IRS - Data Based Cow-Calf Cost Calculation

The cost of weaned calves can be calculated by using the data collected for IRS tax reporting with a few inventories and other accrual revenue and income adjustments. In addition to IRS tax information, the producer must know the beginning fiscal year inventory of breeding cows and the total weight and value of calves at weaning from the cows exposed in the previous year breeding season.

This format does not provide the SPA integrated production, marketing, and financial performance analysis. Complete financial statement including the balance is not required for the analysis. However, the same data can be used to complete the SPA analysis. Data required to calculate IRS based cow-calf costs are as follows:

IRS tax data sources:

- Schedule F of tax returns entitled “Profit or Loss From Farming.”
- Depreciation schedules with break out of depreciation for breeding stock; machinery, vehicle, and equipment; and buildings and improvements.
- Form 4562, Depreciation and Amortization, and Form 4797, Sale of Business Property.

Inventories needed:

- Beginning and end of the fiscal year feed and cattle inventories.

Provided here are a few definitions and a worksheet that can help guide the assembling of data and cost calculation.

Definitions

- Fiscal year is the annual financial accounting year and is used for tax reporting. Normally it begins Jan. 1st and ends Dec. 31st.
- Enterprise operating cost includes cash costs, depreciation and accrued adjustments. These are the pre-income tax costs.
- Accrual adjustments are made so revenues are recognized in the fiscal year earned regardless of when cash is received (inventory change or accounts receivables). Expenses are recognized regardless of when cash is paid (prepaid expenses, accounts payable, accrued interest or taxes). With accrual adjustments, the expenses and revenues are more accurately matched.
- Cow-calf enterprise revenues and costs include revenues and expenses associated with cows, bulls and replacements for the fiscal year the calf is weaned.
- Number of breeding cows is the beginning fiscal year inventory of cows expected to calve or with a calf that will be weaned during the fiscal year.
- Exposed cows are the number of replacement heifers and cows exposed in the previous fiscal year that produced the calves weaned in the fiscal year of analysis.
Organization of the Decision Aid

This decision aid has several reports that guide organization of data:

- Ranch property and Resource Description
- Summary of Cattle Production and Sales for Fiscal Year
- Raised and Purchased Breeding Cattle Capital Gains and Loss Revenue Schedule
- Accrual Values to Adjust Cash Accounting Data
- Cow-Calf Enterprise Revenue and Cost
  - Other Ranch Revenue and Expenses

It is best to move through the analysis page by page and identify basic data source with the page, i.e., the Schedule F with the cow-calf revenue and cost page.

Accrual Adjustments

- The cash revenue and expenses that farms and ranches must record for cash based IRS tax purposes are inadequate to measure the fiscal year revenue and operating cost. The aim is to match revenue with appropriate expenses, irrespective of the time of the transaction. The cash costs, combined with depreciation, accounts for a majority of the total costs. The accrual adjustments to these costs include inventory changes in items like feed and prepaid expenses, accounts payable and accrual expenses such as tax, interest and receivables. These adjustments are determined by recording the values at the beginning of the fiscal year, normally the tax year that begins January 1st, and at the end of the fiscal year. The beginning-year values are then subtracted from the end of the year values to determine the change, which will be added to or subtracted from the cash costs. The purpose of the adjustments is to more accurately match revenue and expenses. For example: Joe, a rancher, started the year with $12,000 of feed inventory. He ended the year with only $2,000. These cash expenses do not reflect that the inventory was used. The adjustment would be done to show an inventory decrease of $10,000, which adds to the current fiscal year expenses.

  It is not only important to calculate cost to guide management decisions, but it is also important to learn where the big cost items are. Grouping cost in the major areas helps identify where to focus cost reduction efforts. Management must decide where to cut costs that will not reduce revenue by more than the cost reduction. Some items may require increased expenditures to increase revenue.

Calculating Revenue

  It becomes a little tricky to calculate the cow-calf enterprise net operating income, as there are several sources of revenue, including the actual cash sales of calves. These include the net market value of retained calves, value of heifer calves kept for replacements and finally the
gains and losses on culled breeding stock. Farmers and ranchers that pay income tax on a cash basis know that only cash sales are counted for tax calculations. For tax purposes, capital gains and losses are simple calculations, as there is a zero tax basis in raised breeding stock so sales values will equal gains. For purchased cattle, gain or loss can be calculated by subtracting the remaining book value, which is a purchase cost minus accumulated depreciation, from the net sales value.

To adequately match revenue and expenses for management purposes, the raised replacement valuation must be handled differently than for tax purposes (see Schedule 2). The base value approach is recommended, and is used to determine the cost basis value of the heifers and cows and to determine the amount of revenue to recognize from raising the breeding animal. The base value is a stipulated value that approximates the cost of raising the breeding animal. A base value is placed on the heifers at weaning and then when she moves into the cow herd the increase in value is recognized.

A decrease in value from death loss is recognized when the raised animal dies. When sold, the gain/loss is calculated by subtracting the base value from the set sales value, i.e., when replacement heifers are kept, their net market value is $300 per head. This is recognized as revenue or base value just as if the heifer was being sold. The heifer is grown, bred and moves into the cow herd at a base value that is increased to $600 per head. The $300 increase in base value for the quantity transferred into the herd is recognized.

When the cow is culled five years later for $350, then a loss of $250 ($350 - $600) is recognized. For simplification, cattle’s category base values are held consistent over time. However, with big changes in value, the whole herd value can be revised which would represent a capital valuation loss, not an operating income loss.

Production Data

The summary of cattle production and sales form can be used to calculate fiscal year production and sales. Be sure all cash sales and calves that are transferred to retained ownership enterprises, such as stockers to the feedyard, or replacements, are accounted for. This will generate the total pay weight of weaned calf sales and would be a good check on revenues, including the raised and purchased breeding stock sales used in calculating capital gains (losses).

Cost of Production Summary

The format for organizing the revenue and expense data is shown in the cow-calf revenue and cost form. Expense data from the IRS Schedule F is identified with major cost areas. Organization of expense in this manner helps identify areas to cost management areas.

Allocation Decisions

Determine what part of the total farm or ranch cost should be attributed to the cow-calf enterprise. For example, what part of the fertilizer is attributed to the cow-calf enterprise grazing or feed used for the cow-calf enterprise and how much fertilizer should be allocated to grain/crop that is produced? Producers normally have a pretty good idea how to approximate allocations.
One cost that may take some thought is the owner-operator’s labor and management return. This value should be equivalent to what it would cost to hire an outside employee to perform the same services.

For some operations, this represents a living withdrawal up to the equivalence of hiring the service. The costs beyond the hired employment rate would be a capital distribution.

**Ways to Reduce Cost**

A final summary, after the worksheet, lists ideas on how to reduce costs in the cow-calf enterprise.

**Using Cost Calculation To Reduce Cost**

Experience using the SPA system has pointed out these opportunities for reducing cost of production:

- Know your cost of production and update cost calculations in a timely manner.
- Express on a per breeding cow and per cwt. of calf weaned basis so the values serve as reference points (i.e., turn cost data into meaningful management decision information).
- Anticipate in advance what costs should be - plan for cost control.
- Analyze cost by exception and identify either extraordinarily large or small cost items for cost control or expenditure opportunities.
- Clearly identify which costs *can* be managed.
- When deciding to reduce cost, determine whether or not the reduced cost results in a greater reduction in revenue.
- When increasing expenditures, determine if the added cost will be covered by added revenue.
- Ensure that meaningful decision and performance evaluation information gets back to those who generate data. All employees need to see performance information, and everyone needs to provide ideas on how costs can be reduced.
- Budget for a profit on the basis of a complete cost of production including indirect or overhead costs.
- Market for a profit including a return to owner management and labor, not just a direct cattle and feed cost breakeven.
- Monitor cattle markets carefully and budget marketing alternatives frequently.
• Develop marketing alliances and merchandise cattle to bring the top dollar by evaluating all market alternatives.

• Invest in profitable assets and technologies. Eliminate assets that do not provide for profitable returns.

• To minimize input cost, use volume and seasonal discounts.

• Make investments on a financially sound basis. Do not invest for the sole purpose of reducing taxes. It seldom makes financial sense to spend a dollar to save 28 or 32 cents in taxes.

• Remember, if you are not paying IRS income taxes, there is a good chance that your business is not profitable. After-tax profitability keeps you in business.

• Find ways to empower your employees to increase their participation in decisions and be more accountable to business objectives.

• Work on communication with everyone in the business. Written, accurate and timely summary information is most likely to be used.

• Make decisions based on your information and analysis, not on emotions or others’ opinions.

• Record and monitor supplemental feed use and cow condition scores.

• Prepare accrual adjusted income statements (i.e., cash income and expense plus adjustments for inventory changes, prepaid expenses, accounts payable and accounts receivable) to measure the business profitability.

• Develop written business goals, project financial statements and cash flows to achieve these goals. Update these plans annually, at least.

• Execution of the plan is the key. It is getting things done right and on time.

• Evaluate cash withdrawals from the business for family living or other activities. Answer the question, “Can the business equity be sustained at the level of current and projected withdrawals?”

• Challenge researchers, Extension, private firms and consultants to provide sound economic evaluations of their proposed changes in technologies and management practices.
Specific target areas for reducing cost of production include:

- Supplemental feed cost. Make sure the nutrition program is correct for cows of different condition, and reduce feed waste.

- Cost of raised feed. Often, it is cheaper to buy, rather than raise, your own feed.

- Efficiency of the grazing system. Improve it, as this is a low-cost feed source.

- Unnecessary machinery and vehicles. Sell them, and the proceeds from the sale can be used in a variety of productive ways, including the purchase of more efficient equipment or the reduction of debt.

- Ways to reduce operating expenses of vehicles.

- Planning vehicle use to minimize mileage.

- Insurance policies. Review them to insure coverage is at the lowest cost.

- Depreciation schedule. Is it complete and accurate?

- CPA services. Spend the extra money to receive managerial financial statements. Your tax forms do not provide an accurate measure of profitability for the business.

- Time with your CPA. Review your managerial financial statements and your tax management efforts.

- Historical financial statements. Summarize them to see if better interest rates can be attained from a different lender with your documented financial track record.

- Cattle health management program. Review with a veterinarian that understands the production and economics of your business.

- Overhead costs. Review to see what expenditures are really necessary.

- Keep the tax appraiser informed. Do not avoid the opportunity to argue your property valuations.

**Understanding Profit**

Be very cautious when using reported breakevens, net income and profit projections. Frequently, breakevens do not include all costs, and profit values overstate true financial profitability. Developers of these values often ignore self-employment and income taxes, returns to management and labor and overhead costs. Truly profitable enterprises provide retained
earnings that can be used for savings, capital investments or to reduce debts after all costs are accounted for. Always question what is included in cost and income reports or projections.

The NCBA SPA Committee recommended that cost include both direct and indirect financial costs. Indirect costs, like overhead and owner operator management, are shared by all enterprises.

A return to operator management and labor is included in cost at a level equivalent to the salary required to hire a non-family member to provide an equivalent service. Profit is calculated after accounting for taxes. It is the net after-tax profit that pays living and other withdrawals, debts and adds to savings.

A business must be profitable to survive financially and maintain quality. In fact, the only way a business can survive without profit is if outside earnings or gifts are contributed to the business.

Competitiveness is measured by the ability of a business to produce and market a commodity and generate a profit. A competitive business generates after-tax profits.

The financial progress of a business is measured in terms of the change in the business equity (assets - liabilities) or the difference between the total assets of the business and what is owed by the business (liabilities). Equity change is determined by preparing the business’ or enterprise’s beginning and ending balance sheet, accrual adjusted income statement and statement of owner equity. Determine change in equity annually if you are in the cattle business or not. Is your business adding to equity or using equity to stay in business?

All businesses have a different cost of production, so you must develop your own numbers. Do not rely on someone else’s numbers because in the cattle industry the numbers most frequently under estimate cost and over estimate profit. Become a better business manager by using your own information to face your reality.

Attitude

All producers must address the question of their commitment to becoming a low-cost competitor. Is everyone in the business organization participating in decisions and seeking ways to lower cost? Will everyone pay the price to learn how to become a low cost producer? Remember that personnel must participate in favorable results. Success is often linked to attitude, dedication in achieving a goal, and life-long learning.

Saying that something is difficult to learn, is not user-friendly or is too theoretical is frequently an excuse for not making the effort to learn something new. Knowledge and ability to use information and information technologies will increasingly separate out the top employees and managers in any industry.

In a capitalistic economy, long-term financial rewards come to those who make their business profitable. Do not look for another individual or an organization to help make you competitive. That is your responsibility as a business manager.

Do not forget to hire on your weaknesses and build on your strengths through continuing education. Measuring your performance in light of your goals is a valuable educational experience.

In selecting management practices, do not forget basics such as controlled breeding season, pregnancy testing, a vet-checked health program and a good nutrition program. The grazing system should be a top priority area to reduce costs, as it is the cheapest source of feed.
To manage cost, it must be measured and evaluated. Then changes must be made in the business to reduce cost. If a business does what it always has, then it can expect to become less competitive.

Remaining competitive requires changes.

**Source of Educational Material**

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