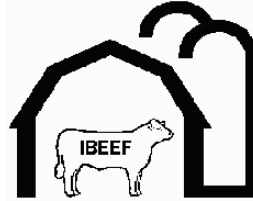


2006 Spring
Indiana
Beef
Evaluation and
Economics
Feeding Program



IBEEF Description



IBEEF is a steer and heifer feedout program that provides Indiana producers with a way to place cattle on feed and gather performance, carcass, and economic information to make genetic and management improvements in their herd. Cooperators receive individual and group feedlot performance, feedlot costs, and individual and group carcass information, including quality and yield grade, ribeye area, fat thickness, carcass weight, etc. IBEEF also allows producers to compare sires, as well as evaluate alternative marketing strategies and their impact upon profitability. The program also helps to improve the reputation of producer cattle by establishing a database of feedlot performance and carcass merit on their calves.

2006 Spring IBEEF Participation



- 4 cooperators
- 57 steers and 24 heifers
- Weaned at least 30 days before delivery
- Delivered May 16, 2006
- Fed at Perry Beedle IV Feedlot, Oakland, IA

Vaccination Requirements



At weaning or 2 weeks prior:

- Four-way respiratory virus (IBR, BVD, PI3, and BRSV), may be killed or modified live (modified live preferred)
- Seven-way clostridial vaccine
- Pasturella vaccine

Two weeks before delivery:

- Repeat four-way respiratory virus vaccine (modified live)

2006 Spring IBEEF Participation



- Sire breeds represented: Angus, Gelbvieh Balancer, SimAngus, and Simmental
- Color: Black/BWF 90%, Red/RWF 5%, Smoke 4%, Gray 1%

Feedlot Performance



	<u>Steer</u>	<u>Heifer</u>
Delivery Point Weight, lbs.	621	564
Feedlot In Weight, lbs.	597	544
Harvest Weight, lbs.	1233	1095
ADG	3.56	3.09
Days on Feed	179	178
Age at Harvest	437	436

Carcass Characteristics



	<u>Steer</u>	<u>Heifer</u>
Hot Carcass Weight, lbs.	757	677
Ribeye Area	13.6	12.7
Backfat	0.40	0.37
Yield Grade	2.5	2.4
% YG 1 and 2	71.9	79.2
% YG 4	0.0	0.0
% Choice and Prime	64.9	50.0
% CAB	7.0	0.0

Calf Value At Delivery



<u>Delivery Point Weight, lbs.</u>	<u>\$/cwt Steer</u>	<u>\$/cwt Heifer</u>
449 and below	\$135.00	\$132.50
450 - 499	\$132.50	\$130.00
500 - 549	\$130.00	\$127.50
550 - 599	\$127.50	\$125.00
600 - 649	\$125.00	\$122.50
650 - 699	\$122.50	\$120.00
700 - 749	\$120.00	\$117.50
750 - 799	\$117.50	\$115.00
800 and above	\$115.00	\$112.50

Economics



	<u>Steer</u>	<u>Heifer</u>
Feed Cost/cwt Gain	\$34.83	\$35.99
Nonfeed Cost/cwt Gain	\$14.80	\$16.40
Total Cost/cwt Gain	\$49.63	\$52.40
Carcass Price, \$/cwt	\$137.82	\$135.63
Sale Value	\$1,043.31	\$917.65
Calf Value	\$770.87	\$699.66
Profit	-\$40.23	-\$69.22
BE Feeder Calf Value/cwt	\$119.19	\$114.61

IBEEF Cattle Compared to 2005 NBQA



	<u>Steer</u>	<u>Heifer</u>	<u>NBQA*</u>
% Prime	0.0	0.0	2.9
% Prem. Choice	7.0	0.0	17.0
% Low Choice	57.9	50.0	36.2
% Select	35.1	33.3	38.5
% Standard	0.0	16.7	4.2
% YG 1&2	71.9	79.2	52.0
% YG 4	0.0	0.0	13.0

* NBQA preliminary report



Steers

Steer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	610	521 to 678
Initial Value at Delivery, \$/cwt	\$125.04	\$121.97 to \$129.06
Feedlot In Weight, lbs.	585	521 to 651
Sale Weight	1249	1167 to 1325
Days on Feed	179	173 to 186
Daily Gain	3.71	3.30 to 4.16

How Steers Were Sold Base Price and Grid



Sale Group	Sell Date	Base Price	Premiums		Discounts			Avg. \$/cwt
			Prime	CAB	Select	Standard	Y4	
1	10/31	\$137.98	--	\$7.04	\$7.75	--	--	\$139.93
3	11/7	\$137.85	--	\$7.01	\$8.50	--	--	\$135.54
4	12/5	\$138.41	--	\$4.74	\$12.30	--	--	\$138.45

Base price, premiums, and discounts are \$/cwt

Other Premiums: YG 1: \$6.50, YG 2: \$2.50

All cattle sold to IBP (Tyson Fresh Meats), Real Time Value Grid - Denison, IA

Steer Carcass Characteristics (Cooperator Average)

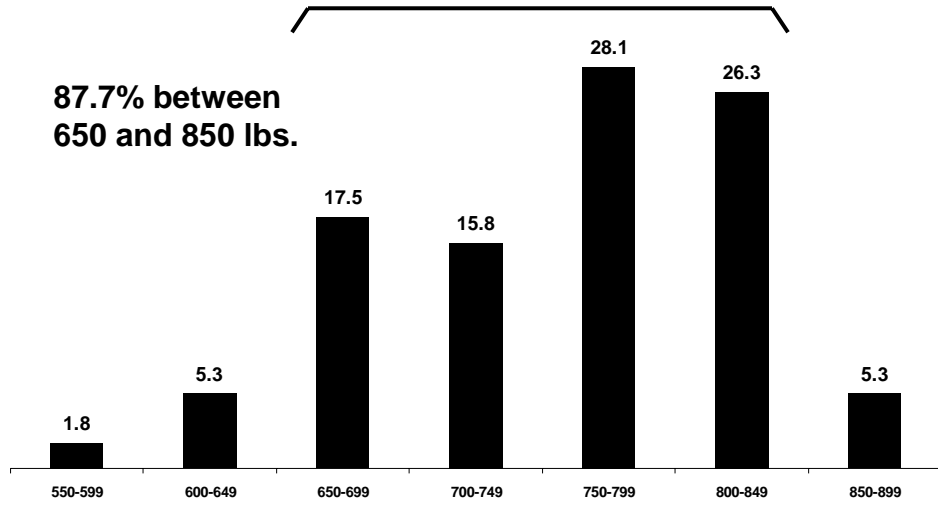


	<u>Average</u>	<u>Range</u>
Carcass Weight	761	721 to 820
Dressing %	60.9	58.6 to 61.9
Ribeye Area	13.4	12.6 to 14.3
REA/cwt carcass	1.77	1.68 to 1.84
Backfat	0.42	0.33 to 0.51
Yield Grade	2.6	2.3 to 3.1
% Choice or Prime	65.3	50.0 to 80.0
Sale Price, \$/cwt	\$137.81	\$134.98 to \$139.75
Sale Value/Hd.	\$1,048.36	\$989.71 to \$1,048.48

Steers Carcass Weight



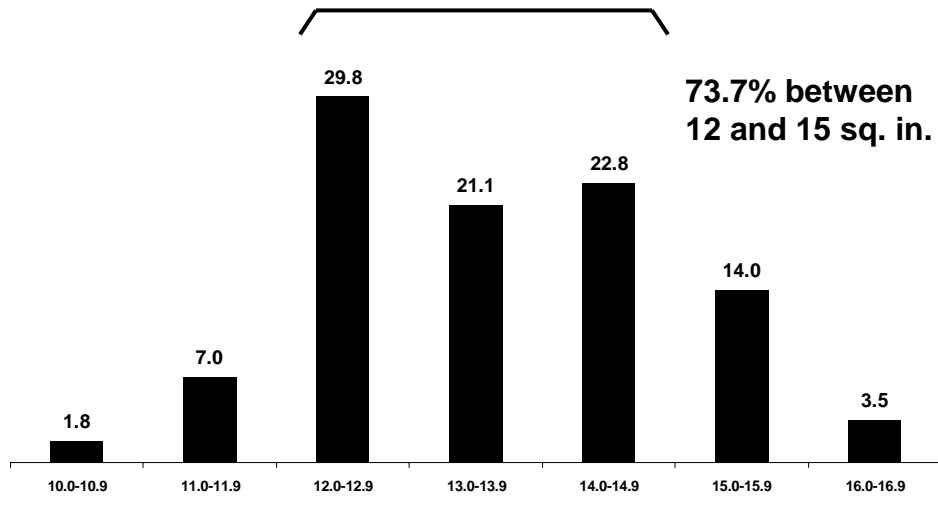
87.7% between
650 and 850 lbs.



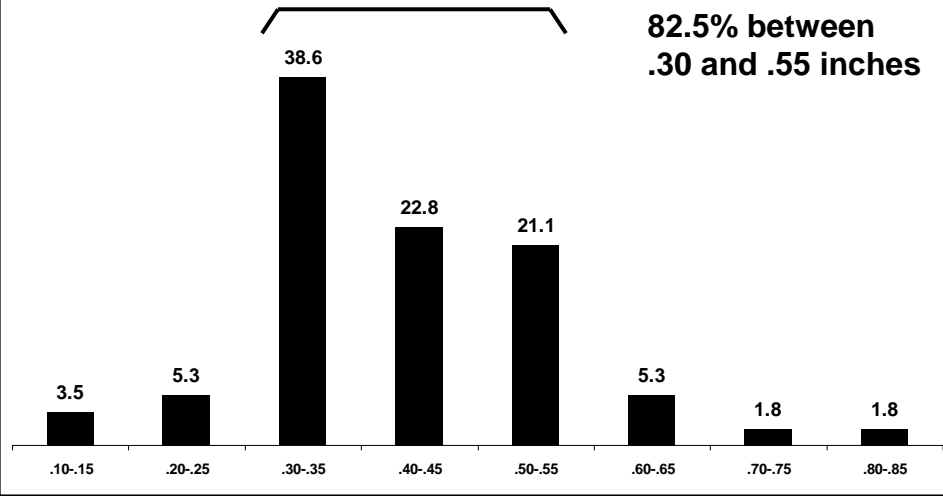
Steers Ribeye Area



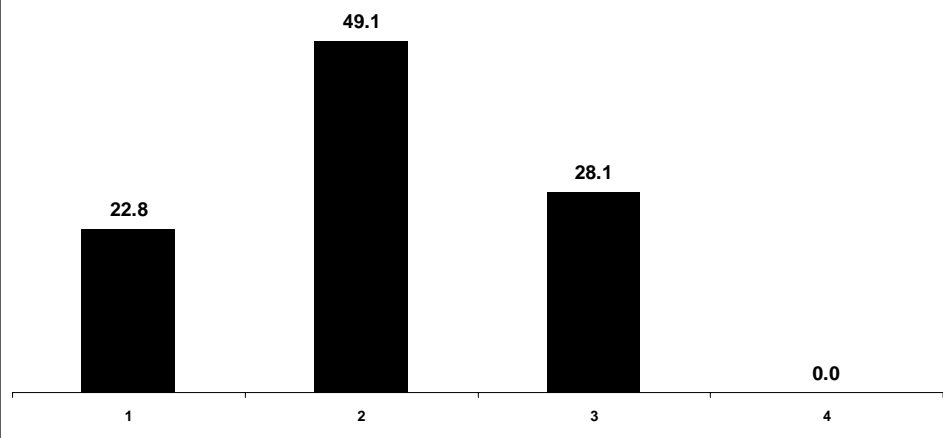
73.7% between
12 and 15 sq. in.



Steers Backfat



Steers Yield Grade



Steer Feeding Cost (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed	\$226.26	\$211.86 to \$246.20
Medication	\$0.00	\$0.00 to \$0.00
Yardage	\$52.95	\$52.18 to \$53.61
Misc. (processing, trucking, data collection)	\$39.71	\$39.50 to \$40.00
Total	\$318.92	\$303.54 to \$339.80

Steers - The Bottom Line (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$34.24	\$32.59 to \$36.43
Nonfeed Cost of Gain, \$/cwt	\$14.22	\$12.53 to \$16.00
Total Cost of Gain, \$/cwt	\$48.46	\$45.12 to \$52.43
Profit/Head	-\$30.99	-\$80.75 to \$6.01
Break Even Feeder Calf Value, \$/cwt	\$121.02	\$110.49 to \$131.14

Break Even Feeder Calf Value



Calculation:

$$\frac{\text{Harvest Sale Value} - \text{Feedlot Costs}}{\text{Calf Weight at Delivery}}$$

Example for Steers:

Harvest Sale Value = 757 lbs x \$137.82/cwt = \$1,043.30

Feedlot Costs = \$312.68

Net = \$1,043.30 - \$312.68 = \$730.62

Calf Weight at Delivery = 621 lbs

Break Even Calf Value = \$730.62/621 lbs = \$117.65/cwt

Profit Groups



- Based on initial assigned feeder calf value at delivery, feeding costs, and harvest sale value, cattle were divided into profit group quartiles (14 or 15 steers/group)
- Profit = Sale Value - Feedlot Costs - Calf Value
- Example:
Profit = \$1,043.30 - \$312.68 - \$770.87 = -\$40.25

Steer Profit Groups



<u>Profit Group</u>	<u>No. Steers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	15	\$45.43	\$135.90
2	14	-\$13.40	\$123.46
3	14	-\$65.27	\$113.73
4	14	-\$133.82	\$102.48
Average		-\$41.76	\$118.89

Differences Between High And Low Profit Groups *Feedlot Performance*



	<u>High vs. Low</u>
Delivery Point Weight, lbs.	567 vs. 680
Start Weight, lbs.	545 vs. 653
% Shrink (delivery - feedlot in)	-3.68 vs. -3.95
Final Weight, lbs.	1248 vs. 1207
Feedlot Daily Gain	3.81 vs. 3.23
Medication Cost	\$0.00 vs. \$0.00
Total Feedlot Cost	\$324.67 vs. \$292.38
Cost of Gain, \$/cwt	\$46.31 vs. \$53.30
Days on Feed	185 vs. 172

Differences Between High And Low Profit Groups *Carcass Characteristics*



	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	769 vs. 731
Ribeye Area	13.8 vs. 13.6
Backfat	0.36 vs. 0.42
% Yield Grade 4	0.0 vs. 0.0
% Yield Grade 1 and 2	86.7 vs. 64.3
% Choice or Prime	86.7 vs. 35.7
Carcass Price, \$/cwt	\$141.40 vs. \$135.25

% of Steers in Each Category Which are in the 4 Profit Groups



<u>Category</u>	<u>No. Steers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
<u>Breed of Sire</u>					
Angus	14	28.6	21.4	14.3	35.7
Gelbvieh Balancer	8	25.0	12.5	25.0	37.5
SimAngus	18	11.1	27.8	33.3	27.8
Simmental	17	41.2	29.4	23.5	5.9

% of Steers in Each Category
Which are in the 4 Profit Groups



<u>Category</u>	<u>No. Steers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sale Group					
1 10/31	17	23.5	29.4	23.5	23.5
3 11/7	21	14.3	19.0	23.8	42.9
4 12/5	19	42.1	26.3	26.3	5.3



Heifers

Heifer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	564	465 to 664
Initial Value at Delivery, \$/cwt	\$124.76	\$120.29 to \$129.23
Feedlot In Weight, lbs.	544	465 to 624
Sale Weight	1095	1047 to 1142
Days on Feed	178	168 to 188
Daily Gain	3.09	3.09 to 3.10

How Heifers Were Sold Base Price and Grid



Sale Group	Sell Date	Base Price	Premiums		Discounts			Avg. \$/cwt
			Prime	CAB	Select	Standard	Y4	
2	10/31	\$137.60	--	--	\$7.75	\$10.05	--	\$135.47
5	12/5	\$137.73	--	--	\$12.30	--	--	\$135.91

Base price, premiums, and discounts are \$/cwt

Other Premiums: YG 1: \$6.50, YG 2: \$2.50

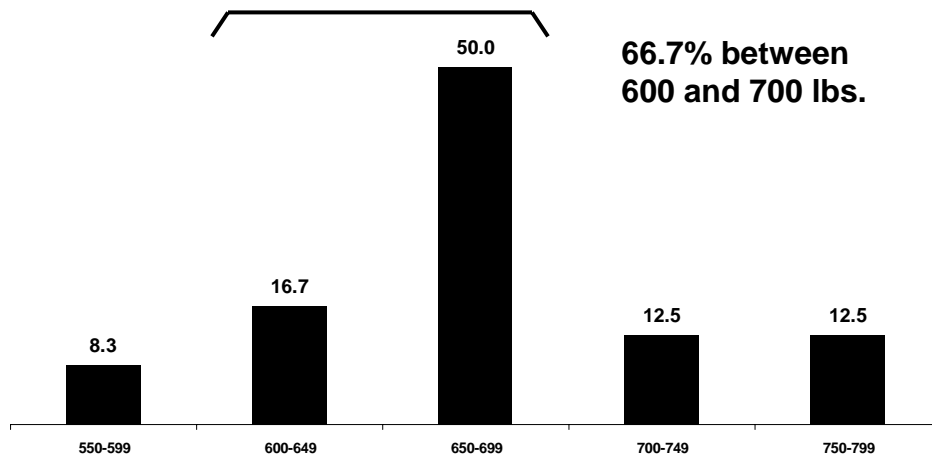
All cattle sold to IBP (Tyson Fresh Meats), Real Time Value Grid - Denison, IA

Heifer Carcass Characteristics (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Carcass Weight	677	645 to 708
Dressing %	61.9	61.7 to 62.0
Ribeye Area	12.7	12.3 to 13.0
REA/cwt carcass	1.88	1.84 to 1.91
Backfat	0.37	0.37 to 0.38
Yield Grade	2.4	2.4 to 2.4
% Choice or Prime	50.0	41.7 to 58.3
Sale Price, \$/cwt	\$135.63	\$135.14 to \$136.13
Sale Value/Hd.	\$917.65	\$877.81 to \$957.49

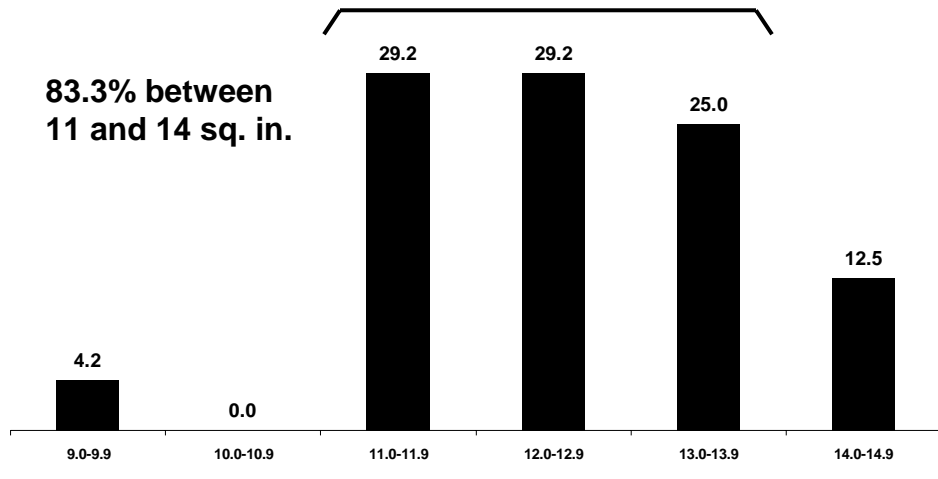
Heifers Carcass Weight



Heifers Ribeye Area



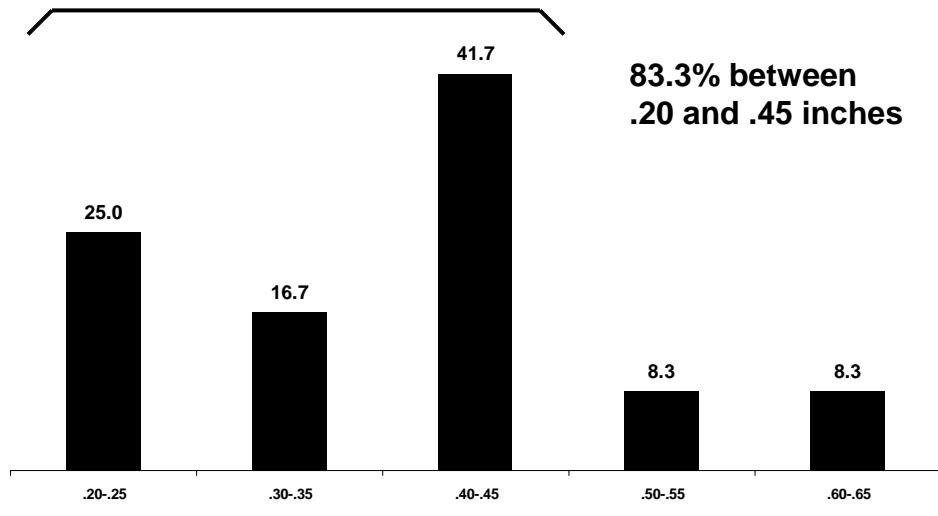
83.3% between
11 and 14 sq. in.



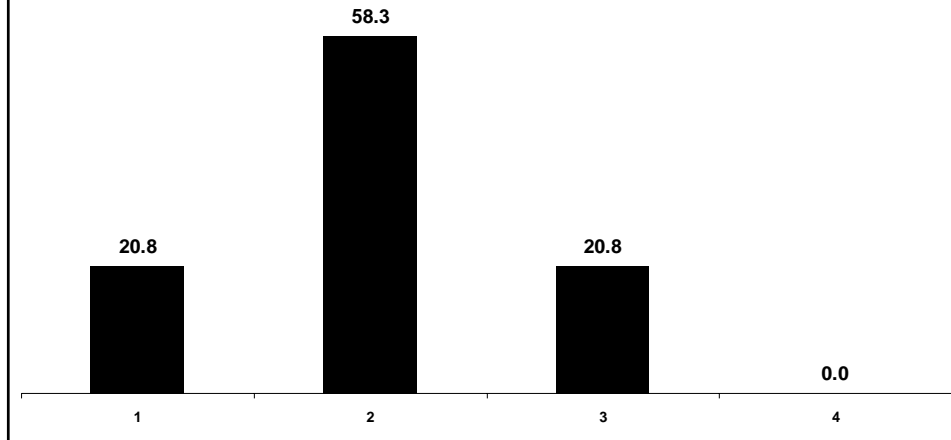
Heifers Backfat



83.3% between
.20 and .45 inches



Heifers Yield Grade



Heifer Feeding Cost (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed	\$197.58	\$194.90 to \$200.26
Medication	\$0.00	\$0.00 to \$0.00
Yardage	\$50.44	\$47.58 to \$53.29
Misc. (processing, trucking, data collection)	\$39.20	\$39.13 to \$39.28
Total	\$287.22	\$281.60 to \$292.83

Heifers - The Bottom Line (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$35.99	\$34.39 to \$37.60
Nonfeed Cost of Gain, \$/cwt	\$16.40	\$15.99 to \$16.82
Total Cost of Gain, \$/cwt	\$52.40	\$50.38 to \$54.41
Profit/Head	-\$69.22	-\$122.52 to -\$15.93
Break Even Feeder Calf Value, \$/cwt	\$114.61	\$102.08 to \$127.08

Heifer Profit Groups



<u>Profit Group</u>	<u>No. Heifers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	7	\$20.05	\$136.22
2	6	-\$49.98	\$115.35
3	6	-\$94.49	\$107.24
4	5	-\$186.99	\$92.29
Average		-\$77.85	\$112.78

Differences Between High And Low Profit Groups *Feedlot Performance*



	<u>High vs. Low</u>
Delivery Point Weight, lbs.	429 vs. 677
Start Weight, lbs.	429 vs. 613
% Shrink (delivery - feedlot in)	0.00 vs. -9.61
Final Weight, lbs.	1006 vs. 1113
Feedlot Daily Gain	3.05 vs. 3.03
Medication Cost	\$0.00 vs. \$0.00
Total Feedlot Cost	\$287.19 vs. \$275.40
Cost of Gain, \$/cwt	\$49.81 vs. \$55.08
Days on Feed	190 vs. 165

Differences Between High And Low Profit Groups *Carcass Characteristics*



	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	630 vs. 679
Ribeye Area	12.2 vs. 12.2
Backfat	0.35 vs. 0.39
% Yield Grade 4	0.0 vs. 0.0
% Yield Grade 1 and 2	71.4 vs. 80.0
% Choice or Prime	71.4 vs. 20.0
Carcass Price, \$/cwt	\$137.76 vs. \$132.48

% of Heifers in Each Category
Which are in the 4 Profit Groups



<u>Category</u>	<u>No. Heifers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Breed of Sire					
Angus	3	0.0	33.3	0.0	66.7
Gelbvieh Balancer	4	0.0	0.0	50.0	50.0
SimAngus	5	0.0	40.0	40.0	20.0
Simmental	12	58.3	25.0	16.7	0.0

% of Heifers in Each Category
Which are in the 4 Profit Groups



<u>Category</u>	<u>No. Heifers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sale Sire					
2 10/31	15	13.3	20.0	33.3	33.3
5 12/5	9	55.6	33.3	11.1	0.0

Factors That Affect Profitability



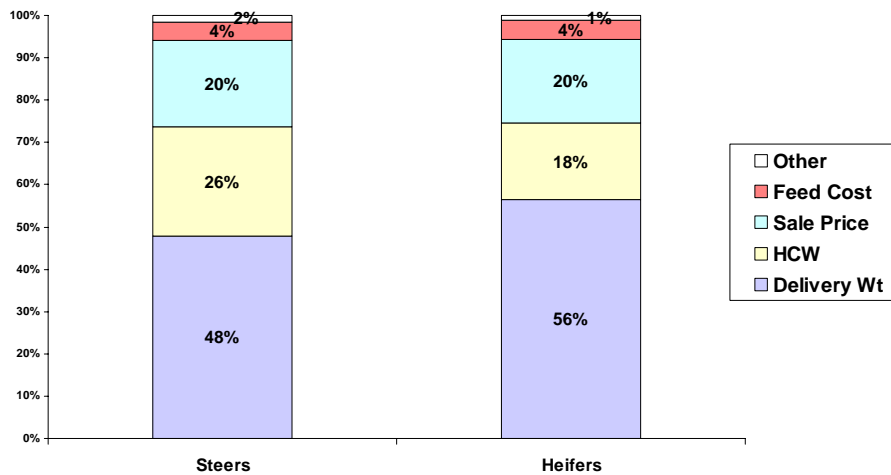
- Health
- Feedlot Daily Gain
- Harvest Weight
- Quality Grade
- Yield Grade

Profit



- Profit = Value – (Feeding Cost + Calf Value)
- Steers:
-\$40.23 = \$1,043.31 – (\$312.68 + \$770.87)
- Heifers:
-\$69.22 = \$917.65 – (\$287.22 + \$699.66)

Factors Affecting Variation in Profit



Factors Affecting Variation in Profit



- Steers

Profit = -1225.48
 -0.97 Delivery Wt
 +1.34 HCW
 +7.31 Sale Price
 -1.03 Feed Cost

$R^2 = .984$

- Heifers

Profit = -1134.67
 -0.95 Delivery Wt
 +1.29 HCW
 +6.91 Sale Price
 -1.05 Feed Cost

$R^2 = .988$

Factors Affecting Variation in Profit



- Steers

1 lb ↑ in Delivery Wt ⇒ \$0.97 ↓ in Profit

1 lb ↑ in HCW ⇒ \$1.34 ↑ in Profit

\$1.00 ↑ in Sale Price ⇒ \$7.31 ↑ in Profit

\$1.00 ↑ in Feed Cost ⇒ \$1.03 ↓ in Profit

Factors Affecting Variation in Profit



- Heifers

1 lb ↑ in Delivery Wt ⇒ \$0.95 ↓ in Profit

1 lb ↑ in HCW ⇒ \$1.29 ↑ in Profit

\$1.00 ↑ in Sale Price ⇒ \$6.91 ↑ in Profit

\$1.00 ↑ in Feed Cost ⇒ \$1.05 ↓ in Profit



IBEEF Participation



Data



Information



Knowledge



Action

For more information
about IBEEF:



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 - Washington County Extension Educator
 - 812-883-4601
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