Measuring Ranch Financial Profit is Beyond Cash Tax Reporting

Ranch Profit is not reported by the Internal Revenue Service (IRS) Schedule F, Profit or Loss from Farming. These reports do not account for cattle or feed inventory change, or changes in prepaid expenses, receivable or payables. This mean profit or net income is not measured with cash reporting. Following IRS rules, the short useful life and no salvage value means depreciation expense is distorted. Producers should calculate depreciation **using replacement cost** with reasonable useful lives and salvage values to measure profitability. Replacement heifers should not be expensed. There is no compensation for owner operator or family labor and management using IRS reporting. **Working for nothing** by not accounting for family living/withdrawals does reflect business reality for a sole proprietorship. Nor does it reflect true cash business repayment capacity.

This a list of additional data required beyond what is necessary for compliance with IRS cash reporting to prepare the business **Accrual Adjusted Financial Statements** that measure profitability and Return on Assets (ROA) including:

- Beginning and ending fiscal year cattle and feed inventories.
- Cattle sales by category of raised and purchased – head, weight and total net sales revenue.
- Other data for accrual adjustments including prepaid expenses, accounts payable and receivable and accrued interest and taxes.
- Owner withdrawals/family living cash costs.
- Market value of capital assets for the balance sheet. Completing the IRS Schedule F does not require a business balance sheet. The Farm Financial Standards Council (FFSC) recommend a market valued balance sheet which includes loan balances and payments due to calculate ROA.

Alternative to Current IRS Depreciation

- **Replacement cost for capital assets** or depreciable assets including purchased breeding cattle, vehicles, machinery and equipment and land improvements including buildings. **Capital Asset Recovery Cost** is used as an alternative to IRS reported historical depreciation. Cost recovery is based on current **replacement cost** and estimated years of useful life and salvage value determines the use of the asset in the current fiscal year. Replacement cost must be revised at the beginning of the fiscal year. Base value or estimated cost of raised replacement stock (FFSC).

In summary profitability is measured by calculating accrual adjusted revenue and expenses and reported in the business **accrual adjusted** income statement. Breeding stock replacement cost is calculated using FFSC base value method. Depreciation of capital assets is based on replacement cost or a **"book value"** based depreciation (See Appendix A). Owner operator labor and management compensation used is equivalent to hired compensation. Family living expenses/withdrawals beyond this level are equity withdrawals. Interest is the cash paid and change in accrued interest. Net income or profit is for a fiscal year and does not include real estate appreciation.

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Key Definitions

- **Measuring ranch financial profitabilit**y 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. Cash accounting meets IRS requirement for the IRS Schedule F.

- **Net Income-Accrual Adjusted –** Accrual adjusted 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 and non-cash depreciation cost. For operations that pay salary and wages, this cost is included in operating costs.

- **Owner Operator Labor and Management** is the cash family living withdrawals paid for owner and labor and management services provided by the family. In cost used for family living 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. This **is not an IRS tax deductible cost** for a sole proprietor filing using the Schedule F.

- **Financial performance ratios defined by the** Farm Financial Standards Council (FFSC) facilitates benchmark ranch historical performance and compare ranches identify areas for improvements.

- **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 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.
  - **ROA** indicates the profitability per dollar of assets, thus allowing comparisons over different size firms and different types of businesses or investments
  - **Cash costs alone** cannot measure ROA as costs are incomplete. See definitions above.

- **Equity to Asset Ratio or Percent Equity (%*)***. Is a solvency measure that is calculated by dividing total equity divided by total assets. It measures the proportion of assets financed by the owner's equity capital. In other words, it is the owner's claim against the assets of the business.

The higher the equity to asset or percent equity ratio means that more total capital has been supplied by the owner(s) and less by the creditors.

- **Equity to asset ratio or Percent Ownership** shows the portion of total farm/ranch assets contributed by the owner's equity. Can be called percent ownership.

- **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.

- **Retained Earnings** is a measure of the real growth in the ranch business and is the change in net worth.

Appendix A: Raised Breeding Stock Accounting as an Alternative to IRS Cash Reporting

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 in 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 in 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

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.

Key Depreciation Definition

Capitalized Value is an alternative method of accounting for raised replacement heifers. The cost of production is recorded in the accounting system. The accumulated cost is the valuation of the replacement. This value is then depreciated over the life of the replacement. This method provides the most accurate measure of replacement cost. However, the method does require measuring replacement cost and a separate raised replacement schedule when cash-based IRS tax reporting is used. Capitalizing cost reduces cost rather than increasing revenue as done when the base value method is used.

Salvage value

When an asset reaches the end of its useful life frequently there it can be sold and the amount received is the salvage value. Purchased herd bulls is an example. After 3 or 4 years of use bulls are sold for 35-45% of their original cost.

Internal Revenue Service – IRS Depreciation

It is important to understand a few rules of the IRS depreciation calculation to understand why the tax depreciation frequently has limited use if management is calculating business profits or total unit costs of production.

Accelerated depreciation, using the 150% balance method means that more depreciation is taken early in the life of the asset and less in the later years.

Book depreciation is a depreciation method that depreciate assets over the useful life of assets and reemploys salvage value. The historical original cost in and increasing cost or depreciable asset replacement cost and use of trade ins and section 179 does limit the usefulness of book depreciation as a measure of the cost of the use asset over their useful life. The business CPA can run both the IRS and book depreciation with the same software.

Depreciable Basis or Acquisition Cost

This is the total cost of the asset placed in service. It’s important to check IRS rules on a trade in as trade in will reduce the cost basis of depreciable assets and annual depreciation.

Expensing option - Section 179

IRS rules allow write off or expensing asset purchases in the year they are purchased. Using section 179 can really distort depreciation for management purpose. Many ranches can write off all capital replacements in the year purchased overstating depreciation expense and under reports management profitability. This may be prudent "tax management" if there are taxable income to offset the depreciation.

IRS Depreciation
IRS depreciation rules define recovery period (life) and the calculation method but the methods have little to with economic or management useful life of assets or the rate the assets are really used. Most produces are using 150% declining balance. Short recovery period (useful life) with no salvage value means current year depreciation can be overstated for the purpose of development management financial statements and estimating total unit cost.
IRS Recovery Period
Recovery period for trucks, trailers, computers, tractors, machinery, equipment and breeding stock is 5 years and fences its 7 years. Over time depreciation over statement is reconciled as total depreciation cannot be greater than the acquisition cost or basis, and when assets are sold there are **depreciation recapture provisions.**

Always involve the business CPA when addressing the IRS compliance issues.

References and Information Sources:

Farm Financial Standards Council*:* "Financial Guidelines for Agricultural". Revised 2022, Farm Financial Standards Council, website www.FFSC.org.

Texas A&M University – Department of Agricultural Economics Decision Aids Beef http://agecoext.tamu.edu/resources/decisionaids/beef

Iowa State University http://www.extension.iastate.edu/agdm/wholefarm/xls/ c3-56comprfinstatement.xlsx

University of Minnesota Extension, Center for Farm Financial Management, FINPACK software www.extension.umn.edu

Oklahoma State University – Department of Agricultural Economics http://www.ageco.okstate.edu/livestockbeefextension

Kansas State University and Kansas Farm Management Association - agmanager.info/KFMA

Farm Business or Management Associations have web sites in a number of states including: ND, NE, IA, IL and MN.