Discovering Value in North Dakota Calves; The Dakota Feeder Calf Show Feedout Project XVI (2015-16)

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Determining calf value based on feedlot and carcass performance is the goal of the Dakota Feeder Calf Feedout project. While most North Dakota cow calf producers sell calves after weaning or backgrounding, very few producers feed calves to slaughter weight. Meanwhile, buyers of North Dakota feeder cattle always consider the potential feedlot performance and carcass merit of a pen of calves. Cow calf producers select bulls that influence cow herd and calf performance. However, the goals of producing excellent calves for the feedlot buyer may or may not be at conflict with the goal of producing a cow herd with great reproductive performance and weaning weights.

The Dakota Feeder Calf Show Feedout project was developed to discover the actual final value of spring-born beef steer calves, provide comparisons between herds, and benchmark feeding and carcass performance. Cattle consigned to the feedout project (n = 205) averaged 629.4 pounds upon delivery to the Carrington Research Extension Center Livestock Unit on October 17, 2015.

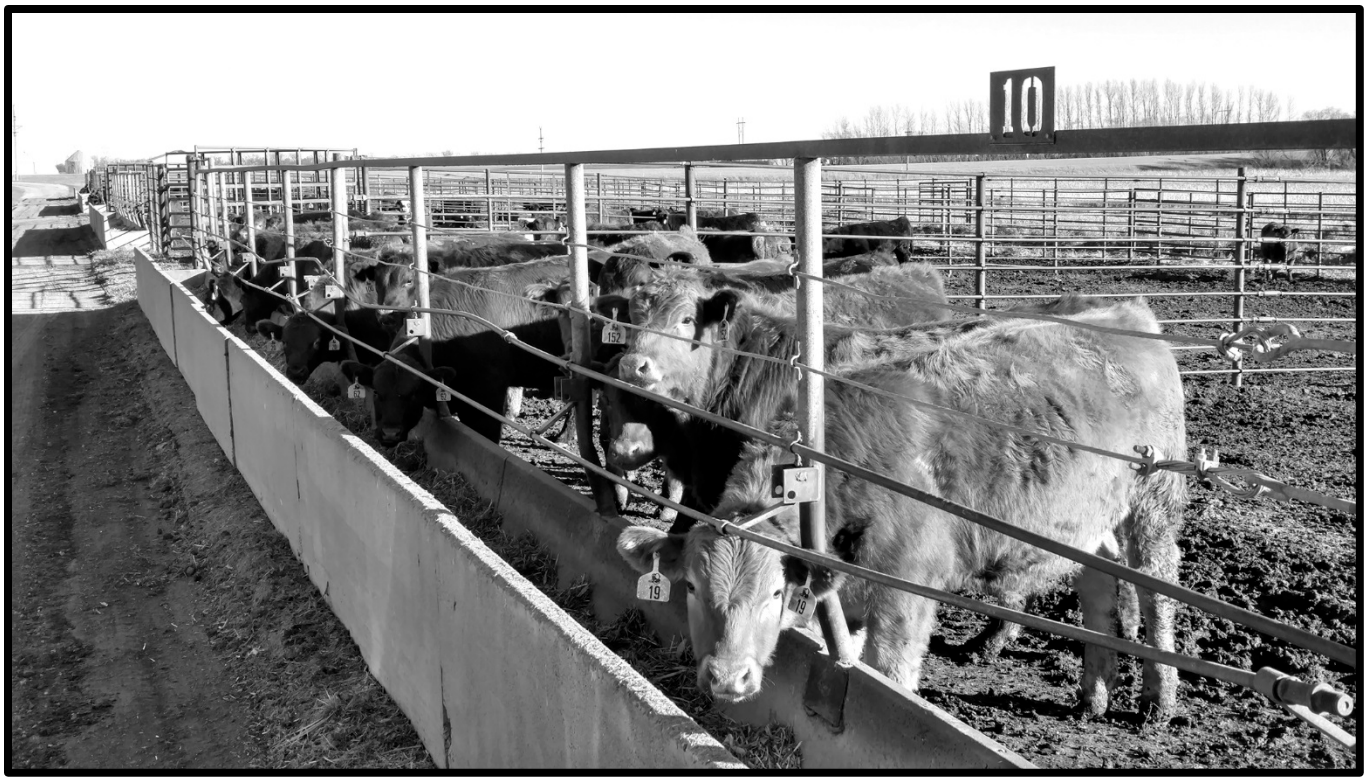
After an average 215-day feeding period with 0.98% death loss, cattle averaged 1325.1 pounds (at plant, shrunk weight). Average daily feed intake per head, as fed, was 32.7 pounds while pounds of feed required per pound of gain were 10.2. Diet dry matter was 66%. The pen-of-three calves averaged 418 days of age at harvest. Overall pen average daily gain was 3.29 pounds. Feed cost per pound of gain was $0.519 per pound and total cost of gain without interest was $0.774. The cattle were marketed on May 3, 18, and 25, 2016, and marbling scores averaged 454.0 (low choice). Feeding cost per head was $359.04. Gross return per head was $1752.11.

Profit before interest expense ranged from $27.11 per head for pen-of-three cattle with superior growth and carcass traits to $-322.85 per head return for a pen-of-three with poorer feedlot and carcass performance. The average profit of the top five scoring pens-of-steers was $-5.03 per head while the average profit of the bottom five scoring pens-of steer averaged $-205.24 per head. The overall pen-of-three competition average profit was $-107.10 per head (Table 1).

Calves with better growth performance had heavier harvest weights, larger average daily gains, and higher weights per day of age. These cattle also had carcasses with higher meat yields as measured by smaller USDA Yield Grades. Comparing profit between the average of the top five pens and the average of all pens, the top pens averaged $102.07 more profit (less loss) per head.

In the 2014-2015 DFCS feedout project, the profit between the average of the top five pens and the average of all pens profit was $175.62. In the 2014-2015 DFCS feedout project, the net return between the average of the top five pens and the bottom five pens was $302.83 per head.

Feedout projects do provide a source of information for cattle producers to learn about feedlot performance, herd differences, and discover cattle value. Better performing calves do return substantial increase in profit potential when initial purchase prices use a similar price slide based on weight.



Steers in the Dakota Feeder Calf Show Feedout.

Table 1. Feeding performance - 2015-2016 Dakota Feeder Calf Show Feedout

Pen of three	Best Three Score Total	Average Birth Date	Average Weight per Day of Age, lbs	Average Harvest Weight, lbs.	Average Daily Gain, lbs.	Average Marbling Score[1]	Ave Calculated Yield Grade	Ave Feeding Profit or Loss / Head
1	**2.021**	5-Apr-15	3.47	1424.49	3.77	513.67	2.77	$ 27.11
2	1.928	5-Mar-15	3.21	1387.78	3.22	666.33	3.22	$ (26.83)
3	1.897	2-Mar-15	3.25	1436.45	3.42	492.33	2.53	$ (11.49)
4	**1.853**	7-Apr-15	3.38	1391.24	3.84	519.33	3.38	$ 8.73
5	**1.852**	7-Mar-15	3.12	1375.39	3.57	572.33	3.26	$ (22.65)
Average Top 5 herds	**1.910**	**18-Mar-15**	**3.286**	**1,403.068**	**3.562**	**552.800**	**3.034**	**$ (5.03)**
6	1.795	9-Mar-15	3.23	1404.66	3.39	455.00	2.60	$ (20.52)
7	1.791	19-Jan-15	3.11	1503.36	3.67	561.00	3.70	$ 5.20
8	1.781	18-Apr-15	3.51	1383.47	3.51	532.33	3.40	$ 2.65
9	1.776	6-Apr-15	3.44	1410.72	3.66	442.67	2.94	$ (5.00)
10	1.775	27-Apr-15	3.56	1388.40	3.50	442.67	2.34	$ (72.15)
11	1.763	18-Mar-15	3.10	1317.83	3.22	478.00	1.83	$ (147.54)
12	1.761	20-Jan-15	3.21	1530.97	3.82	478.33	3.16	$ (33.05)
13	1.755	1-Apr-15	3.20	1334.01	3.43	416.00	2.24	$ (62.90)
14	1.747	17-Apr-15	3.02	1216.27	3.38	579.00	3.37	$ (45.60)
15	1.732	4-Apr-15	3.00	1243.22	3.23	599.33	2.58	$ (167.02)
16	1.727	17-Apr-15	3.40	1360.58	3.27	463.00	2.64	$ (44.11)
17	1.723	25-Mar-15	3.39	1421.11	3.38	482.33	3.14	$ (4.73)
18	1.704	13-Mar-15	3.28	1425.01	3.82	415.33	3.07	$ (21.21)
19	1.640	1-Apr-15	3.31	1364.01	3.32	514.33	2.85	$ (113.50)
20	1.634	21-Apr-15	3.16	1260.72	3.04	459.33	2.05	$ (148.21)
21	1.613	21-Mar-15	2.85	1223.05	3.11	427.67	2.12	$ (129.21)
22	1.606	1-Feb-15	3.33	1531.56	3.90	515.00	3.58	$ (100.94)
23	1.580	4-Apr-15	3.01	1250.79	3.25	482.00	3.21	$ (56.46)
24	1.579	2-Apr-15	3.35	1374.77	3.54	449.00	3.55	$ (16.04)
25	1.562	29-Mar-15	3.30	1376.43	3.26	422.67	2.50	$ (116.42)
26	1.537	8-Mar-15	3.27	1428.39	3.37	411.33	2.55	$ (125.98)
27	1.504	12-Feb-15	2.88	1323.36	3.18	504.00	3.32	$ (92.88)
28	1.498	16-Apr-15	3.24	1291.61	2.91	392.00	1.76	$ (185.63)
29	1.494	2-May-15	3.17	1230.14	3.02	401.00	2.34	$ (126.18)
30	1.491	15-Apr-15	3.36	1345.50	3.23	544.00	3.54	$ (110.88)
31	1.476	12-Apr-15	3.12	1248.08	2.92	381.00	2.07	$ (145.05)
32	1.466	28-Feb-15	2.98	1326.88	3.11	420.33	3.13	$ (57.43)
33	1.456	27-Mar-15	3.10	1296.24	3.02	426.00	2.64	$ (126.74)
34	1.453	3-Apr-15	3.09	1280.49	3.13	496.00	3.19	$ (125.64)
35	1.412	16-Apr-15	3.24	1307.69	3.25	376.67	2.18	$ (201.50)
36	1.404	10-Apr-15	3.38	1367.45	3.24	525.00	3.85	$ (98.09)
37	1.368	14-Apr-15	3.18	1285.15	3.18	393.33	2.62	$ (167.53)
38	1.365	3-Apr-15	3.41	1393.91	3.21	448.33	2.90	$ (184.15)
39	1.362	19-Feb-15	2.81	1272.12	2.84	476.67	2.29	$ (251.61)
40	1.360	11-Mar-15	3.63	1515.94	3.83	451.00	3.28	$ (212.24)
41	1.360	20-Mar-15	2.80	1231.87	2.94	426.00	2.67	$ (164.95)
42	1.318	8-Mar-15	3.23	1408.14	3.37	380.33	3.11	$ (137.52)
43	1.288	26-Mar-15	2.83	1201.77	2.86	381.67	2.38	$ (195.62)
44	1.287	8-May-15	2.83	1078.97	2.80	356.67	2.22	$ (190.35)
45	1.238	30-Mar-15	2.99	1249.27	3.04	426.33	3.30	$ (153.48)
46	1.225	30-Mar-15	2.98	1250.48	3.09	434.00	2.99	$ (217.93)
47	1.215	1-May-15	3.27	1271.44	3.23	464.33	3.91	$ (136.31)
48	1.213	7-May-15	2.98	1136.98	2.78	340.33	2.33	$ (195.62)
49	1.003	12-Apr-15	3.24	1310.50	3.22	436.33	3.24	$ (322.85)
Average bottom 5 herds	**1.179**	**15-Apr-15**	**3.091**	**1,243.733**	**3.070**	**420.267**	**3.156**	**$ (205.24)**
Overall average - pens of three	**1.559**	**27-Mar-15**	**3.187**	**1,334.462**	**3.291**	**462.687**	**2.855**	**$ (107.10)**
Standard deviation		25.2	0.204	96.966	0.292	66.600	0.542	$ 79.11
number		49	49	49	49	49	49	49

[1] Marbling score 300-399 = select, 400-499 = low choice, 500-599 = average choice, 600-699 = high choice, 700-799 = low prime