

IRM HERD ANALYZER

**INPUT FORM
FOR
2001
CALVES**

BY

**HARLAN HUGHES
Professor Emeritus
NORTH DAKOTA STATE UNIVERSITY**

October 2001
Western Edge Consulting

IRM Herd Analyzer

Input form for assisting cow-calf producers to evaluate herd performance, costs and returns, and the beef herd's profitability.

HERD ANALYZER ANALYSIS 1999 DATABANK

(Average of 14 Herds)

Cow on Hand Jan 1, 1999:

151

Females Exposed: 160

Total Investment Per Cow: \$ 2018

Total Debt Per Cow: \$ 276

Average Steer Price (#/CWT): \$ 85

Average Weaning Weight: 562

Gross Income Per Cow: \$ 451

Feed Costs:

Summer \$ 73

Aftermath \$ 0

Winter \$ 123

Total Feed Costs: \$ 198

Livestock Expenses:

Vet & Medicine \$ 17

Trucking \$ 1

Miscellaneous \$ 0

Fuel \$ 9

Utilities & Gen Farm Exp \$ 7

AI Expense \$ 3

L S Supp & Lease Print \$ 15

Marketing \$ 5

Breeding \$ 6

Hired Labor & Mgt \$ 6

Total Livestock Expense: \$ 68

Interest on Feed & L S Expenses: \$ 10

Fixed Expenses:

BLD, FAC, Cows & Heifers \$ 40

Debt Interest \$ 6

Debt Principal XXXX

Total Costs: \$ 322

Value Added Per Cow (P&L) \$ 129

Unit Cost of Prod (\$/CWT)(Mode) \$ 62

Name _____

Address _____ County _____

City _____ State _____ Zip _____

Phone (____) _____

Date ____ / ____ / ____

E-Mail Address: _____

Is your herd enrolled in CHAPS? ___ No ___ Yes-Herd # _____

May we request a copy of your CHAPS summary? ___ Yes ___ No

Signature: _____

Can you compete? How do you compare?

Cow-calf production is characterized by cyclical prices and marginal returns with large differences between years and profitability among producers. Rather than continuing without knowledge of profitability, the challenge for today's beef cow operator is to know the cost and returns from your beef cow herd, direct where it is going and plan how to get there.

Records are a must...you can't manage what you can't measure

It takes information to accurately analyze and evaluate a beef cow enterprise, this includes records of cash expenses, operation's debts, herd inventory and herd performance. Some of the financial inputs are readily available from your tax records. Others are more difficult to obtain and may need to be initially approximated. This clearly identifies the need for future changes in farm record keeping and accounting. For herds not currently enrolled in CHAPS it is strongly encouraged that they do so. Much of the necessary production information required in the Herd Analyzer can be easily and more accurately retrieved from your CHAPS summary reports.

Dr. Harlan Hughes' IRM Herd Analyzer... assisting with analysis and information

Harlan Hughes' IRM-Herd Analyzer provides an excellent starting point for you to systematically evaluate your beef cow operation. Through comprehensive benchmarking you will be able to identify key bottlenecks to profitability and opportunities that can improve your cow herd's profitability.

To become involved in Hughes' IRM Herd Analyzer program, enter your herds information as completely as possible on this form and return for analysis to the address listed on the bottom of the last page. The information you provide will be handled **confidentially** and analyzed to provide a standardized performance and economic analysis. Two copies of the analysis will be mailed back to you. Preliminary results can then be confidentially discussed and modified for further individual analysis. A revised analysis is the normal process.

Herd Inventory Example Inventory Sheet Calf crop year 2001

Numbers of animals comprising the operation is very critical in evaluating both financial and production performance of a herd, but often very difficult to determine historically without written records.

	Total Females	Mature Cows	Bred Heifers	Replacement Heifer Calves	Bulls
No. exposed in 2000	<u>101</u>	<u>89</u>	<u>12</u>		No. in service in 2000 <u>5</u>
Business Year No. at beginning of year (1/1/00)	<u>101</u> a a=c+d			<u>14</u> b (2000 calves)	No. at beginning of year 1/1/00 Held for breeding <u>5</u> Held for sale <u>0</u>
Kept for calving	<u>92</u> c	<u>80</u>	<u>12</u>		
Culls held for sale	<u>9</u> d	<u>9</u>	<u>0</u>		
TOTAL \$					
No. calved this year - 2001	<u>92</u>	<u>80</u>	<u>12</u>		
No. losing calves this year - 2001	<u>6</u>	<u>4</u>	<u>2</u>		
No. determined open in fall - 2001		<u>0</u>	<u>0</u>		
No. leaving herd during calendar year 2001	<u>7</u> e e=h+i+j				No. leaving herd this calendar year Died 2001 <u>1</u> Sold 2001 <u>1</u>
h) died	<u>2</u> h	<u>1</u>	<u>1</u>	<u>0</u>	
i) non-breeding sold	<u>4</u> i	<u>1</u>	<u>2</u>	<u>1</u>	
j) bred cows sold	<u>1</u> j	<u>1</u>	<u>0</u>	<u>0</u>	
No. bought during calendar year - 2001	<u>2</u> f	<u>2</u>			No. bought 2001 <u>2</u>
TOTAL \$					
No. at end of year (12/31/01):	<u>101</u> g g=k+l				No. at end of year 12/31/01 Kept for breeding <u>5</u> Held for sale <u>0</u>
k) kept for calving	<u>k</u>	<u>80</u>	<u>13</u>		
l) culls held for sale	<u>l</u>	<u>8</u>	<u>0</u>		
Heifer calves kept for replacements				<u>18</u> (2001 calves)	
Inventory check (optional, should equal zero)					
a	b		d + e	f	g
<u>101</u>	<u>14</u>		<u>9 + 7</u>	<u>2</u>	<u>101</u> Head
Beg Inv #	+	Kept for Replacements	-	No. leaving herd	+ Purchases = Ending Inv #

Production schedule - several key dates are required to define pasture and winter feed use					
Date mature cows start calving	<u>2 / 15 / 01</u>			Average calving date	<u>3 / 08 / 01</u>
Grazing schedule	Cows	Heifers	Dry Cows		
Date off grass 2000	<u>10 / 15 / 01</u>	xxxx	xxxx		
Date on grass 2001	<u>4 / 30 / 01</u>	xxxx	xxxx	Total days calves were creep fed	<u>0</u>
Date off grass 2001	<u>10 / 20 / 01</u>	xxxx	xxxx	Date calves weaned in 2000	<u>Oct / 20 / 00</u>
Days on aftermath 2001	<u>0</u>			Are your heifer calves	<u>X</u> Raised <u> </u> Purchased

No. 2: Your Herd Inventory

Calf crop year 2001

Numbers of animals comprising the operation is very critical in evaluating both financial and production performance of a herd, but often very difficult to determine historically without written records.

Primary Breed Cows ____ Bulls ____	Total Females	Mature Cows	Bred Heifers	Replacement Heifer Calves	No. 3: Bulls			
No. exposed in 2000	_____	_____	_____	_____	No. in service in 2000 _____			
Business Year No. at beginning of year (1/1/00)	_____ a a=c+d	_____	_____	_____ b (2000 calves)	No. at beginning of year 1/1/01 Held for breeding _____ Held for sale _____			
Kept for calving	_____ c	_____	_____	_____				
Culls held for sale TOTAL \$ _____	_____ d	_____	_____	_____				
No. calved this year - 2001	_____	_____	_____	_____				
No. losing calves this year - 2001	_____	_____	_____	_____				
No. determined open in fall - 2001	_____	_____	_____	_____				
No. leaving herd during calendar year 2001	_____ e e=h+i+j	_____	_____	_____	No. leaving herd this calendar year Died 2001 _____ Sold 2001 _____			
h) died i) non-breeding sold j) bred cows sold	_____ h _____ i _____ j	_____	_____	_____				
No. bought during calendar year - 2001 TOTAL \$ _____	_____ f	_____	_____	_____	No. bought 2001 _____			
No. at end of year (12/31/01):	_____ g g=k+l	_____	_____	_____	No. at end of year 12/31/01 Kept for breeding _____ Held for sale _____			
k) kept for calving l) culls held for sale	_____ k _____ l	_____	_____	_____				
Heifer calves kept for replacements	_____	_____	_____	_____ (2001 calves)				
Inventory check (optional, should equal zero)								
a	b		d + e	f	g			
Beg Inv #	+	Kept for Replacements	-	No. leaving herd	+	Purchases	=	Ending Inv #

No. 4: Production schedule - several key dates are required to define pasture and winter feed use

Date mature cows start calving ___ / ___ / 01

Average calving date ___ / ___ / 01

Grazing schedule

Cows Heifers Dry Cows

Date off grass 2000 ___ / ___ / 00 xxxx xxxx

Date on grass 2001 ___ / ___ / 01 xxxx xxxx Total days calves were creep fed _____

Date off grass 2001 ___ / ___ / 01 xxxx xxxx Date calves weaned in 2000 ___ / ___ / 00

Days on aftermath 2001 _____ Are your heifer calves ___ Raised ___ Purchased

No. 5: Calf Production

Accurate and complete herd production records are fundamental to an operation's analysis.

Number weaned **Steers** **Heifers** **Bulls**

Avg actual weaning weight _____ _____ _____ Wean Date Weigh Date
 _____ / _____ / 01 _____ / _____ / 01

Overall average weaning weight _____

No. 6: Cattle Sales Exclude Culls Held for Sale on January 1, 2001

A record of actual cattle sales receipts are needed of cull cattle and weaned calves.

If calves are not sold at weaning please leave blank.

2001 SALES	Fall	Bred	Cull	
	Cull	Females	Open	Cull
	Cows	Sold	Heifers	Bulls
Number of head sold	_____	_____	_____	_____
Avg weight of animals sold	_____	_____	_____	_____
Avg price per cwt of animals sold	\$ _____	\$ _____	\$ _____	\$ _____
Total \$'s Bred Females Sold.....		\$ _____		
Estimated marketing shrink _____%				

How Were Calves Marketed?

Cattle Buyer Sale Barn
 Video Auction Private Treaty
 Backgrounded Other _____
 Finished in ND Feedlot
 Finished in Outstate Feedlot

Heifer Calves Steer Calves
 group 1 group 2 group 1 group 2

No. 7: Feed Description

Provide name and information for feeds, used in winter feeding and pasture supplementation.

	Name	Unit/wt	%Dry Matter	Market Price per Unit
<i>Example!</i>				
Grain	Oats	bu./ 32	88	\$1.05

Your Feeds				
Grain*	_____	bu./_____	_____	_____
Supplement	_____	ton/2,000	_____	_____
Forage 1	_____	ton/2,000	_____	_____
Forage 2	_____	ton/2,000	_____	_____
Forage 3	_____	ton/2,000	_____	_____
Salt & Mineral - herd intake per day	_____lbs.	ton/2,000	_____	_____

*If more than one grain is fed you should treat it as a mixed grain and average unit wt., % dry matter and market price.

You have two options for reporting winter feeds: No. 8 below or No. 17 back page

No. 8: Winter Feed Option (Fall 2000 and Winter/Spring 2001)

Reliable estimates or typical daily rations fed during the wintering period are needed and should be equivalent to total feed disappearance.

	Grain	Supplement	Forage 1	Forage 2	Forage 3
Name (from previous feed description section)	_____	_____	_____	_____	_____
*Cows — pounds fed/cow/day					
Mid gestation	_____	_____	_____	_____	_____
Late gestation	_____	_____	_____	_____	_____
Lactation	_____	_____	_____	_____	_____
Bred Heifers — pounds fed/heifer/day					
Mid gestation	_____	_____	_____	_____	_____
Late gestation	_____	_____	_____	_____	_____
Lactation	_____	_____	_____	_____	_____
Heifer calves — pounds fed/heifer/day	_____	_____	_____	_____	_____
Bulls — pounds fed/bull/day	_____	_____	_____	_____	_____
--days in drylot _____					
Creep fed to calves — intake per day	_____	_____			
Estimated percent feeding loss (waste)	_____ %	_____ %	_____ %	_____ %	_____ %

*If feeding multiple rations for each production stage, rations should first be averaged before feeding.

No. 9: Farm Raised Feed (Cash Costs of Production)

Home raised feed production and associated cash expenses are needed to estimate the “cash costs” of producing feeds for the cow herd. **Do not include purchased feeds in this section.**

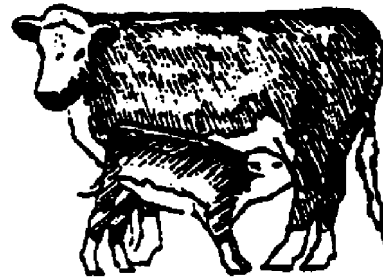
	<i>Example!</i>	Grain	Forage 1	Forage 2	Forage 3
Name	Oats	_____	_____	_____	_____
Acreage	40	_____	_____	_____	_____
Yield	80	_____	_____	_____	_____
Cash costs per acre (total\$/acre)		_____	_____	_____	_____
or:					
Fuel	5.86	_____	_____	_____	_____
Seed	6.00	_____	_____	_____	_____
Fertilizer	4.32	_____	_____	_____	_____
Chemical	1.68	_____	_____	_____	_____
Repairs	8.76	_____	_____	_____	_____
Real estate taxes	0	_____	_____	_____	_____
Cash rent	0	_____	_____	_____	_____
Custom hire	0	_____	_____	_____	_____
Operating interest	1.34	_____	_____	_____	_____
Other misc	1.05	_____	_____	_____	_____

No. 10 : Machinery and land debt for cropland only-

Values	<i>Example!</i>	Your
Remaining land debt	120,000	_____
Interest rate	10%	_____
- Years left in loan	15	_____
-		
Remaining mach debt	20,000	_____
Interest rate	10%	_____
- Years left in loan	5	_____
-		
Total acres farmed	2,001	_____
-		

Per Acre Family Living Draw \$ _____ /Acre

Allocated Overhead.....\$ _____ /Acre



No. 11: Pasture Use and Costs

Pasture and related expenses associated with cow herd, breeding bulls and replacement heifers are needed to determine summer feed costs.

Annual Public Land Costs	\$ _____		Owned	Rented
Rented Pasture		Total Cash Pasture Costs		
Acres	_____ A	Total (per acre)	\$ _____	<u>XXXXX</u>
Rent per acre	\$ _____ /A	Or:		
Acres per cow	_____ A/Cow	Fuel	\$ _____	\$ _____
Owned Pasture		Seed	\$ _____	\$ _____
Acres	_____ A	Fertilizer	\$ _____	\$ _____
Acres per cow	_____ A/Cow	Chemicals	\$ _____	\$ _____
Market value per acre	\$ _____ /A	Real estate taxes	\$ _____	\$ _____
Pasture loan (principal remaining)	\$ _____	Fencing/repairs	\$ _____	\$ _____
Interest rate	_____ %	Water development	\$ _____	\$ _____
Years in loan (remaining)	_____ Yrs	Other _____	\$ _____	\$ _____
Aftermath Grazing				
Daily cost per cow	\$ _____ /Cow			

No. 12: Total Livestock Expenses (source: your IRS records, 1040 schedule F tax form)

Total expenditures on behalf of cow herd, breeding bulls and replacement heifers
(Be sure expenditures are in proportion to cows in this herd analysis.)

Number of cows covered by expenses (head) _____ (Normally Jan. 1 inventory unless operating separate herds)

	Total Farm	% to Cow Herd		Total Farm	% to Cow Herd
Vet & Med	\$ _____	_____ %	Elec Utility	\$ _____	_____ %
Fuel (for feed processing, feeding, manure removal)	\$ _____	_____ %	Hired Labor	\$ _____	_____ %
Supplies	\$ _____	_____ %	Trucking	\$ _____	_____ %
Marketing Fees	\$ _____	_____ %	AI Breeding	\$ _____	_____ %
Misc _____	\$ _____	_____ %	Other	\$ _____	_____ %
			Family Living from Cow Herd	\$ _____	_____ %

Did you borrow money to feed the cow herd and/or for livestock expenses?

___ No ___ Yes, if so, average interest rate was _____% and principal amount was \$ _____

No. 13: Capital Gains Information (source: IRS Form 4797)

Livestock capital gains this year (IRS form 4797) \$ _____

Dollars from bull sales \$ _____ covering _____ bulls

Dollars from cow sales \$ _____ covering _____ cows

No. 14: Cattle Investment and Ownership

Best estimates of cattle values, average bull purchases and associated debts are required to determine ownership costs and cash flow requirements.

	Cows	Bulls	Breeding Heifers
Market value per head	\$ _____	\$ _____	\$ _____
Average purchase price	\$ _____	\$ _____	\$ _____
Average years of use		_____ Yrs	
Loans -			
Remaining principal balance	\$ _____	\$ _____	\$ _____
Interest rate	_____ %	_____ %	_____ %
Remaining years	_____ Yrs	_____ Yrs	_____ Yrs

No 15: Leasing Information

*Number of leased cows kept for calving _____ Head

Total lease payment \$ _____ /Herd

Describe lease arrangements in detail _____

_____ *These must be included in beginning herd inventory.

No. 16: Capital Investment

Investments included should be based on allocation of value and debts associated with the cow herd for items such as buildings (i.e. barns, wells, feed storage facilities), equipment (i.e. corrals, bunks, water fountains, chutes, scales and stock trailers) and machinery (i.e. manure spreader, feed wagons, feed grinders and tractors for feeding and for feed production). **DO NOT INCLUDE FARMING MACHINERY.**

	Buildings Used for Cows	Equipment Used for Cows	Machinery Used for Cows
Total market value/cow herd share	\$ _____ / _____ %	\$ _____ / _____ %	\$ _____ / _____ %
or			
Include items/value/cow herd share			
<i>Example</i>	<u>Barns / 20,000 / 50%</u>	<u>Scale / 2,000 / 100%</u>	<u>Tractor / 50,000 / 35%</u>
	_____ / _____ / _____	_____ / _____ / _____	_____ / _____ / _____
	_____ / _____ / _____	_____ / _____ / _____	_____ / _____ / _____
	_____ / _____ / _____	_____ / _____ / _____	_____ / _____ / _____
Loans - Remaining principal balance	\$ _____	\$ _____	\$ _____
Interest rate	_____ %	_____ %	_____ %
Remaining years	_____ Yrs	_____ Yrs	_____ Yrs

No. 17: Winter Feed Option 2:

Feed Quantities Fed To Beef Cow Herd No. Cows _____

	FEED NAME	UNIT WT	AMT FED	UNIT PRICE
Grain	1 _____	_____	_____	\$ _____
	1a _____	_____	_____	\$ _____
Protein	2 _____	2000	_____	\$ _____
	2a _____	2000	_____	\$ _____
Forage 1	3 _____	2000	_____	\$ _____
	3a _____	2000	_____	\$ _____
Forage 2	4 _____	2000	_____	\$ _____
	4a _____	2000	_____	\$ _____
Forage 3	5 _____	2000	_____	\$ _____
	5a _____	2000	_____	\$ _____
Min/Salt	6 _____	2000	_____	\$ _____
	6a _____	2000	_____	\$ _____

To Be Used Instead Of Inputting Daily Cow & Heifer Rations

IRM Producer Comments

Through the use of the CHAPS program and IRM-Herd Analyzer we have been able to show more profit in our cow-calf operation. With the beef cow-calf herd analyzer, which integrates herd performance data and business management records, it tells us which parts of our operation where we can or should cut costs and other aspects of the operation we can build on. We greatly appreciate the knowledge and expertise of our area livestock specialist and county agent.

Myron Wold, Watford City

Return complete herd analyzer input forms for processing to:

Harlan Hughes
Western Edge Consulting
30 Ramble A Road
Laramie, Wy 82070

For additional information contact:
 Ph: 701-238-9607 Fax: 701-231-1059
 E-mail: harlan.hughes@gte.net
 Web Page: www.ag.ndsu.nodak.edu