



**TCSCF**  
**Tri-County Steer  
 Carcass  
 Futurity  
 Cooperative**

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**Iowa Beef Center**

# 2005 Iowa Sire Profit Comparison Project

Observations from the Project Analysis

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Interest in comparing genetic contributions from sires is growing among producers. In the last three years sire identified cattle has grown immensely. Sire profitability was calculated on 35 sires in 2003. This jumped to 135 sires in 2004 and more than doubled again in 2005 to include 289 sires. Over 8600 head of sire identified cattle were evaluated, but many sires did not make the summary due to insufficient progeny numbers (less than 5).

What does it take to make a top 25% sire? Progeny have to perform well in many categories to get their sire into the top 25% (see table at right). In summary, the calves come in heavier than average, have excellent immunity, gain both fast and efficiently, produce more end product (final harvest weight and carcass weight), have heavier muscled, higher quality grade and higher valued carcasses.

When sires were compared in two different grids with either a low or high Choice/Select spread there was little rank order change. In other words, a sire that ranked high in a grid market that had higher premiums on yield grade also ranked high in a grid market that had higher premiums on quality grade. This may simply mean that the current grids do not have high enough rewards on yield grade or that these cattle are sorted and marketed so well by the Tri-County Coop that yield grade does not have a chance to enter into the picture from a profit standpoint.

After crunching the data on this large data set, the major factors influencing profit in the feedlot are the amount of end product to sell, how fast the cattle gained and converted feed, and the quality grade. Calves with greater value at delivery time continued to be of greatest value and profit at the end, thus reminding us that never having a bad day will reap benefits in the profit arena.

Keep in mind that all sires in the top 25% did not reach that pinnacle for all the same reasons. Some sires accomplished this with superior growth and end product weight, while others did it with moderate growth and superior quality attributes. Additionally, a few sires with above average performance in all areas influencing profit. Finding that sire that does everything with perfection is nearly impossible, thus look for the deficiencies in your program and try to plug those holes with sires that excel in those deficiency areas.

Phenotypic correlations were calculated on over 8000 cattle sired by 289 bulls of 17 breeds. This analysis showed the

following relationships between traits and profitability in a high quality grid.

<u>Tri-County Correlations of Traits with Profitability</u>	
Final wgt. = .80	Fat cover = -.06
Feed to gain = -.12	Marbling score = .30
ADG = .53	% Choice & above = .46
Carcass wgt. = .84	Health Trmt cost = -.19
Dress % = .25	Cost of gain = -.08
Rib eye area = .57	Calf Value = .49

## Sire Grouping Comparison: 2004-2005

Trait	Sire Groupings		
	Top 25%	Bottom 25%	All Sire Average
<b>Feedlot Performance</b>			
Delivery Weight	646	613	629
SPA Calf Value	\$396.99	\$383.23	\$390.06
Warm Up ADG	3.48	2.93	3.25
Average Disposition Score on Test	1.44	1.52	1.50
On Test ADG	4.37	3.34	3.77
Overall ADG	3.35	3.10	3.22
Adj Final Weight	1208	1143	1175
Pounds of Feed Dry Matter per Pound of Gain	6.92	7.03	6.99
Feed Cost per Hundred Pounds of Gain	\$37.65	\$38.36	\$38.09
Yardage Cost per Hundred Pounds of Gain	\$8.43	\$9.13	\$8.77
<b>Health Performance</b>			
Number of Individual Health Treatments	0.16	0.40	0.30
Individual Health Treatment Cost	\$3.62	\$8.39	\$5.88
<b>Carcass Performance</b>			
Hot Carcass Weight	746	699	722
Dress Percent	61.7%	61.1%	61.4%
Fat Cover	0.44	0.46	0.45
Ribeye Area	12.7	12.1	12.4
Ribeye Area per Hundred Pounds of Carcass	1.71	1.74	1.72
Yield Grade	2.82	2.89	2.87
% Retail Product	64.2	63.8	63.9
Marbling Score Number	1084	1028	1053
% Low Choice or better	90.2%	68.2%	78.7%
% Upper 2/3s Choice or better	32.5%	15.3%	22.6%
Final Carc Price with High Select Discount	\$138.44	\$132.80	\$135.58
Final Carc Value with High Select Discount	\$1,031.97	\$927.63	\$978.21
<b>Profitability</b>			
Average Lifetime Profit	\$335.38	\$248.07	\$290.21