DISCOVERING VALUE IN NORTH DAKOTA CALVES – THE DAKOTA FEEDER CALF SHOW FEEDOUT PROJECT

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Determining calf value is a continuing education for cow calf producers. Producers are seeking to sell cattle based on the end-value meat price. However, superior cost effective feeding performance is also needed to justify the expense of feeding cattle past weaning. Since North Dakota feeds are low cost and the climate is favorable, low feeding cost per pound of gain can be accomplished. Identifying superior cattle genetics for excellent feedyard and carcass traits is essential for remaining competitive with other livestock and poultry in the meat industry.

The Dakota Feeder Calf Show Feedout project was developed to discover the value of spring-born beef steer calves. Cattle consigned to the project averaged 589.3 pounds upon delivery to the Carrington Research Extension Center Livestock Unit on October 12, 2002. After an average 194-day feeding period with no death loss, cattle averaged 1240.3 pounds (at plant, shrunk weight). Average daily feed intake per head, as fed, was 30.25 pounds while pounds of feed required per pound of gain were 8.98. Diet dry matter was 72.8%.

The pen-of-three calves averaged 385.8 days of age at harvest. Overall pen average daily gain was 3.36 lbs. Feed cost was $0.326 per pound and total cost of gain without interest was $0.461. The early market group contained 45.3% choice and 42.6% yield grade 1and 2 while the late market group contained 48.0% choice and 92.1% yield grade 1 and 2. Profit or loss was calculated using initial calf price as price per pound, $ = 98.68387 – (0.02565 * initial calf weight). Profit or loss accounted for initial calf price, feed, yardage, veterinary, freight, brand inspection, beef check off, ultrasound and carcass data collection costs. Interest costs on cattle and interest on feeding expenses were not included in calculating profit or loss. Final carcass value was assessed using actual grid pricing for the harvest group.

Overall, cattle feeding provided a $112.27 profit per head before interest was included. Profit before interest expense ranged from $205.05 per head for pen-of-three cattle with superior genetics to a $40.03 per head for poorer performance. Retail product value was calculated as carcass weight, lb. * percent retail product *(((carcass value per cwt /100)/ retail product yield) / retail product markup) where retail product yield = 0.65, and retail product markup = 0.75. Percent retail product value was calculated as 0.825 - (calculated yield grade *0.05). The feeding and carcass value of spring-born calves can be determined with participation in a feed out project.

Calf value is improved with superior carcass performance. Feedlot performance is also important for increased weight gain and heavier carcass weights. Exceptional average daily gains, weight per day of age, marbling score and retail product value can be found in North Dakota beef herds. Feedout projects provide a source of information for cattle producers to learn about genetics and discover cattle value.

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Pen of Three Score Total

Pen	Avg. Birth Date	Avg. Harvest Weight	Avg. Daily Gain, lbs.	Avg. Weight per day of Age, lbs.	Marbling Score	Avg. Retail Product Value per WDA	Avg. Feeding Profit or (Loss)
1	23-Feb-02	1349.3	3.97	3.35	460.0	$3.61	$195.70
2	5-Mar-02	1380.2	4.05	3.39	423.3	$3.60	$197.95
3	24-Mar-02	1322.5	3.48	3.30	436.7	$3.79	$205.05
4	6-Apr-02	1401.4	3.86	3.47	410.0	$3.58	$122.76
5	5-Mar-02	1309.3	3.72	3.33	450.0	$3.52	$150.15
6	15-Apr-02	1261.6	3.65	3.59	370.0	$3.64	$116.77
7	31-Mar-02	1210.6	3.59	3.30	430.0	$3.57	$167.94
8	6-Apr-02	1255.8	3.84	3.48	373.3	$3.53	$131.07
9	13-Apr-02	1191.0	3.69	3.38	400.0	$3.55	$141.14
10	13-Mar-02	1317.1	3.51	3.08	463.3	$3.44	$197.54
11	5-Apr-02	1208.0	3.51	3.34	376.7	$3.54	$122.82
12	24-Mar-02	1172.5	3.41	3.14	436.7	$3.43	$144.68
13	14-Apr-02	1182.3	3.28	3.35	400.0	$3.50	$115.99
14	21-Apr-02	1117.0	3.41	3.23	426.7	$3.39	$113.41
15	6-Apr-02	1305.1	3.31	3.23	423.3	$3.45	$129.98
16	7-Mar-02	1261.9	3.63	3.24	390.0	$3.37	$171.95
17	17-Mar-02	1392.5	3.45	3.29	413.3	$3.32	$143.10
18	18-Apr-02	1195.1	3.29	3.43	353.3	$3.50	$70.24
19	8-Apr-02	1114.9	3.33	3.00	480.0	$3.23	$139.02
20	12-Apr-02	1149.9	3.55	3.25	400.0	$3.25	$100.02
21	29-Mar-02	1201.3	3.47	3.14	403.3	$3.31	$121.15
22	12-Mar-02	1278.0	3.36	3.21	446.7	$3.16	$98.21
23	23-Apr-02	1240.7	3.39	3.21	396.7	$3.32	$94.58
24	10-Apr-02	1285.8	3.46	3.21	386.7	$3.32	$104.42
25	18-Mar-02	1357.8	3.46	3.32	373.3	$3.30	$111.78
26	18-Mar-02	1261.9	3.29	3.21	426.7	$3.15	$80.95
27	6-Apr-02	1218.0	3.47	3.13	410.0	$3.17	$133.61
28	10-Apr-02	1171.2	3.24	3.03	433.3	$3.12	$86.51
29	6-Apr-02	1287.4	3.10	3.20	363.3	$3.30	$42.22
30	1-Apr-02	1278.6	3.35	3.25	373.3	$3.07	$54.27
31	29-Mar-02	1227.9	3.21	2.99	413.3	$3.08	$70.86
32	31-Mar-02	1106.3	3.19	2.92	423.3	$3.07	$111.07
33	30-Apr-02	1111.3	3.02	3.06	410.0	$3.10	$76.74
34	7-Apr-02	1215.0	3.01	3.02	370.0	$3.06	$71.80
35	29-Apr-02	1068.2	3.24	3.04	370.0	$2.94	$70.74
36	21-Mar-02	1263.5	3.12	3.02	353.3	$3.05	$63.83
37	6-May-02	1134.7	3.17	3.05	350.0	$3.01	$44.12
38	17-Apr-02	1128.3	3.14	2.87	386.7	$2.93	$82.82
39	21-Mar-02	1292.4	3.28	3.08	333.3	$2.93	$40.03
Average							
3	2-Apr-02	1236.6	3.42	3.21	403.59	$3.31	$113.77
Standard Deviation							
0	16.6	85.29	0.25	0.16	34.45	$0.23	$44.43