

Instructions Cow/Heifer Investment Decision Discounted Cash Flow Spreadsheet

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The Excel template **Discounted Cash Flow Heifer-Cow Investment V4 Protected** will accept information in the blue shaded cells only. All other cells are protected.

The income estimate is based upon estimated sales weight, sales price, percentage sales expense and a weaning percentage over the expected time the animal will be in the herd. If the cow or heifer purchased is the same type and quality as animals in the current herd, use your own production information with respect to sale weight and grade. If the animal is expected to produce heavier and/or higher grade calves, adjust the sale weight to reflect your expectations.

The sale price will be the hardest item to project. Calf prices tend to change over time due to changes in fundamental supply and demand conditions. Because of the uncertainty of the demand fundamentals prices will be difficult to project. The table below presents the current USDA Baseline National Farm Calf projection for prices to 2013. This projection represents steers and heifers of all grades and types.

USDA Beef Baseline National Farm Calf Prices, \$/Cwt

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Price	108.67	110.15	110.37	110.77	106.89	103.24	101.85	102.42	103.62	104.65

The current marketing fees for auction sales are about 5 to 6 percent. Video, private treaty and other sales methods will have different sales fee.

Use your own weaning percentage for your current cow herd. This will reflect your environment and management.

The Cash Cow Expenses per Year is the cash cost of keeping a cow per year. Cash cow expenses per year represent all feed, forage, veterinary, labor, repairs, fuel, utilities and other expenses that will be incurred for each cow. Use the cash costs from your records as this will reflect your environment and management methods. This can range from \$180 to \$250 per year depending upon your situation. The cost of doing business usually rises from year to year. This can range from zero to 5%. Current conditions indicate a 1-2% increase annually.

The salvage value of the cull is the amount you would expect to receive when the cow or heifer is sold at the end of her useful life. This will depend upon age, weight, condition, health and season of year. A figure of \$350 to \$450 per head may be reasonable. A too high cull cow value will over estimate the amount that can be paid for a heifer or cow.

The Time Value of Money and the Risk Rate information must be added to discount future incomes to the present. The Time Value of Money is the percentage rate that you are earning on comparable investments. Agriculture typically returns 1.5 to 3.5 percent. The Risk Rate allows for adjusting the risk involved. Risk involves the expectation that the estimates of prices, weights, weaning percentages, costs and cow loss will be met.

If both these values are set at zero or left blank, the value in the Discounted Calf Flow will be the sum of the Cumulative Net Cash from Operations and the Salvage Value of the Cull animal.

The Discounted Cash Flow (DCF) is the value in today's dollars of the Cumulative Net Cash from Operations plus the Salvage Value of the Cull.

The DCF is the maximum amount that can be paid for a cow or heifer and earn the discount rate. An amount paid less than the DCF will result in higher profits while paying more than the DCF will reduce profits.

**Cow/Heifer Investment Decision
Discounted Cash Flow**

	1	2	3	4	5	6	7	8	9	10
Calf Weight	450	475	500	500	500	500	475			
Price	\$ 1.1015	\$ 1.1037	\$ 1.1077	\$ 1.0689	\$ 1.0324	\$ 1.0185	\$ 1.0242	\$ 1.0362	\$ 1.0465	\$ 1.0500
Marketing Fees %	6%	6%	6%	6%	6%	6%	6%			
Weaning Percentage	82%	82%	82%	82%	82%	82%	82%	0%	0%	0%
Net Income	\$ 382.07	\$ 404.10	\$ 426.91	\$ 411.95	\$ 397.89	\$ 392.53	\$ 374.99	\$ -	\$ -	\$ -
Cash Cow Expense/Year	\$ 215.00	\$ 218.23	\$ 221.50	\$ 224.82	\$ 228.19	\$ 231.62	\$ 235.09	\$ -	\$ -	\$ -
Expense Increase/Yr.	1.50%									
Net Cash from Operations	\$ 167.07	\$ 185.87	\$ 205.41	\$ 187.13	\$ 169.69	\$ 160.91	\$ 139.90	\$ -	\$ -	\$ -
Cumulative Net Cash from Ops.	\$ 167.07	\$ 352.94	\$ 558.35	\$ 745.48	\$ 915.18	\$ 1,076.09	\$ 1,215.99	\$ -	\$ -	\$ -
Salvage Value of Cull							\$ 400.00			
Time Value of Money	3.0%									
Risk Rate	3.0%									
Discount Rate	6.0%									
Discounted Cash Flow	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,243.04	\$0.00	\$0.00	\$0.00