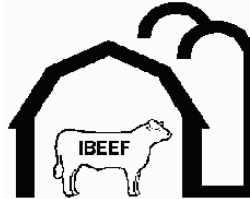


2004-2005
Indiana
Beef
Evaluation and
Economics
Feeding Program



IBEEF Description



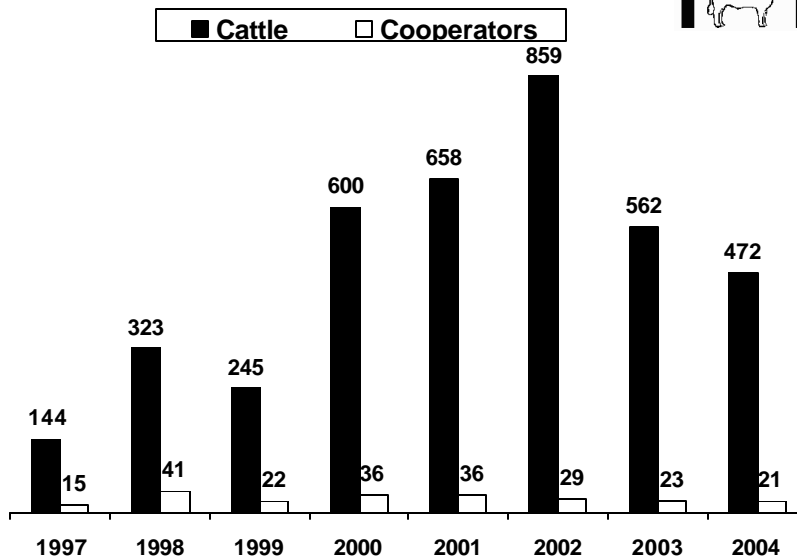
IBEEF is a steer and heifer feedout program that provides Indiana producers with a way to place cattle on feed and gather performance, carcass, and economic information to make genetic and management improvements in their herd. Cooperators receive individual and group feedlot performance, feedlot costs, 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.

2004-2005 IBEEF Participation



- 21 cooperators
- 257 steers and 215 heifers
- Weaned at least 30 days before delivery
- Delivered October 25, November 15, and December 6, 2004
- 301 Steers and Heifers fed in Iowa
 - 47 steers and 179 heifers at Gregory Feedlots, Tabor, IA
 - 39 steers and 36 heifers at Silver Creek Feeders, Treynor, IA
- 171 Steers fed in Indiana
 - G&D Smoker Farm, Wanatah, IN

History of Fall IBEEF



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)

2004-2005 IBEEF Participation



- Sire breeds represented: Angus, Charolais, Gelbvieh, Gelbvieh Balancer, Hereford, Limousin, Salers, Shorthorn, SimAngus, Simmental, South Devon, Composite, and Cross
- Color: Black/BWF 72%, Red/RWF 14%, White 7%, Smoke 4%, Gray 3%, Brown 1%

Feedlot Performance



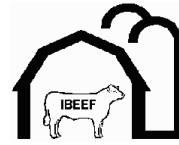
	<u>Steer</u>	<u>Heifer</u>
Delivery Point Weight, lbs.	650	594
Feedlot In Weight, lbs.	627	580
Harvest Weight, lbs.	1250	1111
ADG	3.42	3.07
Days on Feed	183	173
Age at Harvest	430	411

Carcass Characteristics



	<u>Steer</u>	<u>Heifer</u>
Hot Carcass Weight, lbs.	785	685
Ribeye Area	13.4	12.2
Backfat	0.38	0.44
Yield Grade	2.6	2.8
% YG 1 and 2	68.1	62.8
% YG 4	1.9	4.7
% Choice and Prime	75.1	87.0
% CAB	21.8	26.5

Calf Value At Delivery



<u>Delivery Point Weight, lbs.</u>	<u>\$/cwt Steer</u>	<u>\$/cwt Heifer</u>
449 and below	\$115.00	\$110.00
450 - 499	\$112.50	\$107.50
500 - 549	\$110.00	\$105.00
550 - 599	\$107.50	\$102.50
600 - 649	\$105.00	\$100.00
650 - 699	\$102.50	\$97.50
700 - 749	\$100.00	\$95.00
750 - 799	\$97.50	\$92.50
800 and above	\$95.00	\$90.00

Economics



	<u>Steer</u>	<u>Heifer</u>
Feed Cost/cwt Gain	\$33.60	\$31.69
Nonfeed Cost/cwt Gain	\$17.08	\$18.60
Total Cost/cwt Gain	\$50.68	\$50.29
Carcass Price, \$/cwt	\$144.85	\$146.36
Sale Value	\$1,138.86	\$1,002.63
Calf Value	\$670.39	\$599.87
Profit	\$155.76	\$138.73
BE Feeder Calf Value/cwt	\$127.72	\$125.44

IBEEF Cattle Compared to 2000 NBQA Native



	<u>Steer</u>	<u>Heifer</u>	<u>NBQA</u>
% Prime	2.3	0.9	1.6
% Prem. Choice	26.1	28.8	16.8
% Low Choice	46.7	57.2	32.2
% Select	20.2	12.6	42.9
% Standard	3.9	0.0	5.7
% YG 1&2	68.1	62.8	54.4
% YG 4	1.9	4.7	3.4

Steers Compared to 2000 NBQA Steers



	<u>IBEEF</u>	<u>NBQA</u>
Yield Grade	2.6	3.2
Fat Thickness	0.38	0.47
Carcass Wt.	785	808
Ribeye Area	13.4	13.1
Marbling	SM 52	SM 18

Heifers Compared to 2000 NBQA Heifers



	<u>IBEEF</u>	<u>NBQA</u>
Yield Grade	2.8	2.9
Fat Thickness	0.44	0.53
Carcass Wt.	685	741
Ribeye Area	12.2	13.0
Marbling	SM 61	SM 31



Steers

Steer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	633	506 to 765
Initial Value at Delivery, \$/cwt	\$104.14	\$98.22 to \$110.27
Feedlot In Weight, lbs.	613	505 to 701
Sale Weight	1235	1053 to 1354
Days on Feed	186	169 to 202
Daily Gain	3.37	2.69 to 3.86

How Steers Were Sold Base Price and Grid



Sale Group	Sell Date	Base Price	Premiums		Select	Discounts		Avg. \$/cwt
			Prime	CAB		Standard	Y4	
02 IA	4/12	\$148.28	--	\$4.07	\$7.60	--	--	\$149.53
05 IN	4/26	\$149.89	\$15.95	\$4.41	\$12.95	--	\$15.00	\$152.16
07 IN	5/13	\$148.52	\$18.85	\$3.57	\$14.05	--	\$15.00	\$148.38
08 IA	5/18	\$146.06	--	\$1.90	\$14.20	\$16.50	--	\$138.25
10 IA	5/18	\$146.06	--	\$1.90	\$14.20	--	\$15.00	\$146.85
12 IN	6/2	\$142.76	\$24.50	\$2.66	\$14.44	\$16.74	\$15.00	\$142.24
13 IA	6/21	\$133.27	--	\$2.73	\$7.95	--	--	\$134.55

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

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

Other Discounts: Dark Cutter: \$32.50 (05 IN), \$35.50 (07 IN);

Standard- : \$39.50 (08 IA); Heavy Weight >950 lbs: \$4.23 (12 IN)

All cattle sold to IBP (Tyson Fresh Meats), Real Time Value Grid:

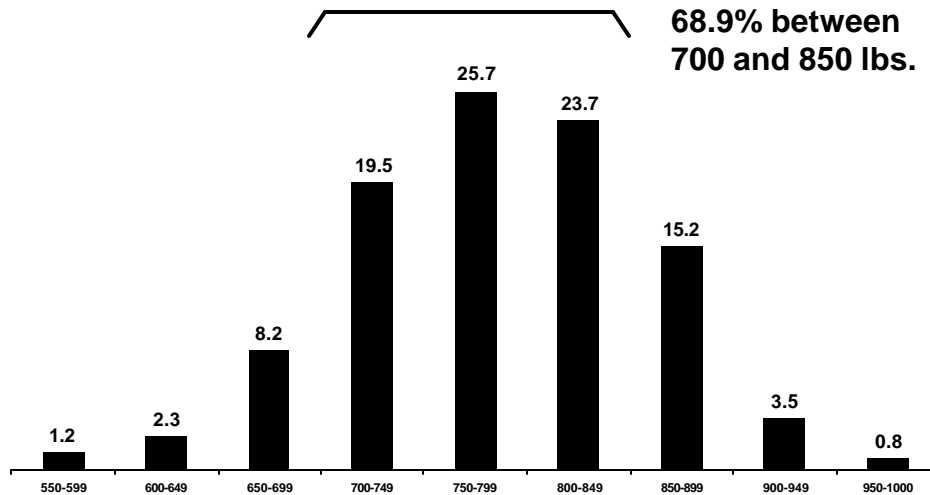
Iowa cattle – Denison, IA; Indiana cattle – Joslin, IL

Steer Carcass Characteristics (Cooperator Average)

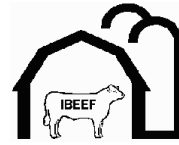


	<u>Average</u>	<u>Range</u>
Carcass Weight	771	645 to 854
Dressing %	62.4	60.9 to 64.6
Ribeye Area	13.3	11.8 to 14.8
REA/cwt carcass	1.73	1.60 to 1.93
Backfat	0.34	0.15 to 0.61
Yield Grade	2.5	1.9 to 3.4
% Choice or Prime	63.9	0.0 to 100.0
Sale Price, \$/cwt	\$142.74	\$133.80 to \$152.47
Sale Value/Hd.	\$1,102.66	\$898.28 to \$1,282.80

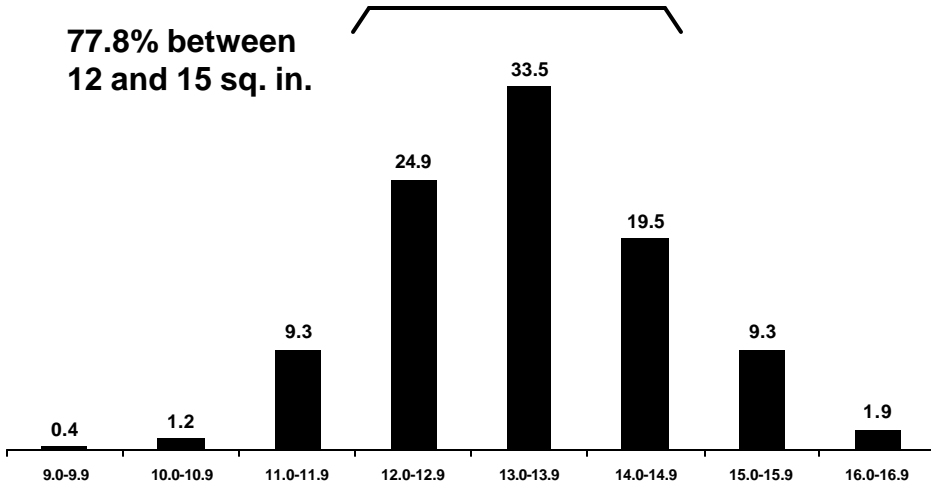
Steers Carcass Weight



Steers Ribeye Area



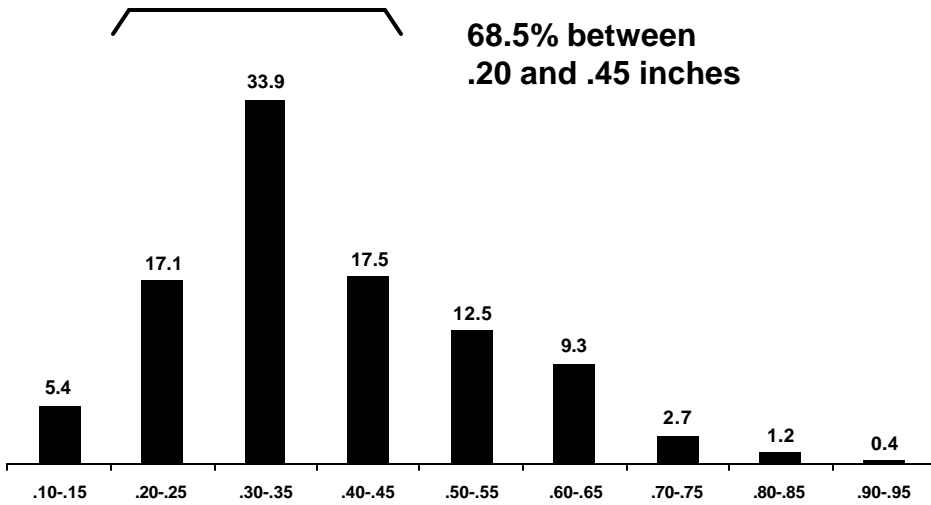
77.8% between
12 and 15 sq. in.



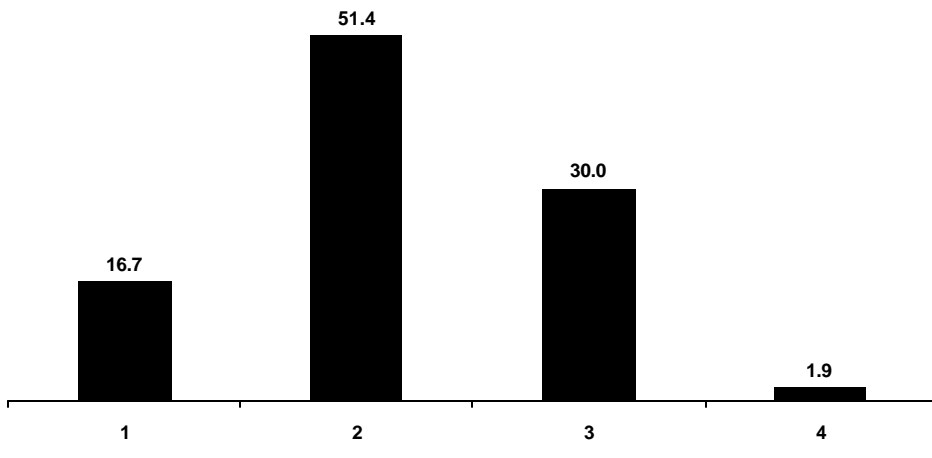
Steers Backfat



68.5% between
.20 and .45 inches



Steers Yield Grade



Steer Feeding Cost (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed	\$203.35	\$161.38 to \$236.33
Medication	\$9.90	\$0.00 to \$59.34
Yardage	\$54.73	\$47.33 to \$65.15
Misc. (processing, trucking, data collection)	\$41.57	\$32.47 to \$49.86
Total	\$309.56	\$257.74 to \$350.42

Steers - The Bottom Line (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$32.81	\$27.18 to \$36.79
Nonfeed Cost of Gain, \$/cwt	\$17.57	\$13.08 to \$30.76
Total Cost of Gain, \$/cwt	\$50.38	\$42.35 to \$63.50
Profit/Head	\$135.67	-\$6.49 to \$205.29
Break Even Feeder Calf Value, \$/cwt	\$126.08	\$98.14 to \$138.26

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 = 785 lbs x \$144.85/cwt = \$1,137.07

Feedlot Costs = \$312.70

Net = \$1,137.07 - \$312.70 = \$824.37

Calf Weight at Delivery = 650 lbs

Break Even Calf Value = \$824.37/650 lbs = \$126.83/cwt

Profit Groups



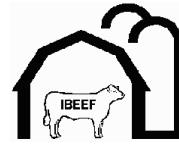
- Based on initial assigned feeder calf value at delivery, feeding costs, and harvest sale value, cattle were divided into profit group quartiles (64 or 65 steers/group)
- Profit = Sale Value - Feedlot Costs - Calf Value
- Example:
Profit = \$1,137.07 - \$312.70 - \$670.39 = \$153.98

Steer Profit Groups



<u>Profit Group</u>	<u>No. Steers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	64	\$267.36	\$141.40
2	64	\$198.08	\$134.26
3	65	\$136.76	\$126.47
4	64	\$21.13	\$108.78
Average		\$155.83	\$127.73

Differences Between High And Low Profit Groups *Feedlot Performance*



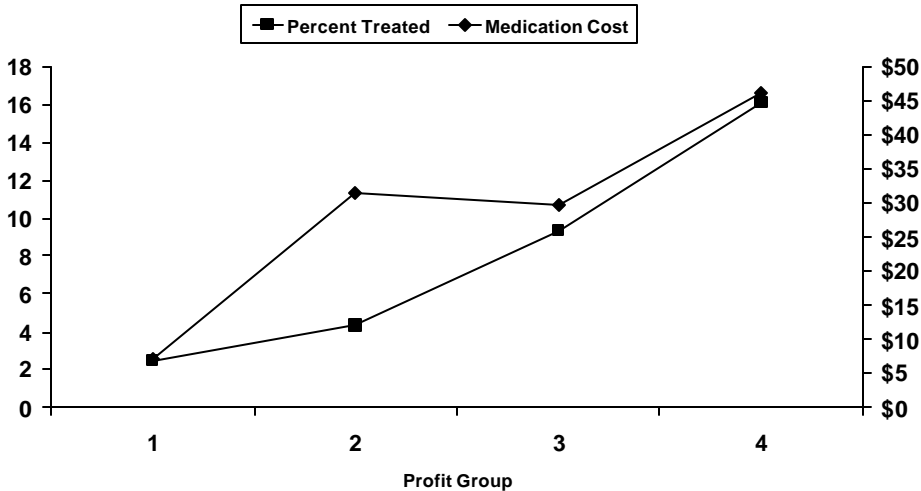
	<u>High vs. Low</u>
Delivery Point Weight, lbs.	686 vs. 625
Start Weight, lbs.	666 vs. 601
% Shrink (delivery - feedlot in)	-2.77 vs. -3.60
Final Weight, lbs.	1330 vs. 1179
Feedlot Daily Gain	3.77 vs. 3.01
Medication Cost	\$0.44 vs. \$18.69
Total Feedlot Cost	\$324.86 vs. \$309.73
Cost of Gain, \$/cwt	\$49.05 vs. \$54.55
Days on Feed	176 vs. 193

Differences Between High And Low Profit Groups *Carcass Characteristics*



	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	843 vs. 734
Ribeye Area	13.9 vs. 13.0
Backfat	0.39 vs. 0.34
% Yield Grade 4	0.0 vs. 6.3
% Yield Grade 1 and 2	68.8 vs. 78.1
% Choice or Prime	100.0 vs. 21.9
Carcass Price, \$/cwt	\$152.93 vs. \$134.02

Impact of Health on Profit



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



Category	No. Steers	Profit Group			
		1	2	3	4
Breed of Sire					
Angus	117	36.8	29.1	23.1	11.1
Charolais	26	0.0	11.5	26.9	61.5
Hereford	26	0.0	7.7	50.0	42.3
Other Breeds	50	20.0	36.0	22.0	22.0
Salers	14	28.6	7.1	14.3	50.0
Shorthorn	24	29.2	25.0	20.8	25.0

“Other Breeds” = Breeds with fewer than 10 steers. Includes Simmental (9 steers), Cross (8), Limousin (8), Composite (6), Gelbvieh Balancer (6), Gelbvieh (5), SimAngus (5), and South Devon (3).

**% 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					
02 IA 4/12	22	18.2	31.8	36.4	13.6
05 IN 4/26	41	51.2	34.1	9.8	4.9
07 IN 5/13	42	52.4	16.7	16.7	14.3
08 IA 5/18	25	4.0	8.0	28.0	60.0
10 IA 5/18	20	5.0	45.0	40.0	10.0
12 IN 6/2	88	17.0	23.9	28.4	30.7
13 IA 6/21	19	0.0	21.1	31.6	47.4



Heifers

Heifer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	616	587 to 715
Initial Value at Delivery, \$/cwt	\$100.05	\$95.00 to \$101.59
Feedlot In Weight, lbs.	595	551 to 702
Sale Weight	1123	1081 to 1216
Days on Feed	174	160 to 202
Daily Gain	3.06	2.70 to 3.23

How Heifers Were Sold Base Price and Grid



Sale Group	Sell Date	Base Price	<u>Premiums</u>		<u>Discounts</u>			Avg. \$/cwt
			Prime	CAB	Select	Standard	Y4	
01 IA	3/22	\$144.40	--	\$7.85	\$2.30	--	\$15.00	\$146.07
03 IA	4/12	\$146.76	--	\$4.07	\$7.60	--	\$15.00	\$147.05
04 IA	4/26	\$149.60	--	\$4.41	\$12.95	--	--	\$149.12
06 IA	5/3	\$149.32	\$17.00	\$4.65	\$14.40	--	\$15.00	\$148.23
09 IA	5/18	\$143.78	--	\$1.90	\$14.20	--	--	\$142.34
11 IA	5/18	\$143.78	\$19.90	\$1.90	\$14.20	--	--	\$146.06
14 IA	6/21	\$131.97	--	\$2.73	\$7.95	--	--	\$134.56

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

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

Other Discounts: Dark Cutter: \$30.00 (03 IA); Light Weight <550 lbs.: \$21.81 (06 IA)

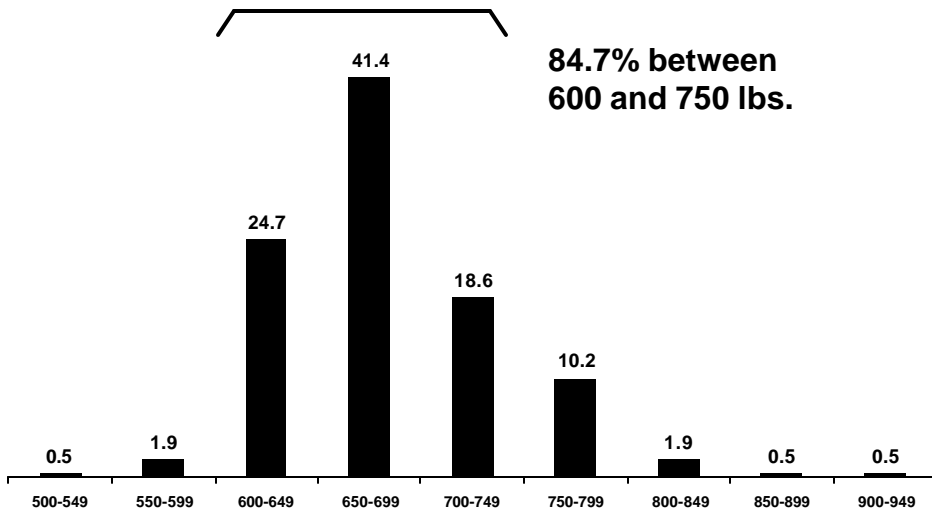
All cattle sold to IBP (Tyson Fresh Meats), Real Time Value Grid - Denison, IA

Heifer Carcass Characteristics (Cooperator Average)

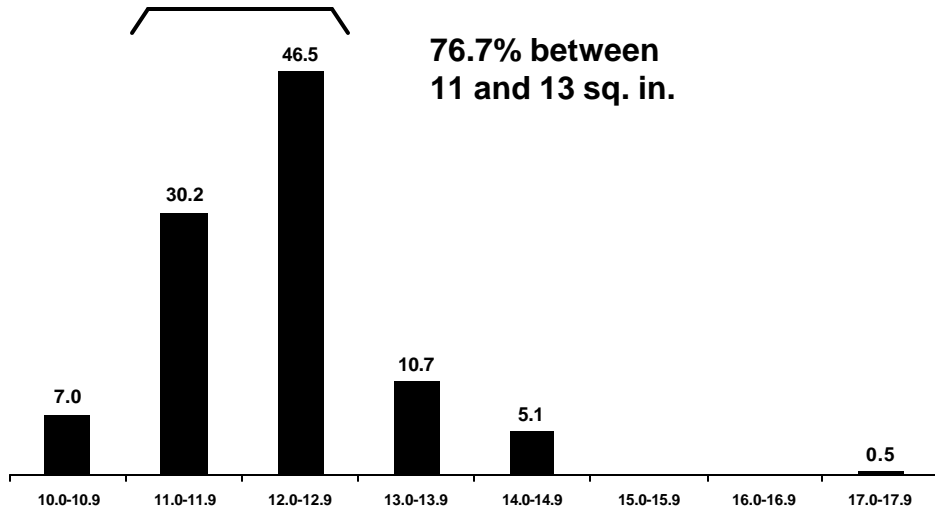
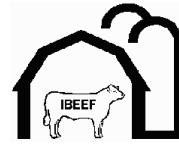


	<u>Average</u>	<u>Range</u>
Carcass Weight	692	664 to 754
Dressing %	61.6	60.7 to 62.4
Ribeye Area	12.5	11.8 to 14.5
REA/cwt carcass	1.81	1.75 to 1.92
Backfat	0.36	0.20 to 0.50
Yield Grade	2.5	1.7 to 3.1
% Choice or Prime	75.1	0.0 to 100.0
Sale Price, \$/cwt	\$144.63	\$133.41 to \$150.28
Sale Value/Hd.	\$1,001.64	\$899.49 to \$1,133.11

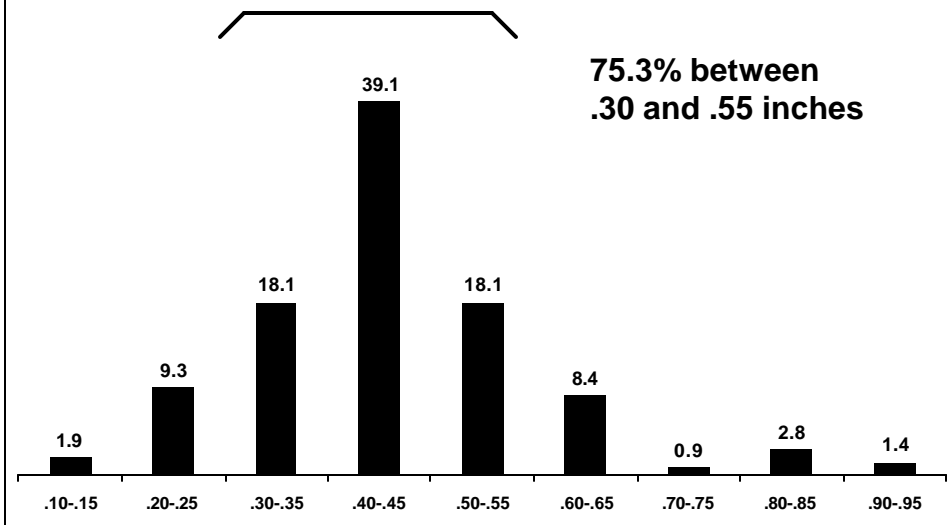
Heifers Carcass Weight



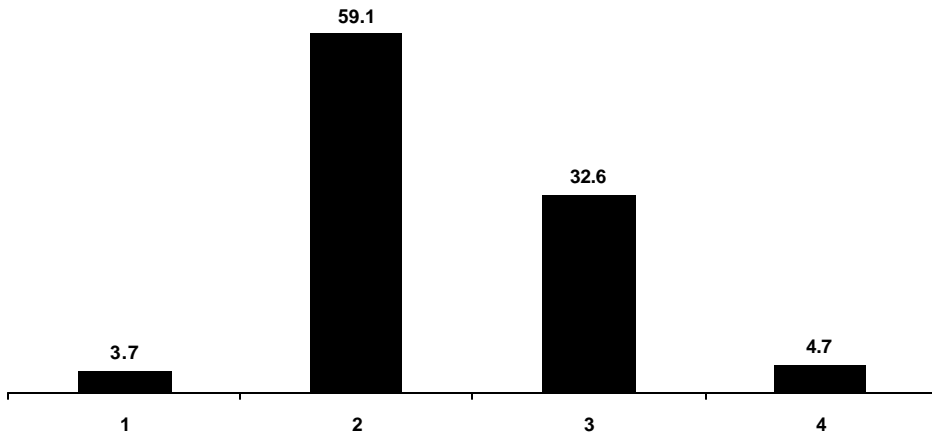
Heifers Ribeye Area



Heifers Backfat



Heifers Yield Grade

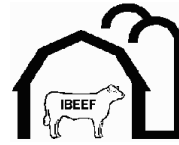


Heifer Feeding Cost (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed	\$164.69	\$147.81 to \$181.95
Medication	\$12.00	\$0.00 to \$29.41
Yardage	\$53.54	\$44.01 to \$64.55
Misc. (processing, trucking, data collection)	\$33.05	\$30.66 to \$34.12
Total	\$263.28	\$225.94 to \$297.68

Heifers - The Bottom Line (Cooperator Average)



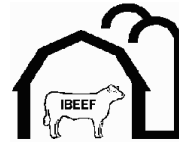
	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$31.26	\$28.76 to \$33.37
Nonfeed Cost of Gain, \$/cwt	\$18.94	\$15.20 to \$23.81
Total Cost of Gain, \$/cwt	\$50.20	\$43.96 to \$55.20
Profit/Head	\$123.45	\$2.06 to \$227.93
Break Even Feeder Calf Value, \$/cwt	\$120.04	\$101.43 to \$128.72

Heifer Profit Groups



<u>Profit Group</u>	<u>No. Heifers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	54	\$242.31	\$145.75
2	54	\$159.02	\$128.39
3	53	\$117.77	\$120.59
4	54	\$35.45	\$106.92
Average		\$138.64	\$125.41

Differences Between High And Low Profit Groups *Feedlot Performance*



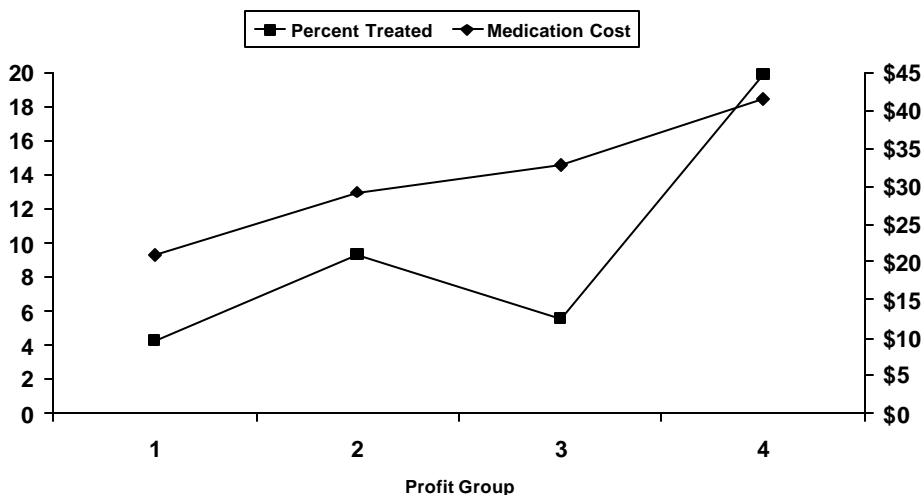
	<u>High vs. Low</u>
Delivery Point Weight, lbs.	572 vs. 600
Start Weight, lbs.	568 vs. 580
% Shrink (delivery - feedlot in)	-0.66 vs. -3.31
Final Weight, lbs.	1165 vs. 1070
Feedlot Daily Gain	3.31 vs. 2.78
Medication Cost	\$2.71 vs. \$24.65
Total Feedlot Cost	\$267.42 vs. \$278.37
Cost of Gain, \$/cwt	\$45.07 vs. \$57.27
Days on Feed	181 vs. 177

Differences Between High And Low Profit Groups *Carcass Characteristics*



	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	725 vs. 654
Ribeye Area	12.8 vs. 11.9
Backfat	0.45 vs. 0.46
% Yield Grade 4	1.9 vs. 11.1
% Yield Grade 1 and 2	61.1 vs. 57.4
% Choice or Prime	98.1 vs. 64.8
Carcass Price, \$/cwt	\$151.01 vs. \$140.36

Impact of Health on Profit



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



Category	No. Heifers	Profit Group			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Breed of Sire					
Angus	66	16.7	21.2	30.3	31.8
Other Breeds	9	22.2	11.1	22.2	44.4
SimAngus	43	58.1	20.9	11.6	9.3
Simmental	34	11.8	32.4	32.4	23.5
South Devon	11	18.2	45.5	9.1	27.3
Unknown	52	19.2	26.9	26.9	26.9

“Other Breeds” = Breeds with fewer than 10 heifers. Includes Gelbvieh Balancer (5 heifers), Charolais (3), and Limousin (1).

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



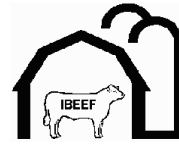
<u>Category</u>	<u>No. Heifers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
<u>Sale Group</u>					
01 IA 3/22	43	4.7	25.6	41.9	27.9
03 IA 4/12	57	19.3	35.1	26.3	19.3
04 IA 4/26	24	12.5	25.0	16.7	45.8
06 IA 5/3	39	71.8	20.5	5.1	2.6
09 IA 5/18	16	0.0	6.3	18.8	75.0
11 IA 5/18	28	35.7	28.6	28.6	7.1
14 IA 6/21	8	0.0	0.0	37.5	62.5

Factors That Affect Profitability



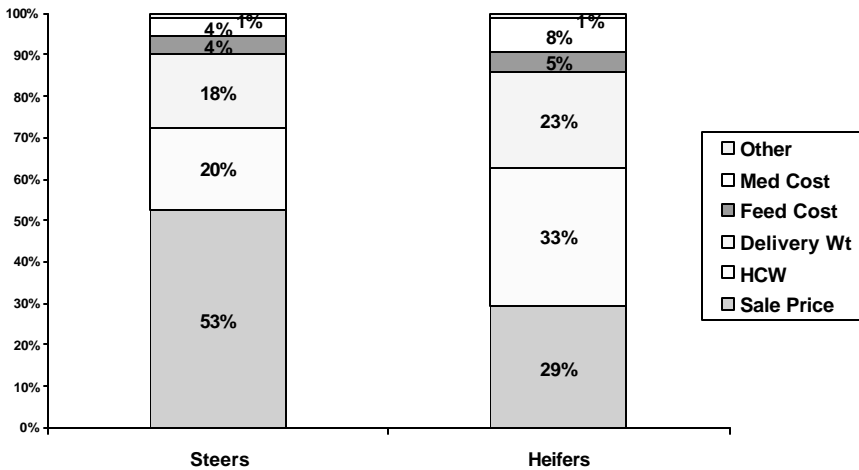
- Health
- Feedlot Daily Gain
- Harvest Weight
- Quality Grade
- Yield Grade

Profit



- Profit = Value – (Feeding Cost + Calf Value)
- Steers:
 $\$155.76 = \$1,138.86 - (\$312.70 + \$670.39)$
- Heifers:
 $\$138.73 = \$1,002.63 - (\$264.03 + \$599.87)$

Factors Affecting Variation in Profit



Factors Affecting Variation in Profit



- Steers

Profit = -1390.41
+7.99 Sale Price
+1.45 HCW
-0.71 Delivery Wt
-1.34 Feed Cost
-1.01 Med Cost

$R^2 = .989$

- Heifers

Profit = -1198.74
+6.54 Sale Price
+1.50 HCW
-0.71 Delivery Wt
-1.27 Feed Cost
-1.10 Med Cost

$R^2 = .988$

Factors Affecting Variation in Profit



- Steers

\$1.00 ↑ in Sale Price ⇒ \$7.99 ↑ in Profit
1 lb ↑ in HCW ⇒ \$1.45 ↑ in Profit
1 lb ↑ in Delivery Wt ⇒ \$0.71 ↓ in Profit
\$1.00 ↑ in Feed Cost ⇒ \$1.34 ↓ in Profit
\$1.00 ↑ in Med Cost ⇒ \$1.01 ↓ in Profit

Factors Affecting Variation in Profit



- Heifers

\$1.00 ↑ in Sale Price ⇒ \$6.54 ↑ in Profit

1 lb ↑ in HCW ⇒ \$1.50 ↑ in Profit

1 lb ↑ in Delivery Wt ⇒ \$0.71 ↓ in Profit

\$1.00 ↑ in Feed Cost ⇒ \$1.27 ↓ in Profit

\$1.00 ↑ in Med Cost ⇒ \$1.10 ↓ in Profit

IBEEF Participation



Data



Information



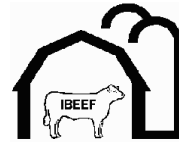
Knowledge



Action



For more information about IBEEF:



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