



Getting Started in Ag: Enterprise Profitability

Multi-Enterprise Businesses and Profitability

Farming and ranching operations often involve multiple enterprises, ranging from different crop mixes to crops and livestock managed together and countless other variations. This type of diversification is a great

plan. Complete enterprise risk analysis should provide an accurate picture of profitability for each business enterprise by showing individual net revenue and the net effect on the entire operation. Complete analysis identifies the largest expense categories for each enterprise and accounts for all non-cash income and expense items that significantly influence profitability.

Enterprise mix analysis allows the manager to compare the profitability of each enterprise to one another. Further analysis can provide break-even prices and yields for each enterprise. This information allows the manager to adjust enterprise management and overall business management as needed. It also prepares the manager to address any challenges or opportunities that may arise and best allocate available capital to maximize profitability.

Importance of Indirect and Non-Cash Items

Using an enterprise budget approach is an excellent way to begin any enterprise analysis. However, it is important to note that it is not possible to truly gauge the profitability of an enterprise, or even several enterprises together, without first properly accounting for all indirect and non-cash revenues and expenses.

Indirect items are revenue or expenses that are not directly attributable to a given enterprise. These include, but are not limited to, ownership costs, such as interest, taxes and other fees; government payments like program or disaster aid payments; fuel; repairs; hired labor; and other items.

Non-cash income and expenses include investment gains, interest income, depreciation, operator labor/management expenses and changes in inventory values. All of these items must be included in order to accurately evaluate each enterprise, determine how one

compares to the others, and identify the largest expense categories for each enterprise.

Enterprise Risk Analyzer Tool

The Enterprise Risk Analyzer (ERA) tool allows managers to complete a comprehensive risk analysis for each enterprise in their business. The ERA tool was designed as a way for producers to examine how all cash and non-cash income and expenses affect an individual enterprise. It also allows producers to understand how varying prices and yields can affect an individual enterprise.

Using the ERA tool, producers can enter relevant financial information to calculate net returns, break-even yields and prices, and probabilities for earning various levels of net return over time at given prices and production levels.

Once income and expense information have been entered from the user's 1040 Schedule F and other sources, the allocation of revenues and expenses can be recorded under the Enterprise Allocator tab. All cash and non-cash items are divided among enterprises, with any unallocated amounts indicated on the right side of the screen.

When using the tool, remember to carefully consider the method for accurately allocating non-cash and indirect costs and returns, such as by the percentage of acreage used or gross sales. This method may vary by expense category in order to ensure a fair and accurate allocation to each enterprise. Table 1 provides a summary of income and expenses for an example ranch.



Net Income Analysis

After all the relevant information has been entered, the NIAAnalysis tab provides the net income and risk analysis for the example ranch broken down by enterprise (see Table 2). In this example, all enterprises show a profit when considering cash expenses only. When non-cash expenses are introduced, the overall net income drops to negative \$75,646. This is primarily due to large non-cash expense balances, demonstrating just how much non-cash expenses can influence enterprise profitability.

Enterprise Allocator Worksheet		Amount to Allocate	Cow-Calf	Native Hay	Oat Hay	Alfalfa Establishment	Alfalfa - Baled
FARM REVENUE			121,759	12,380	2,765	2,306	25,040
GROSS FARM REVENUE (cash + non-cash)		164,250					
TOTAL FARM EXPENSES - CASH		109,525	86,843	6,557	1,756	2,297	12,072
Farm Expenses - Non-cash Expense Adjustments							
Depreciation Expense (average of beginning and ending)	-41,803	-41,803	32,209	2,384	836	831	4,643
Supplies & Prepaid Expenses - Decrease (Increase)	-	-	-	-	-	-	-
Investment in Growing Crops - Decrease (Increase)	-	-	-	-	-	-	-
Crops Held for Feed NOT for Sale - Decrease (Increase)	-	-	-	-	-	-	-
Accounts Payable - Increase (Decrease)	4,692	4,692	-	-	-	-	-
Short Term Notes Payable - Inc (Dec) - Not Ann Op Loan	21,105	21,105	15,320	2,316	489	424	2,554
Accrued Interest (average of beginning and ending)	-	-	-	-	-	-	-
Acc. Prop. R.E. - Payroll Taxes - Increase (Decrease)	-	-	-	-	-	-	-
Accrued Lease Payments - Increase (Decrease)	-	-	-	-	-	-	-
Owner Labor - annual	14,148	14,148	12,225	475	111	111	1,113
Management (owner) - annual	17,823	17,823	14,675	893	238	323	1,894
Return on Equity Capital - annual dollar amount	35,492	35,492	24,071	4,575	985	781	5,101
TOTAL NON-CASH EXPENSE ADJUSTMENTS	130,371	130,371	98,550	11,245	2,709	2,536	15,331
GROSS FARM EXPENSES (cash + non-cash)	239,896	239,896	185,393	17,802	4,465	4,833	27,403
NET FARM INCOME FROM OPERATIONS	(75,646)	(75,646)	(63,634)	(5,422)	(1,700)	(2,527)	(2,363)

Table 1: Example entries in an ERA Allocator Worksheet.

Further Analysis Available with the ERA Tool

The ERA tool enables users to examine how risk affects both prices and yields for each enterprise as well as total net income. This feature allows the user to enter a range of values (maximum, minimum and most likely) used to generate results showing the effects of this variability on both net income per enterprise and overall business net income. The ERA tool also offers break-even analysis, helping to calibrate expectations for profitability based on the probability of breaking even under various price and yield scenarios. This analysis can provide the basis for adjusting management, should prices or yields drop below certain levels.

	WHOLE FARM	Cow-Calf	Native Hay	Oat Hay	Alfalfa Establishment	Alfalfa - Baled
FARM REVENUE						
TOTAL FARM INCOME - CASH	164,250.00	121,759.00	12,380.00	2,765.00	2,306.00	25,040.00
TOTAL NON-CASH INCOME ADJUSTMENTS						
GROSS FARM REVENUE	164,250.00	121,759.00	12,380.00	2,765.00	2,306.00	25,040.00
FARM EXPENSES						
FARM EXPENSES - CASH	109,525.00	86,843.00	6,557.00	1,756.00	2,297.00	12,072.00
FARM EXPENSES - NON-CASH EXPENSE ADJUSTMENTS	130,371.00	98,550.00	11,245.00	2,709.00	2,536.00	15,331.00
GROSS FARM EXPENSES	239,896.00	185,393.00	17,802.00	4,465.00	4,833.00	27,403.00
NET FARM INCOME FROM OPERATIONS	(75,646.00)	(63,634.00)	(5,422.00)	(1,700.00)	(2,527.00)	(2,363.00)

Table 2: Example entries in an ERA Summary.

RightRisk Analytics

RightRisk Analytics is a toolbox of alternative risk analysis tools. Click one of the buttons on the left to learn more about what each tool can do and to access the tool.

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way to address production risk and provide multiple income streams.

If you are a new producer or looking to get started, you may not realize the importance of analyzing the profitability of each enterprise and accounting for all cash and non-cash factors. This is an area of analysis that many producers neglect, in part due to the complexity of attributing all returns and expenses to individual enterprises. For example, it is relatively simple to allocate direct cash expenses, such as seed and fertilizer, among individual enterprises.

The challenge becomes where and how to allocate indirect and non-cash income and expenses like interest income and depreciation. Analyzing the enterprise mix is an essential part of a comprehensive risk management



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FOR MORE INFORMATION

It is critical to make sure your resources and capital are properly allocated to maximize profit potential, if your farm or ranch has multiple enterprises. RightRisk.org offers many budgeting and risk analytics resources, including tools for estimating machinery costs, determining forage resource values and more.

The Enterprise Risk Analyzer (ERA) tool is designed to provide enterprise risk analysis in an easy-to-use format. To access the ERA tool, visit RightRisk.org and select Risk Management Tools under the Resources tab. The ERA tool includes pre-loaded examples showing how the ERA tool works under various farm or livestock scenarios.