



1999 Summary
Iowa Beef Cow Business Record

An Iowa Beef Center Report
 to Iowa Cattle Producers



“1999 was a good year for cow-calf production. With the mild winter, great calving, low feed prices and good market outlook; 2000 should be a banner year.”

*—John Lawrence,
 Director, Iowa Beef Center*

“Feed amounts to 54% of total cost, producers must be efficient resource managers.”
 —Daryl Strohbahn,
 Iowa Beef Center

Benchmarks for Iowa Cow-Calf Producers
Beef Cow Business Record
ISU-IRM-SPA
High versus Low Profit Producers: 1994-99

	<u>High 1/4</u>	<u>Average</u>	<u>Low 1/4</u>
<u>Return & Cost Factors</u>			
Return to Capital, Labor and Management Per Cow	\$95.57	-\$13.29	-\$194.78
Total Economic Cost per Cow	\$334.67	\$412.71	\$545.28
Total Economic Cost per Cwt. Produced	\$63.19	\$91.57	\$138.36
<u>Feed Resource Factors</u>			
Total Economic Feed Cost per Cow	\$175.99	\$223.41	\$296.58
Total Economic Feed Cost per Cwt. Produced	\$34.75	\$49.50	\$68.97
Economic Pasture Cost per Animal Unit Month	\$10.41	\$11.87	\$13.93
Stored Feed Fed per Cow (Dry Matter)	3253	3637	4336
<u>Production Factors</u>			
Calves Born in 1st 42 days of Calving Season	86.5%	82.0%	82.1%
Calf Crop Weaning Percentage	82.5%	82.6%	80.3%
Pounds Weaned per Exposed Female	407	400	363

Sort based off of Return to Capital, Labor & Mgt per Cow.

What is SPA?

SPA is a standardized beef cattle enterprise production and financial performance analysis system which was defined at the national level by the National Cattlemen's Beef Association and Extension Service. This system lets producers compare their operation with others within Iowa and the Midwest. The analysis is done with fiscal year production and financial data.



What does SPA cost?

For Iowa producers, ISU Extension Service offers this service at a fee of \$150 per year. Other organizations like CHIPS include the SPA analysis within their fee schedule for services offered.

ISU-IRM-SPA Beef Cow Business Record
In cooperation with the University of Illinois, the Illinois Beef Association, Michigan State University Extension Service, and the University of Kentucky Extension Service

Explanation of Terminology

Financial Costs: The financial enterprise analysis is taken directly from the income statement. Expenses include cash operating expenses, interest for operating capital, term debt, and non-cash expenses. The financial analysis does not account for the economic opportunity cost of land, raised feed, or equity capital invested in the enterprise. Actual land mortgage, livestock, machinery, and operating capital interest expense are included in the financing expense. In general, financial costs represent your direct "out-of-pocket" costs.

Economic Costs: The economic analysis accounts for the opportunity cost of resources (land, operator and family labor) used in production of the commodity in addition to expenses in the financial analysis. Land opportunity cost, for example, is the estimated rental rate that would be paid for land under an equivalent production system. The economic value of land may be greater or less than your true financial cost of land depending on your estimated rental value compared to your actual land payments. Opportunity cost of capital is the rate of return that one could expect to earn on that capital in an alternative investment with similar risks.

Summary of Investment Cost Basis: The actual monetary value invested in the enterprise. This includes the actual or estimated cost to produce "raised"

breeding stock, to purchase breeding stock, the undepreciated value of machinery and equipment, and the value of current assets associated with the beef cow enterprise.

Summary of Investment Market Basis: Represents monetary investment using current market values associated with the inventory of breeding stock, facilities, and equipment plus the value of current assets with the beef cow enterprise.

Feed Utilization Summary: Represents the quantity of various feeds supplied to the cow herd per producing female. Total dry matter supplied includes the feed fed to replacement heifers and bulls which support the cow-calf enterprise. If the quantity of harvested or purchased feed is greater than expected, it could indicate one or more of the following: 1) over-feeding, 2) below normal pasture production or utilization, 3) above normal feed wastage, 4) below normal use of aftermath (cornstalk or stockpiled grass) grazing, 5) below average feed quality, or 6) above average female replacement rates. The monetary value in the feed utilization summary is associated with the producer's estimated purchase value of feeds, not the actual costs associated with raising the feeds.

State Summary - Final Report - June 29, 2000
1999 Beef Cow Business Record ISU-IRM-SPA

Form 18

Iowa State University Financial and Economic Production Summary

Averages for 27 Herds

	Financial	Economic	Economic w/ Raised Hay @ Market Price
1. Return to Capital, Labor & Mgmt.	\$6,456	\$5,057	\$5,782
2. Return to Labor & Mgmt.	\$5,910	\$2,250	\$2,975
3. Net Profit	xxxxxxx	(\$1,523)	(\$798)
4. Return per \$100 of Feed Fed	\$222.26	\$183.29	\$192.69
5. Annual % Return on Capital Investment	9.5%	5.6%	6.3%
6. Return per Hour of Operator Labor	\$14.21	\$6.89	\$7.72
Costs for Cow-Calf Enterprises			
7. January 1 Number of Cows in Herd	82	82	82
8. a. Pasture Cost per Cow	\$67.41	\$106.92	\$106.92
b. Crop Residues per Cow	\$3.01	\$3.13	\$3.13
c. Harvested Forages per Cow	\$50.11	\$74.99	\$67.32
d. Non-Purchased Raised Feed Fed per Cow	\$22.92	\$21.82	\$21.82
e. Purchased Feed per Cow	\$26.58	\$26.26	\$26.26
f. Total Feed Cost per Cow	\$170.03	\$233.12	\$225.45
9. Operating Cost per Cow	\$67.50	\$66.82	\$66.82
10. Depreciation Cost per Cow	\$32.96	\$33.98	\$33.98
11. Capital Charge per Cow	\$6.95	\$35.69	\$35.69
12. Hired Labor Cost per Cow	\$9.65	\$7.79	\$7.79
13. Family & Operator Labor Charge per Cow	xxxxxxx	\$50.93	\$50.93
14. Total Cost per Cow in Herd, January 1	\$287.09	\$428.33	\$420.65
15. a. Return to Management per Cow	\$59.60	\$20.80	\$28.48
b. Margin per Cwt Beef Produced, Inventory Included	\$12.72	\$4.20	\$5.92
Costs/Cwt for Cow-Calf Enterprises			
16. Feed Cost per Cwt of Beef Produced	\$36.47	\$49.33	\$47.60
17. a. Operating Cost per Cwt of Beef Produced	\$12.26	\$11.36	\$11.36
b. Vet Med Cost per Cwt of Beef Produced	\$4.38	\$4.31	\$4.31
18. Depreciation Cost per Cwt of Beef Produced	\$6.96	\$7.15	\$7.15
19. Capital Cost per Cwt of Beef Produced	\$1.53	\$7.25	\$7.25
20. Family & Operator Labor Cost per Cwt of Beef Produced	xxxxxx	\$10.97	\$10.97
21. Total Cost per Cwt of Beef Produced	\$61.61	\$90.37	\$88.65
Production & Sales for Cow-Calf Enterprises			
22. Total Number of Feeder Calves Sold		73	
23. Average Age at Weaning		172	
24. Average Weight of Feeder Calves Sold		467	
25. Pounds of Calf Weight Sold per Cow		416	
26. Price per Cwt of Feeder Calves Sold		\$90.19	
27. Total Number of Breeding Stock Sold		12	
28. Average Weight of Breeding Stock Sold		1,248	
29. Pounds of Breeding Stock Sold per Cow		179	
30. Price per Cwt of Breeding Stock Sold		\$44.30	
31. Total Pounds of Beef Produced per Cow		490	
32. Total Pounds of Beef Sold per Cow		595	
33. Total Value of Production Sold per Cow		\$452	

Herd analyses and summaries done by ISU Field Livestock Specialists, CHIPS and SPA Technicians, and state summary prepared by Daryl Strohbahn, Extension Beef Specialist, Iowa Beef Center, ISU, Ames, IA 50011.

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Form 19

Iowa State University Financial and Economic Production Summary

Averages for 27 Herds

		Financial	Economic
Forage Production Costs			
1.	Number of Acres in Forage Production	75	75
2.	Land Charge per Acre	\$37.53	\$61.72
3.	Operating Cost per Acre	\$66.14	\$66.14
4.	Depreciation Cost per Acre	\$21.91	\$21.91
5.	Non-Real Estate Loan, Principal & Interest per Acre	\$4.11	xxxx
6.	Family & Operator Labor per Acre	xxxx	\$32.44
7.	Total Cost per Acre of Land in Forage Production	\$129.70	\$182.20
8.	Yield per Acre of Forage Production, Tons	3.2	3.2
9.	Land Charge per Ton	\$12.98	\$21.50
10.	Operating Cost per Ton	\$19.42	\$19.42
11.	Depreciation Cost per Ton	\$6.84	\$6.84
12.	Non-Real Estate Loan, Principal & Interest per Ton	\$1.27	xxxx
13.	Family & Operator Labor per Ton	xxxx	\$11.28
14.	Total Cost per Ton of Forage Produced	\$40.51	\$59.05
Pasture Summary			
15.	Number of Acres Pastured	220	220
16.	Land Charge per Acre	\$19.04	\$27.65
17.	Operating Cost per Acre	\$9.69	\$9.69
18.	Depreciation Cost per Acre	\$1.06	\$1.06
19.	Non-Real Estate Loan, Principal & Interest per Acre	\$0.15	xxxx
20.	Family & Operator Labor per Acre	xxxx	\$5.07
21.	Total Cost per Acre of Land in Pasture Production	\$29.94	\$43.47
22.	Acres per Cow-Calf Pair	2.6	2.6
23.	Animal Unit Months from Pasture	933	933
24.	Pasture Cost per Cow-Calf Pair	\$62.86	\$92.37
25.	AUM per Acre	5.1	5.1
26.	Cost per AUM	\$6.56	\$9.91
27.	Cost per Day for 1000 lbs of Body Weight	\$0.22	\$0.33
Aftermath Grazing Summary			
28.	Acres per Producing Cow	3.9	3.9
29.	Cost per Acre	\$1.54	\$1.54
30.	Cost per Cow	\$4.60	\$4.60
31.	AUM per Acre	0.9	0.9
32.	Cost per AUM	\$1.76	\$1.76
33.	Cost per Day for 1000 lbs of Body Weight	\$0.06	\$0.06
Feed Utilization Summary			
		Dry Matter	Financial
		(lbs)	Value
34.	Raised Hay Fed per Cow	2,422	\$53.21
35.	Other Home-Raised Feed Fed per Cow	893	\$21.55
36.	Purchased Hay Fed per Cow	367	\$6.18
37.	Purchased Supplements Fed per Cow	84	\$16.21
38.	Purchased Silages & Concentrates Fed per Cow	140	\$4.63
39.	Total Feed Fed per Cow	3,906	\$101.78
40.	Feed Fed per Cwt. Marketed	696	xxxxxx

Herd analyses and summaries done by ISU Field Livestock Specialists, CHIPS and SPA Technicians, and state summary prepared by Daryl Strohhenn, Extension Beef Specialist, Iowa Beef Center, ISU, Ames, IA 50011.

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Iowa State University Financial and Economic Production Summary

Form 20

Averages for 27 Herds

Reproduction & Production Measures			
1.	Pregnancy Percentage		94.9%
2.	Pregnancy Loss Percentage		7.4%
3.	Calving Percentage		87.5%
4.	Calf Death Loss		4.4%
5.	Calf Crop or Weaning Percentage		83.1%
6.	Female Replacement Rate		19.2%
7.	Calf Death Loss Based on No. of Calves Born		6.5%
Calving Distribution:			
8.	Beginning Calving Date:		12-Mar
9.	Calves Born During 1st 21 Days		49.9%
10.	Calves Born During 1st 42 Days		78.8%
11.	Calves Born During 1st 63 Days		91.8%
12.	Calves Born After 1st 63 Days		8.2%
Production Performance Measures:			
13.	Average Age at Weaning (Days)		173
Actual Weaning Weights			
14.	Steers/Bulls		482
15.	Heifers		451
16.	Average Weaning Weight		468
17.	Pounds Weaned per Exposed Female		394
Summary of Investment per Breeding Cow		Cost	Market
		Basis	Basis
18.	Breeding Livestock	\$600	\$708
19.	Machinery, Equipment & Structures	\$64	\$141
20.	Current Assets	\$60	\$60
21.	Total Capital Investment in Breeding Stock & Equip./Cow	\$724	\$910
Summary of Investment per Forage Production Acre			
22.	Structures & Equipment	\$95	\$200
23.	Real Estate	\$365	\$621
24.	Current Assets	\$93	\$120
25.	Total Capital Investment/Forage Production Acre	\$553	\$941
26.	Total Capital Investment in Forage Production/Cow	\$313	\$510
Summary of Investment per Pasture Acre			
27.	Structures & Equipment	\$5	\$13
28.	Real Estate	\$236	\$374
29.	Current Assets	\$18	\$25
30.	Total Capital Investment/Pasture Production Acre	\$259	\$412
31.	Total Capital Investment in Pasture Production/Cow	\$490	\$817
32.	Total Capital Investment/Cow	\$1,527	\$2,237

Herd analyses and summaries done by ISU Field Livestock Specialists, CHIPS and SPA Technicians, and state summary prepared by Daryl Strohhahn, Extension Beef Specialist, Iowa Beef Center, ISU, Ames, IA 50011.

Producer Improvements with the Beef Cow Business Record

The measure of a successful record system is whether it helps a producer improve his bottom line. Below is the average impact that the Beef Cow Business Record had with 14 producers that used ISU-IRM-SPA during the last five years. Using 1994-95 as a herd basis for comparison,


changes for the last three years (1996-98) were analyzed. Below are the average improvements in returns and cost savings that occurred in these 14 herds with an average herd size of 138 cows.

	<u>Whole Herd Improvements Over 1994-95</u>			<u>14 Herd Average</u>
	<u>1996</u>	<u>1997</u>	<u>1998</u>	
Improvement in Return to Capital, Labor & Mgmt.	\$14,277	\$21,185	\$8,259	\$14,573
Improved Returns per Cow	\$103	\$154	\$60	\$106
Savings in Whole Herd Economic Cost	\$7,744	\$5,352	\$7,567	\$6,888
Savings in Whole Herd Economic Feed Cost	\$8,322	\$7,064	\$10,199	\$8,529
Savings in Economic Cost Per Cwt of Production	\$10.21	\$14.77	\$6.95	\$10.64
Savings in Economic Feed Cost Per Cwt of Production	\$5.49	\$11.22	\$4.84	\$7.18

Iowa State University Vet Med SPA Class

24 ISU Veterinary Medicine students completed the SPA records class during the 1999-2000 academic year. Goals of the class are to teach cow-calf economic and production record systems. Students work closely with ISU faculty and producers to analyze records, benchmark performance and develop recommendations to improve producer profitability and sustainability. Highlights of the year included the following: 9 completed SPA records with cooperating herds in Iowa, South Dakota and North Dakota; presentations by five students to the North Central region IRM meeting, a student/cooperator herd meeting on SPA held in June at Aberdeen, SD; and the invitation of two students to give SPA presentations at the mid-year meeting of the National Cattlemen's Association in Denver, CO.



 ... and justice for all

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