

# STANDARDIZED PERFORMANCE ANALYSISSPA-6COW-CALF ENTERPRISEFINANCIAL PERFORMANCE MEASURES WORKSHEET (SPA-FCC)\*6-16-06

SPA is a standardized cow-calf enterprise production and financial performance analysis system. The cow-calf enterprise analysis system was defined by the Cow-Calf and Seedstock SPA Subcommittees of the National Cattlemen's Beef Association (NCBA), in cooperation with the National Integrated Resource Management (IRM) Coordinating Committee to provide cow-calf producers with a standardized means of measuring, analyzing, and reporting the performance and profitability of the cow-calf enterprise.

SPA facilitates the comparison of an operation's performance between years, producers, production regions, and production systems. The analysis is based on fiscal year production and financial data.

SPA includes performance measures for reproduction, production, grazing and raised feed, marketing, and financial and economic performance. This is an integrated analysis that links both financial and production performance. SPA utilizes the financial statement formats, terminology, and performance measures recommended by the Farm Financial Standards Council (FFSC). Cowcalf producers should do a complete SPA analysis annually.

The purpose of this worksheet is to provide the definitions of terms, along with the forms, necessary to complete the financial performance analysis for commercial or seedstock cow-calf (SPA-FCC). By using this worksheet in conjunction with production input (SPA-1) and the SPA computer software (see reference list for sources of the software), the user will be able to calculate all of the performance measures presented in the Guidelines for Production and Financial Performance Analysis for the Cow-calf Enterprise.

Users of the cow-calf SPA developed for commercial herd evaluation will note that the production measures selected for the seedstock cow-calf are the same as those recommended for commercial cow-calf. The difference between the two evaluations is in the financial analysis; which is the allocation of capital investments and the cost associated with the seedstock activity of sale bulls and replacement heifer enterprises.

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## **Completing the Analysis**

The following discussion will outline the steps required to complete the financial performance analysis. For more detailed information regarding the items within this analysis, refer to the section entitled, "Description of Terms" beginning on page 6. The description of terms' section contains a detailed explanation of many financial terms used in financial analysis.

This worksheet is designed to function as a data collection form. It is used in conjunction with the cow-calf SPA software in order to complete the analysis. Shaded areas within the worksheet can be omitted, as they are not applicable.

One of the principles providing the foundation for the SPA-FCC analysis is the fact that all financial statement data starts in the form of total farm or ranch data. Once this data is accumulated, the enterprise financial statement can then be prepared by indicating the percentage of each item that relates to the cow-calf enterprise. Both the balance sheet and the income statement sections require the user to indicate the percentage of each item that relates to the cow-calf enterprise.

## **Opportunity Cost**

This input allows the user to indicate the opportunity cost associated with the non-real estate equity capital. The opportunity cost of using a resource in a particular way is the value of that resource in its next best alternative use. The IRM-SPA Committee chose to use the three-month Treasury Bill rate as the standard opportunity cost for non-real estate equity.

#### **Production Data**

As was mentioned earlier, SPA is an analysis system that integrates both production and financial data. It is advisable to complete the production part of the analysis first, as the production data is used to complete the financial reports. Data used includes items such as number of breeding cows, weaned calf production, uses of land, etc.

#### **Balance Sheet Data**

Balance sheets indicate the structure of the business in terms of assets, liabilities, and equity. In this section the user is asked to identify the assets and liabilities associated with the total farm or ranch being analyzed. Once this is done, the totals can be allocated to the cow-calf enterprise on a percentage basis. Equity is calculated as assets minus liabilities.

Notice that the balance sheet asks for both cost and market value of assets as the beginning and ending dates for the fiscal year. Cost basis for assets is the book value (original cost minus accumulated depreciation). Market value is the value of the asset at the time of the balance sheet. Liabilities remain the same for both cost and market value.

## **Income Statement Data**

Income statements are used to identify the profitability of an operation. In this section, the user will be asked to identify the revenues and expenses associated with the operation being analyzed. Revenues and expenses are listed, as with the balance sheet, on a total farm or ranch basis. After doing so, the user can allocate each category to the cow-calf enterprise on a percentage basis.

The income statement required by SPA is an accrual adjusted income statement. The purpose of the accrual adjustments is to accurately identify the revenues and expenses associated with the production of a certain commodity with the year in which the commodity was produced. Cash basis income statements, on the other hand, recognize revenues when they are received and expenses when they are paid. As a result, cash basis statements tend to be less accurate in determining profitability for an operation for a particular year than accrual-adjusted statements.

The following is a discussion of the major sections of the income statement required by the SPA. These sections include: Revenue, Operating Expenses, Interest Expense, and Net Income. The SPA software uses a horizontal allocation scheme where you enter totals associated with the cow-calf enterprise then allocate items to either the cow-calf enterprise, the grazing cost center, or raised feed cost center. For more information refer to the operating expense section. Refer to the Income Statement on page 25 in order to follow the discussion.

## Revenue

Within this section the user is asked to identify the revenue generated by the operation being analyzed. Revenue items are derived from the normal operation of the business. Major items include revenue associated with weaned calves, raised replacements, and cull breeding stock.

The ways to recognize revenue from weaned calf production are cash receipts and non-cash transfer out. It is important to recognize the fact that the SPA analysis includes calves only until weaning. Beyond that point, calves that are retained become a part of a separate enterprise and are not associated with the cow-calf enterprise any longer.

Cash receipts are cash revenues generated through the sale of raised weaned calves. Non-cash transfer out is used to reflect a transfer either to a separate enterprise within the same ranch or a transfer of weaned calves to a different ranch within the same operation. When calves fall into this category, they should be valued according to their market value at the time of the transfer.

Income form livestock that are raised on the farm and held for breeding purposes is accounted for in the <u>base value of the quantity transferred in raised replacement stock</u> and the <u>increase in base</u> <u>value of quantity transferred into raised breeding stock</u>. When replacements are held at weaning, they are given a base value that approximates the cost of raising them to that point. An increase in base value is recognized as income at the time the replacements enter the breeding herd. The increase in base value should reflect the cost associated with growing the replacement from weaning to breeding age. Recognizing income from raised replacements is important because the expenses incurred to raise the replacements is recognized in the calculation of operating expenses. Therefore, in order to match revenues with expenses, these adjustments need to be made.

The gain or loss from the sale of raised replacement and breeding stock is calculated by subtracting the base value from the market value, which was realized when the replacement was sold. This calculation requires matching the culled animal to its assigned base value when it originally entered the breeding herd. A worksheet is provided after the definitions to summarize the data to calculate capital gain and loss.

The rest of the items within the revenue section allow for flexibility between operations; therefore, do not be concerned if you do not fill all of the blank spaces. Gross Revenue (A) is then calculated as the sum of all of the revenue items.

#### **Operating Expenses**

Expenses are also derived from the normal operation of the business. SPA allocates expenses across three main sections (cow-calf enterprise, grazing cost center, and raised feed cost center). Expenses are separated into cash and non-cash items. Most of the cash operating expense categories correspond to the IRS Tax Form 1040 Schedule F. Cash expenses are expense that were actually paid during the fiscal year (even if they were not incurred); whereas, non-cash expenses are adjustments to cash expenses to account for expenses that were incurred but not paid. Non-cash expenses include both accrual adjustments and deprecation expenses.

The allocation procedure is to indicate the expenses associated with the total farm or ranch and then to allocate those expenses to the cow-calf enterprise, the grazing cost center, and the raised feed fed cost center on a percentage basis. Expense allocation can be simple or complex depending on the types of records kept by the producer.

One example of an allocation would be to allocate a \$10,000 fertilizer expense (the producer uses both raised feed and grazing) of which 50% was related to the cow-calf enterprise. In this case, one must first determine how much of the \$10,000 went to grazing and how much of it went to raised feed. Once that is done, those figures can be allocated at 50% to the cow-calf enterprise.

The income statement totals summarize according to the horizontal column (i.e., total, cow-calf, grazing, raised feed, and residual). They do not reflect the totals for the overall enterprise. The financial summary of the producer's report provides the totals for the overall enterprise.

#### Interest Expenses

Interest expenses are excluded from operating expenses because they are financing costs rather than production costs. These expenses are a reflection of the farm debt and equity situation. Producers are asked for cash and non-cash interest expenses associated with operating, real estate, and non-real estate debt.

#### Net Income

Net farm income from operations is what is left after subtracting total operating and interest

expenses from gross revenue. It is the amount of income made from farm production for the year.

Gains and losses result from the disposal of intermediate and long-term capital assets and generally do not reflect the level of income derived from farming operations. The amount of gain is determined as the difference between the sale price and IRS book value. For example, say a producer sells his tractor for \$5,000, which has been fully depreciated. The tractor has a zero book value. Since the selling price was above the book value, it is a gain and he would include \$5,000 in total capital gains, not culls. The total capital gain (loss) – not culls item is the sum of all the gains (losses) associated with the sale of capital assets with the exception of the sale of culled breeding livestock.

Net farm income (loss) is income derived from the business as a whole and is net farm income from operations plus or minus total capital gain or loss.

Income taxes are expenses that the operator must pay on the net revenue generated by the business. Income taxes that the operator must pay include income, property, self-employment and social security taxes. Non-cash adjustments are needed for any changes in the accrued amount of taxes. Total income tax expenses are the sum of all cash and non-cash taxes. Net income after tax is equal to net farm income (loss) minus the total income tax expenses.

Family living withdrawals are the withdrawals paid by the operation to the family. 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.

## **Materials and Support**

The SPA-FCC worksheet can be reproduced provided credit for the author and the Texas Cooperative Extension remains with the reproduction. For more information on the IRM-SPA Handbook, contact Stan Bevers at (940) 552-9941, ext. 231.

For more information regarding the purchase of these materials and software, please contact:

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# **Check List for Accountants Preparing Information for SPA Users**

Financial Reports Needed

- Beginning and ending balance sheets
  - Cost basis
  - Fair market value basis
- Income or profit and loss statement with accrual adjustments
- Statement of cash flows

Other Supporting Information

- Gains and losses on sales of breeding livestock (Raised & Purchased)
- Depreciation Schedule
  - Depreciation amounts for:
    - Breeding livestock
    - Buildings and improvements
    - Machinery and equipment
- Loan repayment schedule (interest & principal payments)
- IRS tax forms
- Inventory information livestock, feed, etc.

## References

National Cattlemen's Beef Association – National Integrated Resource Management Coordinating Committee – Cow-calf Financial Analysis Subcommittee. "NCBA-IRM-Standardized Performance Analysis (NCBA-IRM-SPA): Guidelines for Production and Financial Performance Analysis for the Cow-calf Producer: Cow-calf SPA." Texas Cooperative Extension, Texas A&M Unversity, Department of Agricultural Economics, August 15, 1991.

Farm Financial Standards Task Force. "Recommendations of the Farm Financial Standards Task Force: Financial Guidelines for Agricultural Producers." 1997. Farm Financial Standards Council. 1163 E. Ogden Avenue, Suite 103-051, Naperville, IL 60503. FFSC website <u>www.ffsc.org</u>.

# **DESCRIPTION OF FINANCIAL TERMS**

<u>Accrual Farm Expense</u> is the amount of expense that is associated with production for an operating year.

Average Equity is the average of beginning and ending equity for an operating year.

**Balance Sheet** is a financial statement that shows financial conditions of the business at a particular point in time. It is a list of assets and liabilities (what the business owes) and equity (what the owner owns). For analysis purposes, the balance sheet contains both the cost minus accumulated depreciation, or book value, and the fair market value of the assets.

**Base Value** is a stipulated value that approximates the cost of raising the breeding animal. The base value is used to determine the cost basis value of the animal, and it is used to determine the amount of revenue to recognize from raising the breeding animal.

<u>Cash Available</u> is the amount of cash that the firm has for meeting cash flow requirements.

<u>Cash Interest Expense</u> is the amount of actual cash that is paid out as interest.

<u>**Cash Required</u>** is the amount of cash that is needed to meet all of the cash needs of the operation. These include operating expenses, living expenses, debt payments, and capital purchases.</u>

<u>**Current Assets</u>** are cash and near cash items that are convertible into cash with little loss in value. Included are cash, savings and time deposits, marketable securities, accounts, and short term notes receivable, and inventories that would be expected to be turned over in the operating year, supplies, prepaid expenses, and cash invested in growing crops.</u>

<u>**Current Liabilities**</u> are those liabilities that will come due within one year. Included are current loan principal payments, accrued interest, taxes, rents, leases, and delinquent payments that are owed on the day of the statement.

<u>**Current Ratio**</u> is an indication of the firm's liquidity position. It shows how many times the value of the current assets covers the value of the current liabilities.

**Debt to Asset Ratio** is an indicator of the solvency position of the owner. It shows how much of an interest the creditors have in the business.

**Deferred Taxes** are contingent income tax liabilities that would be realized if all of the farm assets were liquidated. Deferred taxes are separated into current and non-current portions.

**Depreciation** is the allocation of the purchase price of a capital asset over the useful life of the asset.

**Equity** is the difference between total assets and total liabilities. This gives an indication of the dollar amount actually owned by the operator, and it represents the capital base available to handle adversity.

**Family Living** is the amount of withdrawals taken from the operation for family expenses.

<u>Gross Revenue</u> is a measure of accrual from receipts plus the value of farm products consumed on the farm.

**Income Statement** is an accrual-adjusted statement that is a summary of revenue and expenses for a certain period of time. It is also called the profit and loss statement. The income statement is used to help analyze financial performance (i.e., profitability) of the total business. Similar statements can be developed at the enterprise level.

<u>Liquidity</u> is the ability of the business to generate sufficient cash to meet cash demands without disturbing the ongoing operation of the business.

<u>Net Income</u> is the revenue earned minus the expenses incurred during the operating year without regard to the exchange of cash.

<u>Non-current Assets</u> represent the breeding livestock, equipment, machinery, buildings and land – real estate of the business. Non-current assets may be grouped according to economic life; which are intermediate (life ranging from two to ten years) and long term (greater than ten years). This is to make analysis more convenient and to match liabilities against the proper type of assets.

**Non-current Liabilities** parallel the definition of non-current assets relative to matching the life of the asset to the liability.

**Percent Ownership** shows the portion of total farm assets contributed by the owner's equity.

<u>**Profitability**</u> is the ability of the farm to generate income in excess of expenses. It is expressed as net returns to resources used in production. Taken from the income statement, total profit is divided by the average assets used by the farm business or accrual net income minus family living minus unaccounted cash withdrawals plus accrual interest expense, adjusted for taxes, and divided by average value of assets.

<u>**Rate of Return on Equity**</u> measures the rate of return on equity capital employed in the farm business. The higher the rate of return on equity means the more profitable the business.

**Rate of Return on Assets** also can be called return on investment. This ratio gives an indication of how productively the assets are being utilized. A low return on assets could indicate inefficiencies in the use of assets, low net income due to production failure, etc., or a combination of both.

**<u>Retained Earnings</u>** is a measure of the real growth in the farm business and is the change in net worth adjusted for inflation (deflation) in asset values.

<u>Solvency</u> is the measure of what would remain if all assets were converted into cash and all debts paid.

**Total Assets** are assets that are owned. They may be either business (farm) or non-business (non-farm). Assets are categorized in the balance sheet as current and non-current.

<u>Total Farm Interest Expense</u> is the amount of interest expense that has been paid plus an adjustment for the change in accrued interest.

<u>Total Liabilities</u> are the sum of all liabilities (debt) in the balance sheet, and liabilities are categorized as current and non-current.

<u>**Total Operating Expense**</u> is the sum of the total cash operating expense plus/minus the associated accrual adjustments.

## FINANCIAL AND ECONOMIC DEFINITIONS AND MEASURES FOR COW-CALF SPA

In order to gain a full understanding of the financial and economic enterprise analysis reports, it is necessary that the user be comfortable with the Standardized Performance Analysis summary report terminology and definitions. This guide discusses key summary definitions and performance measures.

**Cost Basis** is the historical acquisition cost minus accumulated depreciation. This information is developed from the depreciation schedule and reported on the balance sheet.

**Current Enterprise Liabilities** are those liabilities that will come due within one year. Included are current loan principal payments, accrued interest, taxes, rents, leases, and delinquent payments that are owed on the day of the statement.

**Economic Analysis** is the analysis that includes the consideration of the opportunity cost of equity capital, owned land, and raised feed in the calculation of costs. The analysis serves as a guide to finding the optimal use of resources to generate the highest net income possible for the operation.

**Economic Cost** is the opportunity cost that is charged for owned land (what it could be leased for) and owner equity capital (a 3-month Treasury Bill rate). Opportunity cost represents the return that could be received for a resource in its next best use. Economic cost represents the cost if all resources earned their opportunity cost.

**Financial Analysis** focuses on determining the accounting cost, true profitability, change in equity, and repayment capacity of the enterprise or business being evaluated.

**Financial Costs** are expenses that are generated in the accrual adjusted income statements. They include cash costs, depreciation, and non-cash adjustments, such as accounts payable accrued interest, etc. The financial cost does not include opportunity cost of resources.

**Market Value** is the current market value of the asset. In other words, this is the price that would be received for the assets if the business were liquidated on the date the balance sheet was prepared. For liabilities, cost and market value are the same.

**Non-current Assets** represent the breeding livestock, equipment, machinery, buildings and land real estate of the business. Non-current assets may be grouped according to economic life, intermediate (two to ten years) and long term (greater than ten years). This is to make analysis more convenient and to match liabilities against the proper type of assets.

**Non-current Enterprise Liabilities** are liabilities of the enterprise being examined that will come due in a time period greater than one year. Included are the principal balance of real estate and non-real estate loans and notes and the non-current portion of deferred taxes.

**Owner Operator Labor and Management Reflected as Family Living Withdrawals** is the cash paid for owner and labor and management services provided by the family. 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. Family living withdrawals are used not only to calculate cost of production, but return on assets, return on equity, and repayment capacity as well.

**Pre-tax Costs or Income** means that the costs or income calculated does not include income and social security tax. This, however, does not represent taxable costs or income because of the methodology and deductions associated with calculating taxable costs and income.

**Total Cash Costs** are those costs that result in an actual payment of cash. Owner operator labor management reflected, as family living withdrawals, are included in this cost at a level equivalent to hiring a non-family member to do the work.

**Total Current Assets** are cash and other items that are easily convertible to cash with little loss of value. Included are cash, savings and time deposits, marketable securities, accounts and short term notes receivable, inventories that would be expected to be turned over in the operating year, supplies, prepaid expenses, and cash invested in growing crops.

**Total Investment** equals total current assets plus total non-current assets. This amount reflects the total investment made in the enterprise.

# Interpretation of Key Performance Measures

1. **Percentage Return on Assets (ROA)**. This ratio is an indicator of how productive the assets are being used by the enterprise. Also recall that 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.

When examining ROA from a cost basis, the value for average total assets is calculated by subtracting the historical acquisition cost minus accumulate depreciation. This ROA measures profitability base on the historical cost of assets.

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.

2. Unit Cost of Production (Breakeven Price). This is the cost of production of the primary product. Since it has been adjusted for non-primary product revenue, this cost can be compared to commodity prices to evaluate the competitiveness of the enterprise. This value also represents the price of the primary product that would result in breakeven being achieved. At this price, total enterprise revenue is exactly equal to total enterprise costs, which results in zero net income.

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.

3. 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 of purchased feed and production costs of raised feed 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 the purchased feed to calculate total purchased 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 feed than to raise it.

4. **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 opportunity cost of the grazing lease rate, adjustments to financial expenses for costs paid by the lessor must be included.

5. **Gross Enterprise Accrual Revenue**. This is the accrual-adjusted revenue generated by the enterprise for the primary product (e.g., weaned calves) produced and the non-primary product, which would include the secondary product produced by the enterprise (e.g., cull cows in the case of cow-calf production).

This is the gross revenue that would include actual cash sales and non-cash transfers (retained ownership or non-cash transfers between operations). Care must be taken to assign cattle inventory values in a consistent manner. Inventory change is used to adjust operating cost in order to more accurately reflect the cost of cattle.

6. Net Accrual Income. Revenue earned minus the expenses incurred during the operating year including the interest expenses are subtracted from cash operating income. Net income is calculated after accounting for family living withdrawals (owner labor and management) and reflects the enterprise contribution to total farm or ranch income. For operations that pay salary and wages, this cost is included in operating costs. This is a pre-tax net income and is not equal to IRS taxable income. The interpretation of net income differs for the financial and economic analysis because of the costs included in each summary.

Financial analysis includes financial or accounting costs that include realized cash lease costs and mortgage interest cost on owned real estate.

Economic analysis includes an opportunity costs for owned land and non-real estate equity capital.

In the financial and economic calculations, family living withdrawals are subtracted as they represent (not shown in wages or salaries) owner labor and management. This is consistent with the way retained earnings are calculated in the total farm or ranch income statement.

- 7. **Total Cost**. Total enterprise operating cost plus total financing cost. In economic cost the opportunity cost return to owner equity, a lease equivalent to owned land, and market value of raised feed are included.
- 8. **Total Enterprise Operating Costs**. This is the accumulated operating cost for the enterprise using a "full absorption" cost accounting approach. This includes a share of farm or ranch overhead. Inventory change is used to adjust operating cost in order to more accurately reflect the cost of cattle. Operating costs do not include financial (interest cost) or economic return to assets (opportunity cost) used in the calculation of economic cost. Total operating cost is a value that can be compared across operations because it is not influenced by debt structure, interest rates, or imputed capital returns.
- 9. Total Financing Cost & Economic Return. In the financial analysis column, this number consists of total interest expenses paid (the cost of financing the enterprise). In the economic analysis column, this number, in addition to the financial interest costs, includes an opportunity cost of equity capital (the foregone economic return form the next best use of enterprise assets). The SPA analysis uses a three-month Treasury Bill rate to calculate opportunity cost.
- 10. **Total Non-cash Costs**. Those costs that do not result in an actual payment of cash. Examples include depreciation, the change in prepaid expenses, changes in inventory, and accrued taxes.
- 11. Equity to Asset or Percent Equity (%). 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. When this ratio is high, more total capital has been supplied by the owner(s) and less by the creditors.

## Raised Replacement and Breeding Stock Transfer Revenue And Capital Gains Calculation Worksheet

Revenue: Base Value of Quantity Transferred Into Raised Replacement Stock

Category	Number of Head	Addition to Base Value
Replacement Heifers		
Replacement Bulls		
A. Total Revenue From Raised Rej	placement Stock Transfers	

Revenue: Increase in Base Value From Quantity Transferred Into Raised Replacement Stock

Category	Number of Head (a)	Repl. Base Value (b)	Breeding Base Value (c)	Change in Base Value (c – b)
Breeding Cows				
Breeding Bulls				

**B.** Total Revenue From Raised Breeding Stock Transfers

Capital Gains or Losses From Sale of Raised Breeding Stock

Category	Number of Head (a)	Total Base Value (b)	Net Sales Value (c)	Capital Gain / Loss (c – b)
Replacement Heifers				
Culled/Aged Breeding Cows				
Replacement Bulls				
Culled/Aged Breeding Bulls				
C. Total Capital Gains or Los				

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Capital Losses From Deaths of Raised Breeding Stock

Category	Number of Head (a)	Base Value (b)	Capital Loss (b x (-1))
Replacement Heifers	( <i>a)</i>		
Breeding Cows			
Replacement Bulls			
Breeding Bulls			

E. Total Capital Gains or Losses From Raised Breeding Stock (C+D)

Capital Gains or Losses From Sale of Purchased Breeding Stock

Category	Number of Head (a)	Total IRS Book Value (b)	Net Sales Value (c)	Capital Gain / Loss (c – b)
Replacement Heifers				
Culled/Aged Breeding				
Cows				
Replacement Bulls				
Culled/Aged Breeding Bulls				

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## F. Total Capital Gains or Losses

Capital Losses From Deaths of Purchased Breeding Stock

Category	Number of Head (a)	IRS Base Value (b)	Capital Loss (b x (-1))
Replacement Heifers			
Breeding Cows			
Replacement Bulls			
Breeding Bulls			

## G. Total Capital Losses From Death of Purchased Breeding Stock H. Total Capital Gains or Losses – Purchased Breeding Stock (F+G)

Summary Data for the Managerial Income Statement	Totals
Total Revenue From Quantity Transferred Into Raised Replacement Stock (A)	
Total Revenue From Quantity Transferred Into Raised Breeding Stock (B)	
Total Capital Gains or Losses From Raised Breeding Stock (E)	
Total Capital Gains or Losses From Purchased Breeding Stock (H)	
Total Revenue Adjustment (sum of above subtotals)	

# **OPPORTUNITY COST USED TO CALCULATE ECONOMIC COSTS**

## **Opportunity Cost**

This input allows the user to indicate the opportunity cost associated with the non-real estate equity capital. The opportunity cost of using a resource in a particular way is the value of that resource in its next best alternative use. The IRM-SPA Committee chose the three-month Treasury Bill rate as an opportunity cost of non-real estate equity capital.

Non-Real Estate Capital Cost (Rate of Return)

## **User Defined Report Division**

If the user wishes to define other than per breeding cows or weaned calves weight, this input provides for a user-defined divisor. An example could be the number or ranch employees.

User Defined Report Divisor – Producer Report				
	Unit:			
	Number of Units:			

# **BEGINNING BALANCE SHEET DATA**

Ranch	Date Filled Out	0	perating Year	
CATEGORY	COST	MARKET	% COST	% MARKET
ASSETS				
Current Assets				
Cash & Checking				
Savings & Time Deposits				
Investment – Bonds & Securities				
Futures & Options Account Balance				
Accounts Receivable				
Supplies, Prepaid Expenses, & Leases In	nventory			
Livestock or Products for Sale				
Crops/Raised Feed for Sale				
Primary Product				
Secondary Product				
Raised & Purchased Stored Feed				
Investment in Growing Crops				
Investment in Growing or Finishing Liv	estock			
Other Current Assets				
Other Current Assets				
Other Current Assets				
TOTAL CURRENT ASSETS				

CATEGORY	COST	MARKET	% COST	% MARKET
Non-current Assets				
Raised Breeding Stock				
Cows				
Bulls				
Replacement Heifers				
Purchased Breeding Stock				
Cows				
Bulls				
Replacement Heifers				
Notes & Contracts Receivable				
Vehicles, Machinery, & Equipment				
Buildings & Improvements				
Real Estate				
Long Term Investments				
Other Non-current Assets				
Other Non-current Assets				
Other Non-current Assets				
TOTAL NON-CURRENT ASSETS				
TOTAL ASSETS				

CATEGORY	COST	MARKET	% COST	% MARKET
LIABILITIES/EQUITY				·
Current Liabilities				
Accounts Payable				
Accrued Leases				
Principal Due				
Credit Card/Operating Loan/Current Note Payable				
Commodity Credit Loan (CCC)				
Non-real estate Loans & Notes				
Real Estate Loans				
Accrued Interest				
Credit Card/Operating Loan/Current Note Payable				
Commodity Credit Loan (CCC)				
Non-real Estate Loans & Notes				
Real Estate Loans				
Accrued Taxes				
Property				
Income & Self Employment				
Accrued Employee Payroll Expenses				
Current Portion of Deferred Taxes (user calculation)				
Other Current Liabilities				
Other Current Liabilities				
TOTAL CURRENT LIABILITIES				

CATEGORY	COST	MARKET	% COST	% MARKET
Non-current Liabilities				
Principal Balance				
Non-real Estate Loans & Notes				
Real Estate Loans				
Non-current Portion of Deferred Taxes				
Non-current Portion of Deferred Taxes (user calculation)				
Other Non-current Liabilities				
Other Non-current Liabilities				
TOTAL NON-CURRENT LIABILITIES				
TOTAL LIABILITIES				
TOTAL OWNER EQUITY				
TOTAL LIABILITIES & OWNER EQUITY				
TOTAL NON-REAL ESTATE EQUITY				

# ENDING BALANCE SHEET DATA

Ranch	Date Filled Out	(	Dperating Year	
CATEGORY	COST	Г MARKET	% COST	% MARKET
ASSETS				
Current Assets				
Cash & Checking				
Savings & Time Deposits				
Investment – Bonds & Securities				
Futures & Options Account Balance				
Accounts Receivable				
Supplies, Prepaid Expenses, & Leases Inv	rentory			
Livestock or Products for Sale				
Crops/Raised Feed for Sale				
Primary Product				
Secondary Product				
Raised & Purchased Stored Feed				
Investment in Growing Crops				
Investment in Growing or Finishing Lives	tock			
Other Current Assets				
Other Current Assets				
Other Current Assets				
TOTAL CURRENT ASSETS				

CATEGORY	COST	MARKET	% COST	% MARKET
Non-current Assets				
Raised Breeding Stock				
Cows				
Bulls				
Replacement Heifers				
Purchased Breeding Stock				
Cows				
Bulls				
Replacement Heifers				
Notes & Contracts Receivable				
Vehicles, Machinery, & Equipment				
Buildings & Improvements				
Real Estate				
Long Term Investments				
Other Non-current Assets				
Other Non-current Assets				
Other Non-current Assets				
TOTAL NON-CURRENT ASSETS				
TOTAL ASSETS				

CATEGORY	COST	MARKET	% COST	% MARKET
LIABILITIES/EQUITY				·
Current Liabilities				
Accounts Payable				
Accrued Leases				
Principal Due				
Credit Card/Operating Loan/Current Note Payable				
Commodity Credit Loan (CCC)				
Non-real estate Loans & Notes				
Real Estate Loans				
Accrued Interest				
Credit Card/Operating Loan/Current Note Payable				
Commodity Credit Loan (CCC)				
Non-real Estate Loans & Notes				
Real Estate Loans				
Accrued Taxes				
Property				
Income & Self Employment				
Accrued Employee Payroll Expenses				
Current Portion of Deferred Taxes (user calculation)				
Other Current Liabilities				
Other Current Liabilities				
TOTAL CURRENT LIABILITIES				

CATEGORY	COST	MARKET	% COST	% MARKET
Non-current Liabilities				
Principal Balance				
Non-real Estate Loans & Notes				
Real Estate Loans				
Non-current Portion of Deferred Taxes				
Non-current Portion of Deferred Taxes (user calculation)				
Other Non-current Liabilities				
Other Non-current Liabilities				
TOTAL NON-CURRENT LIABILITIES				
TOTAL LIABILITIES				
TOTAL OWNER EQUITY				
TOTAL LIABILITIES & OWNER EQUITY				
TOTAL NON-REAL ESTATE EQUITY				

## **INCOME STATEMENT DATA**

Date Filled Out \_\_\_\_\_

Operating Year \_\_\_\_\_

Ranch \_\_\_\_\_

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Revenue									
Cash Receipts:									
Cattle Bought for Resale									
Raised Livestock Products									
Weaned Steers									
Weaned Bulls									
Weaned Heifers									
Mixed Weaned Calves									
Feeder/Stocker Cattle									
Finished Cattle									
Culled Grazing or Finishing Cattle									
Raised Feed for Sale									
Cooperative Distributions									
Agricultural Program Payments									
Crop Insurance Proceeds									
Custom Hire Earnings									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Miscellaneous Income or									
Fuel Tax Refund									
Futures/Options Revenue									
Other Cash Receipts									
Other Cash Receipts									
Other Cash Receipts									
Other Cash Receipts									
Other Cash Receipts									
Other Cash Receipts									
Non-cash Income:									
Inventory Change: Increase or (Decrease)									
Livestock or Products for Sale									
Weaned Steers									
Weaned Bulls									
Weaned Heifers									
Mixed Weaned Calves									
Raised Feed For Sale									
Base Value of Quantity Transferred Into Raised Breeding Stock									
Increase in Base Value of Quantity Transferred Into Raised Breeding Stock									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Gain/Loss on Sale/Death of:									
Raised Replacement Stock									
Raised Breeding Stock									
Purchased Replacement Stock									
Purchased Breeding Stock									
Change in Government Payments Receivable									
Change in Accounts Receivable									
Farm/Ranch Product Consumption									
Other Non-cash Revenue									
Other Non-cash Revenue									
GROSS REVENUE									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
<b>Operating Expenses</b>									
Purchased Cattle for Resale – Cost									
Chemicals									
Herbicide									
Insecticide									
Other									
Other									
Custom Hire (machine work)									
Conservation Expense									
Tillage									
Planting									
Harvesting									
Pesticide Application									
Depreciation									
Livestock									
Vehicle, Machinery, & Equipment									
Buildings & Improvements									
Feed Purchase									
Concentrate									
Grain									
Forage									
Protein									
Mineral & Additives									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Fertilizer & Lime									
Freight & Trucking									
Livestock									
Crops									
Feed									
Supplies									
Gasoline, Fuel, & Oil									
Diesel									
Gas									
LP									
Oil									
Insurance									
Property									
Liability									
Crop – MPCI									
Crop - Hail									
Hired Labor & Management									
Salary									
Payroll Expenses									
Pension & Profit Sharing									
Employee Benefits									
Contract Labor									
Rent or Leases									
Building									
Vehicle, Machinery, & Equipment									
Land									
Storage & Warehousing									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Repair & Maintenance									
Vehicle									
Machinery & Equipment									
Buildings & Improvements									
Seed & Plants									
Supplies									
Livestock									
Crops									
General									
Office									
Property Taxes									
Utilities									
Electricity									
Phone									
Irrigation									
Veterinary & Breeding									
Professional Vet Service									
Medicine									
Breeding									
Professional Fees									
Accounting									
Legal									
Consulting									
Education & Training									
Marketing and Commission									
Futures/Options Expense									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Miscellaneous									
Dues & Subscriptions									
Travel									
Promotion/Assessments									
Overhead									
Processing									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Other Cash Operating Expenses									
Feedyard									
Feed and Yardage									
Processing, Inspections, Check-off, etc.									
Change in Liabilities									
Increase/(Decrease)									
Accounts Payable									
Accrued Property Taxes		$\left  \right $							
Accrued Employee Payroll Expenses									
Accrued Leases									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Change in Assets: Decrease/(Increase)									
Futures/Options Account Balance									
Supplies, Prepaid Expenses, & Leases									
Raised & Purchased Stored Feed									
Investment in Growing Crops									
Investment in Growing or Finishing Livestock									
Bank Charges									
Other Non-cash Operating Expenses									
Other Non-cash Operating Expenses									
Other Non-cash Operating Expenses									
Other Non-cash Operating Expenses									
Other Non-cash Operating Expenses									
Other Non-cash Operating Expenses									
Opportunity Cost of Owned Grazing									
Land									
Market Value of Raised Feed Fed									
TOTAL OPERATING EXPENSES									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Interest Expense						-			
Cash Interest									
Credit Card, Operating Loan, Current Note Payable									
Commodity Credit Loan (CCC)									
Non-real Estate Loans & Notes									
Real Estate									
Accrued Interest: Increase/(Decrease)									
Credit Card, Operating Loan, Current Note Payable									
Commodity Credit Loan (CCC)									
Non-real Estate Loans & Notes									
Real Estate									
TOTAL INTEREST EXPENSE									
Opportunity Cost – Non-Real Estate Capital									
Market Value of Raised Feed Fed									
NET FARM INCOME FROM OPERATIONS									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Gain (Loss) on Disposal of Capital									
Assets									
Investments									
Vehicles, Machinery, & Equipment									
Buildings & Improvements									
Real Estate									
Other Capital Assets									
NET CAPITAL GAIN (LOSS)									
NET FARM INCOME (LOSS)									
Taxes – Farm & Ranch Portion									
Income & Self Employment Taxes									
Paid									
Accrued Income & Self									
Employment Taxes: Increase /									
(Decrease)									
Current Portion of Deferred Taxes:				1					
Increase / (Decrease)									
TOTAL FARM TAX EXPENSE									

CATEGORY	TOTAL	%	COW- CALF	%	GRAZING	%	RAISED FEED	%	RESIDUAL
Income Before Extraordinary Items									
Extraordinary Items (net of taxes)									
NET INCOME AFTER TAXES & EXTRAORDINARY ITEMS									
FAMILY LIVING WITHDRAWALS									