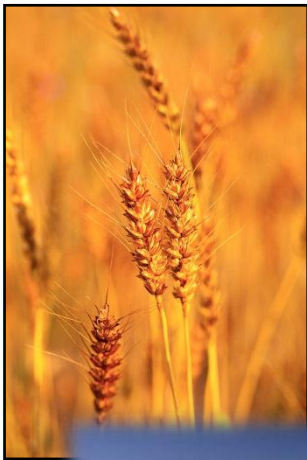


Enterprise Risk Analyzer



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Enterprise Analysis

In general terms, enterprise analysis is a process for estimating the net returns for a given enterprise. Most farms and ranches include more than one enterprise in the mix of things they attempt, hence the need to separate the expenses and revenue. Enterprise in this context refers to any major business activity that results in a saleable product and for which expenses and revenue can be readily assigned or calculated.

The RightRisk™ Enterprise Risk Analyzer tool takes this one step further. After developing net return estimates by allocating all farm/ranch expenses and revenue to appropriate enterprises, breakeven analysis is completed for both price and yield using risk-estimates provided by the user. Breakeven data are presented in both tabular, as well as graphical form using probability density functions.

Enterprise analysis is not well-understood by many farm/ranch managers. When completed accurately, the manager will assign all farm/ranch expenses and revenue to enterprise activities. This allocation process is relatively easy when considering direct expenses and revenue, such as seed, fertilizer, chemicals, feed, trucking expenses, etc. The task becomes much more challenging when considering cost categories such as: liability/fire insurance, fuel, interest, taxes, etc. Finally, to obtain the most accurate understanding of the profitability of each enterprise activity, the manager will also need to allocate depreciation, owner labor, management, return on equity, and other non-cash expense adjustments.



With an accurate and completely-allocated set of farm/ranch expenses and revenue in hand, the manager is in a good position to evaluate: 1) how profitable each enterprise activity is on its own merit, 2) how profitable one enterprise activity is compared to others, and 3) what are the largest expense categories for each enterprise. This information is extremely helpful when identifying adjustments to enterprises activities with the goal of improving either enterprise profitability or the profitability of entire farm/ranch. It is important to remember that the profitability of any farm or ranch in total arises from the ability of each enterprise activity to employ resources in such a way as to earn a greater return from those activities than the accumulated expenses of production.

In addition to this mission-critical management information, the manager armed with such enterprise cost and return information may begin to accurately assess breakeven prices and yields for each enterprise activity. This provides the active manager with the the detailed understanding required to make mid-year corrections to marketing plans, as well as production strategies.

Finally, the Enterprise Risk Analyzer tool enhances the manager's understanding of how those breakeven prices and yields are likely to vary over time. Using the risk-estimates provided by the user as *most likely*, *minimum*, and *maximum* estimated yields and prices for each enterprise, allows the tool to provide tabular and graphical information for the probability of breaking even over a range of values.

General Tab

	A	B	C	D	E	F
1						
2		Enterprise Titles	Enterprise Description	Number of Units	Enterprise Units (acres/head/cow)	Enterprise Type (crop or livestock)
3		Enterprise #1				
4		Enterprise #2				
5		Enterprise #3				
6		Enterprise #4				
7		Enterprise #5				

Enterprise Description – In this first section of the Enterprise Risk Analyzer tool, enter a descriptive title for each enterprise activity of your operation. These titles are used elsewhere in the tool as labels for each enterprise.

An enterprise is generally any major business activity that results in a saleable product and for which expenses and revenue can be readily assigned or calculated.

Number of Units – Enter the number of enterprise units for each enterprise. This would generally be the number of acres for most crop enterprises, number of head of cow/ewe/doe/sow for livestock enterprises.

Enterprise Units – Enter a descriptor for the base units of the enterprise, the basis for which expenses and revenue are usually calculated. This would generally be acres for most crop enterprises, head or cow/ewe/doe/sow for livestock enterprises. Other enterprise units are also possible.

Enterprise Type – Enter either crop or livestock as the enterprise type. Entries in this column are used to allocate the revenue for each enterprise to the appropriate section on the Schedule F Tab.

	B	C	D	E	F	G
9						
	Stochastic Elements		Yield per Enterprise Unit	Units (bu/ton/lbs)	Price per Unit	Expected Revenue per Enterprise Unit (most likely)
10		<i>Estimate</i>				
11	Enterprise #1	<i>Minimum</i>				\$ -
12		<i>Most Likely</i>				
13		<i>Maximum</i>				
14	Enterprise #2	<i>Minimum</i>				\$ -
15		<i>Most Likely</i>				
16		<i>Maximum</i>				
17	Enterprise #3	<i>Minimum</i>				\$ -
18		<i>Most Likely</i>				
19		<i>Maximum</i>				
20	Enterprise #4	<i>Minimum</i>				\$ -
21		<i>Most Likely</i>				
22		<i>Maximum</i>				
23	Enterprise #5	<i>Minimum</i>				\$ -
24		<i>Most Likely</i>				
25		<i>Maximum</i>				

Yield per Enterprise Unit – Enter the yield or level of production per enterprise unit. For example, 550 lbs. per cow, 3 tons per acre, 2,900 lbs. per doe, or 65 lbs. per hive.

Three yield estimates are requested. At a minimum, the most likely yield must be entered. This yield estimate will be used to calculate the revenue for each enterprise.

A *minimum* and *maximum* yield may also be entered for each enterprise. These values will be used to compute the breakeven risk analysis.

The *minimum* and *maximum* yields are production estimates you believe are the most likely low and high yield, respectively, that the operator might reasonably expect to harvest over the coming 5, 7 or 10 year period.

Units – Enter the basis for which the yield per enterprise unit is entered. For example, bushels, tons, pounds, etc. harvested per acre, per cow, or per head.

Price – Enter the estimated price received for the units of production (bushels/tons/pounds). Three prices are requested. At a minimum, the *most likely* price must be entered. This price will be used to calculate the revenue for each enterprise.

A *minimum* and *maximum* price may also be entered for each enterprise. These values will be used to compute the breakeven risk analysis.

The *minimum* and *maximum* prices are prices you believe are the most likely low and high prices, respectively, that the operator might reasonably expect to receive over the coming 5, 7 or 10 year period.

Expected Revenue – Expected revenue is calculated automatically from values entered for the *most likely yield* and *most likely price* per enterprise unit.

Schedule F Tab

	A	B	C	D	E	F	G	H
1								
2				SCHEDULE F (Form 1040) - Profit or Loss From Farming				2011
3								
4		PART - I		Farm Income - Cash Method.				
5		1a	Specified sales of livestock and other resale items		1a	-		
6		b	Sales of livestock and other resale items not reported on line 1a		1b			
7		c	<i>Total of lines 1a and 1b</i>		1c	-		
8		d	Cost or other basis of livestock or other items reported on line 1c		1d			
9		e	<i>Subtract line 1d from line 1c</i>				1e	-
10		2a	Specified sales of products you raised				2a	-
11		b	Sales of products you raised not reported on line 2a				2b	
12		3b	Cooperative distributions (Form(s) 1099-PATR) - taxable amount				3b	
13		4b	Agricultural program payments - taxable amount				4b	
14		5a	Commodity Credit Corporation (CCC) loans reported under election				5a	
15		c	CCC loans forfeited - taxable amount				5c	
16		6	Crop insurance proceeds and federal crop disaster payments					
17		b	Amount received in 2011 - taxable amount				6b	
18		d	Amount deferred from 2010				6d	
19		7a	Specified custom hire (machine work) income				7a	
20		7b	Custom hire income not reported on line 7a				7b	
21		8a	Specified other income				8a	
22		8b	Other income not reported on line 8a				8b	
23		g	Gross income. Add amounts in the right column (lines 1e, 2a, 2b, 3b, 4b, 5a, 5c, 6b, 6d, 7a, 7b, 8a, and 8b)				g	-
24								

The Schedule F Tab of the Enterprise Risk Analyzer tool is designed for input of all cash income and expenses. The form shown is the one used for reporting the 2011 tax year. Exact entries may be different for other tax years.

In Part I, you will report income received for items listed on lines 1 through 8b. In most cases, include both the cash actually or constructively received and the fair market value of goods or other property received for these items. Income is constructively received when it is credited to your account or set aside for you to use.

Line 1a – Should be used to report sales income from livestock. This value is brought forward from the *most likely yield, most likely price* and revenue information for any enterprises designated as livestock on the General Tab.

Line 1b – Enter income you received from sales of livestock and other items you bought for resale on line 1b that were not included on line 1a.

Line 1c – Is the total of line 1a and 1b, calculated automatically.

Line 1d – Enter the cost or other basis of livestock or other items reported on line 1c.

Line 1e – Is the difference of line 1c and line 1d, calculated automatically.

Line 2a – Should be used to report sales of products raised (crops). This value is brought forward from the *most likely yield, most likely price* and revenue information for any enterprises designated as crop on the General Tab.

Line 2b – Enter income you received from sales of livestock, produce, grains and other products you raised not included on line 2a.

Line 3b – Include all distributions from cooperatives. This includes patronage dividends, non-patronage distributions, per-unit retain allocations, and redemptions of nonqualified written notices of allocation and per-unit retain

certificates. Do not include patronage dividends from buying personal or family items, capital assets, or depreciable assets.

Line 4b – Enter the total of any agricultural program payments, including: direct payments, counter-cyclical payments, price support payments, market gains from the repayment of a secured Commodity Credit Corporation (CCC) loan for less than the original loan amount, diversion payments, cost-share payments (sight drafts), payments in the form of materials (such as fertilizer or lime) or services (such as grading or building dams).

Line 5a – In most cases, you do not report CCC loan proceeds as income. However, if you pledged part or all of your production to secure a CCC loan, you can elect to report the loan proceeds as income in the year you receive them. If you make this election (or made the election in a prior year), report loan proceeds you received in the current year on line 5a.

Line 5c – If you did not elect to report the CCC loan proceeds as income, report any forfeited CCC loans on line 5c.

Line 6b – In most cases, you must report crop insurance proceeds in the year you receive them. Federal crop disaster payments are treated as crop insurance proceeds. Enter the total crop insurance proceeds you received in the current year.

Line 6b – Enter the amount of crop insurance proceeds you received in any past year and elected to include as income in the current year.

Line 7a – Enter income received from custom hire (machine work).

Line 7b – Enter income received from any custom hire (machine work) not reported on line 7a.

Line 8a – Enter any other income not otherwise reportable on lines 1 through 7b, including illegal federal irrigation subsidies, bartering income,

income from cancellation of debt, state gasoline or fuel tax refunds, credits for alcohol and cellulosic biofuel fuels, credits for biodiesel and renewable diesel fuels, or credits for federal tax paid on fuels claimed on a previous year's Form 1040, any income from breeding fees, or fees from renting teams, machinery, or land, or the gain or loss on the sale of commodity futures contracts.

Line 8b – Enter any other income not included on line 8a.

Line 9 – Represents the gross income from all farm operations for the current year, calculated automatically.

In Part II, you will report expenses paid for items listed on lines 10 through 32.

In most cases, include both the cash actually or constructively paid and the fair market value of goods or other property pledged for these items. Expenses are considered constructively paid when an amount is due on your account.

Do not deduct the following: personal or living expenses (such as taxes, insurance, or re-pairs on your home) that do not produce farm income, expenses of raising anything you or your family used, the value of animals you raised that died, inventory losses, personal losses. If you were repaid for any part of an expense, you must subtract the amount you were repaid from the deduction.

Line	Description	Amount
SCHEDULE F (Form 1040) - Profit or Loss From Farming 2011		
25	PART - II Farm Expenses - Cash and Accrual Method.	
10	Car and truck expenses (see instructions). Also attach Form 4562	10
11	Chemicals	11
12	Conservation expenses	12
13	Custom hire (machine work)	13
14	Depreciation and section 179 expense	see schedules
15	Employee benefit programs other than on line 2	15
16	Feed	16
17	Fertilizers and lime	17
18	Freight and trucking	18
19	Gasoline, fuel, and oil	19
20	Insurance (other than health)	20
21	Interest	see schedules
a	Mortgage (paid to banks, etc.)	see schedules
b	Other	see schedules
22	Labor hired (less employment credits)	22
23	Pension and profit-sharing plans	23
24	Rent or lease	
a	Vehicles, machinery, equipment	24a
b	Other (land, animals, etc.)	24b
25	Repairs and maintenance	25
26	Seeds and plants	26
27	Storage and warehousing	27
28	Supplies	28
29	Taxes	29
30	Utilities	30
31	Veterinary, breeding, and medicine	31
32	Other expenses (specify):	
a		32a
b		32b
c		32c
d		32d
e		32e
f		32f
33	Total expenses. Add lines 10 through 32f.	33
34	Net farm profit or (loss). Subtract line 33 from line 9	34

Line 10 – You can deduct the actual expenses of operating your car or truck or take the standard mileage rate. If you take the standard mileage rate, multiply the number of business miles driven by the appropriate Federal mileage rate and add to this amount any parking fees and tolls, and enter the total.

Line 11 – Enter the amount paid for any chemicals used in production in the current year.

Line 12 – Deductible conservation expenses generally are those that are paid to conserve soil and water for land used in farming, to prevent erosion of land used for farming, or for endangered species recovery.

Line 13 – Enter amounts paid for custom hire or machine work (where the machine operator furnished the equipment). Do not include amounts paid for rental or lease of equipment you operated yourself.

Line 14 – Depreciation expenses are entered on the Beginning and Ending Schedules Tabs in the Enterprise Risk Analyzer tool.

Line 15 – Deduct contributions to employee benefit programs. Examples include accident and health plans, group-term life insurance, and dependent care assistance programs.

Line 16 – Deduct feed purchased for livestock, consumed in the current year. However, you cannot deduct the cost of feed livestock will consume in a later year unless all of the following apply: the payment was for the purchase of feed rather than a deposit, the prepayment had a business purpose and was not made merely to avoid tax, deducting the prepayment will not materially distort your income.

Line 17 – Enter the cost of any fertilizer or lime purchased and applied in the current year.

Line 18 – Deduct amounts paid for freight or trucking. Do not include the cost of transportation incurred in purchasing livestock held for resale as freight paid. Instead, add these expenses to the cost of the livestock.

Line 19 – Enter any amount paid for gasoline, fuel, and oil used in production in the current year.

Line 20 – Deduct premiums paid for farm business insurance. Deduct on line 15 amounts paid for employee accident and health insurance.

Line 21a and 21b – Interest expenses are entered on the Beginning and Ending Schedules Tabs in the Enterprise Risk Analyzer tool.

Line 22 – Enter the amounts you paid for farm labor. Do not include amounts paid to yourself. Include the cost of boarding farm labor but not the value of any products they used from the farm. Include only what you paid household help to care for farm laborers.

Line 23 – Deduct contributions to employee pension, profit-sharing, or annuity plans.

Line 24a – If you rented or leased vehicles, machinery, or equipment, enter on line 24a the business portion of your rental cost.

Line 24b – Enter amounts paid to rent or lease other property such as pasture or farmland.

Line 25 – Enter amounts you paid for incidental repairs and maintenance of farm buildings, machinery, and equipment that do not add to the property's value or appreciably prolong its life. Do not deduct repairs or maintenance on your home.

Line 26 – Deduct amounts paid for seeds or plants used in production in the current year.

Line 27 – Enter amounts paid for storage and warehousing in conjunction with production in the in the current year.

Line 28 – Deduct the cost of any supplies purchased and used in production in the current year.

Line 29 – You can deduct the following taxes on this line: real estate and personal property taxes on farm business assets, social security and Medicare taxes you

paid to match what you are required to withhold from farm employees' wages, Federal unemployment tax, Federal highway use tax, and contributions to state unemployment insurance fund or disability benefit fund.

Do not deduct the following taxes on this line: Federal income taxes, including your self-employment tax; estate and gift taxes; taxes assessed for improvements, such as paving and sewers; taxes on your home or personal use property; state and local sales taxes on property purchased for use in your farming business; and other taxes not related to your farming business.

Line 30 – Enter amounts you paid for gas, electricity, water, and other utilities for business use on the farm. Do not include personal utilities.

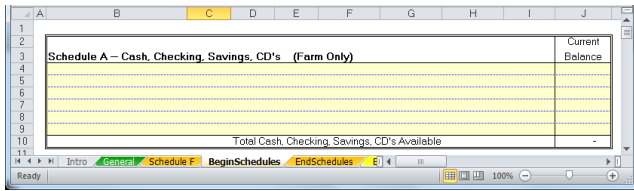
Line 31 – Deduct amounts paid for veterinary, breeding, and medicine used in the current production year.

Line 32 – Enter all ordinary and necessary farm expenses not deducted elsewhere on Schedule F, such as advertising, office supplies, etc. Do not include fines or penalties paid to a government for violating any law.

Line 33 – Represents the gross cash expenses from all farm operations for the current year, calculated automatically.

Line 34 – Represents the net farm profit or loss on a cash basis for the current year, calculated automatically.

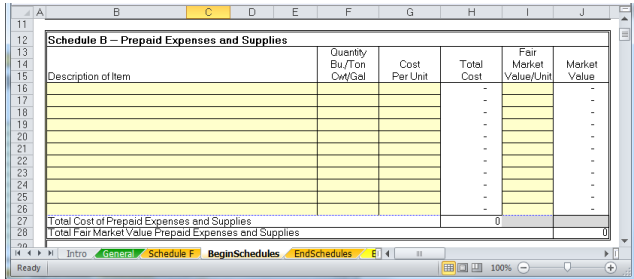
Begin and End Schedules Tabs



Schedule A – Cash, Checking, Savings, CD's (Farm Only)		Current Balance
Total Cash, Checking, Savings, CD's Available		

Schedule A – Cash, Checking, Savings, CD's (Farm Only)

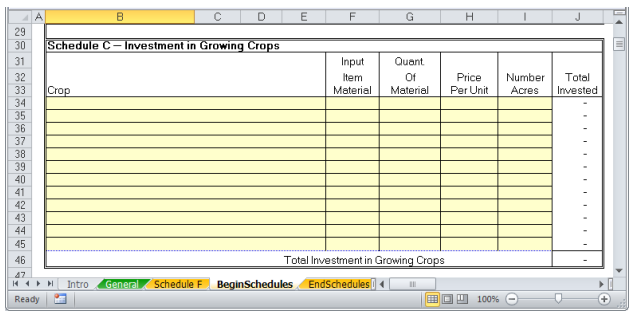
List all balances for farm cash, checking account, savings account, CD's and other holdings. Blanks are provided for a description and current balance for each account type.



Description of Item	Quantity Bu/Ton	Cost Per Unit	Total Cost	Fair Market Value/Unit	Market Value
Total Cost of Prepaid Expenses and Supplies					
Total Fair Market Value Prepaid Expenses and Supplies					

Schedule B – Prepaid Expenses and Supplies

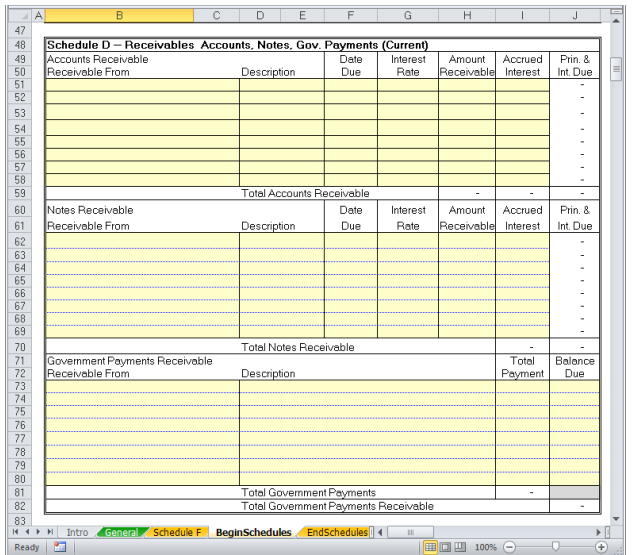
List all prepaid expense and supply account balances. Blanks are provided for a description, associated quantities, cost per unit, and fair market value for each account. Total cost and market value are calculated automatically.



Crop	Input Item Material	Quant Of Material	Price Per Unit	Number Acres	Total Invested
Total Investment in Growing Crops					

Schedule C – Investment in Growing Crops

List all growing crops. Blanks are provided for a description, input materials, quantity of materials used, price per unit, and number of acres for each crop. The total invested is calculated automatically.



Schedule D – Receivable Accounts, Notes, Gov. Payments (Current)						
Accounts Receivable						
Receivable From	Description	Date Due	Interest Rate	Amount Receivable	Accrued Interest	Prin. & Int. Due
Total Accounts Receivable						
Notes Receivable						
Receivable From	Description	Date Due	Interest Rate	Amount Receivable	Accrued Interest	Prin. & Int. Due
Total Notes Receivable						
Government Payments Receivable						
Receivable From	Description				Total Payment	Balance Due
Total Government Payments						
Total Government Payments Receivable						

Schedule D – Receivable Accounts, Notes, Government Payments (Current)

List all accounts receivable and all notes receivable. Blanks are provided for the party the receivable is due from, a general description, due date, interest rate, amount receivable, and accrued interest. The total principal and interest due is calculated automatically.

For government payments due, the total payment and balance due are entered directly for each receivable.

Schedule F – Securities Readily Marketable						
Description	Number of Shares	Original Cost Per Unit	Market Price Per Unit	Total Original Cost	Fair Market Value	Percent To Non-Farm
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
				0	0	100%
Cost Basis of Marketable Securities				0	0	
Market Value of Readily Marketable Securities					0	
Value of Farm Portion (Cost & Market)				0	0	
Value of Non-Farm Portion (Cost & Market)				0	0	

Schedule F – Securities Readily Marketable

List all readily marketable securities currently held. Blanks are provided for a description, number of shares held, original cost per unit, market price per unit and percent to non-farm accounts. The total original cost and fair market value is calculated automatically.

Schedule G – Crops Held For Sale or Feed (Raised & Purchased) – Free Stocks						
Raised Crops/Feed Held for Sale	Quant. Bu./Tons Cwt	Required For Feed	Available To Sell	Market Price Per Unit	Fair Market Value	
Total FMV Raised Crops and Feed						
Purchased Crops/Feed Held for Sale	Quant. Bu./Tons Cwt	Purchase Price Per Unit	Total Cost	Available To Sell	Market Price/Unit	Fair Market Value
Cost Value of Purchased Crops						
Market Value of Purchased Crops						

Schedule G – Crops Held For Sale or Feed (Raised & Purchased) – Free Stocks

List all crop inventories held for either sale or feed, both raised and purchased. Blanks are provided for a description, quantity, (quantity) required for feed, (quantity) available for sale, and market price per unit for both raised and purchased crops/feed. The fair market value is calculated automatically.

Schedule H – CCC and Other Government Stored Grain							
Grain Description	Year Sealed	Loan Rate	Units Sealed T/C/BU	Market Price	Total Dollars Equity	Total Loan Amount	Total Market Value
Total Dollars of Equity in Government Grain							
Total Loan Amount Against Crops							
Total Market Value of Grain Under Loan							

Schedule H – CCC and Other Government Stored Grain

List all grain currently stored for government program purposes. Blanks are provided for a description, year sealed, loan rate, units sealed, and market price. The total dollars equity, total loan amount, and total market value are calculated automatically.

Schedule I – Livestock Held for Sale (Raised and Purchased)							
Raised Livestock	Description	Number Animals	Average Weight in Pounds	Market Price Per Pound	Total Market Value		
Total Fair Market Value of Raised Livestock							
Purchased Livestock	Description	Number Animals	Average Weight in lbs.	Cost Per Pound	Market Price Per Pound	Total Cost	Total Market Value
Cost Value of Purchased Livestock for Sale							
Fair Market Value of Purchased Livestock for Sale							

Schedule I – Livestock Held for Sale (Raised and Purchased)

List all livestock held for sale, either raised or purchased. Blanks are provided for a description, number of animals, average weight in pounds, and market price per pound for raised livestock. The total market value is calculated automatically.

For purchased livestock blanks are provided for a description, number of animals, average weight in pounds, cost per pound, and market price per pound. The total cost and total market value are calculated automatically.

The screenshot displays a spreadsheet for Schedule J, titled "Schedule J – Breeding Livestock (Raised and Purchased)". It contains two main sections. The first section, "Raised Breeding Livestock", includes columns for "Description", "Number Animals", "Weight Per Animal", "Market Value (Basis) Per Animal", and "Total Market Value". The second section, "Purchased Breeding Livestock", includes columns for "Description", "Number Animals", "Average Weight/Per Animal", "Average Cost/Per Animal", "Annual Deprec.", "Accum. Dep.", "Original Cost", "Market Value Per Animal", and "Total Market Value". Summary rows at the bottom calculate "Total Fair Market Value of Raised Breeding Stock", "Total Annual Depreciation of Purchased Breeding Stock", "Total Cost or Book Value of Purchased Breeding Stock", and "Total Market Value of Purchased Breeding Livestock".

Schedule J – Breeding Livestock (Raised and Purchased)

List all breeding livestock, whether raised or purchased. Blanks are provided for a description, number of animals, weight per animal, and market value (basis) per animal for raised livestock. The total market value is calculated automatically for raised breeding livestock.

For purchased breeding livestock blanks are provided for a description, number of animals, average weight per animal, cost per animal, annual depreciation, accumulated depreciation and market value per animal. The original cost and total market value are calculated automatically.

The screenshot displays a spreadsheet for Schedule K, titled "Schedule K – Machinery, Trucks, Pickups, Autos and Livestock Equipment". It is organized into four sections: "Powered Equipment", "Implements", "Pickups & Trucks", and "Livestock". Each section has columns for "Year Make/Model", "Date Acquired", "Percent Owned", "Cost or Basis", "Annual Depreciation", "Accumulated Depreciation", "Book Value", and "Estimated Market Value". Summary rows at the bottom calculate "Total Cost or Basis", "Total Annual Depreciation", "Total Accumulated Depreciation To Date", "Total Book Value of Machinery and Equipment", and "Total Estimated Market Value of Machinery and Equipment".

Schedule K – Machinery, Trucks, Pickups, Autos, and Livestock Equipment

List all machinery, implements, trucks, and livestock equipment. Blanks are provided for a description, year/make/model, date acquired, percent owned, cost or basis, annual depreciation, accumulated depreciation, and estimated market value. The book value is calculated automatically for powered equipment, implements, pickups and trucks, and livestock equipment.

Depreciation values should be entered with care, as these contribute significant non-cash expenses to the farm/ranch. Unless some other pattern of the decline in value is known, straight-line depreciation should be used. Straight-line depreciation may be calculated as Annual Depreciation equals Cost/Basis divided by Expected Years of Life. Annual Depreciation would be multiplied times the number of years of ownership to arrive at Accumulated Depreciation.

Schedule T – Taxes – (Real Estate, Income, Property, Payroll Taxes)			
Real Estate	Date Due	Annual Real Estate Tax	Accrued R. E. Tax
Accrued Real Estate Taxes Due Within 12 Months			
Personal Property	Date Due	Annual Personal Prop. Tax	Accrued Personal Prop. Tax
Accrued Personal Property Tax Due Within 12 Months			
Payroll Taxes	Date Due		Accrued Payroll Taxes
Accrued Payroll Tax Due Within 12 Months			

Schedule T – Taxes (Real Estate, Income, Property, Payroll Taxes)

List all real estate, personal property, and payroll taxes. Blanks are provided for a description, date due, annual tax, and accrued tax for real estate or personal property taxes.

For payroll taxes blanks are provided for a description, date due and accrued payroll taxes.

Enterprise Allocator Tab

	Amount to Allocate	Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5	Amount Unallocated
FARM REVENUE							
Gain/Loss on sales of livestock and other resale items	-						-
Specified sales of products you raised	-						-
Sales of products you raised not reported on line 2a	-						-
Cooperative distributions (Form(s) 1099-PATR) - taxable amount	-						-
Agricultural program payments - taxable amount	-						-
Commodity Credit Corporation (CCC) loans reported under election	-						-
CCC loans forfeited - taxable amount	-						-
Crop insurance proceeds and federal crop disaster payments							
Amount received in 2011 - taxable amount	-						-
Amount deferred from 2010	-						-
Specified custom hire (machine work) income	-						-
Custom hire income not reported on line 7a	-						-
Specified other income	-						-
Other income not reported on line 8a	-						-
TOTAL FARM INCOME - CASH							
Farm Income - Non-cash Adjustments							
	—Non-cash Income—						
	Beginning (-) Ending (+)						
Crops Held for Sale NOT Feed - Increase (Decrease)	-						-
Raised Breeding Livestock - Increase (Decrease)	-						-
Livestock Held For Sale - Increase (Decrease)							
Cost of Livstck Held for Sale Adj. (Beginning - Ending)	-						-
Hedging Accounts - Increase (Decrease)	-						-
Accounts Receivable - Increase (Decrease)	-						-
Notes Receivable - Increase (Decrease)	-						-
Government Payments Receivable - Increase (Decrease)	-						-
TOTAL NON-CASH INCOME ADJUSTMENTS							
GROSS FARM REVENUE (cash + non-cash)							

The Enterprise Allocator Tab is used to allocate all cash and non-cash revenues and expenses to the enterprises listed on the General Tab. Enterprise names appear in the column headings as they were entered for enterprise description on the General Tab.

The amounts to allocate (entered on the orange tabs of the tool) appear in the blue shaded column. To the right, appear the amounts allocated to each enterprise (column).

To the far right is a column showing any amounts remaining unallocated to an enterprise. Any amount appearing in this column is colored red with light-red cell shading.

An accurate estimate of net enterprise returns requires that ALL expenses and revenue for the entire farm or ranch operation be allocated to one or more enterprise activities. Accurate breakeven risk analysis requires accurate and complete enterprise cost and return estimates.

Farm Income, Cash – Allocate cash income by entering an amount to assign to each enterprise (column by column) until no amount remains unallocated.

Methods for allocating enterprise returns may vary by item. For example, revenues from crop production would be made on a crop by crop basis for a typical farm. However, interest income or amounts specified as Other Income might be better allocated by the number of acres of the crop, in proportion to the total of gross sales for each enterprise, or some other appropriate basis.

Farm Income, Non-Cash – Any non-cash income amounts are calculated from entries made on the Begin and End Schedule Tabs. These beginning and ending values are displayed to the left of the amount to allocate column. Beginning/ending hedging account balances should be entered directly in the cells provided.

Non-cash farm income amounts should be allocated following the approach outlined for cash income.

Values should be assigned to specific enterprises where it is possible to directly link non-cash income to those enterprises. Where this is not possible, another method of allocation must be followed. (See Farm Income, Cash.)

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
						Amount to Allocate		Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5		Amount Unallocated
37	FARM EXPENSES													
38	Farm Expenses - Cash													
41	Car and truck expenses (see instructions). Also attach Form 4562													
42	Chemicals													
43	Conservation expenses													
44	Custom hire (machine work)													
45	Depreciation and section 179 expense													
46	Employee benefit programs other than on line 2													
47	Feed													
48	Fertilizers and lime													
49	Freight and trucking													
50	Gasoline, fuel, and oil													
51	Insurance (other than health)													
52	Interest													
53	Mortgage (paid to banks, etc.)													
54	Other													
55	Labor hired (less employment credits)													
56	Pension and profit-sharing plans													
57	Rent or lease													
58	Vehicles, machinery, equipment													
59	Other (land, animals, etc.)													
60	Repairs and maintenance													
61	Seeds and plants													
62	Storage and warehousing													
63	Supplies													
64	Taxes													
65	Utilities													
66	Veterinary, breeding, and medicine													
67	Other expenses (specify):													
68														
69														
70														
71														
72														
73														
74	TOTAL FARM EXPENSES - CASH													

Farm Expense, Cash – Allocate cash expenses by entering an amount to assign to each enterprise (column by column) until no amount remains unallocated.

Methods for allocating enterprise expenses may vary by item. For example, expenses from crop production would be made on a crop by crop basis for a typical farm. However, insurance expense, utilities or amounts specified as Other Expenses might be better allocated by the number of acres of the crop, in proportion to the total of gross sales for each enterprise, or some other appropriate basis.

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2												
3												
76												
77		Farm Expenses - Non-cash Expense Adjustments						Amount to Allocate				
78		Depreciation Expense (average of beginning and ending)										
79		Supplies & Prepaid Expenses - Decrease (Increase)										
80		Investment in Growing Crops - Decrease (Increase)										
81		Crops Held for Feed NOT for Sale - Decrease (Increase)										
82		Accounts Payable - Increase (Decrease)										
83		Short Term Notes Payable - Inc (Dec) - Not Ann.Op Loan										
84		Accrued Interest (average of beginning and ending)										
85		Acc. Prop. R.E., Payroll Taxes - Increase (Decrease)										
86		Accrued Lease Payments - Increase (Decrease)										
87		Owner Labor - annual										
88		Management (owner) - annual										
89		Return on Equity Capital - annual dollar amount										
90		TOTAL NON-CASH EXPENSE ADJUSTMENTS										
91												
92		GROSS FARM EXPENSES (cash + non-cash)										
93												
94												
95												
96		NET FARM INCOME FROM OPERATIONS										
97												
98												
99												

Farm Expenses, Non-Cash Expense Adjustments –

Any non-cash expense adjustments are calculated from entries made on the Beginning and Ending Schedule Tabs. These beginning and ending values are displayed to the left of the amount to allocate column. Amounts for Owner Labor, Management, and Return on Equity Capital are entered directly under this section of the tool in the cells with yellow shading. These values are automatically transferred to the Amount to Allocate column.

Non-cash farm expense values should generally be allocated following the approach outlined for cash expenses. Values should be assigned to specific enterprises where it is possible to directly link non-cash expenses to those enterprises. Where this is not possible, another method of allocation must be followed. (See Farm Expense, Cash.)

Breakeven Analysis & Breakeven Price and Yield Graph Tabs

Figure 1.
Breakeven Analysis Tab Table 1.

	A	B	C	D	E	F	G
4		FARM REVENUE	Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5
5		TOTAL FARM INCOME - CASH					
6		TOTAL NON-CASH INCOME ADJUSTMENTS					
7		GROSS FARM REVENUE					
9		FARM EXPENSES					
10		FARM EXPENSES - CASH					
11		FARM EXPENSES - NON-CASH EXPENSE ADJUSTMENTS					
12		GROSS FARM EXPENSES					
14		NET FARM INCOME FROM OPERATIONS					

Tabular results of the basic breakeven analysis are provided on the BE Analysis tab. The first table (Figure 1) provides a summary of the farm revenue, cash and non-cash, followed by farm expenses on a cash and non-cash basis. Net farm income from operations is also provided for each enterprise activity.

Figure 2.
Breakeven Analysis Tab Table 2

	A	B	C	D	E	F	G
17		Break-Even PRICE Analysis					
18		YIELD PER ENTERPRISE UNIT	Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5
19		Maximum	0	0	0	0	0
20		Most Likely	0	0	0	0	0
21		Minimum	0	0	0	0	0
23		BREAK-EVEN PRICE - CASH EXPENSES					
24		Minimum	∞	∞	∞	∞	∞
25		Most Likely	∞	∞	∞	∞	∞
26		Maximum	∞	∞	∞	∞	∞
28		BREAK-EVEN PRICE - GROSS EXPENSES					
29		Minimum	∞	∞	∞	∞	∞
30		Most Likely	∞	∞	∞	∞	∞
31		Maximum	∞	∞	∞	∞	∞
33		Probability Analysis (click button at right)	Graph	Graph	Graph	Graph	Graph

The second (middle) table (Figure 2) on this tab provides breakeven price analysis for each enterprise. That is, holding yields constant at the *most likely* yield level, a breakeven price is calculated to cover either *cash expenses* or to cover *gross expenses* (all farm expenses).

Using the maximum and minimum yield estimates, additional breakeven prices (minimum and maximum) are calculated.

Clicking the **Graph** button located under the table allows the user to view a graph describing the probabilities for breaking even at various price levels for each enterprise. Moving the cursor over each point on the graph allows the user to view the price and probability values.

Figure 3.
Breakeven Analysis Tab Table 3.

	A	B	C	D	E	F	G
35		Break-Even YIELD Analysis	Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5
36		PRICE PER UNIT	Enterprise #1	Enterprise #2	Enterprise #3	Enterprise #4	Enterprise #5
38		Maximum	0	0	0	0	0
39		Most Likely	0	0	0	0	0
40		Minimum	0	0	0	0	0
42		BREAK-EVEN YIELD - CASH EXPENSES					
43		Minimum	∞	∞	∞	∞	∞
44		Most Likely	∞	∞	∞	∞	∞
45		Maximum	∞	∞	∞	∞	∞
47		BREAK-EVEN YIELD - GROSS EXPENSES					
48		Minimum	∞	∞	∞	∞	∞
49		Most Likely	∞	∞	∞	∞	∞
50		Maximum	∞	∞	∞	∞	∞
52		Probability Analysis (click button at right)	Graph	Graph	Graph	Graph	Graph

The third (bottom) table (Figure 3) on this tab provides breakeven yield analysis for each enterprise. That is, holding prices constant at the *most likely* price level, a breakeven yield is calculated to cover either *cash expenses* or to cover *gross expenses* (all farm expenses).

Using the maximum and minimum price estimates, additional breakeven yields (minimum and maximum) are calculated.

Clicking the **Graph** button located under the table allows the user to view a graph describing the probabilities for breaking even at various yield levels for each enterprise. Moving the cursor over each point on the graph allows the user to view the yield and probability values.

Figure 4.
Break-even price analysis for malting barley.

	Malting Barley
FARM EXPENSES - CASH	55,137.00
FARM EXPENSES - NON-CASH EXPENSE ADJUSTMENTS	32,586.00
GROSS FARM EXPENSES	87,723.00
NET FARM INCOME FROM OPERATIONS	1,396.00
Break-Even PRICE Analysis	
YIELD PER ENTERPRISE UNIT	Malting Barley
<i>Maximum</i>	140
<i>Most Likely</i>	110
<i>Minimum</i>	32
BREAK-EVEN PRICE - CASH EXPENSES	
<i>Minimum</i>	1.49
<i>Most Likely</i>	1.89
<i>Maximum</i>	6.50
BREAK-EVEN PRICE - GROSS EXPENSES	
<i>Minimum</i>	2.36
<i>Most Likely</i>	3.01
<i>Maximum</i>	10.34
Probability Analysis (click button at right)	Graph

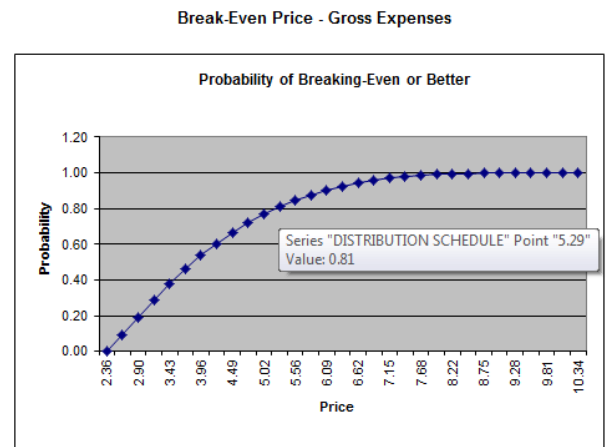
With farm expenses completely allocated to existing enterprises, a break-even price analysis can be conducted for a given enterprise using the yield data provided.

For example, with cash and non-cash expenses totaling gross expenses of \$87,723 on 265 acres of malting barley, a “Most Likely” yield of 110 bushels to the acre would result in a cost of production equal to \$3.01 per bushel (Figure 4).

This represents a break-even price for this malting barley producer. It is equal to the gross expenses per acre divided by the yield per acre. Thus, as yield increases, the break-even price will decrease assuming expenses remain unchanged.

With a maximum projected yield of 140 bushels to the acre for this malting barley producer, a minimum break-even price of \$2.36 per bushel can be calculated. Likewise, with a minimum projected yield of 32 bushels to the acre, a maximum break-even price of \$10.34 per bushel can be calculated.

Figure 5.
Break-even price for malting barley.



In addition, using the minimum, most likely, and maximum break-even price calculations from a given enterprise and statistical methods, a break-even price graph can be constructed (Figure 5).

Any point on the graph represents the cumulative probability that a given price on the horizontal axis or a value less than that will be the true break-even price for the enterprise. Thus, in the figure to the right, the point at (5.29, 0.81) indicates an 81% probability that a price of \$5.29 will cover all cash and non-cash expenses for this enterprise.

Figure 6.
Break-even yield analysis for malting barley.

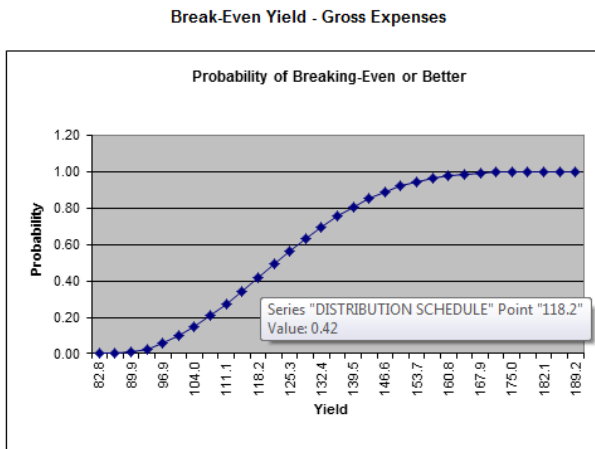
Break-Even YIELD Analysis	
PRICE PER UNIT	Malting Barley
<i>Maximum</i>	4
<i>Most Likely</i>	2.83
<i>Minimum</i>	1.75
BREAK-EVEN YIELD - CASH EXPENSES	
<i>Minimum</i>	52.02
<i>Most Likely</i>	73.52
<i>Maximum</i>	118.89
BREAK-EVEN YIELD - GROSS EXPENSES	
<i>Minimum</i>	82.76
<i>Most Likely</i>	116.97
<i>Maximum</i>	189.16
Probability Analysis (click button at right)	
	<input type="button" value="Graph"/>

In a similar manner, a break-even yield analysis can be conducted for a given enterprise using the variable price data provided.

For example, for the malting barley enterprise in Figure 6, a maximum price of \$4.00 per bushel, a most likely price of \$2.83, and a minimum price of \$1.75 result in a minimum break-even yield of 82.76 bushels to the acre, a most likely break-even yield of 116.97, and a maximum break-even yield of 189.16, respectively.

These represent the malting barley yield needed to cover all cash and non-cash expenses if the projected maximum, most likely, or minimum malting barley market price were to actually occur. It is equal to the gross expenses per acre divided by the price per bushel.

Figure 7.
Break-even yield for malting barley.



Using the minimum, most likely, and maximum break-even yield calculations from a given enterprise and statistical methods, a break-even yield graph can also be constructed (Figure 7).

Any point on the graph represents the cumulative probability that a given yield on the horizontal axis or a value less than that will be the true break-even yield for the enterprise.

Thus, in Figure 7, the point at (118.2, 0.42) indicates a 42% probability that a yield of 118.2 bushels to the acres will cover all cash and non-cash expenses for this enterprise.

References

Boehlje, Michael and Vernon Eidman, "Farm Management." John Wiley & Sons. New York. 1984.

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Department of the Treasury, Internal Revenue Service. "Schedule F (Form 1040)." Cat. No. 11346H. 2011.