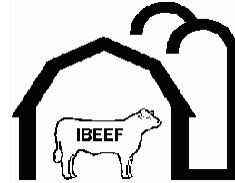
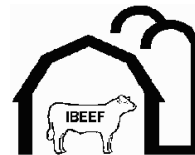


2001-2002
Indiana
Beef
Evaluation and
Economics
Feeding Program

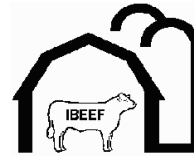


IBEEF Description



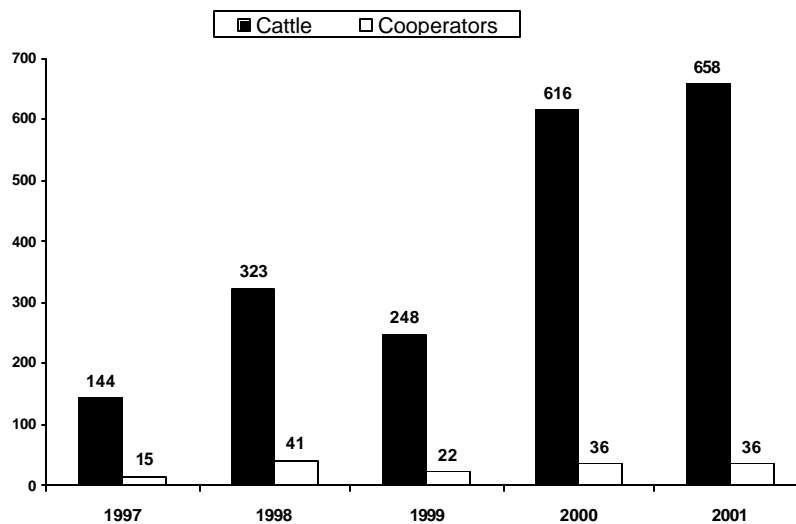
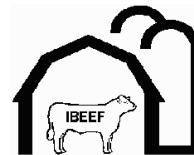
IBEEF is a steer and heifer feedout program that provides Indiana producers with a way to place cattle on feed and gather performance, carcass, and economic information to make genetic and management improvements in their herd. Cooperators receive individual and group feedlot performance, feedlot costs,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

2001-2002 IBEEF Participation

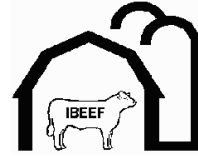


- 36 cooperators
- 508 steers and 150 heifers
- Weaned at least 30 days before delivery
- Delivered October 19, November 12, and December 3, 2001 from 7 collection points
- 501 Steers and Heifers fed in Iowa
 - 168 steers at Gary Forristall, Macedonia, IA
 - 183 steers at Todd Bentley, Oakland, IA
 - 150 heifers at Bruce Bentley, Macedonia, IA
- 157 Steers fed in Indiana
 - Smoker Farms, Wanatah, IN

History of Fall IBEEF



Vaccination Requirements



At weaning or 2 weeks prior:

- Four-way respiratory virus (IBR, BVD, PI3, and BRSV)
- preferably killed vaccine
- Seven-way clostridial vaccine
- Haemophilus somnus vaccine
- Pasturella vaccine

Two weeks before delivery:

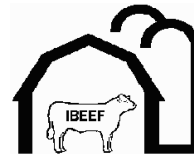
- Repeat four-way respiratory virus vaccine (MLV)
- Repeat Haemophilus somnus vaccine

2001-2002 IBEEF Participation



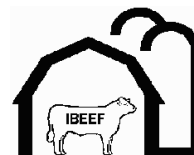
- Sire breeds represented: Angus, Beefmaster, Brangus, Braunvieh, Charolais, Gelbvieh, Hereford, Limousin, Red Angus, Shorthorn, Simmental, and Cross
- Color: Black/BWF 71%, Red/RWF 18%, White 6%, Gray 3%, Smoke 2%, Brown 1%
- 30% were sired by IBEP Test Station Bulls

Feedlot Performance



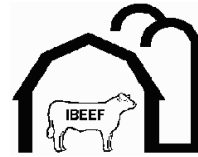
	<u>Steer</u>	<u>Heifer</u>
Delivery Point Weight, lbs.	627	598
Feedlot In Weight, lbs.	607	579
Harvest Weight, lbs.	1209	1109
ADG	3.36	3.21
Days on Feed	181	166
Age at Harvest	433	406

Carcass Characteristics



	<u>Steer</u>	<u>Heifer</u>
Hot Carcass Weight, lbs.	761	683
Ribeye Area	12.3	11.5
Backfat	0.46	0.48
Yield Grade	3.0	3.1
% YG 1 and 2	51.4	48.7
% YG 4	4.9	6.7
% Choice and Prime	74.8	87.3
% CAB	15.4	26.0

Calf Value At Delivery



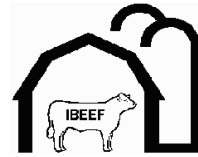
<u>Delivery Point Weight, lbs.</u>	<u>\$/cwt Steer</u>	<u>\$/cwt Heifer</u>
445 - 499	\$89.50	\$84.50
500 - 549	\$87.00	\$82.00
550 - 599	\$84.50	\$79.50
600 - 649	\$82.00	\$77.00
650 - 699	\$79.50	\$74.50
700 - 749	\$77.00	\$72.00
750 - 799	\$74.50	\$69.50
800 and above	\$72.00	\$67.00

Economics



	<u>Steer</u>	<u>Heifer</u>
Feed Cost/cwt Gain	\$30.55	\$31.18
Nonfeed Cost/cwt Gain	\$14.94	\$15.73
Total Cost/cwt Gain	\$45.49	\$46.91
Carcass Price, \$/cwt	\$107.12	\$110.99
Sale Value	\$814.91	\$757.74
Calf Value	\$510.48	\$465.73
Profit	\$32.83	\$45.44
BE Feeder Calf Value/cwt	\$87.09	\$85.62

IBEEF Cattle Compared to 2000 NBQA Native



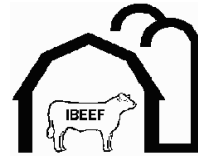
	<u>Steer</u>	<u>Heifer</u>	<u>NBQA</u>
% Prime	0.8	2.0	1.6
% Prem. Choice	22.1	31.3	16.8
% Low Choice	52.0	54.0	32.2
% Select	23.0	12.0	42.9
% Standard	1.6	0.7	5.7
% YG 1&2	51.4	48.7	54.4
% YG 4	4.9	6.7	3.4

Steers Compared to 2000 NBQA Steers

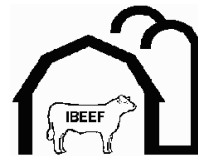


	<u>IBEEF</u>	<u>NBQA</u>
Yield Grade	3.0	3.2
Fat Thickness	.46	.47
Carcass Wt.	761	808
Ribeye Area	12.3	13.1
Marbling	SM 45	SM 18

Heifers Compared to 2000 NBQA Heifers

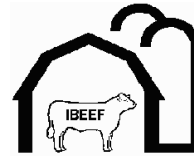


	<u>IBEEF</u>	<u>NBQA</u>
Yield Grade	3.1	2.9
Fat Thickness	.48	.53
Carcass Wt.	683	741
Ribeye Area	11.5	13.0
Marbling	SM 68	SM 31



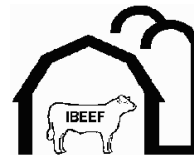
Steers

Steer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	635	555 to 767
Initial Value at Delivery, \$/cwt	\$81.19	\$74.50 to \$84.74
Feedlot In Weight, lbs.	617	552 to 758
Sale Weight	1228	1100 to 1436
Days on Feed	186	161 to 211
Daily Gain	3.31	2.09 to 4.07

How Steers Were Sold Base Price and Grid



Sale Group	Sell Date	Base Price	Premiums		Discounts			Avg. \$/cwt
			Prime	CAB	Select	Standard	Y4	
02 IA	4/11	\$112.45	--	\$2.99	\$2.95	\$5.25	\$15.00	\$113.64
04 IA	4/23	\$104.83	--	\$3.31	\$4.50	\$6.80	--	\$105.47
06 IN	5/2	\$105.17	\$8.80	\$3.52	\$7.10	--	\$15.00	\$104.49
07 IA	5/16	\$111.49	\$9.20	\$4.09	\$10.45	\$12.75	--	\$111.51
09 IA	5/28	\$104.81	\$9.63	\$5.71	\$10.13	\$25.41	\$15.00	\$104.32
11 IN	6/12	\$103.49	\$9.80	\$4.57	\$11.60	--	\$15.00	\$101.56

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

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

Other Discounts: Heavy carcass >950 lbs: \$7.29 (06 IN)

Dark Cutter: \$30.00 (07 IA); \$10.13 (09 IA)

Stag: \$23.22 (07 IA)

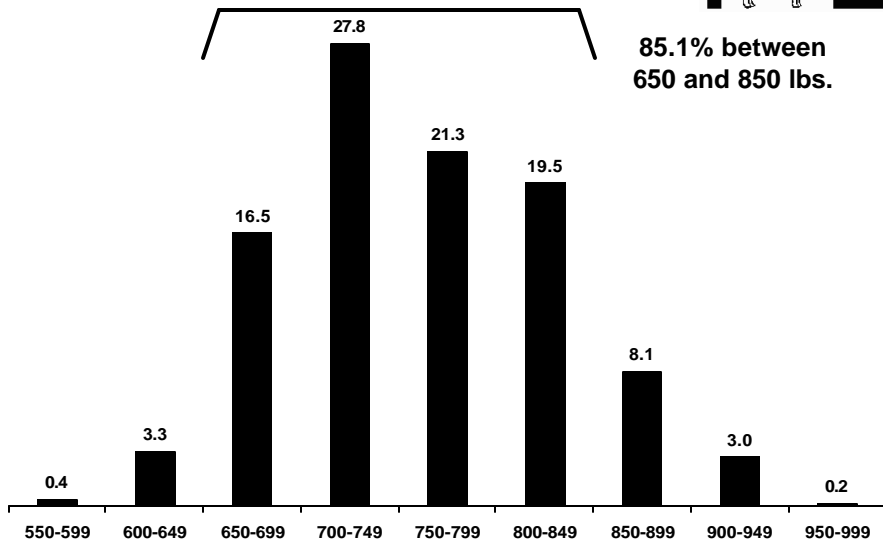
All cattle sold to IBP: Iowa cattle – Denison, IA; Indiana cattle – Joslin, IL

Steer Carcass Characteristics (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Carcass Weight	777	644 to 942
Dressing %	63.2	58.5 to 66.3
Ribeye Area	12.5	11.0 to 14.3
REA/cwt carcass	1.62	1.49 to 1.97
Backfat	0.43	0.25 to 0.60
Yield Grade	2.9	1.9 to 3.5
% Choice or Prime	69.9	0.0 to 100.0
Sale Price, \$/cwt	\$105.98	\$98.26 to \$114.71
Sale Value/Hd.	\$823.81	\$651.99 to \$1,014.25

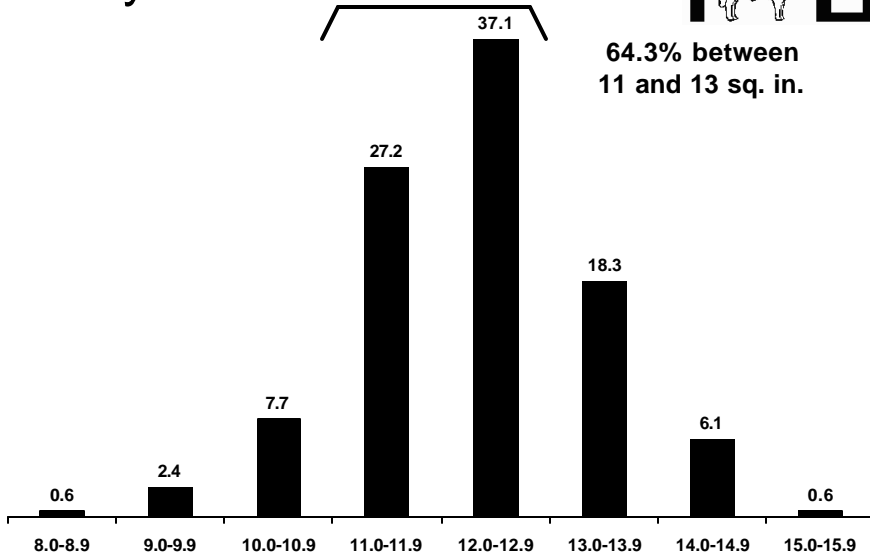
Steers Carcass Weight



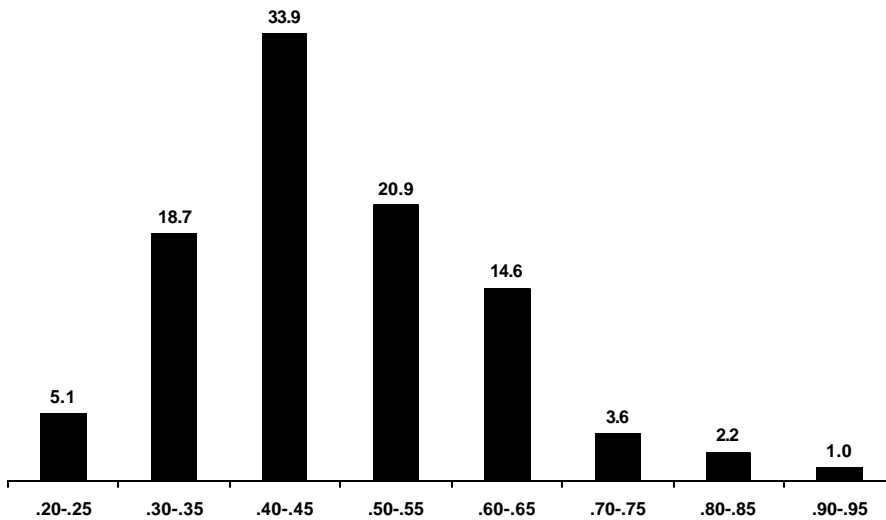
Steers Ribeye Area



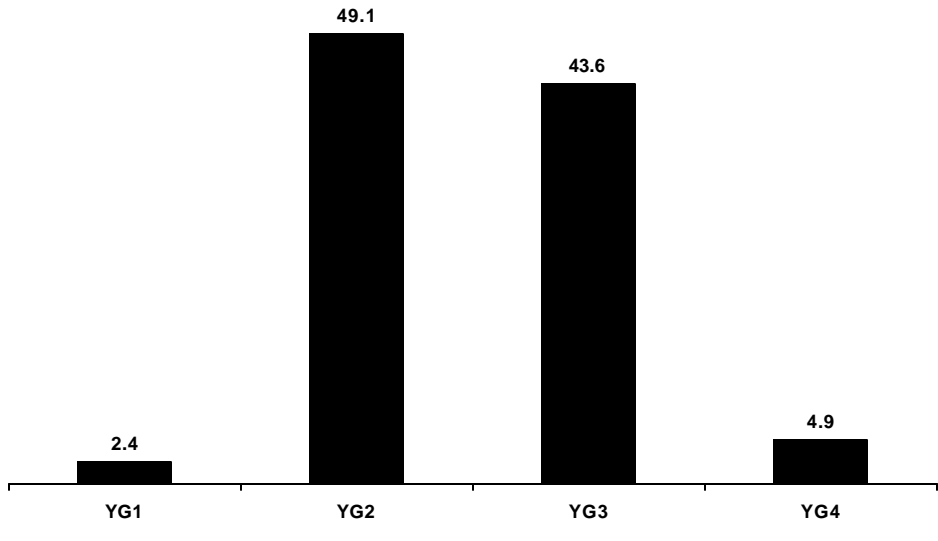
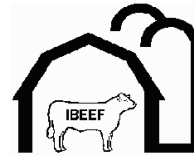
64.3% between
11 and 13 sq. in.



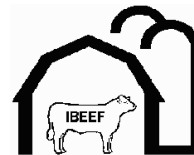
Steers Backfat



Steers Yield Grade

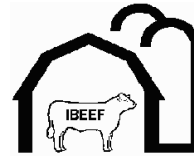


Steer Feeding Cost (Cooperator Average)



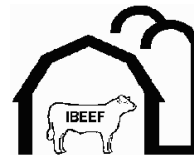
	<u>Average</u>	<u>Range</u>
Feed	\$184.93	\$145.26 to \$202.65
Medication	\$5.08	\$0.00 to \$24.83
Yardage	\$51.88	\$43.00 to \$64.48
Misc. (processing, trucking, data collection)	\$33.32	\$30.91 to \$36.41
Total	\$275.21	\$250.95 to \$310.01

Steers - The Bottom Line (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$30.44	\$27.69 to \$33.47
Nonfeed Cost of Gain, \$/cwt	\$15.06	\$11.32 to \$25.18
Total Cost of Gain, \$/cwt	\$45.50	\$39.41 to \$58.65
Profit/Head	\$33.99	-\$147.13 to \$161.87
Break Even Feeder Calf Value, \$/cwt	\$86.65	\$58.02 to \$99.54

Break Even Feeder Calf Value



Calculation:

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

Harvest Sale Value = 757 lbs x \$103.24/cwt = \$781.53

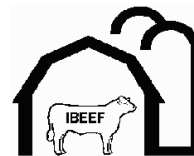
Feedlot Costs = \$298.12

Net = \$781.53 - \$298.12 = \$483.41

Calf Weight at Delivery = 585 lbs

Break Even Calf Value = \$483.41/585 lbs = \$82.63/cwt

Profit Groups



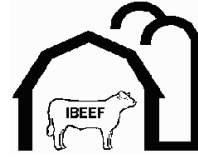
- Based on initial assigned feeder calf value at delivery, feeding costs, and harvest sale value, cattle were divided into profit group quartiles (127 steers/group)
- Profit = Sale Value - Feedlot Costs - Calf Value
- Example:
Profit = \$781.92 - \$209.80 - \$526.24 = \$45.88

Steer Profit Groups



<u>Profit Group</u>	<u>No. Steers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	127	\$117.69	\$100.67
2	127	\$54.08	\$90.14
3	127	\$14.52	\$84.18
4	127	-\$54.95	\$73.38
Average		\$32.83	\$87.09

Differences Between High And Low Profit Groups *Feedlot Performance*



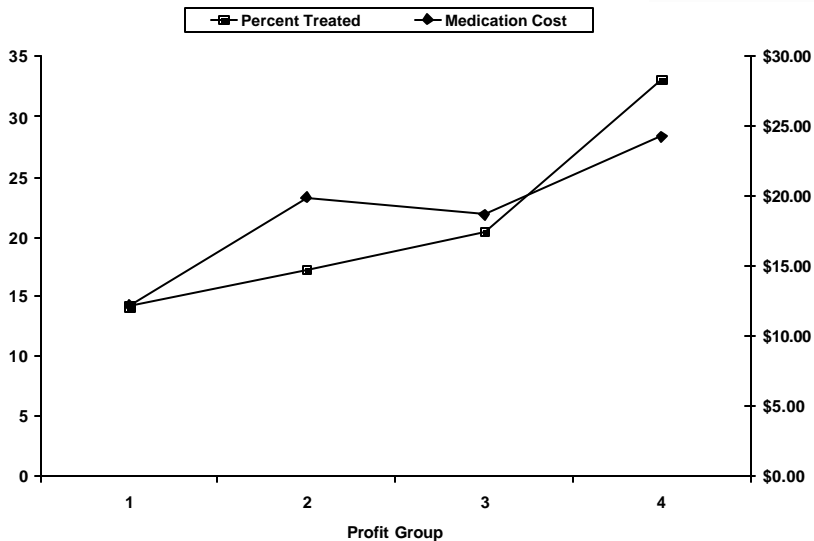
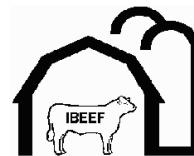
	<u>High vs. Low</u>
Delivery Point Weight, lbs.	630 vs. 618
Start Weight, lbs.	611 vs. 597
% Shrink (delivery - feedlot in)	2.84 vs. 3.36
Final Weight, lbs.	1279 vs. 1162
Feedlot Daily Gain	3.57 vs. 3.14
Medication Cost	\$1.73 vs. \$8.03
Total Feedlot Cost	\$286.02 vs. \$268.11
Cost of Gain, \$/cwt	\$43.16 vs. \$47.88

Differences Between High And Low Profit Groups *Carcass Characteristics*

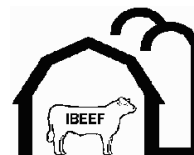


	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	820 vs. 719
Ribeye Area	12.9 vs. 11.6
Backfat	0.47 vs. 0.47
% Yield Grade 4	3.1 vs. 11.8
% Yield Grade 1 and 2	51.2 vs. 49.6
% Choice or Prime	92.9 vs. 41.7
Carcass Price, \$/cwt	\$111.88 vs. \$100.50

Impact of Health on Profit



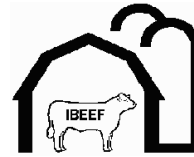
% of Steers in Each Category Which are in the 4 Profit Groups



Category	No. Steers	Profit Group			
		1	2	3	4
Breed of Sire					
Angus	295	23.4	25.4	26.8	24.4
Charolais	20	20.0	15.0	35.0	30.0
Cross	13	69.2	23.1	7.7	0.0
Gelbvieh	22	9.1	9.1	36.4	45.5
Hereford	24	4.2	8.3	37.5	50.0
Other Breeds	27	14.8	25.9	29.6	29.6
Shorthorn	25	36.0	40.0	16.0	8.0
Simmental	29	41.4	20.7	17.2	20.7
Unknown	53	32.1	35.8	11.3	20.8

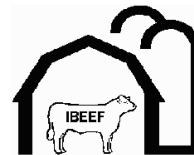
"Other Breeds" = Breeds with fewer than 10 steers. Includes Beefmaster (6 steers), Brangus (3), Braunvieh (9), Limousin (6), and Red Angus (3).

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

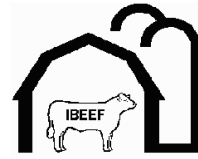


<u>Category</u>	<u>No. Steers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Color					
Black	352	28.7	27.6	21.9	21.9
Other	156	16.7	19.2	32.1	32.1
IBEP Bull					
Yes	161	33.5	19.9	21.1	25.5
No	347	21.0	27.4	26.8	24.8
Delivery Date					
10/19/01	183	40.4	27.9	14.8	16.9
11/12/01	187	27.3	29.4	22.5	20.9
12/3/01	138	1.4	15.2	42.0	41.3

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

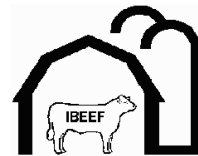


<u>Category</u>	<u>No. Steers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sale Group					
02 IA 4/11	110	41.8	34.5	15.5	8.2
04 IA 4/23	62	1.6	12.9	53.2	32.3
06 IN 5/2	80	31.3	38.8	18.8	11.3
07 IA 5/16	73	38.4	17.8	13.7	30.1
09 IA 5/28	106	2.8	18.9	35.8	42.5
11 IN 6/12	77	31.2	22.1	18.2	28.6



Heifers

Heifer Feedlot Performance (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Delivery Point Weight, lbs.	587	495 to 688
Initial Value at Delivery, \$/cwt	\$78.67	\$73.72 to \$83.24
Feedlot In Weight, lbs.	569	490 to 682
Sale Weight	1110	967 to 1242
Days on Feed	174	143 to 196
Daily Gain	3.13	2.44 to 3.60

How Heifers Were Sold Base Price and Grid



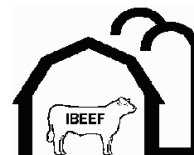
Sale Group	Sell Date	Base Price	Premiums		Select	Discounts		Avg. \$/cwt
			Prime	CAB		Standard	Y4	
01 IA	3/26	\$114.05	\$6.15	\$3.46	\$2.70	--	--	\$115.63
03 IA	4/18	\$107.92	--	\$3.47	--	--	--	\$108.86
05 IA	4/30	\$104.76	\$8.80	\$3.52	\$7.10	--	\$15.00	\$107.09
08 IA	5/23	\$107.33	--	\$5.16	\$10.25	\$12.55	\$15.00	\$106.37
10 IA	6/4	\$97.33	--	--	--	--	--	\$97.33

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

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

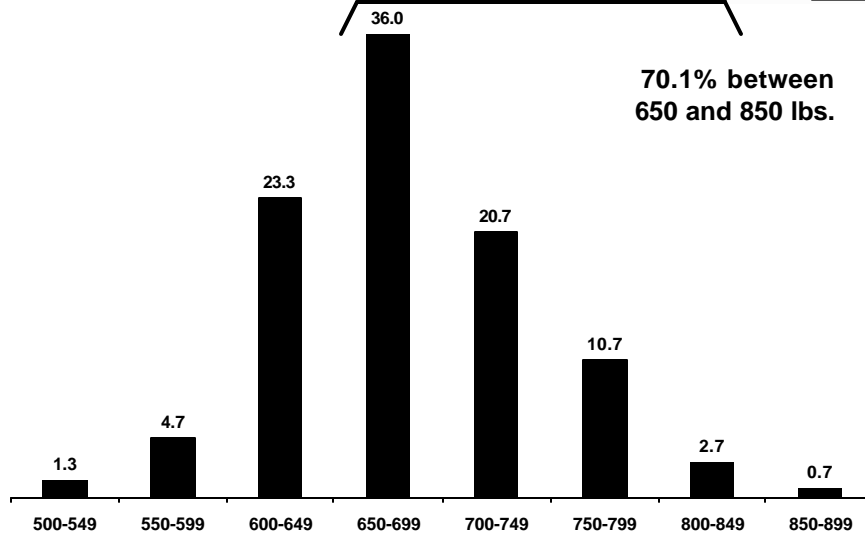
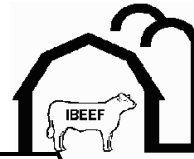
All cattle sold to IBP - Denison, IA

Heifer Carcass Characteristics (Cooperator Average)

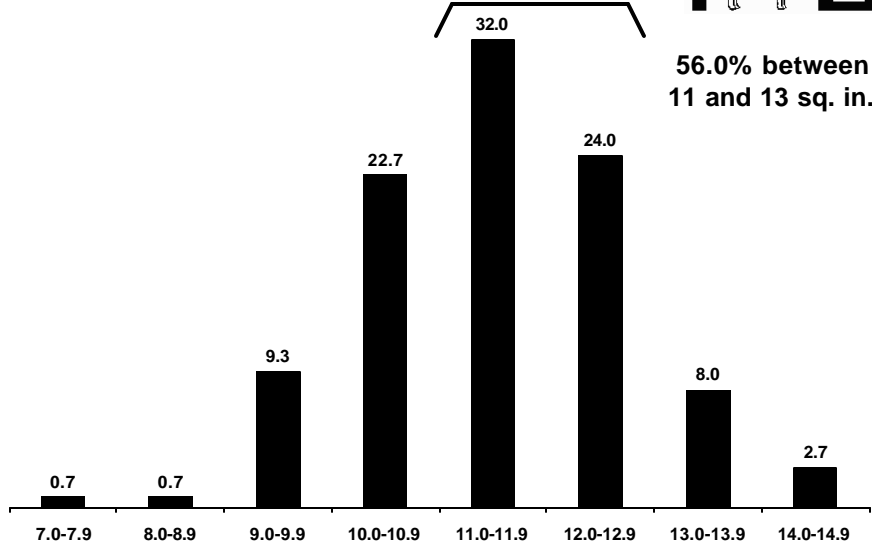
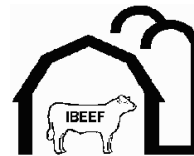


	<u>Average</u>	<u>Range</u>
Carcass Weight	684	591 to 780
Dressing %	61.6	59.9 to 62.8
Ribeye Area	11.4	9.2 to 12.9
REA/cwt carcass	1.68	1.50 to 1.91
Backfat	0.43	0.30 to 0.58
Yield Grade	3.0	2.4 to 3.8
% Choice or Prime	86.3	28.6 to 100.0
Sale Price, \$/cwt	\$108.58	\$100.03 to \$114.36
Sale Value/Hd.	\$743.62	\$607.48 to \$892.23

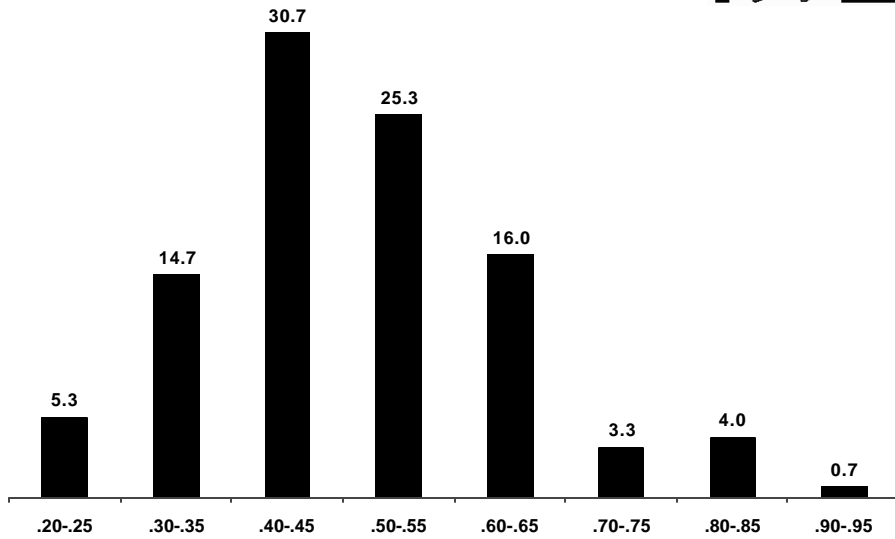
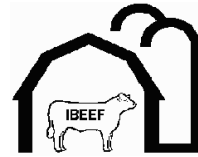
Heifers Carcass Weight



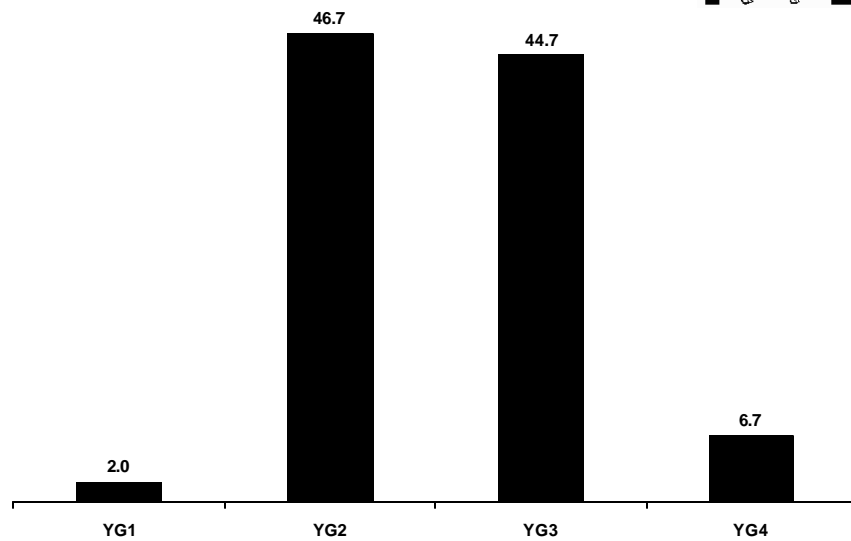
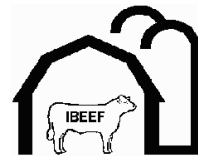
Heifers Ribeye Area



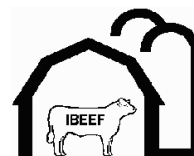
Heifers Backfat



Heifers Yield Grade



Heifer Feeding Cost (Cooperator Average)



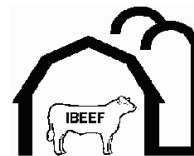
	<u>Average</u>	<u>Range</u>
Feed	\$167.54	\$146.63 to \$189.97
Medication	\$4.67	\$0.00 to \$21.98
Yardage	\$49.08	\$40.25 to \$55.16
Misc. (processing, trucking, data collection)	\$32.53	\$30.31 to \$35.66
Total	\$253.82	\$221.23 to \$293.20

Heifers - The Bottom Line (Cooperator Average)



	<u>Average</u>	<u>Range</u>
Feed Cost of Gain, \$/cwt	\$31.24	\$28.19 to \$37.46
Nonfeed Cost of Gain, \$/cwt	\$16.39	\$12.87 to \$22.15
Total Cost of Gain, \$/cwt	\$47.63	\$41.06 to \$59.61
Profit/Head	\$29.45	-\$93.08 to \$129.56
Break Even Feeder Calf Value, \$/cwt	\$83.52	\$62.55 to \$95.35

Heifer Profit Groups



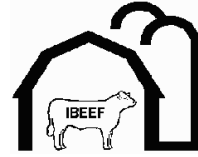
<u>Profit Group</u>	<u>No. Heifers</u>	<u>Profit \$/Hd.</u>	<u>Break Even Feeder Calf Value, \$/cwt</u>
1	38	\$116.56	\$95.29
2	37	\$63.82	\$90.51
3	38	\$33.33	\$83.42
4	37	-\$33.54	\$73.06
Average		\$45.04	\$85.57

Differences Between High And Low Profit Groups *Feedlot Performance*



	<u>High vs. Low</u>
Delivery Point Weight, lbs.	629 vs. 582
Start Weight, lbs.	615 vs. 563
% Shrink (delivery - feedlot in)	2.16 vs. 3.04
Final Weight, lbs.	1175 vs. 1072
Feedlot Daily Gain	3.51 vs. 2.88
Medication Cost	\$0.17 vs. \$7.05
Total Feedlot Cost	\$243.28 vs. \$259.25
Cost of Gain, \$/cwt	\$43.71 vs. \$51.37

Differences Between High And Low Profit Groups *Carcass Characteristics*



	<u>High vs. Low</u>
Hot Carcass Weight, lbs.	730 vs. 657
Ribeye Area	12.5 vs. 10.6
Backfat	0.49 vs. 0.52
% Yield Grade 4	7.9 vs. 13.5
% Yield Grade 1 and 2	60.5 vs. 21.6
% Choice or Prime	89.5 vs. 75.7
Carcass Price, \$/cwt	\$115.11 vs. \$104.20

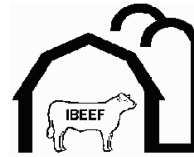
% of Heifers in Each Category Which are in the 4 Profit Groups



<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	67	31.3	25.4	20.9	22.4
Cross	11	18.2	36.4	18.2	27.3
Other Breeds	26	11.5	19.2	30.8	38.5
Simmental	18	50.0	22.2	11.1	16.7
Unknown	28	10.7	25.0	42.9	21.4

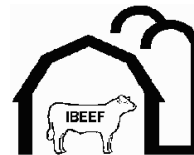
“Other Breeds” = Breeds with fewer than 10 heifers. Includes Brangus (7 heifers), Charolais (8), Gelbvieh (8), and Hereford (3).

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



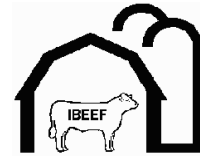
<u>Category</u>	<u>No. Heifers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Color					
Black	115	24.3	26.1	27.8	21.7
Other	35	28.6	20.0	17.1	34.3
IBEP Bull					
Yes	35	22.9	34.3	17.1	25.7
No	115	26.1	21.7	27.8	24.3
Delivery Date					
10/19/01	81	39.5	25.9	19.8	14.8
11/12/01	49	8.2	24.5	38.8	28.6
12/3/01	20	10.0	20.0	15.0	55.0

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



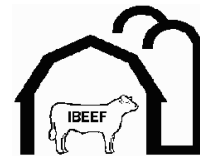
<u>Category</u>	<u>No. Heifers</u>	<u>Profit Group</u>			
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Sale Group					
01 IA 3/26	72	44.4	26.4	25.0	4.2
03 IA 4/18	9	0.0	11.1	44.4	44.4
05 IA 4/30	30	10.0	30.0	26.7	33.3
08 IA 5/23	37	8.1	21.6	21.6	48.6
10 IA 6/4	2	0.0	0.0	0.0	100.0

Factors That Affect Profitability



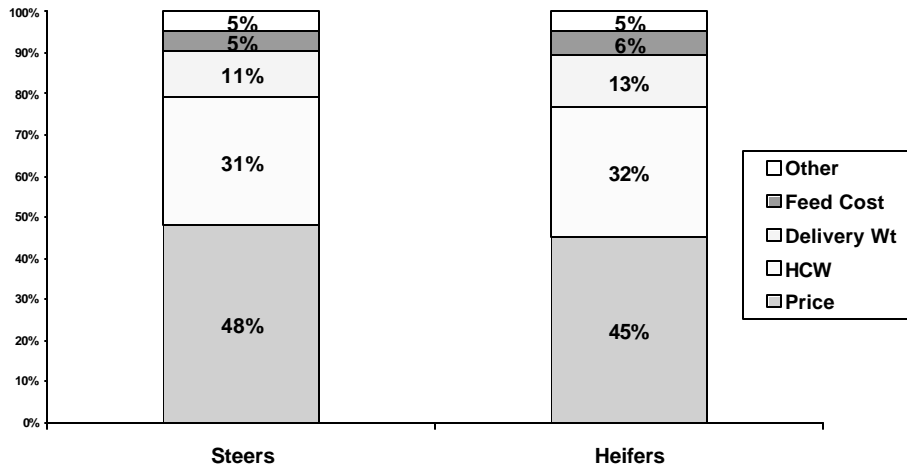
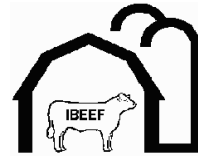
- Health
- Feedlot Daily Gain
- Harvest Weight
- Quality Grade
- Yield Grade

Profit



- Profit = Value – Feeding Cost – Calf Value
- Steers:
 $\$32.83 = \$814.91 - \$271.59 - \510.48
- Heifers:
 $\$45.44 = \$757.74 - \$246.57 - \465.73

Factors Affecting Variation in Profit



IBEEF Participation



Data



Information



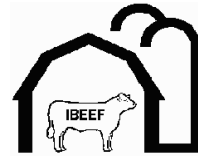
Knowledge



Action



For more information about IBEEF:



- <http://www.ansc.purdue.edu/ibeeff/>
- Kern Hendrix, Purdue University (ANSC)
 - 765-494-4832
 - khendrix@purdue.edu
- Byron Fagg, Purdue CES
 - Washington County Extension Educator
 - 812-883-4601
 - byron.fagg@ces.purdue.edu