



Record Keeping COW/CALF DAYS 2015

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You start doing useless stuff all around the house!!



RECORD KEEPING 101



Production



Operational



Financial



Analysis





PRODUCTION/PERFORMANCE

- Whole Herd vs. Individual Animal
 - Reproductive and growth performance data





WHOLE HERD PRODUCTION

- Standardized Performance Analysis (SPA)
 - Allow comparison from herd to herd

- 7 critical measurements for evaluating herd efficiency
 1. SPA adjusted females exposed
 2. Pregnancy rate
 3. Calving rate
 4. Percent calf death loss
 5. Percent weaned calves
 6. Average weaning weight
 7. Pounds of weaned calf/cow exposed



1. SPA adjusted females exposed

1. Adjusted herd numbers for sale/purchase of cows & heifers

$$2. \text{ Pregnancy rate} = \frac{\text{Checked pregnant}}{\text{SPA adjusted females exposed}} \times 100$$

$$3. \text{ Calving rate} = \frac{\text{Live calves}}{\text{SPA adjusted females exposed}} \times 100$$

$$4. \text{ \% calf death loss} = \frac{\text{Dead calves}}{\text{Calves born}} \times 100$$

$$5. \text{ \% weaned calves} = \frac{\text{Live calves weaned}}{\text{SPA adjusted females exposed}} \times 100$$

Primary reproductive efficiency measure

6. Average weaning weight

Most observed
Doesn't reflect efficiency

$$7. \text{ Lb of weaned calf/cow exposed} = \frac{\text{lbs of calf weaned}}{\text{SPA adjusted females exposed}}$$

Critical measure of efficiency



SPA BENCHMARKS

2013 MN Profitability Group ^b			
	Benchmark ^a	Low 20%	Top 20%
Pregnancy Rate, %	93.6	95.9	98.0
Calving Rate, %	92.97	94.4	97.5
Rate of Calf Death Loss, %	3.27	10.8	8.4
Weaned Calves Rate, %	90.67	82.4	89.5
Steer WWT, lb	571		
Heifer WWT, lb	545		
Bulls WWT, lb	602		
Avg WWT, lb	558	477	506
Lbs weaned/cow exposed	499	394	453

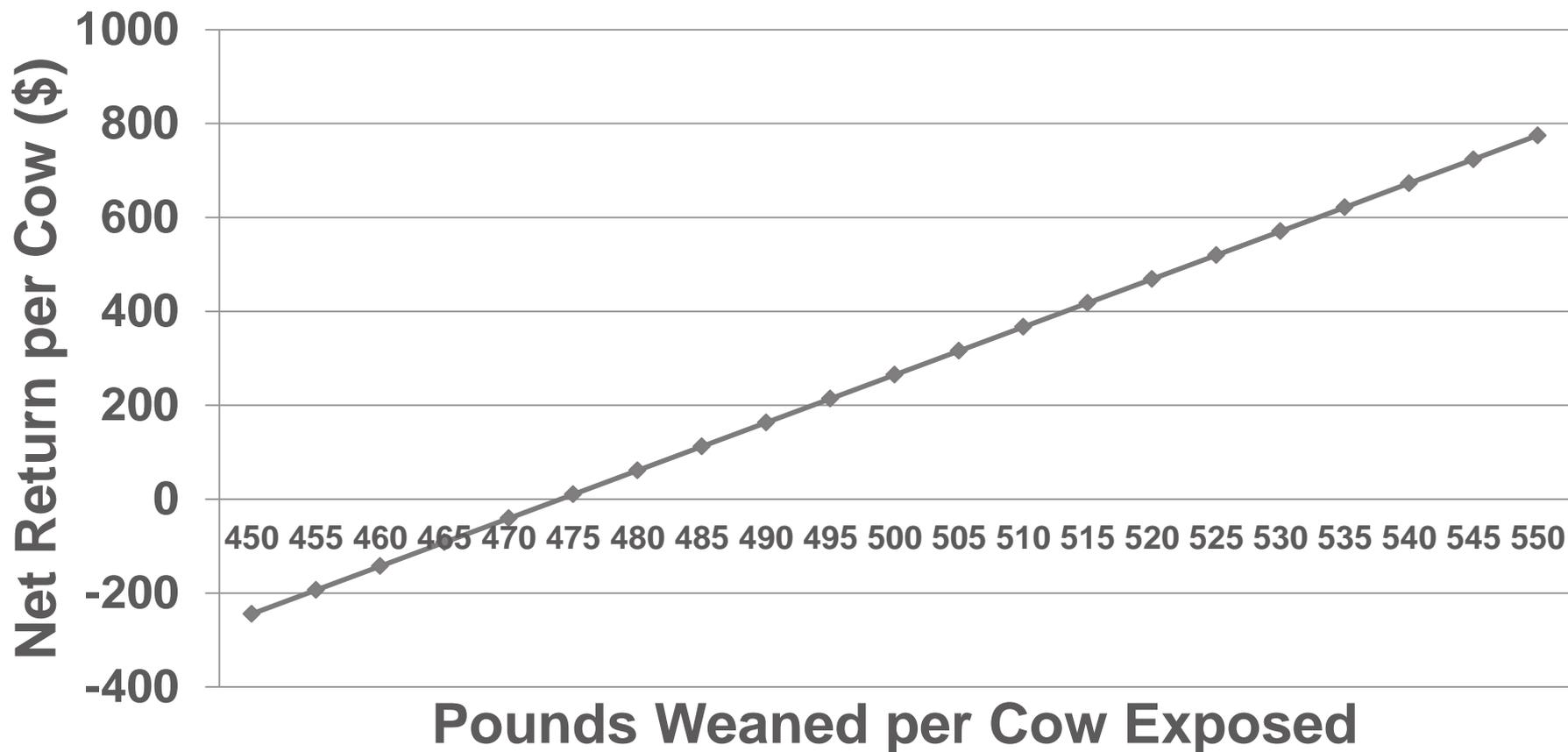
^aData from CHAPST[™] - 91,414 cows exposed during 2008-2012

^bData from FinBin Farm Financial Database

- Combination of % calves weaned & weaning weight

2012 Pounds Weaned/Cow Exposed

$$y=10.19x + -4830; R^2 = .90$$

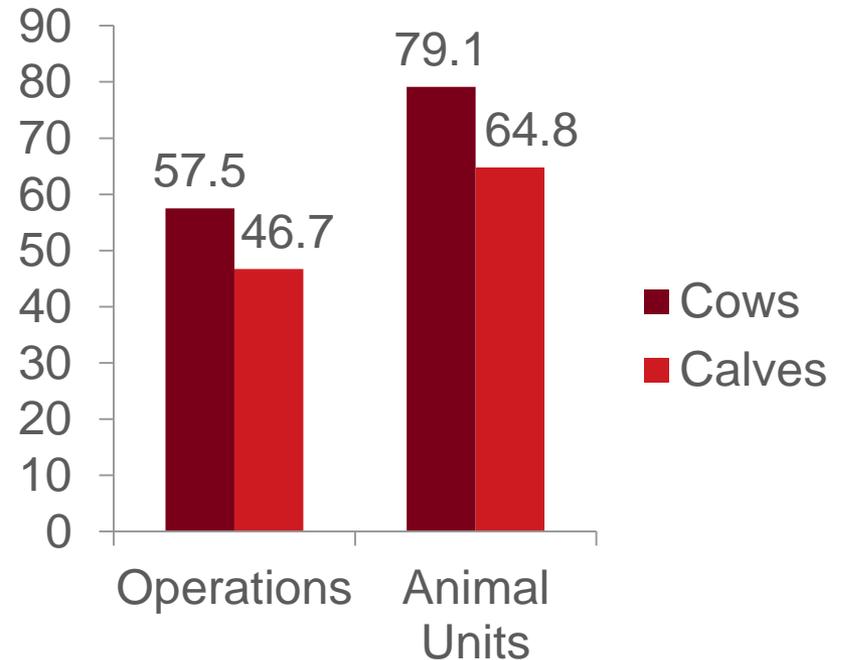




INDIVIDUAL ANIMAL PRODUCTION

- Tracking animals on an individual basis
 - Marketing
 - Disease tracking
 - **Management**
 - Identify low performing animals
 - Culling cows
 - Choosing replacements

Use of Individual ID (%)



Source: 2008 USDA NAHMS Cow/Calf Study



INDIVIDUAL ANIMAL

Cow Information

- ID
- Birthdate
- Pedigree/breed
- Vaccination/health records
- Date entered/exited herd

Cow Performance

- Sire mated
- Preg test results
- Calving dates
- Calf id, sex
- Calving difficulty
- Cull date
- Reason for culling



INDIVIDUAL ANIMAL - COW

- Reproductive history
- Calving interval
- Weaning wt: cow wt
 - Fxn of cow weight & milk production



INDIVIDUAL ANIMAL

Calf Information

- ID
- Birthdate
- Sex
- Pedigree/breed
- Vaccination/health records
- Weaning date
- Management –
 - Creep-fed, implanted, twin, etc.

Calf Performance

- Birth weight
- Weaning weight
- Yearling weight
- Slaughter weight
- Carcass data



INDIVIDUAL ANIMAL – CALF

- Weaning weight ratio $\frac{\textit{weaning wt}}{\textit{avg weaning wt}} \times 100$
 - Separate in sex groups
- Yearling weight ratio
- Weight per day of age = $\frac{\textit{weaning wt}}{\textit{day of age}}$





INDIVIDUAL RECORDS

Cow ID	Sire	Due date	Actual date	Calf ID	Sex	Birth wt	Weaning Wt	Comments
T005	Y008	3/6/13	2/20/13	A001	Heifer	67	475	Twin
T005	Y008	3/6/13	2/20/13	A002	Heifer	65	480	Twin
W011	X021	3/6/13	2/28/13	A008	-	-	-	Miscarriage
W029	X021	3/6/13	3/5/13	A006	Heifer	72	512	
X004	Y008	3/6/13	3/6/13	A011	Bull	86	550	Tough Pull
Y013	X021	3/6/13	3/4/13	A003	Bull	76	537	
Y024	X021	3/6/13	3/10/13	A010	Bull	70	-	Died 3/15/13, scours
Z007	Y008	3/6/13	3/6/13	A004	Heifer	75	502	





AVAILABLE PROGRAMS

Program	Website	SPA values	Mobile option	Demo
CattleSoft CattleMax	www.cattlemax.com	Y	Y	Free
CHAPS	www.chaps2000.com	Y	Y	Update in progress
CowCalf5	www.cowcalf.com	Y	Palm pilot	Free
Cow Sense	www.midwestmicro.com/cowsense.html	Y	N	Free
The Beef Cattle fIRM	http://economics.ag.utk.edu/firm.html	N	N	No
CattlePro	www.cattlepro.com	Y	N	Free

Detailed report available through Oklahoma State University Extension @
<http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-1926/CR-3279web.pdf>



THE BEST DATA COLLECTION METHOD... ONE YOU WILL USE





OPERATIONAL RECORDS

- Ultimately used for financial analysis

2013 MN Direct Expenses, cost per cow			
	Average	Low 20%	High 20%
Protein Vit Minerals	36.51	68.08	26.02
Corn	9.83	18.36	9.38
Corn Silage	84.08	110.78	60.57
Pasture	39.04	39.35	37.42
Veterinary	26.51	27.54	28.49
Fuel & Oil	34.49	36.81	27.57
Total	644.29	932.08	554.38



OPERATIONAL RECORDS

- Ultimately used for financial analysis

2013 MN Overhead Expenses, cost per cow

	Average	Low 20%	High 20%
Hired Labor	5.76	14.43	2.48
Farm Insurance	11.75	20.28	6.55
Utilities	10.90	29.58	3.99
Interest	24.30	29.82	14.14
Mach & bldg depreciation	36.26	61.51	28.11
Miscellaneous	19.90	29.43	20.18
Total	108.86	185.03	75.47



FINANCIAL RECORDS

- ...for more than just filing taxes
- Balance Sheet
 - Equity = assets-liabilities
- Income Statements
 - Revenues & expenses
 - Accrual adjusted income statement -> rev & exp for year commodity was PRODUCED
- Cash flows



FINANCIAL RECORDS

■ Unit costs of production

2013 MN Cost of production/ cwt produced

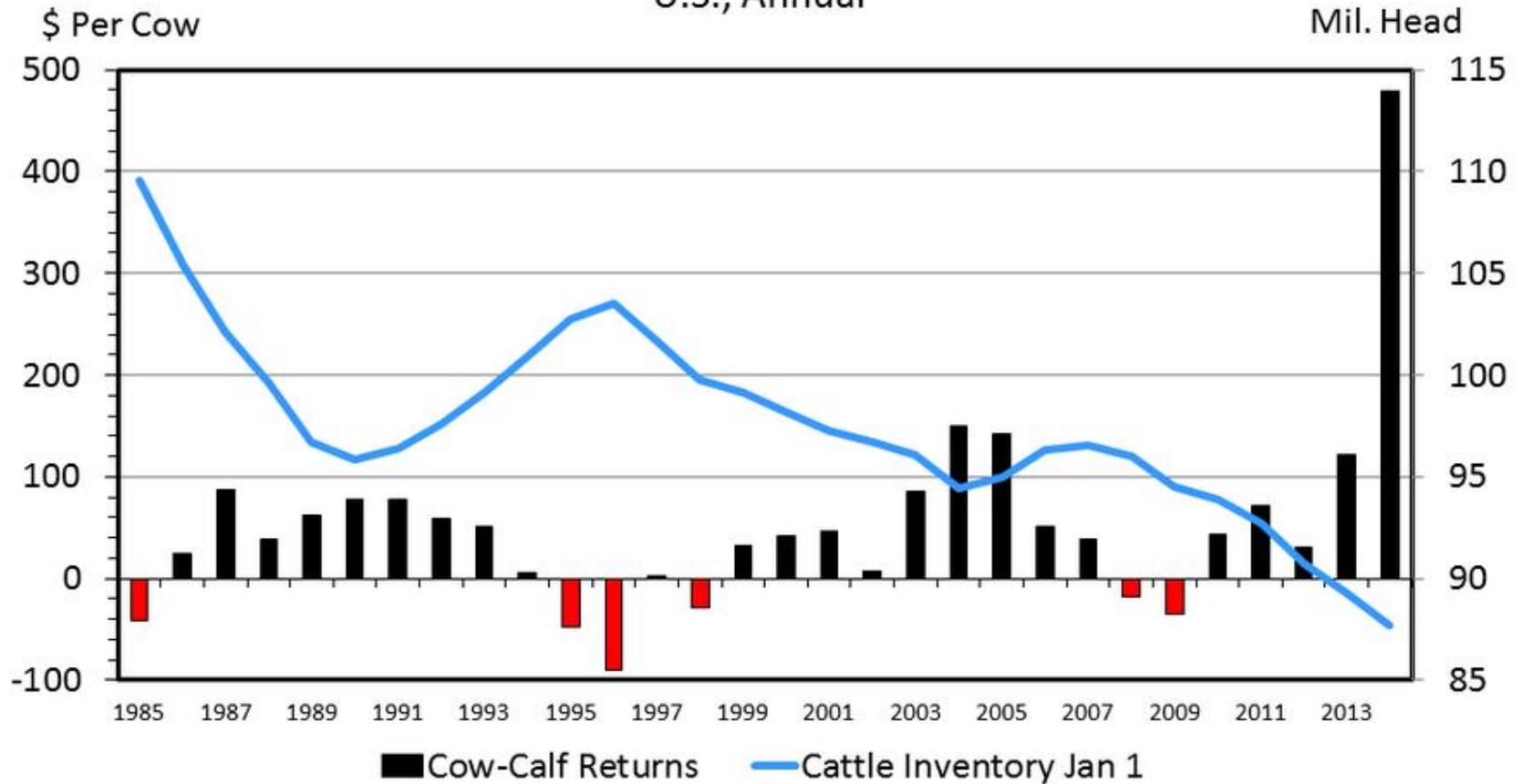
	Average	Low 20%	Top 20%
Direct Expenses	136.30	220.58	99.87
Direct & Overhead	159.33	264.37	113.46
W/ other revenue adjustments	152.98	280.30	78.67
W/ labor & management	170.91	302.78	93.07

Value 550 lb calf @ \$1.55/lb = \$852

	Average	Low 20%	High 20%
Cost of Production	\$935	\$1,665	\$515
Net	-\$83	-\$813	\$337

COW-CALF RETURNS AND CATTLE INVENTORY

U.S., Annual



Data Source: USDA-AMS & USDA-NASS, Compiled and Analysis by LMIC
 Livestock Marketing Information Center

C-P-67
 07/16/14



ANALYSIS

- Integration of production, operational & financial records
 - U of M Center for Farm Financial Management
FINPACK
 - www.cffm.umn.edu/finpack
 - Quickbooks
 - www.quickbooks.com

TAKEAWAY MESSAGE

