Measuring Farm Financial Profit is Beyond Cash Tax Reporting

Farm Profit is not reported by the Internal Revenue Service (IRS) Schedule F, Profit or Loss from Farming. These reports do not account for crop 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. 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 expenses does reflect business reality for a sole proprietorship. Nor does it reflect true cash replacement capacity.

In summary profitability is measured by calculating accrual adjusted revenue and expenses and reported in the business **accrual adjusted income statement**. Depreciation of capital assets is based on replacement cost or a **"book value"** based depreciation (See Appendix A). 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. Family living expense/withdrawals is not IRS tax-deductible cost but necessary to prepare the statement of cash flow and repayment capacity.

Key Definitions

- **Measuring Farm financial profitabilit**y requires accrual adjustments **to match revenue with expenses during the fiscal year.** Farm 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.

- For Management purpose for a sole proprietorship tax reporting the **owner operator labor and management compensation** is not a Schedule F tax-deductible expense**.** The cash withdrawals/family living is can be used as payment for owner and labor and management services provided by the family. In cost used for management 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.

- **Financial performance ratios** are normally pre-income tax for comparative purpose and to compare alternative investments.

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- **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/withdrawals 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** often reported in the farm press 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/Farm 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 Farm business and is the change in net worth.

Salvage value is when an asset reaches the end of its useful life frequently there it can be sold and the amount received is the salvage value. Machinery have much longer than the productive lives than allowed by IRS rules.

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 Farmes 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 Task Force FFST. "*Recommendations of the Farm Financial Standards Task Force: Financial Guidelines for Agricultural Producers*". 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.