NDSU | DICKINSON RESEARCH EXTENSION CENTER

A Story

Where We Have Been
Where We Are
Where We Are Going

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Dickinson Research Extension Center

CHAPS

"Cost of Beef Production Up 200%"

BeefTalk 784

N.D. Beef Cattle Operation Costs Jump

	2000	2013	% Change in 10 years	2014	% Change in 11 years
Total direct and overhead expenses	$342	$564	up 165%	$648	up 189%
Actual weaning weight	544	541	down .6%	547	up .6%
Pounds weaned per exposed cow	492	479	down 2.6%	471	down 4.3%
Cost per pound weaned per exposed cow	$.69	$1.18	up 171%	$1.38	up 200%

FINBIN (www.finbin.umn.edu/) from the Center for Farm Financial Management, University of Minnesota

https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-cost-of-beef-production-up-200-percent/

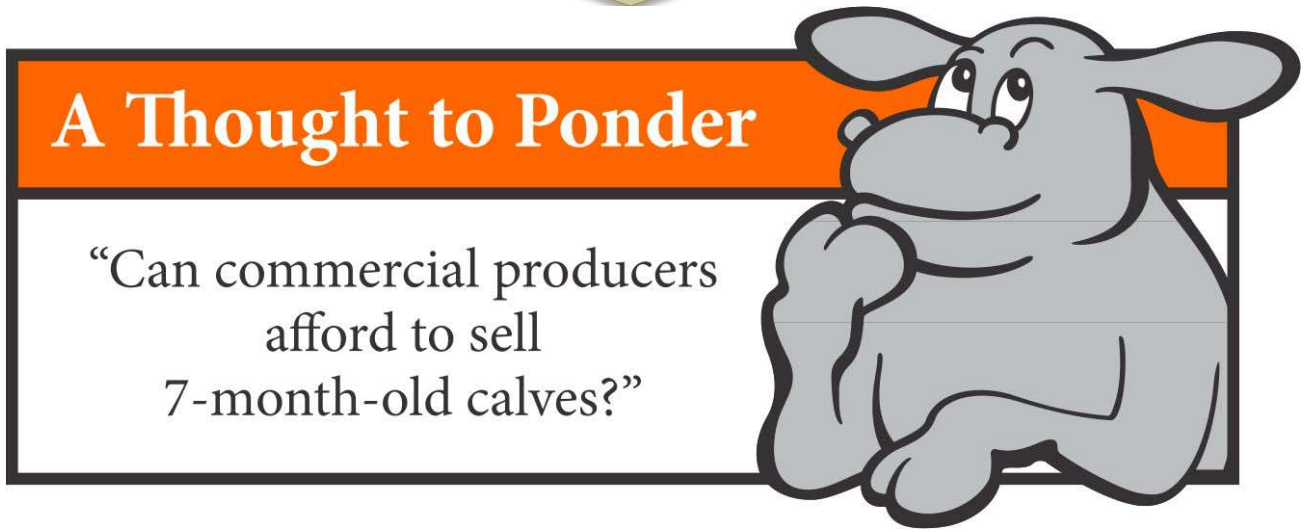
"Can Production Efficiency Offset Costs?"

BeefTalk 785

https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-cost-of-beef-production-up-200-percent/

"Pondering Growth in the Beef Business"

BeefTalk 786



https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-pondering-growth-in-the-beef-business/

"Can Commercial Producers Afford To Sell 7-month Old Calves?"

BeefTalk 787

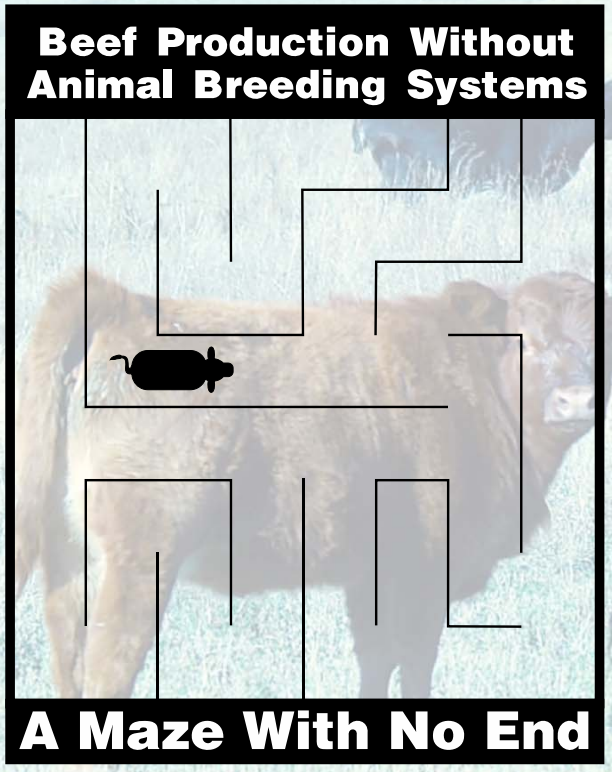
https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-can-commercial-producers-afford-to-sell-7-month-old-calves/

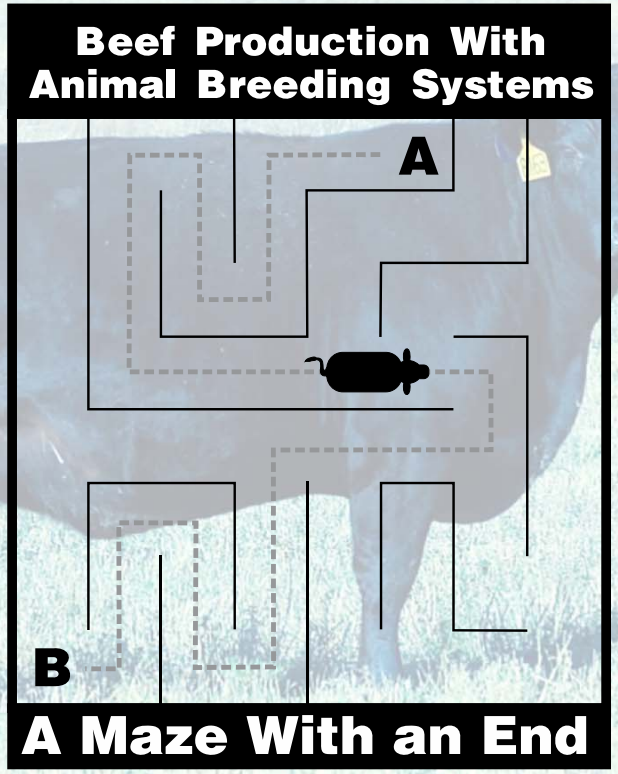
BeefTalk 809

https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-countercultural-beef-production/

A Story Of Opportunity

A System Management Plan Is Needed!





https://www.ag.ndsu.edu/news/columns/beeftalk/beeftalk-where-are-the-breeding-systems/ **BeefTalk 810**

Matching Ranch Resources

Genetics and Environment


20-Year Trend
Calving Date and Weaning Date
250
200
150
100
50
0
date or age (days)
20-Year Average Weaning Date: October 12
20-Year Average Calving Date: April 5
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
weaning year

CHAPS

What did we do? – Established 2 Herds

Conventional females

Moderate females

Animal Performance Comparison

Trait	CHAPS Benchmark	Conventional	Moderate
Average Age at Weaning	191	168	175
Average WWt	558	514	441
Lbs Weaned/Cow Exposed	495	472	394
Average Daily Gain	2.49	2.52	2.09
Birth Weight	84	89	75
Adjusted 205 Day Weight	623	639	535
Frame Score	5.6	5.0	3.7
% Pregnancy	93.1	98.2	95.5
% Calving	92.5	97.4	94.7
% Calf Death Loss	3.4	3.72	6.13
% Weaning	89.8	93.7	88.9
% Cows Calving at 42 Days	86.4	95.5	96
Cow Age	5.5	5.0	4.5
Cow Weight	1418	1437	1094
Cow Body Condition Score	5.9	5.3	5.2

Herd H38
Animal Performance

Potential Adjustment for Body Weight/Acre

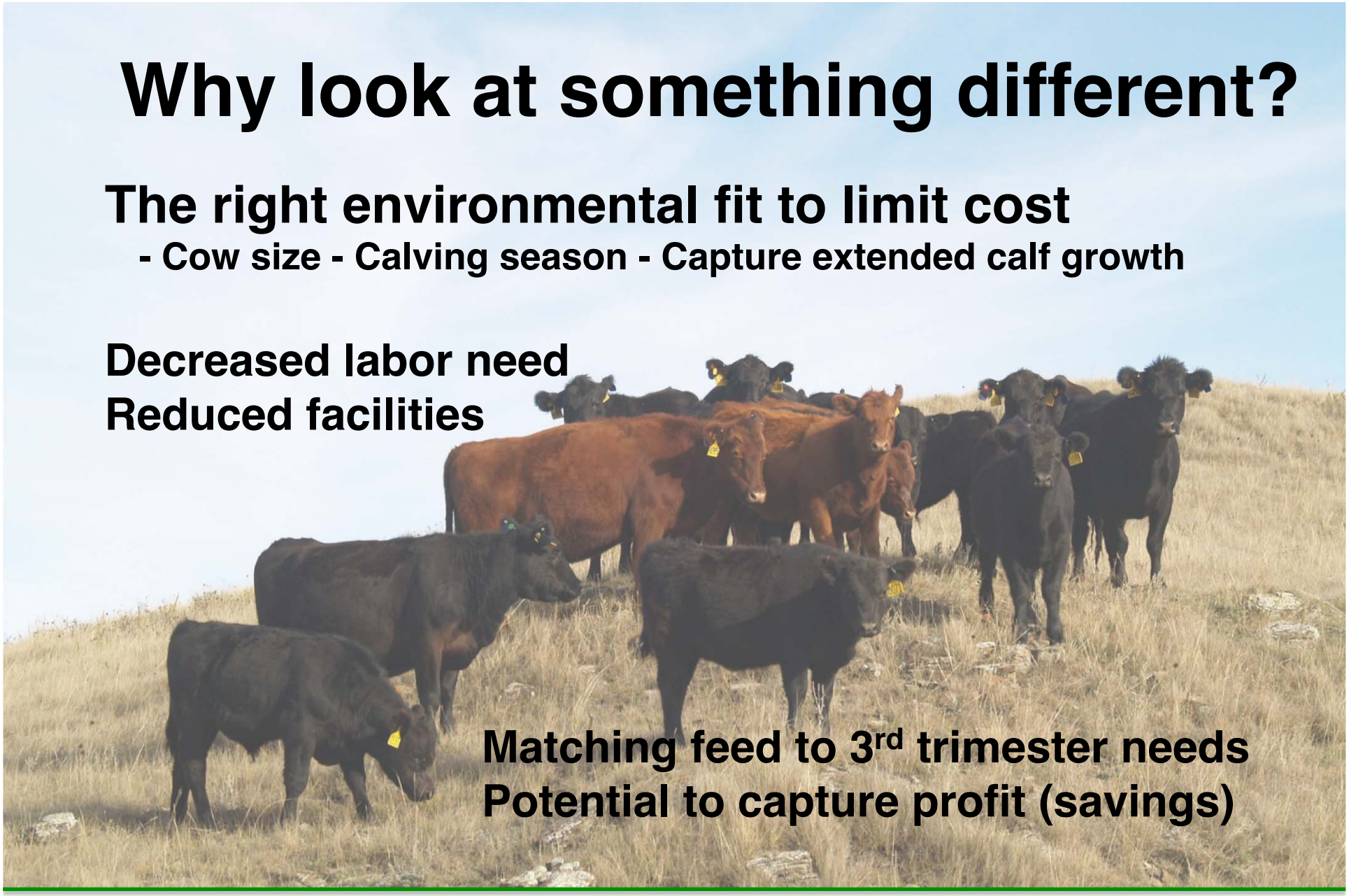
	Conventional	Moderate	Moderate Adjusted 120%	Moderate Adjusted 130%
Cow Weight	1437	1094	1313	1422
Adjusted 205 Day WT	639	535	642	696
Lbs Weaned/Cow Exposed	472	394	473	512

Why look at something different?

The right environmental fit to limit cost

- Cow size - Calving season - Capture extended calf growth

Decreased labor need
Reduced facilities



Matching feed to 3rd trimester needs
Potential to capture profit (savings)

Things That Remain Constant

Things That Remain Constant

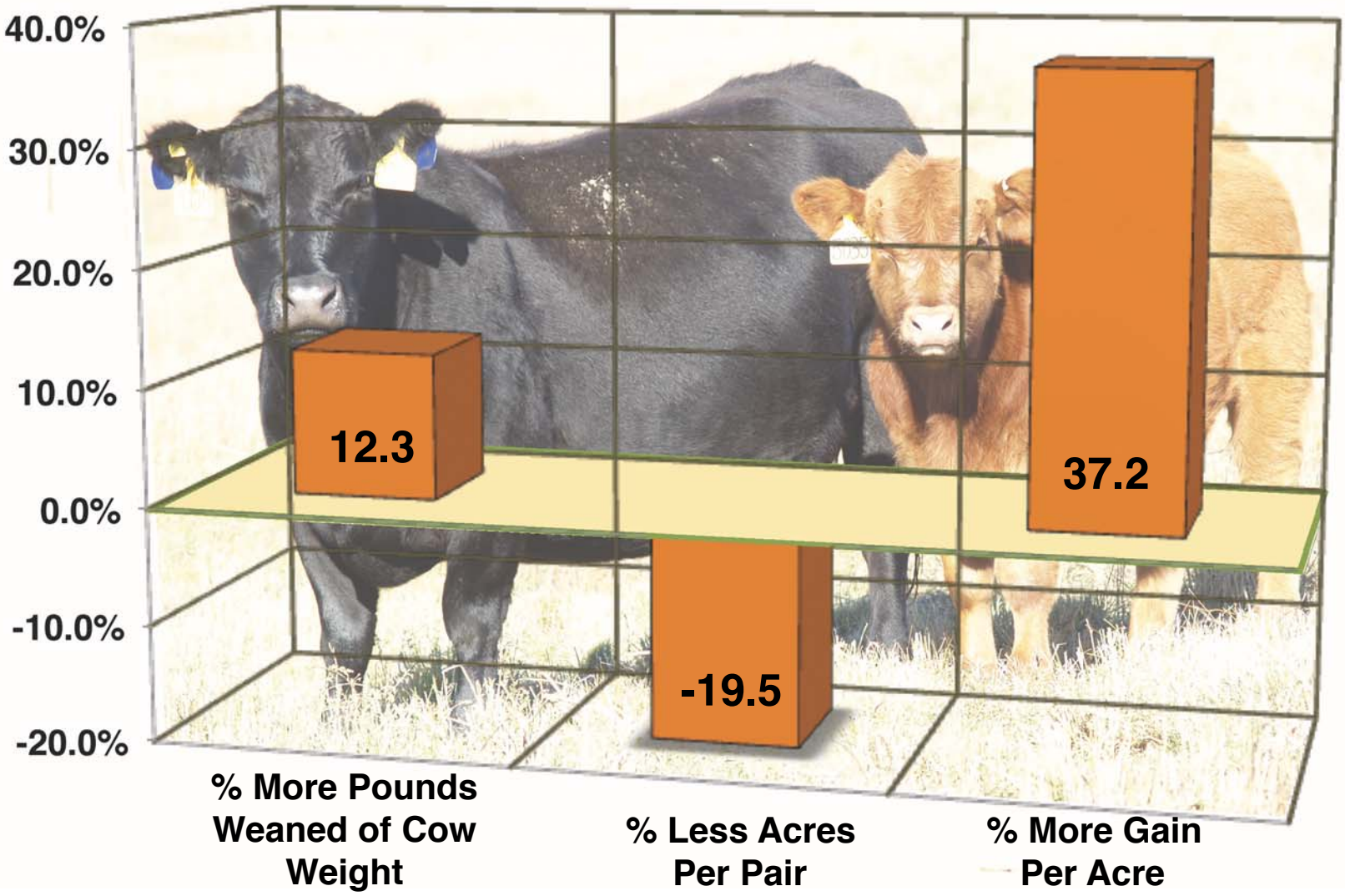
Need for calves to grow

Things That Remain Constant

Every operation needs good genetics

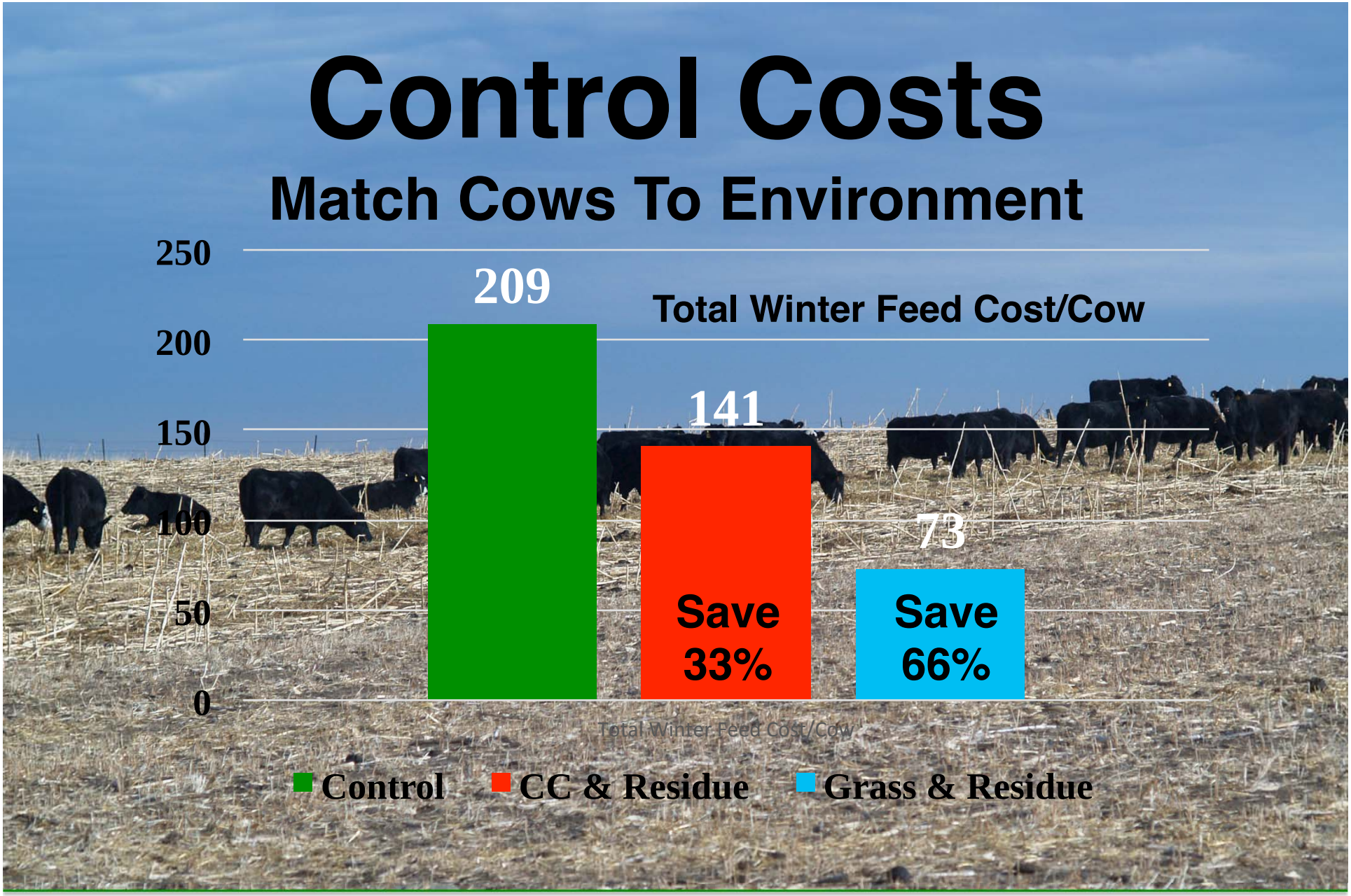
What Can We Do?

Moderate vs. Conventional Cows

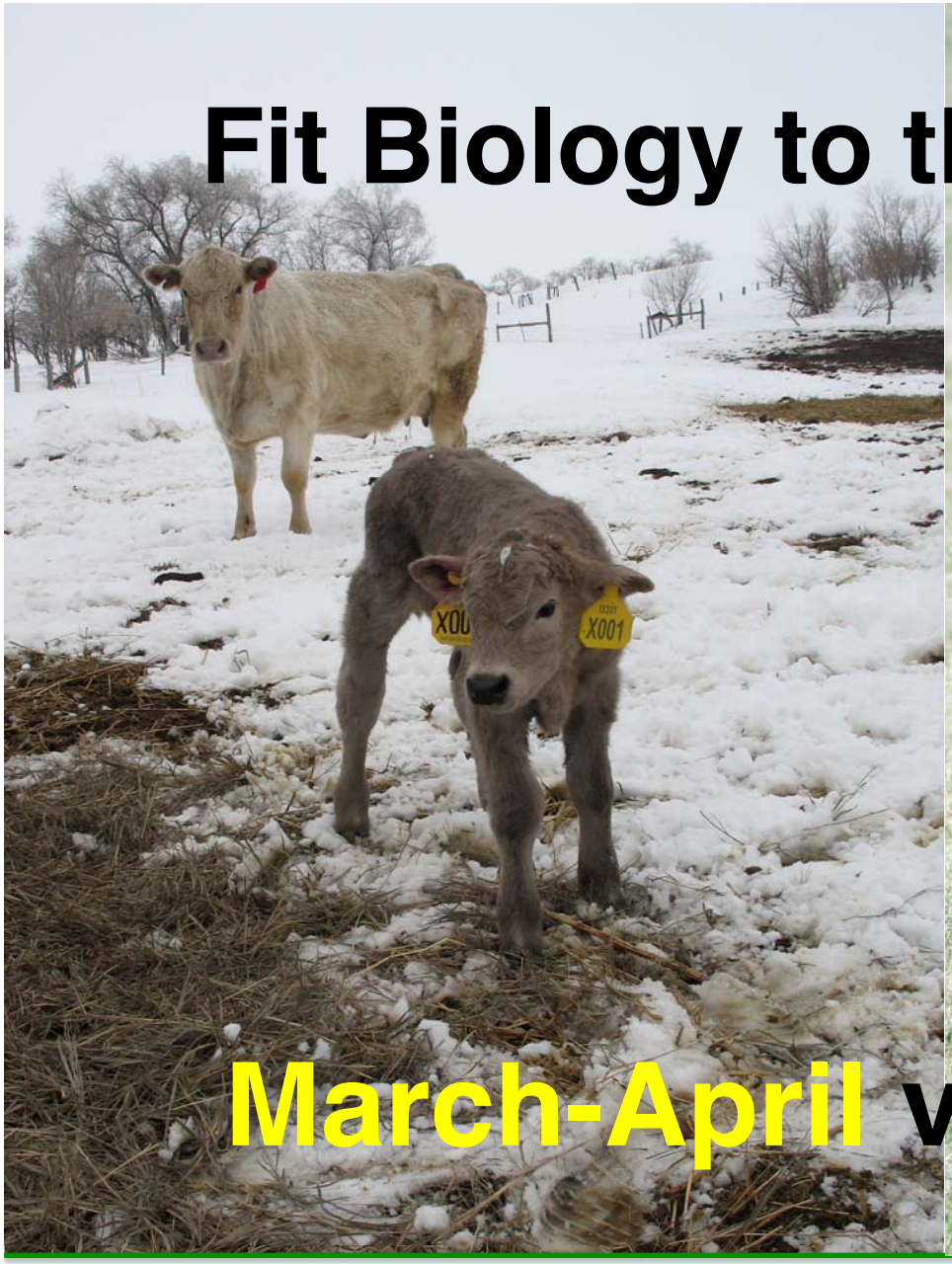


Control Costs

Match Cows To Environment



Fit Biology to the Environment



March-April vs May-June


Some days . . .
it is just a lot of work
Why do we do it to ourselves?

Herd H38 Management

Matching Calving Seasons

	Mar-Apr	May-June
Bull Turnout	1-Jun	1-Aug
Official Start of Calving*	15-Mar	7-May
Average Calving Date	29-Mar	25-May
Start of Third Trimester	12-Dec	12-Feb

* = Average date when 3rd cow in herd calves

March-April vs. May-June Calving
Animal Performance Comparison

Trait	Mar-Apr 2009-2011	May-June 2012-2014
Average Age at Weaning	205	168
Average Weaning Weight	598	514
Average Daily Gain	2.51	2.52
Birth Weight	86	89
Adjusted 205 Day Weight	640	639
Frame Score	5	5
% Cows Calving in 42 Days	95.2	95.2
Cow Weight	1307	1437
Cow Condition	5.6	5.3
% Pregnancy	98.96	98.23
% Calf Death loss	6.5	3.72
% Cows Weaning Calves	91.96	93.66

Herd H38
Reproductive Efficiency

Critical Success Factors		
	Mar-Apr 2009-2011	May-June 2012-2014
% Calf Death loss	6.50	3.72

42.7%

Decrease in Calf Death Loss
Changing to May-June Calving

What did we learn?

Work With Mother Nature . . .

Now, what do we do?

. . . fit the right genetics


Control costs
Manage nutrition
to the environment
Increase efficiency
Manage genomics
within breeding systems


5003

Understand Genetics

- ✓ Make good use of crossbreeding
- ✓ Set goals and select bulls

Crossbreeding opportunities
$100 per cow/year to bottom line

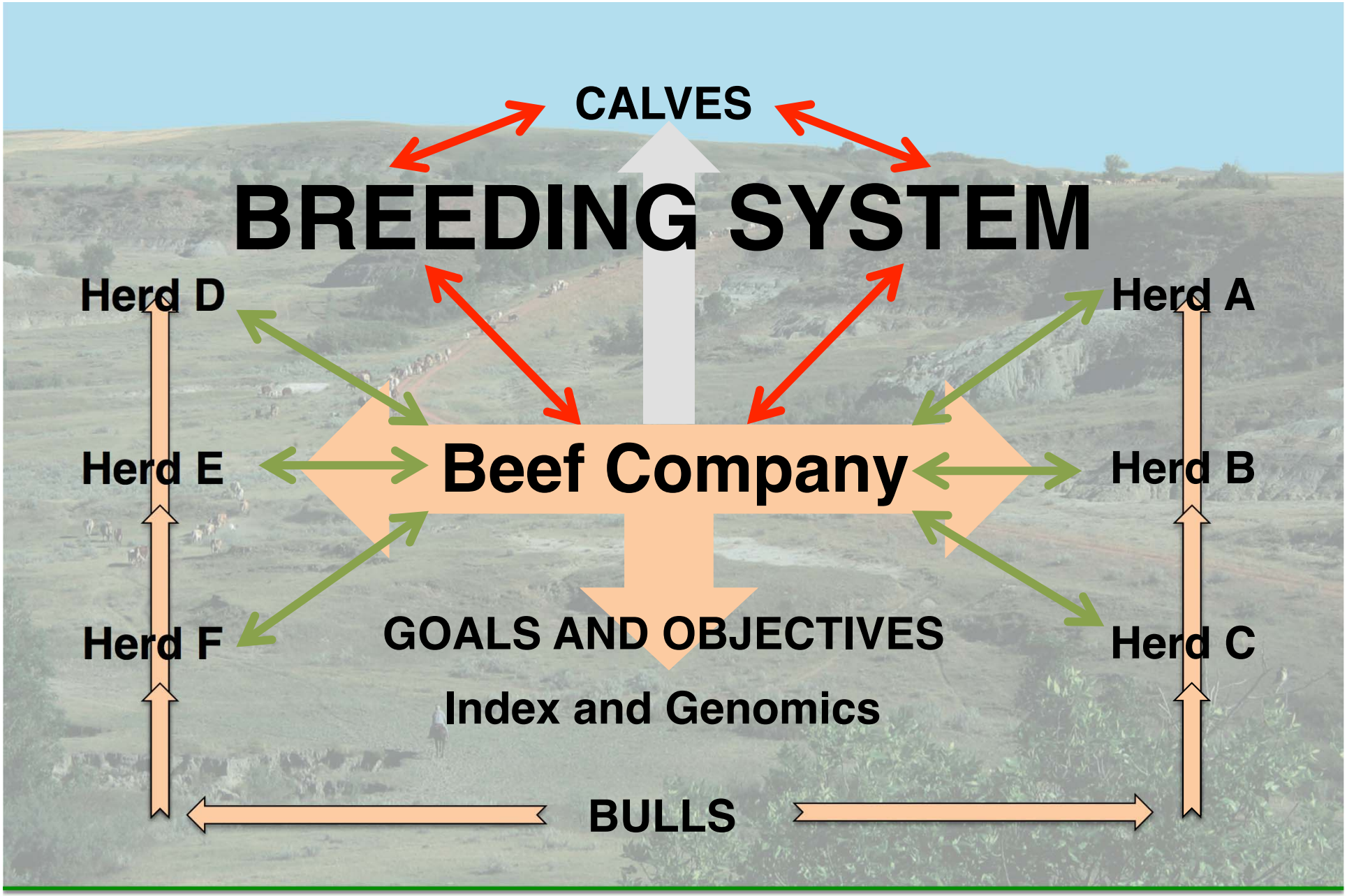
- ✓ More weaning weight (23% more pounds/ cow exposed)
- ✓ Better BCS and rebreeding
- ✓ Three years longer production on average
- ✓ Net of 50% more calves over lifetime

Source: Leachman Cattle of Colorado

Implement a Breeding System

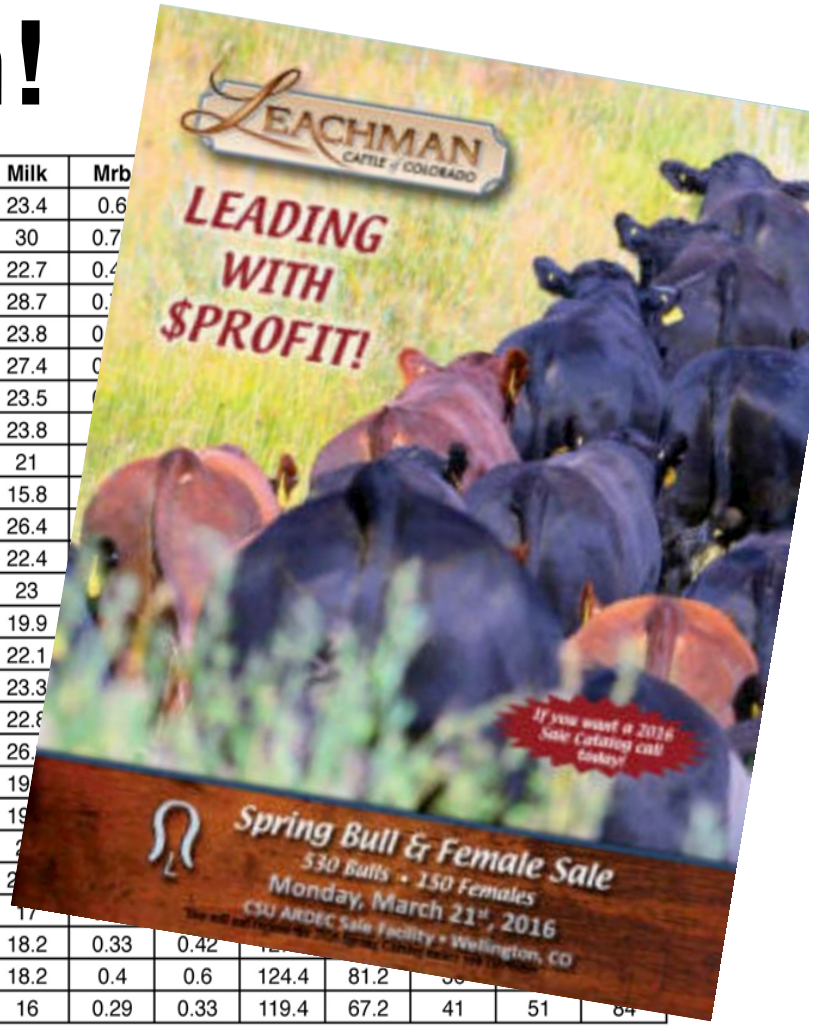
- ✓ Maintain heterosis
- ✓ Select bulls based on appropriate EPDs

SOURCE: http://www.thebullvine.com/genetic-evaluation-system/will-genetic-evaluations-go-private/


CALVES
BREEDING SYSTEM
Herd D
Herd A
Herd E
Beef Company
Herd B
Herd F
GOALS AND OBJECTIVES
Herd C
Index and Genomics
BULLS

It Takes A System!

Reg No	Tatt	Name	Dob	Breeds	Brth	Wean	Year	Milk	Mrb
3012588	3184C	3184C	1/5/15	3/8 SM 1/4 AN 5/32 CS 1/8 AR	-5.7	52.5	78.8	23.4	0.6
3012551	3123C	3123C	2/27/15	1/2 SM 1/4 AN 1/4 AR	-3.3	63.6	99.6	30	0.7
3012562	3138C	3138C	1/1/15	3/8 SM 7/32 AN 7/32 AR 5/32 CS	-4.9	52.4	77.3	22.7	0.4
2963592	L044C	L044C	3/8/15	5/8 SM 3/8 AN	-3.8	53.4	81.3	28.7	0.
3012473	3023C	3023C	1/7/15	1/4 SM 5/8 AR 1/8 CS	-4.7	56.3	87.6	23.8	0
3012530	3094C	3094C	1/3/15	/4 SM 13/32 AR 3/16 CS 5/32 AN	-5.9	38	56.9	27.4	0
3012474	3024C	3024C	1/7/15	3/8 SM 3/8 AR 1/8 AN 1/8 GV	-4.1	63.9	94.1	23.5	
3012615	776C	776C	1/29/15	1/2 SM 5/16 AN 3/16 AR	-1.6	75.4	112.7	23.8	
3012486	3042C	3042C	1/18/15	3/8 SM 7/32 AN 3/16 AR 5/32 CS	-3.3	64.1	94.3	21	
3012380	2005C	2005C	1/24/15	1/4 SM 3/8 AR 1/4 CS 1/8 AN	-1.7	72.8	105.4	15.8	
3012520	3084C	3084C	1/12/15	/4 SM 13/32 AR 5/16 CS 1/32 AN	-4.6	54.2	79.5	26.4	
3012306	116C	116C	2/12/15	3/8 SM 1/2 AN 1/8 CS	-2.8	63.9	102.9	22.4	
3012241	010C	010C	1/23/15	1/4 SM 1/2 AR 1/4 CS	-4.4	54.6	79.9	23	
3012393	5085	5085	1/20/15	1/4 SM 5/16 AN 5/16 AR 1/8 CS	-2	77.8	117.5	19.9	
3012385	2011C	2011C	3/11/15	1/4 SM 1/4 AN 1/4 CS 1/8 AR	-1.1	68.9	101.8	22.1	
3012297	105C	105C	1/28/15	1/4 SM 1/2 AR 1/4 CS	-2.2	70.6	106.7	23.3	
3012469	3016C	3016C	1/9/15	1/4 SM 19/32 AR 5/32 CS	-4	61.3	100.2	22.8	
3012547	3118C	3118C	1/13/15	/4 SM 13/32 AR 9/32 CS 1/16 AN	-2.2	57.9	83.5	26.	
3012356	1115C	1115C	1/16/15	1/4 SM 1/2 AR 1/8 AN 1/8 CS	-3.7	58.9	81.4	19	
3012324	165C	165C	1/15/15	1/4 SM 1/4 AN 1/4 AR 1/4 CS	-1.5	65.9	101.4	19	
3012650	968C	968C	1/22/15	1/4 SM 9/16 AR 3/16 CS	-2.5	74.7	116.3		
3012382	2008C	2008C	1/16/15	1/4 SM 1/2 AR 1/4 CS	-1.8	74.6	107.4		
3012311	123C	123C	1/15/15	1/4 SM 3/8 AR 3/16 AN 3/16 CS	-0.7	72	108	17	
3012340	187C	187C	1/20/15	1/4 SM 7/16 AR 3/16 AN 1/8 CS	-2.7	55.7	82.9	18.2	0.33
3012613	748C	748C	2/17/15	1/4 SM 9/16 AR 3/16 CS	-0.8	79.8	118.3	18.2	0.4
3012334	178C	178C	1/21/15	1/4 SM 7/16 AR 3/16 AN 1/8 CS	-1.1	61.8	89.1	16	0.29



530 Bulls, 497 are Stabilizer Bulls • 150 Females

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BULL SELECTION WORKSHEET

BREED	STABILIZER								SORTED BY		
Reg. No.	Sire Name	BW	WW	YW	Milk	Marb	REA	$R	$F	$P	
2963592	MRPL/LCOC WINSTON L044C	-3.8	53	81	29	0.78	0.82	62	110	156	
3012551	3123C	-3.3	64	100	30	0.79	0.76	48	118	148	
3012385	2011C	-1.1	69	102	22	0.59	0.81	53	101	139	
3012562	3138C	-4.9	52	77	23	0.48	0.60	65		138	
3012615	776C	-1.6	75	113	24	0.66	0.84	50	103	134	
3012520	3084C	-4.6	54	80	26	0.36	0.66	54	89	129	
3012588	3184C	-5.7	53	79	23	0.60	0.75	47	91	124	
3012393	REMPE STABILIZER 5085	-2.0	78	118	20	0.50	0.54	48	87	122	
3012613	748C	-0.8	80	118	18	0.40	0.60		97	119	
3012380	2005C	-1.7	73	105	16	0.69	0.51		89	118	
	Avg	**-3.0**	**65**	**97**	**23**	**0.59**	**0.69**	**51**	**97**	**133**	
Percentile Scores For Actual EPD											
Breed 10%											
Breed 30%											
Breed 50%		**0.6**	**61**	**93**	**22**	**0.34**	**0.61**				
Breed 70%											
Current As of 3-15-2016 -- https://www.herdbook.org/simmapp/action/pages.PagesAction/eventSubmit_displayPage/T/pageId/13/											

OWNER: **DATE:**

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BULL SELECTION WORKSHEET

BREED	STABILIZER							SORTED BY			
Reg. No.	Sire Name	BW	WW	YW	Milk	Marb	REA	$R	$F	$P	
3012551	3123C	-3.3	64	100	30	0.79	0.76	48	118	148	
2963592	MRPL/LCOC WINSTON L044C	-3.8	53	81	29	0.78	0.82	62	110	156	
3012615	776C	-1.6	75	113	24	0.66	0.84	50	103	134	
3012385	2011C	-1.1	69	102	22	0.59	0.81	53	101	139	
3012613	748C	-0.8	80	118	18	0.40	0.60	36	97		
3012588	3184C	-5.7	53	79	23	0.60	0.75	47	91	124	
3012486	3042C	-3.3	64	94	21	0.31	0.98		91		
3012380	2005C	-1.7	73	105	16	0.69	0.51		89	118	
3012520	3084C	-4.6	54	80	26	0.36	0.66	54	89	129	
3012393	REMPE STABILIZER 5085	-2.0	78	118	20	0.50	0.54	48	87	122	
	Avg	**-2.8**	**66**	**99**	**23**	**0.57**	**0.73**	**47**	**98**	**130**	
Percentile Scores For Actual EPD											
Breed 10%											
Breed 30%											
Breed 50%		**0.6**	**61**	**93**	**22**	**0.34**	**0.61**				
Breed 70%											
Current As of 3-15-2016 -- https://www.herdbook.org/simmapp/action/pages.PagesAction/eventSubmit_displayPage/T/pageId/13/											

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BULL SELECTION WORKSHEET

BREED	STABILIZER						SORTED BY				
Reg. No.	**Sire Name**	**BW**	**WW**	**YW**	**Milk**	**Marb**	**REA**	**$R**	**$F**	**$P**	
3012562	3138C	-4.9	52	77	23	0.48	0.60	65		138	
2963592	MRPL/LCOC WINSTON L044C	-3.8	53	81	29	0.78	0.82	62	110	156	
3012520	3084C	-4.6	54	80	26	0.36	0.66	54	89	129	
3012530	3094C	-5.9	38	57	27	0.48	0.22	53	72	114	
3012385	2011C	-1.1	69	102	22	0.59	0.81	53	101	139	
3012615	776C	-1.6	75	113	24	0.66	0.84	50	103	134	
3012551	3123C	-3.3	64	100	30	0.79	0.76	48	118	148	
3012393	REMPE STABILIZER 5085	-2.0	78	118	20	0.50	0.54	48	87	122	
3012588	3184C	-5.7	53	79	23	0.60	0.75	47	91	124	
3012473	3023C	-4.7	56	88	24	0.61	0.39	47		112	
	Avg	**-3.8**	**59**	**89**	**25**	**0.59**	**0.64**	**53**	**93**	**132**	
Percentile Scores For Actual EPD											
Breed 10%											
Breed 30%											
Breed 50%		**0.6**	**61**	**93**	**22**	**0.34**	**0.61**				
Breed 70%											
Current As of 3-15-2016 -- https://www.herdbook.org/simmapp/action/pages.PagesAction/eventSubmit_displayPage/T/pageId/13/											

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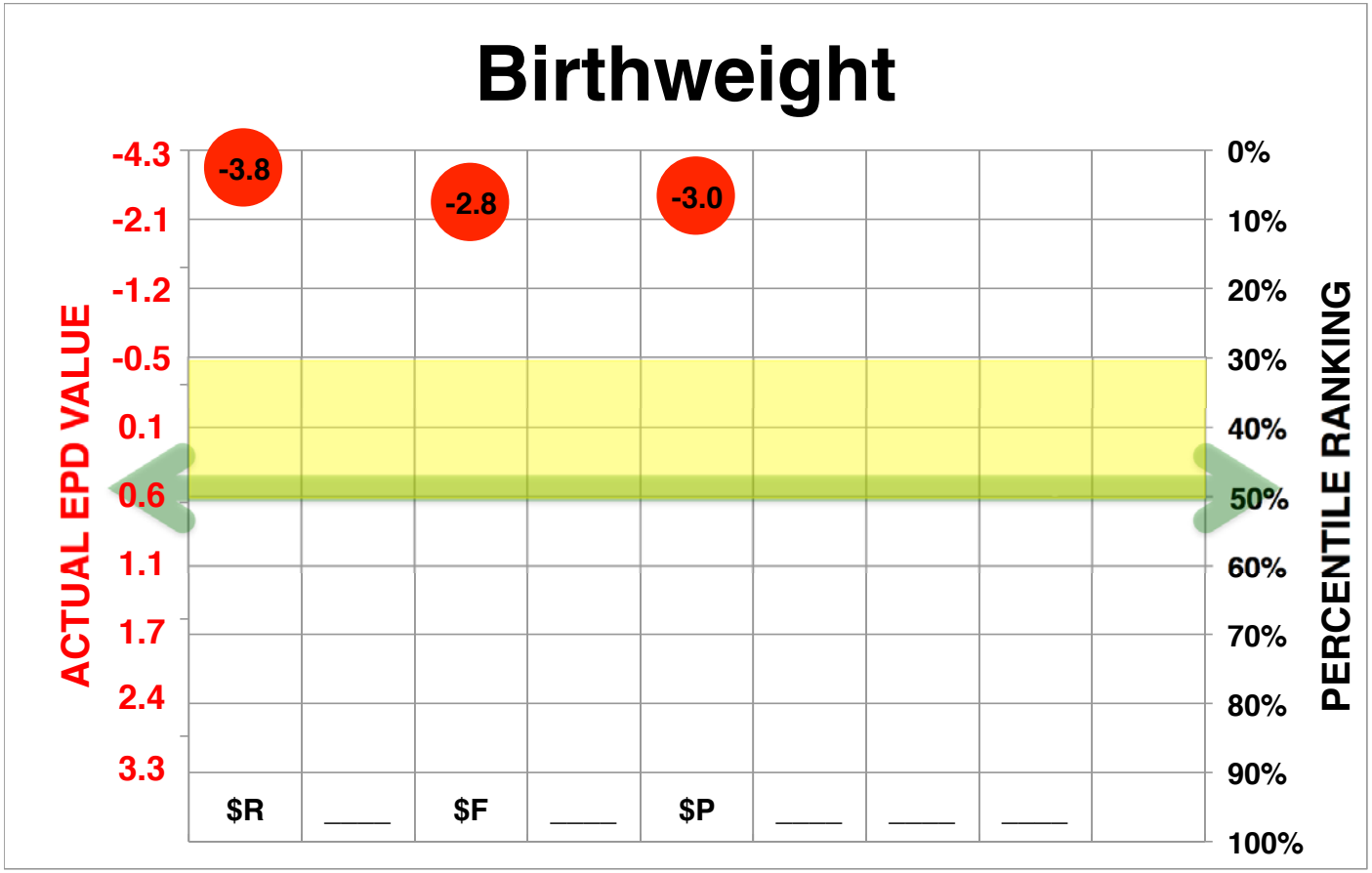
STABILIZER BULL EVALUATION FORM



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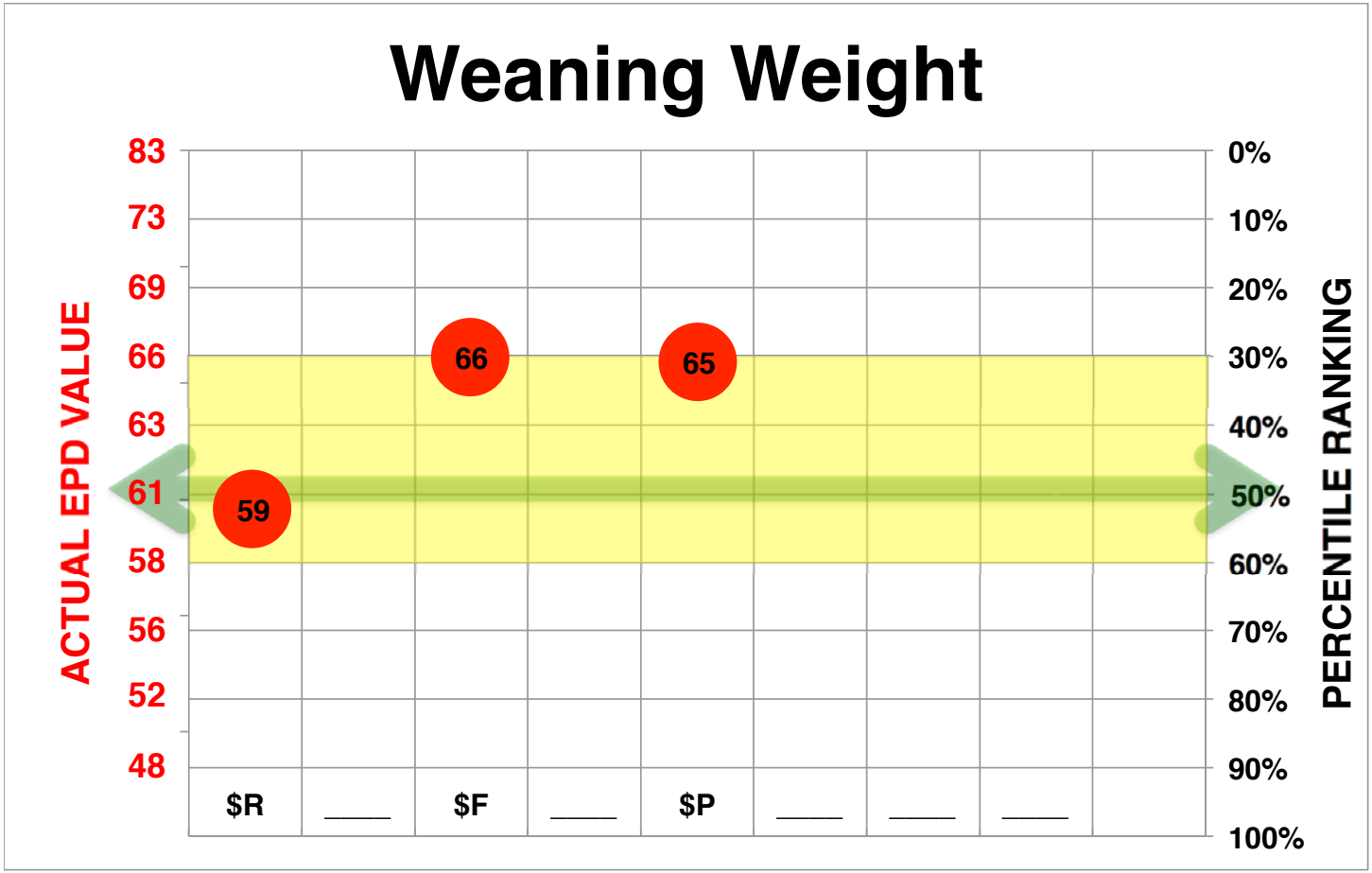

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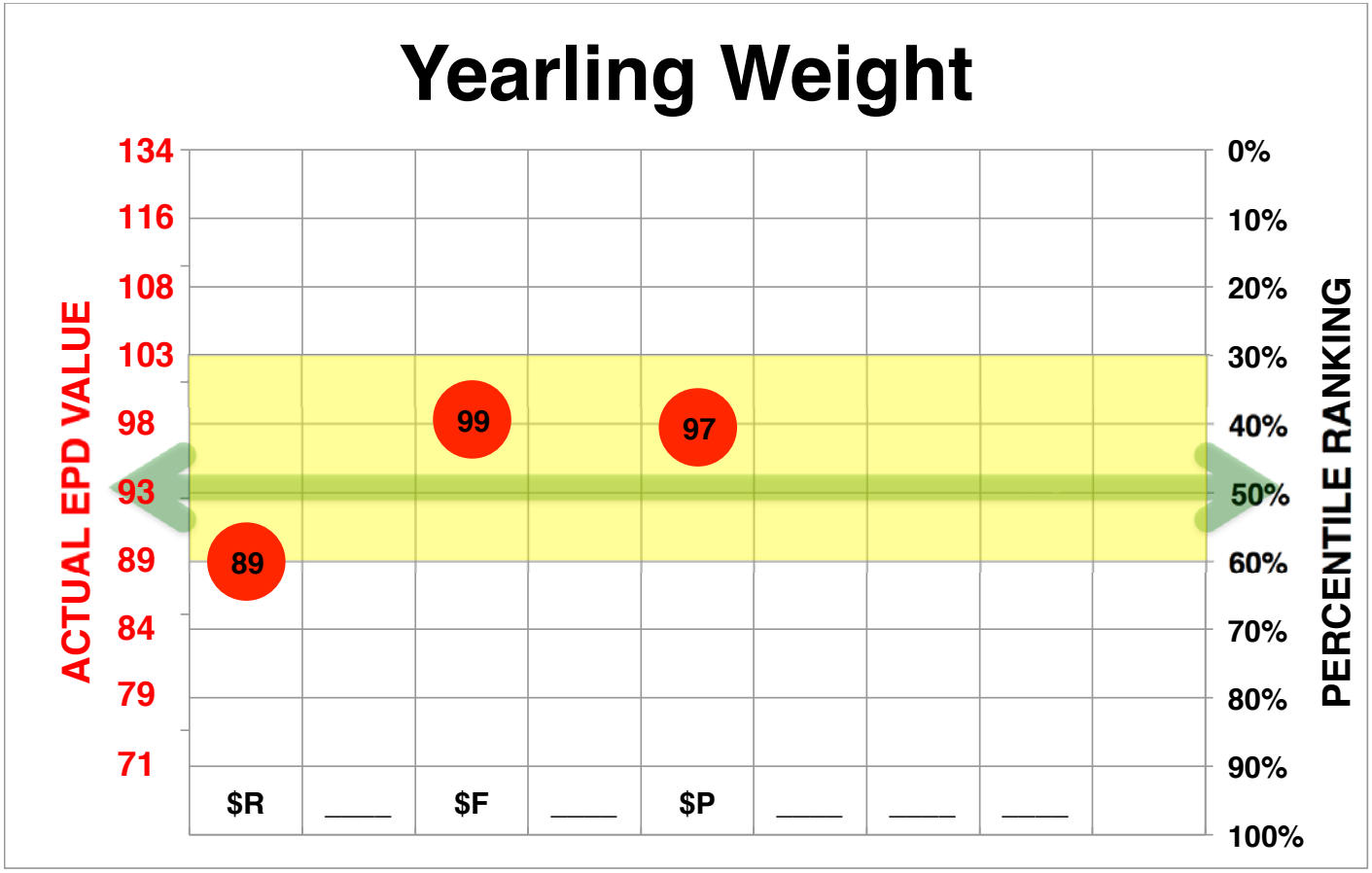

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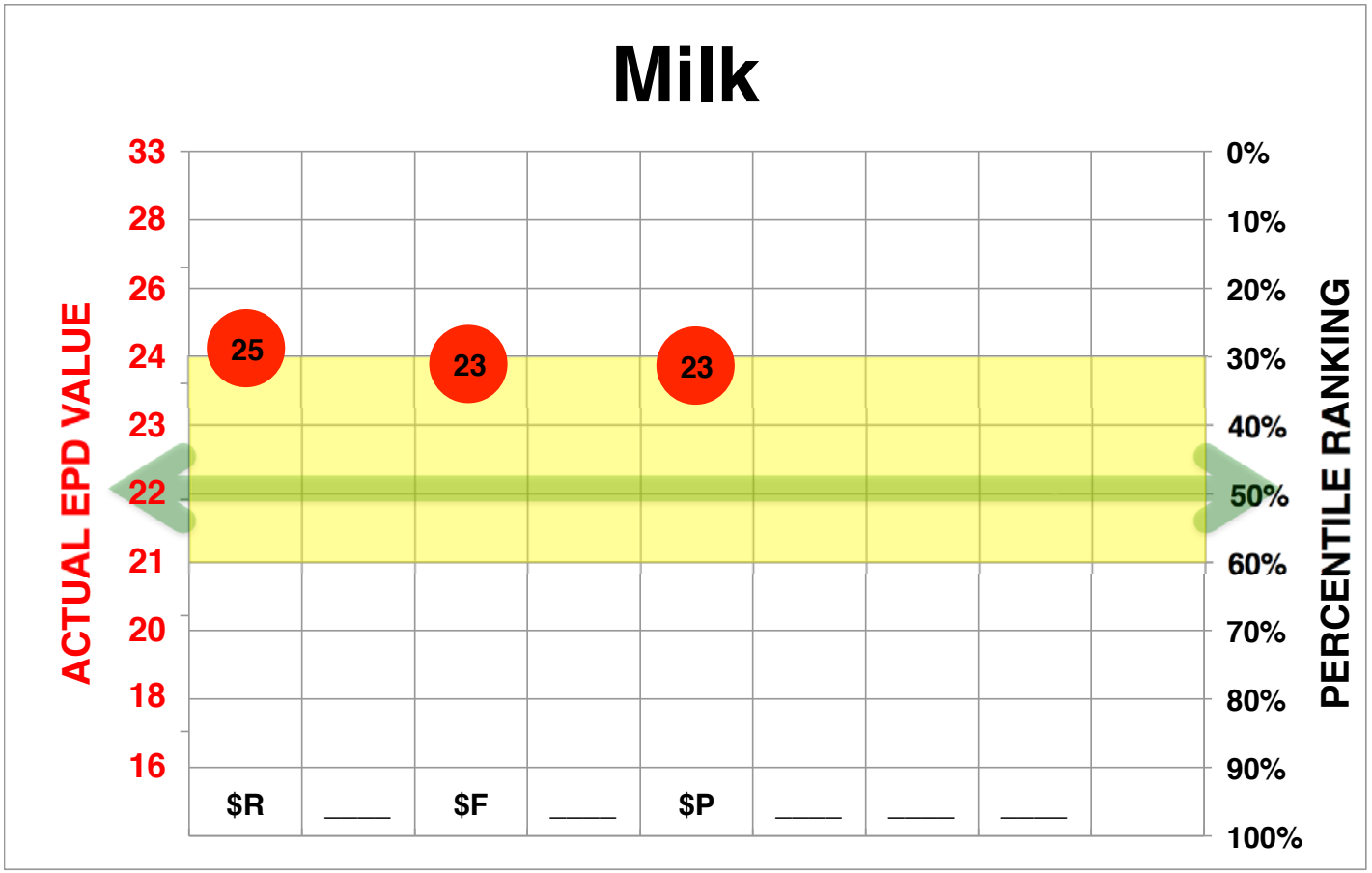

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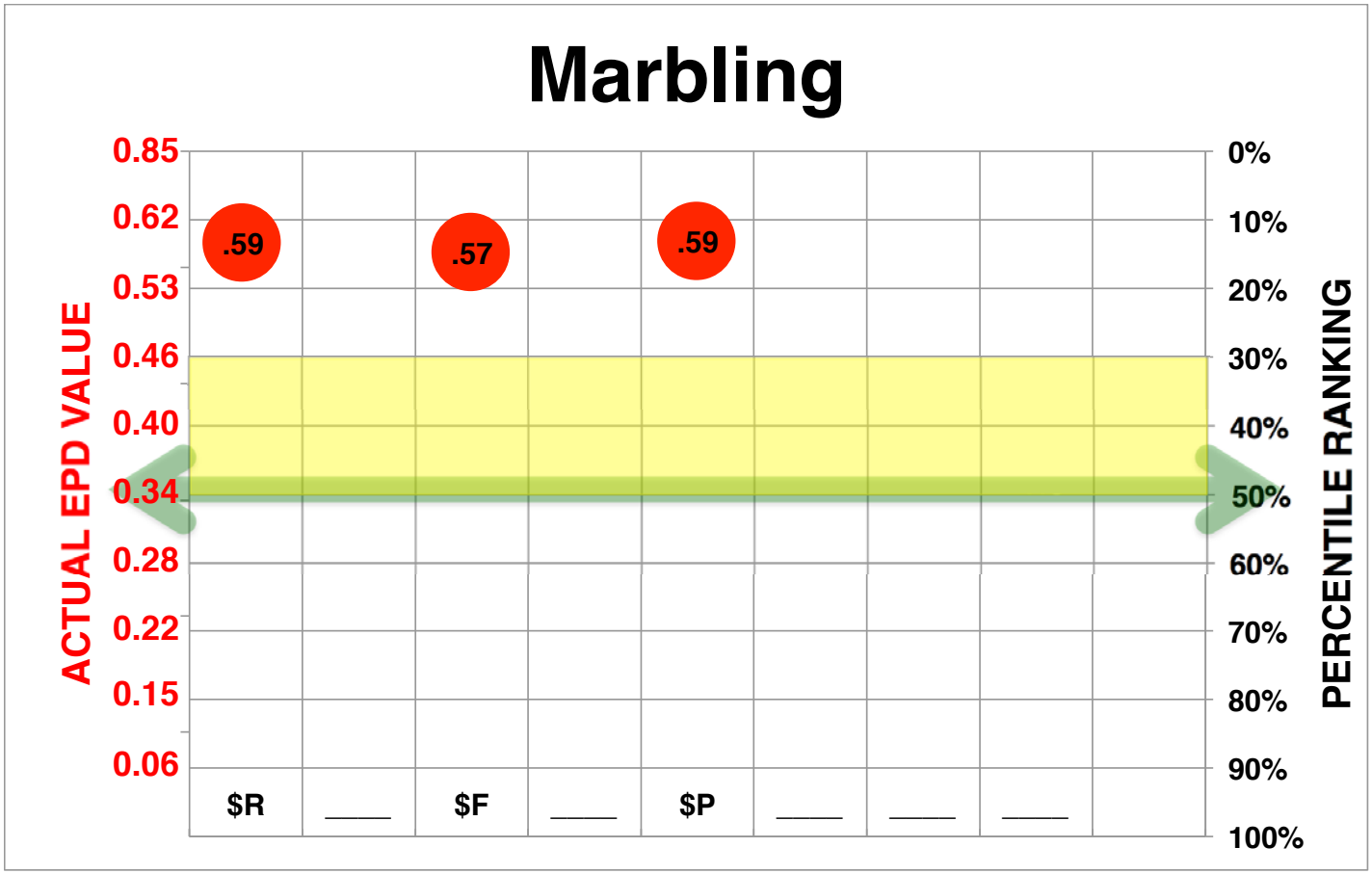

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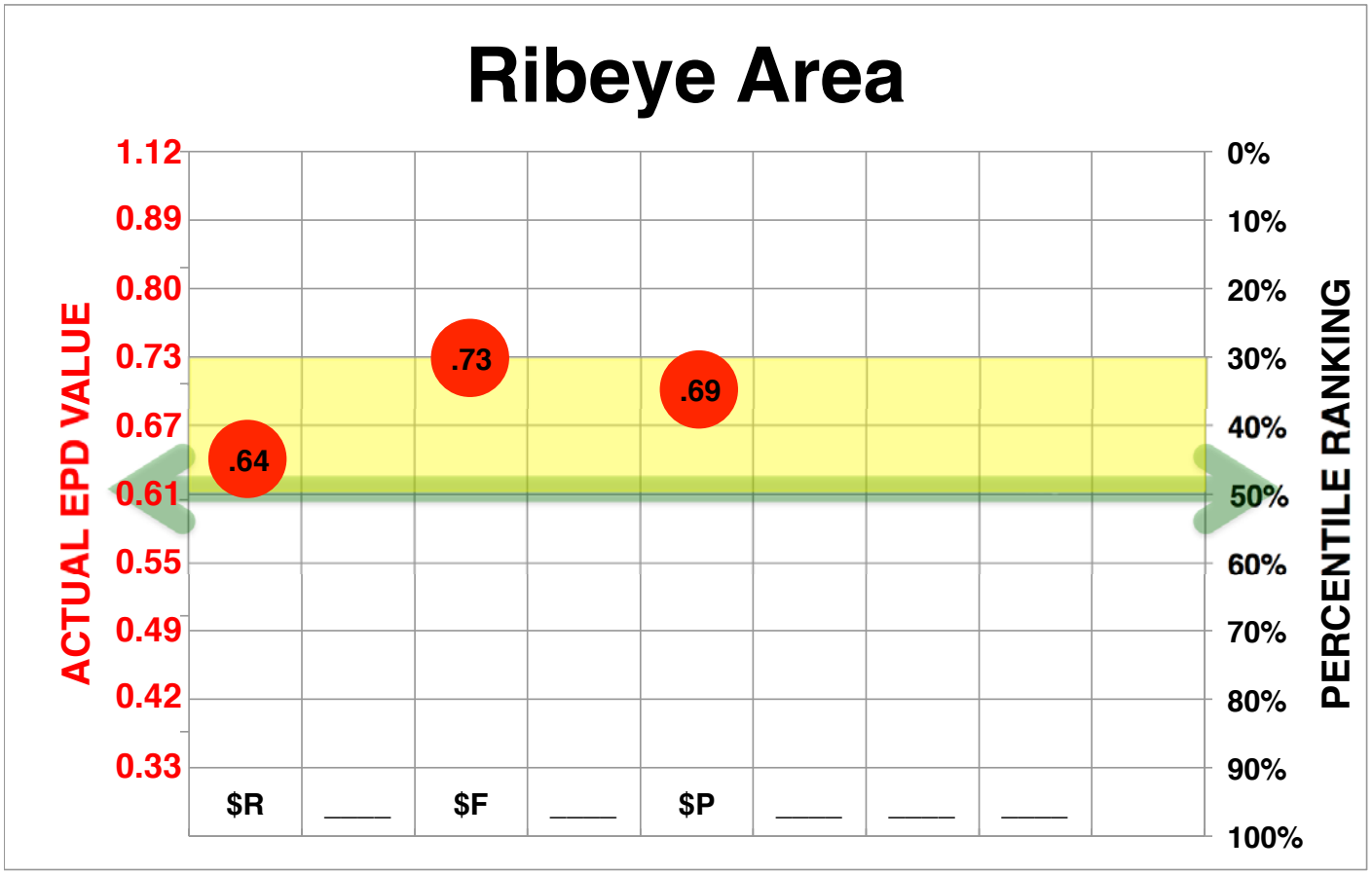

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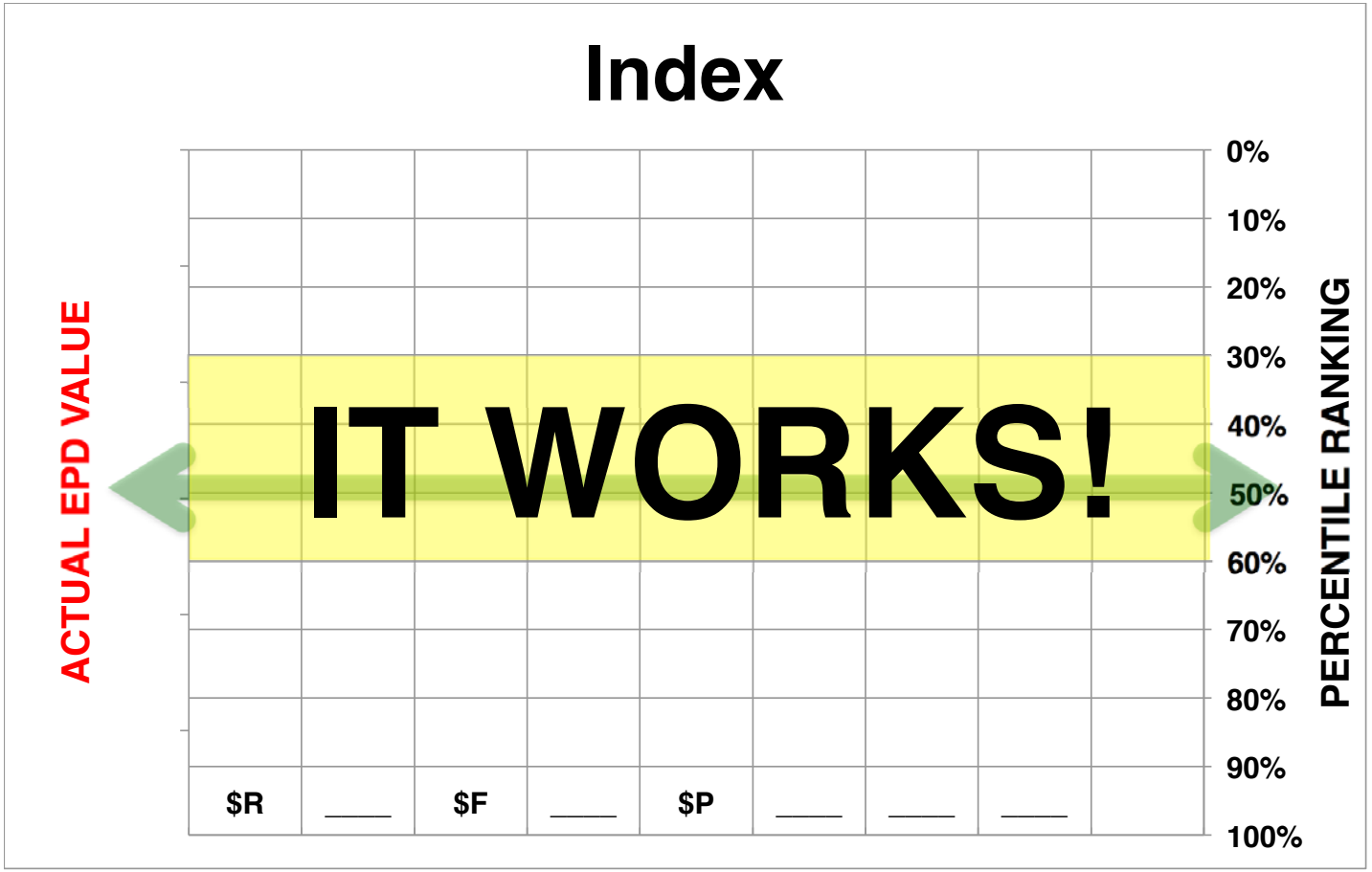


OWNER: **DATE:**


$P
Buy Bull
Breed Cow
Birth Calf
Wean Calf
Grow Calf
Finish Calf
Harvest Calf

What if . . .

- Early May
  Crested Wheatgrass
  (39 Days)

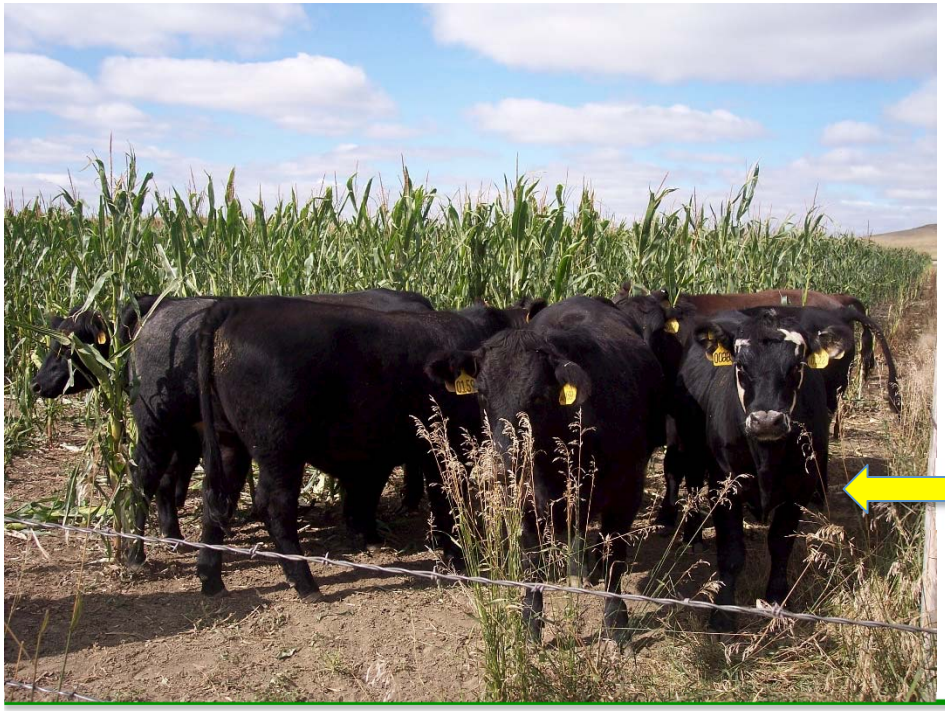
- Mid-June
  Native Range
  (61 Days)

Grazing Sequence (Annual Forage)

•• Mid-August (27 Days)

Pea-barley

Protein bridge



Mid-September

Unharvested corn

(55-77 Days)

Graze to Slaughter Forage Sequence








1,264 pound steer

Sell Half The Cows

Market the Same Amount of Beef

Marketing Options

Traditional steers:
sell in November at 609 pounds

Nontraditional steers:
sell long yearlings at 1,264 pounds

That's What It's All About!

Come and See for Yourself!


There Are Opportunities In The Beef Business!
THANK YOU FOR YOUR ATTENTION
701-483-1100
kris.ringwall@ndsu.edu
www.ag.ndsu.edu/DickinsonREC