controls and who owns or has claims against those assets. It provides a “snapshot” of the business at a point in time (for example, December 31, 1999).

**Assets** are something held by the ranch that has value and helps the ranch operate and generate future income. Examples include livestock, land, equipment, feed and cash.

**Liability** is the money that the ranch owes to someone else (bank, feed store, veterinarian and others)

**Owner equity** is the difference between assets and liabilities. It is often referred to as Net Worth.

Assets are listed in one column while liabilities and owner equity are listed in another. After adding all of the assets, they should be equal to liabilities plus owner equity (Assets=Liability+Owner Equity).

**Common Mistakes**

1) Recording payments of a liability as an expense. Repayment to others usually has two components, principal and interest. The interest portion of the payment is an expense—the cost of borrowing money. The principal portion of the payment transfers greater ownership of the assets from the lender to the rancher as explained in the following example.

Example: A Rancher owes $60,000 to the bank for 100 cows (bought for $70,000), financed for five years at 9% interest. The payments to the bank are $15,425.55 each year.

<table>
<thead>
<tr>
<th>Payment</th>
<th>Interest</th>
<th>Principal</th>
<th>Total Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$5,400.00</td>
<td>$10,025.55</td>
<td>$15,425.55</td>
</tr>
<tr>
<td>2</td>
<td>$4,497.70</td>
<td>$10,927.85</td>
<td>$15,425.55</td>
</tr>
<tr>
<td>3</td>
<td>$3,514.19</td>
<td>$11,911.36</td>
<td>$15,425.55</td>
</tr>
<tr>
<td>4</td>
<td>$2,442.17</td>
<td>$12,983.88</td>
<td>$15,425.55</td>
</tr>
<tr>
<td>5</td>
<td>$1,273.69</td>
<td>$14,151.86</td>
<td>$15,425.55</td>
</tr>
</tbody>
</table>

The total amount paid to the bank over five years is $77,127.75 of which $60,000 is principal and $17,127.75 is interest. The interest each year is an expense, which is the cost of borrowing the money. The principal payments decrease the cash held by the ranch (an asset) and decrease the liability on the cattle. The asset "cash" and the liability on the cattle are both included on the balance sheet and do not affect the income statement. Most assets that are bought by incurring a liability, are expensed by depreciating the asset. Land is an example of an asset that is not depreciated.

¹ When calculating depreciation for taxes, the IRS requires the use of one of its depreciation methods. The depreciation method most often chosen is MACRS.
2) Recording an asset at market value only. The balance sheet should show assets at cost less accumulated depreciation. However, market value and cost can be shown with a two-column balance sheet or by recording at market value and disclosing cost less accumulated depreciation in the footnotes (FFSC 1997).

Financial Check
Financial records are set up with checks to help determine if the statements are correct. For example, assume that on January 1, 1999, J.R. Ranch has the same 100 cows mentioned above and the third payment is due at the end of the year (Dec 31, 1999). The market value of the cows is $70,000, while the book value (cost less accumulated depreciation) is $60,000. In addition the ranch currently has $5,000 in the bank. The beginning balance sheet, which shows both book (cost) value and market value for assets but equates total liabilities and owner equity to cost, looks like:

<table>
<thead>
<tr>
<th>J.R. Ranch Balance Sheet (Cost Basis)</th>
<th>January 1, 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td><strong>Book Value</strong></td>
</tr>
<tr>
<td>Cash</td>
<td>$5,000.00</td>
</tr>
<tr>
<td><strong>Other Assets</strong></td>
<td></td>
</tr>
<tr>
<td><em>Breeding Livestock Cows</em></td>
<td>$60,000.00</td>
</tr>
<tr>
<td><strong>Total Assets</strong></td>
<td>$65,000.00</td>
</tr>
</tbody>
</table>

**Current Liabilities**

<table>
<thead>
<tr>
<th>3rd Payment</th>
<th>$11,911.36</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Liabilities</strong></td>
<td></td>
</tr>
<tr>
<td>4th and 5th Payments</td>
<td>$27,135.24</td>
</tr>
<tr>
<td><strong>Owner Equity</strong></td>
<td>$25,953.40</td>
</tr>
<tr>
<td><strong>Total Liabilities &amp; Owner Equity</strong></td>
<td>$65,000.00</td>
</tr>
</tbody>
</table>

During the Year, J.R. Ranch sold 85 calves that weighed 500 lbs. for $75/cwt. They saved 10 head of replacement heifers. Expenses from running the ranch are $20,000 for feed, $3,514.19 for interest and $500 for vet and medicine. In addition, the ranch bought a squeeze chute for $3,000, which has a useful life of 10 years and no salvage value. They made their payment to the bank for $15,425.55, of which $11,911.36 was for the principal payment. Payments and expenses on the cows were supplemented by off-ranch income of $10,000. The ranch statement of cash flow and income statements will look like the following example:

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1. $70,000 cost - $35,000 salvage value = $35,000 depreciable cost. $35,000 × 7 years = $5,000 depreciation per year, or $10,000 accumulated depreciation for two years.

2. This is only an illustration of expenses and would not include all items on an income statement.
Notice the differences: 1) Off-ranch income of $10,000 is on the statement of cash flow but not the income statement. 2) The entire amount of the squeeze chute is on the statement of cash flow but only the expense for the current year (depreciation) is included in the income statement. 3) Principal payments are on the statement of cash flow but not the income statement. 4) Depreciation for the cattle and the value of the raised replacement heifers is on the income statement but not the statement of cash flow.

<table>
<thead>
<tr>
<th>J.R. Ranches</th>
<th>J.R. Ranches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of Cash Flow</td>
<td>Income Statement</td>
</tr>
<tr>
<td>January 1, 1999 - December 31, 1999</td>
<td>January 1, 1999 - December 31, 1999</td>
</tr>
<tr>
<td><strong>Cash From Operating</strong></td>
<td><strong>Income</strong></td>
</tr>
<tr>
<td>Cash received from calf sales</td>
<td><strong>Calf sales</strong> $31,875.00</td>
</tr>
<tr>
<td>Cash paid for operating expenses</td>
<td><strong>Inventory Change</strong></td>
</tr>
<tr>
<td>Net cash provided from operating</td>
<td><strong>Replacement</strong> $3,750.00</td>
</tr>
<tr>
<td><strong>Cash From Investing</strong></td>
<td><strong>Heifers Raised</strong></td>
</tr>
<tr>
<td>Cash paid for squeeze shoot</td>
<td><strong>Total Income</strong> $35,625.00</td>
</tr>
<tr>
<td>Net cash provided from investing</td>
<td><strong>Total Expenses</strong> $29,314.19</td>
</tr>
<tr>
<td><strong>Cash From Financing</strong></td>
<td><strong>Net Income</strong> $6,310.81</td>
</tr>
<tr>
<td>Cash invested by owner</td>
<td>Feed $20,000.00</td>
</tr>
<tr>
<td>Principal paid on loan</td>
<td>Interest $3,514.19</td>
</tr>
<tr>
<td>Net cash provided from financing</td>
<td>Vet &amp; Med. $300.00</td>
</tr>
<tr>
<td><strong>Net Cash Increase</strong></td>
<td>Depreciation, Cattle $5,000.00</td>
</tr>
<tr>
<td>Cash at the beginning of the year</td>
<td><strong>Total Expenses</strong> $29,314.19</td>
</tr>
<tr>
<td>Cash at the end of the year</td>
<td><strong>Net Income</strong> $6,310.81</td>
</tr>
</tbody>
</table>
Notice how the other financial statements are used to complete the ending balance sheet. Adding the beginning cash balance, $5,000, to the Net Cash Flow, $2,949.45, completes the ending cash balance. Adding beginning Owner Equity, $25,953.40, to Net Income, $6,310.81, and the investment by the owner of $10,000 completes the ending Owner Equity. The beginning Owner Equity plus net income, plus investments by owner, less distributions to the owner will equal the ending Owner Equity.

![Balance Sheet](image)

**Current Assets**
- Cash ($5,000 + $2,949.50) = $7,949.45
  - Book Value = $7,949.45
  - Market Value = $7,949.45
- Other Assets
  - Equipment: $2,700.00
    - Book Value = $2,700.00
  - Breeding Livestock: $55,000.00
    - Book Value = $55,000.00
    - Market Value = $70,000.00
  - Replacement Heifers: $3,720.00
    - Book Value = $3,720.00
    - Market Value = $2,720.00

**Total Assets**
- $69,399.45
  - Book Value = $69,399.45
  - Market Value = $84,399.45

**Current Liabilities**
- Fourth Payment = $12,983.38
- Other Liabilities
  - Fifth Payment = $14,151.86

**Other Assets**
- Equipment: $2,700.00
  - Book Value = $2,700.00
- Breeding Livestock: $55,000.00
  - Book Value = $55,000.00
  - Market Value = $70,000.00
- Replacement Heifers: $3,720.00
  - Book Value = $3,720.00
  - Market Value = $2,720.00

**Total Liabilities**
- $27,115.24

**Owner Equity**
- Beginning Equity = $25,953.40
- Investment by Owner = $10,000.00
- Retained Earnings = $6,310.81

**Ending Owner Equity**
- $42,264.21

**Liabilities & Owner Equity**
- $69,399.45

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**Summary**

Remember that these financial statements are interrelated. Understanding the effect that financial transactions have on cash flow (Statement of Cash Flow), profit (Income Statement), and equity (Balance Sheet) gives the manager an accurate picture of the profitability and financial stability of the business. It helps the manager put financial transactions in the correct account: income, expense, asset, liability or equity. It also makes it easier to balance books, work with bankers and accountants, and file taxes.

**Additional Reading**