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Bulls should be an investment rather than a cost.

Assessing bull value is an inexact science.

Mendelian genetics means there is always room for unexpected results. Even if genetic predictions were 100% reliable, it is difficult to calculate the specific value a bull adds or subtracts in subsequent generations when replacements are retained. Never mind the quick-scribbled equations in the margins of a sale book that leave out all sorts of specifics.

“Bulls are too frequently treated as an expense. Bulls are an investment that must be viewed in terms of their productive lives,” James McGrann told me years ago.

I remember the advice because McGrann leaves emotion at the door during business evaluations. He is the Texas A&M University professor emeritus who pioneered Standardized Performance Analysis in the industry. McGrann owns Ranch Management Economist, a ranch business consulting firm. He will never let you hide behind false dogma.

More specifically, McGrann explained investing in a higher priced bull is not necessarily that costly when considering the price relative to the number of calves sired and what it represents in terms of annual breeding cow cost, if the bull contributes to improved production of more market-acceptable calves and increased weaning weight.

Those kinds of bulls return added revenue, often added net revenue. Bulls of that ilk can return even more if they sire retained replacements. In general terms, cattle geneticists will tell you that bulls used over the last few years contribute more than 80% of gene flow in a self-replacing herd. So, bull selection drives genetic progress in commercial herds.

**Consider the numbers**

McGrann developed a free online decision aid several years ago to help evaluate bull buying decisions from an economic standpoint. It was later updated in conjunction with Oklahoma State University. You can find it at [BeefExtension.OKState.edu/files/Bull\\_Investment\\_Cost\\_Calculator.xlsm/pages/calculators](http://BeefExtension.OKState.edu/files/Bull_Investment_Cost_Calculator.xlsm/pages/calculators).

The calculator details operating costs and ownership costs relative to bull purchase price and yields annual bull cost per cow and cost per hundredweight weaned, among other data.

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— Kevin Good, CattleFax

“Calculated cost per calf and per hundredweight of calf weaned per cow exposed are good indicators to compare bull investments. This provides information on what the market would have to pay to justify paying more for a herd bull that could produce a more market acceptable, higher valued calf,” McGrann explained in the *Hereford World* article, *The Economics of Bulls Investments* (March 2013).

Plug your own numbers into the calculator. When you account for all the factors from interest rate to maintenance cost to salvage value, it’s amazing how little the annual bull cost per hundredweight (cwt.) of calf weaned can change for a bull priced at \$5,500 compared to one at \$7,000. For the numbers I used, the estimated cost was \$12 per cwt. and \$15, respectively. Plenty of ways come to mind for how a bull could return the \$3 per cwt. difference and more.

That helps explain why high-return producers are willing to spend as much or more on genetics than medium- and low-return producers in the annual CattleFax cow-calf producer survey.

“High-return producers are more conscious about spending their money on animal health, nutrition and genetics,” explained Kevin Good, CattleFax analyst and director of industry relations, during the 2021 American Hereford Association educational forums.

“Those are areas where they will spend more because they know a dollar spent will return more than a dollar,” Good said. He explained keeping cows in shape (nutrition and health) is typically worth 2-3% more calves per cow exposed. Genetics with nutrition and health can increase weaning weight per cow. So, more calves and more pounds.

The CattleFax survey also asks how much respondents spent for bulls and the value of their calf crop. “It suggests a high correlation. If you spent more on a bull, your calf crop is worth more,” Good said.

Obviously, it’s more complicated than that. For one thing, Good noted respondents are not asked where and how they market calves. The strong correlation mentioned above suggests cattle are marketed via programs that reward known genetics and other attributes producers are deliberately addressing.

**Bull value in an up market**

As you determine the value of bulls purchased this year, keep in mind cattle prices appear able to trend higher for at least the next several years. You can get a short-term view in Market Tracks (Page 50) and Margin Squeeze (Page 24).

For longer-term perspective, consider USDA’s early 10-year baseline projections (2022 to 2031) from USDA’s Economic Research Service (ERS). They suggest livestock prices, except hogs, will increase over the next decade, while U.S. crop prices will decline.

“Beef cattle and broiler prices are expected to demonstrate a modest increase in the early years of the projection period before leveling off to slower growth, resulting in an average price increase of 8% to 17% over the decade,” according to ERS analysts.

As you consider the following prices keep in mind baseline projections focus on longer term underlying trends based on a set of assumptions, according to ERS. Forecasts focus more on predicting actual outcome within a shorter time frame.

The USDA baseline-projected five-area direct fed steer price increases steadily from \$121.06 per cwt. this year and \$128.75 next year to \$142.55 by 2031.

Baseline-projected feeder steer prices (basis Oklahoma City) grow from this year’s average of \$144.80 per cwt. to \$155.50 next year and \$171.19 in 2023. From there, the price increases to \$181.41 by 2031.

That’s with the baseline-projected beef cow herd at 30.56 million head in 2022, declining to 30.53 million in 2023 and then expanding steadily to 31.46 million head in 2031. **HW**

Bull Investment Cost Analysis		Texas Agrilife Extension and Oklahoma State University	
Originally developed by James McGrann, Professor Emeritus, Texas A&M University and Christy Waggoner, Former Programmer, Texas A&M University			
Update by Damona Doye and Roger Sahs, Agricultural Economics, Oklahoma State University, and Lawrence Falconer, Mississippi State University			
Purchase Price of Bull	\$5,500		
Useful Life (Years)	4		
Bull Salvage Value	1,800	\$85.00	\$1,530
Interest Rate Used for Opportunity Cost	3.0	%	
Average Investment for Bull			\$3,515
Cows Exposed to Bull Annually	30		
Weaned Calf Crop %	90.0	%	
Average Weaning Weight	525	Lb.	
Weaned Calf Price	\$200	\$/cwt	
Calves Weaned Per Year	27		
Calves Weaned During Useful Life of Bull	108		
Pounds Weaned per Exposed Female	473	Lb.	\$1,050.00
	<b>Annual Bull Cost</b>	<b>Annual Bull Cost per Cow Exposed</b>	<b>Annual Bull Cost per Cwt. Weaned</b>
<b>Operating Cost Item</b>			
Grazing and Supplemental Feed	\$475.00	\$15.83	\$3.35
Veterinary Medicine	\$35.00	\$1.17	\$0.25
Other Cost	\$0.00	\$0.00	\$0.00
Annual Interest on 1/2 of Operating Cost	\$7.65	\$0.26	\$0.05
<b>Annual Operating Cost</b>	<b>\$517.65</b>	<b>\$17.26</b>	<b>\$3.65</b>
<b>Ownership Cost</b>			
Depreciation	\$992.50	\$33.08	\$7.00

A glimpse of what you’ll find in the Bull Investment Cost Analysis calculator.