

IRS Schedule F's Cash Reporting Use for Preparation of Ranch Financial Statements and Performance Information

If you don't measure profitability, you are in the danger of losing it.

The purpose of this spreadsheet is to facilitate use of cash data prepared for IRS reporting and combine this with cow-calf reproduction data to provide cow-calf profitability reports.

The source of cash data is the IRS Schedule F "Profit or Loss from Farming". The Net farm profit or (loss) reported on line 34 of the IRS Schedule F "Profit or Loss from Farming" **is not intended to be the measure of ranch profit.** The Schedule F is used for the taxpayer to report taxable income which is acceptable to a taxing authority, consistent with the statutes and regulations of that taxing authority. The schedule F. is not a business income statement.

Measuring ranch or cow-calf profitability requires accrual adjustments **to match revenue with expenses during the fiscal year.** An accrual ranch expense is the amount of expense that is associated for the fiscal year. Revenue is recorded **when earned and expenses are recorded when incurred.** This is in contrast to the **cash basis of accounting** where revenue is recorded only when cash is received, and expenses are recorded when cash is paid. When using, cash accounting no attempt is made to match revenue against expenses. However, this cash data is a big part of developing useful accrual adjusted financial statements.

Adjustments to cash data (accrual adjustments) includes recording change in inventories, prepaid expenses, accounts receivable and payable, taxes and interest. Breeding stock, a capital asset, requires calculating capital gains or loss on sales. A procedure is setup for raised replacement that require special treatment as their value is an addition capital asset. End of year recording of accrual adjustment data is an additions task that must be completed in a timely manner which

The reproduction data and reporting information follows the Standardized Performance Analysis (SPA) methodology.

For the purpose measuring ranch profit expenses, should include a cost equivalent to **compensation for unpaid operator and family labor and management if hired.** Owner wages and salaries are not included in the IRS Schedule F expenses for sole proprietorships expenses. Other forms of business entities may have owner compensation in operating expenses. Family living withdrawals is also a measure of compensation. If withdrawals are excess of a hired equivalent, it means that capital draws are required to cover living costs.

Net Accrual Income or Profit is the accrual revenue earned minus the accrual expenses incurred during the operating year without regard to the timing of exchange of cash. **Profitability** is the ability of the business to generate income in excess of expenses. It is expressed as the net returns to capital used in production. **A business cannot be sustainable if it is not profitable.**

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There are some additional data required beyond what is necessary for compliance with Internal Revenue Service (IRS) cash reporting using the Schedule F to prepare the business accrual adjusted financial statements that measure profitability including:

- Beginning and ending year cattle and feed inventories
- Other data for accrual adjustments including prepaid expenses, accounts payable and receivable and accrued interest and taxes.
- Owner operator labor and management compensation equivalent to hired services.
- Market value of capital assets for a market-based balance sheet.
- Use replacement **cost recovery** for capital assets or depreciable assets – breeding cattle, vehicles, machinery and equipment and land improvements including buildings. The alternative is to have the CPA run a book depreciation report in addition to IRS depreciation.
- Base value or estimated cost of producing replacement stock (FFSC approach) and the number of raised replacements heifers kept and entering the breeding herd.

A business that cannot calculate return on assets (ROA) or return on equity (ROE) does not have adequate information to measure financial performance or sustainability. Few cow-calf ranchers are measuring profitability a key component of sustainability.

Key Definitions

- **Owner Operator Labor and Management Reflected as Family Living Expenses/Withdrawals** is the cash paid for owner and labor and management services provided by the family. Family living expenses/withdrawals should be at a level equivalent to the salary required to hire a non-family member to provide an equivalent service. Actual withdrawals in excess of this amount must be **considered capital distributions** in order to reconcile the retained earnings and statement of cash flows. Family living expenses/withdrawals are used not only to calculate cost of production, but return on assets, return on equity, and repayment capital as well.
- **Measuring ranch profitability** requires accrual adjustments **to match revenue with expenses during the fiscal year**. Ranch revenue is recorded **when earned and expenses are recorded when incurred**. This is in contrast to the **cash basis of accounting** where revenue is recorded only when cash is received, and expenses are recorded when cash is paid. When using, cash accounting no attempt is made to match revenue against expenses. However, this cash data is a big part of developing useful accrual adjusted income statements.
- **Net Accrual Adjusted Income** - Revenue earned minus the accrual adjusted expenses incurred during the operating year including the interest expenses are subtracted from cash operating income. Net income is calculated after accounting compensation for owner operator labor and management. For operations that pay salary and wages, this cost is included in operating costs.

- In the financial and economic calculations owner labor and management compensation is subtracted. If family living withdrawals exceed this compensation, it's a capital withdrawal. This is consistent with the way retained earnings are calculated in the total farm/ranch financial statements.
- Financial performance ratios are normally pre-income tax for comparative purpose and to compare alternative investments.
- **Return on Assets (ROA).** This ratio is an indicator of how productive the assets are being used by the enterprise. This percentage is calculated as net income from operations plus interest expense minus family living expenses/withdrawal representing a payment to owner labor and management divided by average total assets. The reason interest is added back is interest paid represents a return the debt capital. **ROA is a return to capital invested irrespective of capital ownership.**
 - When examining ROA from a market value basis, the value for average total assets is determined by their current market value. The resulting percentage evaluates profitability based on current market value. In other words, this is an indication of profitability if one was to go into the market place and acquire the assets at their current market value.
 - If the market price of the product is below the financial cost of production, it means the producer is using equity to stay in production. If the market price of the product is below the economic cost of production, it means that the resources are producing a return less than their opportunity cost. This means the resources would generate more net income if they were invested in their next best use.
 - ROA indicates the profitability per dollar of assets, thus allowing comparisons over different size firms and different types of businesses or investments
- **Return on Equity (ROE) -** Is the net income after all interest charges. That is, the residual return to the owner's investment divided by the average equity investment. It is a measurement of the return the owners of the business receive on their money invested. ROE can be compared to rates of return in other equity or investment opportunities.

Appendix A: Raised Breeding Stock Accounting

Accounting for raised breeding stock presents challenges that must be addressed to meet cost accounting and management informational needs. Under IRS cash tax reporting raised breeding stock costs are expensed in the year incurred. Raised breeding stock have a zero-tax basis when sold or there is death loss. The net sales value of raised breeding sales is capital gains for IRS tax purpose. This approach does not allow for fiscal year matching of revenue and expenses nor valuation on breeding stock inventory that are not included on the balance sheet because their IRS cost basis is zero. You can have a herd of raised breeding stock and a zero value on the IRS based balance sheet. Worthless information for financial performance evaluation!

For purchased breeding stock the “original” purchase cost is the basis for depreciation. Using a straight-line depreciation with salvage value to account for purchased breeding stock would allow

for more accurate and less distorted financial statements than following IRA cash accounting compliance methods.

The Farm Financial Standards Council (FFSC) offers two alternatives to IRS cash tax accounting for raised breeding stock: 1. the base value approach where replacement cost is estimated and 2. The capitalization approach where costs are accumulated or full cost absorption. The Standardized Performance Analysis (SPA) follows the FFSC guidance. The raised breeding stock accounting approaches are described below. The table compares alternatives and IRS reporting.

Base Value Raised Breeding Stock

Valuation for raised breeding stock covers the time period from weaning until the heifers are considered bred to enter the breeding cow category. When replacements are held at weaning, they are given a **base value that approximates the cost of production to weaning**. This is recognized in the income statement as a matching of current year expenses. An increase in base value income is recognized when they moved into the breeding herd and then when replacement enter the breeding herd. This recognizes the matching of increase in income matching costs to grow and breed the replacement heifers before the move into the breeding herd. The gain and loss from the raised breeding stock is calculated by **subtracting the base value from the net sales revenue realizes when the breeding stock is sold or dies**.

Annual raised breeding stock depreciation is not recognized when using base value. The base value is shown on the balance sheet and are designated as raised breeding stock to value assets. The base value can be adjusted over time as replacement cost changes.

Cost Capitalization for Raised Breeding Stock - Beyond Management Reporting Needs

Using the cost capitalization approach, also referred to as the accumulated cost or full cost absorption approach, requires the rancher to capitalize the accumulated cost of raising the replacement animal. In other words, the entire accumulated cost associated with pre-productive expenditures up until breeding stock are placed into service. For example, the accumulated cost of a weaned heifer in the cow-calf phase would be added to the additional cost of maintaining her until she moves into the breeding cow category.

Once the animal enters the breeding herd, the producer can claim an annual depreciation expense based on the capitalized costs, the estimated useful life and the salvage value of the raised breeding stock. When the capitalization approach is used, raised breeding stock accounting is done using the same methodology described for purchased breeding stock.

All breeding stock are considered depreciable assets and are consistent with the generally accepted accounting principles (GAAP). An annual depreciation expense is assigned to both types of breeding stock. Accumulated depreciation will be kept throughout the assets' economic useful-life and these figures will be used to determine the capital gains (losses) and costs of goods sold when the animal is sold or disposed from the herd. The only revenue recognized would be the gain or loss when the replacement is culled from the breeding operation.

The complexity of this approach means it's not used by ranchers filing using the schedule F. The **base value** alternative meets this need.

Appendix B: Definition of Costs and Retained Ownership Terms Cost Organization

Costs are organized in the following order.

- a) Direct Costs
- b) Indirect Costs
- c) General and Administrative (G&A) Costs

Total Operating Costs (a+b+c)

Finance

Total Cost or Total Unit Cost (TUC) (Operating + Finance)

Direct Costs are cost of items that are directly related to level of the production activity such as grazing, feed, yardage, health, breeding and feeder cost.

Indirect Costs are the costs ownership and operating cost. Depreciation or capital asset recovery, repair, maintenance, of the vehicles, machinery and equipment, labor and management, utilities, property tax are examples of operating costs. **General and administrative costs** are (G&A) indirect cost that all business incurs to cover book keeping, professional fees, insurance, office supplies, computer services, phone and other utilities cost. Administrative cost includes the salary and payroll for hired of owner management.

Owner Operator Labor and Management compensation should be included in the production cost calculation at a level equivalent to the salary required to hire a non-family member to provide an equivalent service. Compensation in excess of this amount must be considered capital distributions in order to reconcile the retained earnings and statement of cash flows. This makes a sole proprietor's cost comparable to a corporate business's calculation. Owner manager costs needs to be included in production costs.

Total Grazing Cost - Financial costs for grazing land include actual lease land expenses paid, real estate mortgage interest payments, depreciation and maintenance of improvements, and property taxes of owned land. Economic costs for grazing include actual lease expenses paid plus the cash lease equivalent rate on owned real estate (or opportunity cost). When calculating the economic or opportunity cost of the grazing lease rate, the adjustments to financial expenses for costs paid by the lessor must be included.

Total Raised/Purchased Feed Cost. This measures the financial cost of raised and purchased feed during the fiscal year. For the financial cost, the actual accounting purchased feed and production costs of raised are used to determine the raised and purchased feed cost. For the economic cost or opportunity cost, the net potential sales or market value of raised feed at the beginning of the feeding season is used to "price" the raised feed. This is then added to purchase feed to calculate total purchase and raised feed economic cost. Since the cost of purchased feed is the same for both the financial and economic cost, if the total economic cost is greater than the financial cost, it would be cheaper to buy the feed than to raise it.

Total Unit Cost of Production (TUC) is the total cost of production includes direct, indirect and finance costs. This cost can be compared to product price to evaluate the competitiveness of the enterprise. At this price, total enterprise revenue is exactly equal to total enterprise costs, which results in zero net income. It's a business no equity growth situation only covering TUC.

Appendix C: Key Standardized Performance Analysis SPA Reproduction Definitions for Numbers and Calculations

The following are key definitions for Cow-calf SPA reproduction.

1. Total females exposed at the beginning of the breeding season is the number of females in the beginning inventory that are exposed either to bulls or in an artificial insemination (AI) program. The number should correspond to the number on the beginning date of the breeding season.
2. Adjusted exposed females including sales, transfers, purchases of pairs and exposed and pregnant females -- is an inventory of exposed females that results from the beginning inventory plus all the adjustments. This is the most critical number that must be generated by the inventory in the reproduction and production performance measures of the cow-calf enterprise. The accuracy of this value will determine the overall accuracy of the productivity analysis. The key is to carefully monitor monthly inventory maintenance and consistency between operating cycles. This number begins with the beginning inventory on day one of the breeding season, subtracts culls not intended to be bred, as well as sales or transfers out of the breeding herd and adds purchases or transfers in. The net result is used to determine the weaned calf percentage and other production measures of performance.
3. Number of exposed females that are pregnancy tested will be the base number used to calculate the pregnancy rate after adjustments. Include females, which were pregnancy tested and sold or transferred out after the breeding season.
4. Number of females diagnosed as pregnant is the actual number of the exposed females diagnosed as pregnant. The accuracy of the pregnancy rate improves when all females that are exposed are pregnancy tested. Include females, which were diagnosed as pregnant, but sold or transferred out of the breeding herd after the breeding season.
5. Pregnancy percentage -- expresses the number of females diagnosed as pregnant as a percentage of the number of exposed females that are pregnancy tested.
6. Number of females diagnosed as open is the number of females diagnosed as not being pregnant or the total number pregnancy tested minus those diagnosed as being pregnant. Includes females, which were diagnosed as open but sold or transferred out of the breeding herd after the breeding season.
7. Pregnancy percent based on exposed females is the key SPA measure and is the number of pregnant females divided by the adjusted number of exposed females (see definitions 1. and 2). Weaning percentage or calf crop. Total calves weaned divided by adjusted exposed females from the breeding season producing the weaned calves.

Reference:

Farm Financial Standards Council. “*Financial Guidelines for Agricultural Producers*”, Revised 2021. WWW.ffsc.org.

Sources of Land Grant University Beef Management Decision Aids:

Texas A&M University – Department of Agricultural Economics Beef Cattle Decision Aids

<http://agecoext.tamu.edu/resources/decisionaids/beef>

Kansas State University – Farm Management

<http://www.ksre.k-state.edu/agriculture/farmmanagement/>

Oklahoma State University

<http://www.agecon.okstate.edu.extension/>

University of Nebraska - Lincoln UNL Beef Website

<http://beef.unl.edu/>