Measuring Ranch Profit is Beyond Cash Reporting

Ranch Profit is not measured by Quick Books™ Cash Profit and Loss (P&L) or 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 withdrawals for family living does reflect business reality for a sole proprietorship.

This a list of additional data required beyond what is necessary for compliance with Internal Revenue Service (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 operator labor and management compensation equivalent to hired services.
- Market value of capital assets for the balance sheet. Completing the IRS schedule F does not require a business balance sheet. The (FFSC) recommend using 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 CPA generated "book value" based depreciation. Owner operator labor and management compensation used is equivalent to hired compensation. Family living 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 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 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. Profit or Loss From Farming.

- **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 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.

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    - 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** often reported in the ranch press cannot measure ROA as costs are incomplete. See definitions above.

- **Equity to Asset Ratio or Percent Equity (%*)***. Is a solvency measure 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.

References and Information Sources:

Farm Financial Standards Task Force FFST. "*Recommendations of the Farm Financial Standards Task Force: Financial Guidelines for Agricultural Producers*". Original 1991 revised 2016, Farm Financial Standards Council, website www.FFSC.org.

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

Texas A&M University – Department of Agricultural Economics Crop and Livestock Budgets http://agecoext.tamu.edu/resources/crop-livestockbudgets

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

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.

Land Grant University Extension – many have Cow-Calf Budgets

ERS-USDA Commodity Cost and Returns