

## **Bid Price for Beef Cows and Operating Costs Calculator**

This decision aids address the questions of beef cow bid price and operating and total cost It's valuable to review the economics of expanding the cow herd if added debt is required for land or breeding cattle investment. Even at historical high calf prices the cow-calf sector is characterized as a large investment with a low ROA. Make **your numbers** do the talking.

### **Bid Price for Beef Cows**

What should you bid for a beef cow? This will always be a question for both the buyer and seller of beef cows. This decision aid facilitates the calculation of what can be bid for a cow, and allows the user to do "what if" analysis, given alternative expectations.

This financial analysis helps those considering borrowing money for the cow purchase. The estimates of tax implications are not addressed. It is advisable to talk with the business CPA to determine the actual tax implications.

This decision aid is based on a net present value approach to investment analysis. This capital budgeting approach takes into account the discount rate, or rate of return desired for the investment.

### **Input**

Take time to consider input values and be realistic about weaning weights and cow operating costs. While doing your sensitivity analysis, change the calf price and/or calf crop and watch the net present value (NPV). This will show the maximum bid price based on alternative price assumptions. For users without cash operating cost data a cow-calf budget format is provided to assist in estimating these costs sheet (2.)

### **Output**

Users should refer to the interpretation of results at the bottom of the reporting page. The report summarizes all of the inputs and results by year.

### **Key Definitions**

The **net present value** (NPV) procedure accounts for the time value of money (in this case, a beef cow investment) that produces annual returns for several years. It reflects the earning potential of this investment that can earn for the specified discount rate. This is the economic feasibility of the investment.

The NPV of the net beef cow return would be the amount of money one would need today to earn an equal future return on investments at the specified discount rate. If the NPV is zero or greater, it is returning at least the discount rate of return. If NPV is less than zero, the investment in the cow will not generate the specified return requirement.

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Prepared by Jim McGrann, Professor Emeritus, Department of Agricultural Economics, AgriLife Extension, Texas A&M University, College Station, Texas. Francisco Abello, Assistant Professor and Extension Economist, Texas A&M AgriLife Extension, 4/21/ 2021.

## **Key Definitions:**

**Discount rate** is the annual rate of return required for the investment in the cow. The Discount rate should be selected such that it provides a rate of return comparable to an investment of similar risk.

**Internal rate of return** is the discount rate that would make the net present value equal to zero.

**Cow operating costs** are all the costs of the cow except cow depreciation and interest, which are calculated in the analysis. The cow-calf budget can be used to calculate the operating costs.

**Cow depreciation** calculated in the program is consistent with the mid-year election and the five-year life following IRS procedure. The purchase basis is cow cost minus accumulated depreciation. When the cow is sold, a capital gain (loss) accounts for the difference between the salvage value and the remaining tax basis in the cow.

**Calf prices** are input values and should be net of marketing cost and for net payweight.

## **Estimating Cow-Calf Operating Cost and Total Unit Cost**

This spreadsheet facilitates data organization to calculate the annual cost per breeding cow unit (BCU) that can be used in the bid price calculation or to estimate cow operating or total unit costs per BCU. A breeding cow unit includes the cow plus bull and replacement heifer per breeding cow.

### ***Operating Cost organization***

Costs are organized in the following order.

- a) Direct Costs
- b) Indirect Costs Plus General and Administrative (G&A) Costs

Total Operating Costs (a + b)

## **Key Cost Definitions:**

**Direct Expenses** are expense items that are directly related to production activity such as grazing, stored feed, veterinary and medicine or health and hired and owner labor and management costs. There is management time spent on planning, tax and other compliance issues, implementation and marketing issues.

**Indirect Costs** are the costs of asset ownership and operating costs. Depreciation or capital asset recovery, repair, maintenance, of the vehicles, machinery and equipment, labor and management, utilities, property tax are examples of operating costs. **General and administrative costs are indirect cost** that all business incurs to cover book keeping, professional fees, insurance, office supplies, computer services, phone and other utilities cost.

**Owner Operator Labor and Management** compensation should be included in the production cost calculation at a level equivalent to the salary required to hire a non-family member to provide an equivalent service. Not including owner manager cost implies the owners working for nothing.

**Depreciation** is the value that accounts for the use of a capital asset over time or its useful life. IRS depreciation requires shorter useful life shorter than actual use. The depreciation schedule can be set up to use a more appropriate useful life and salvage value.

**Finance cost** is the actual interest paid to finance debt associated with the production activity.

**Operating cost** is the sum of the direct and indirect costs. This cost is incurred in the production process. Operating costs added to finance is the total unit cost.