

# NDSU

DICKINSON  
RESEARCH EXTENSION CENTER

## A Discussion On When To Calve!



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**Douglas Landblom, Animal Scientist**  
**Dickinson Research Extension Center**





# March-April vs May-June

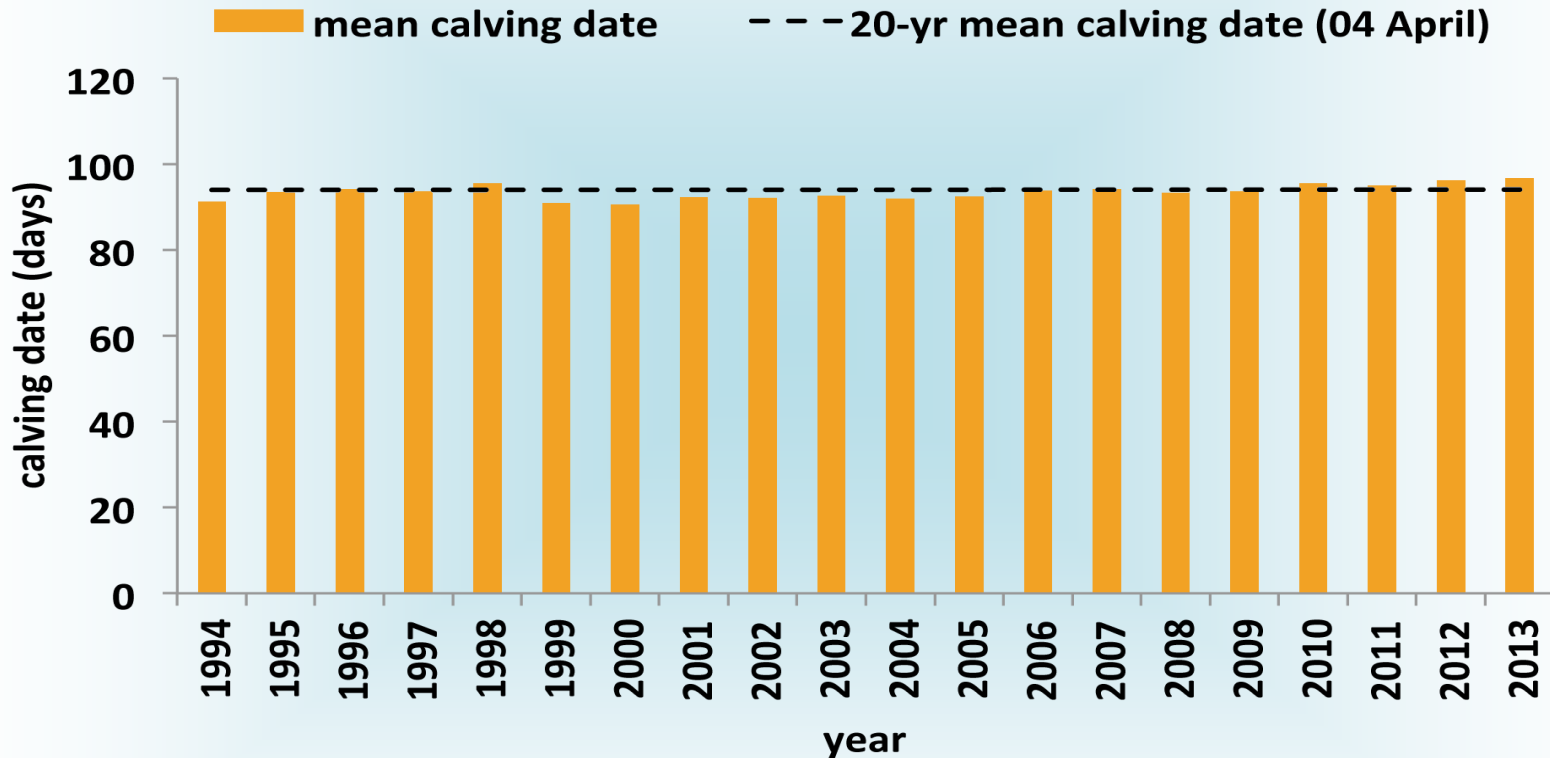
# We Know What Has Worked



# 20-year Average Calving Date



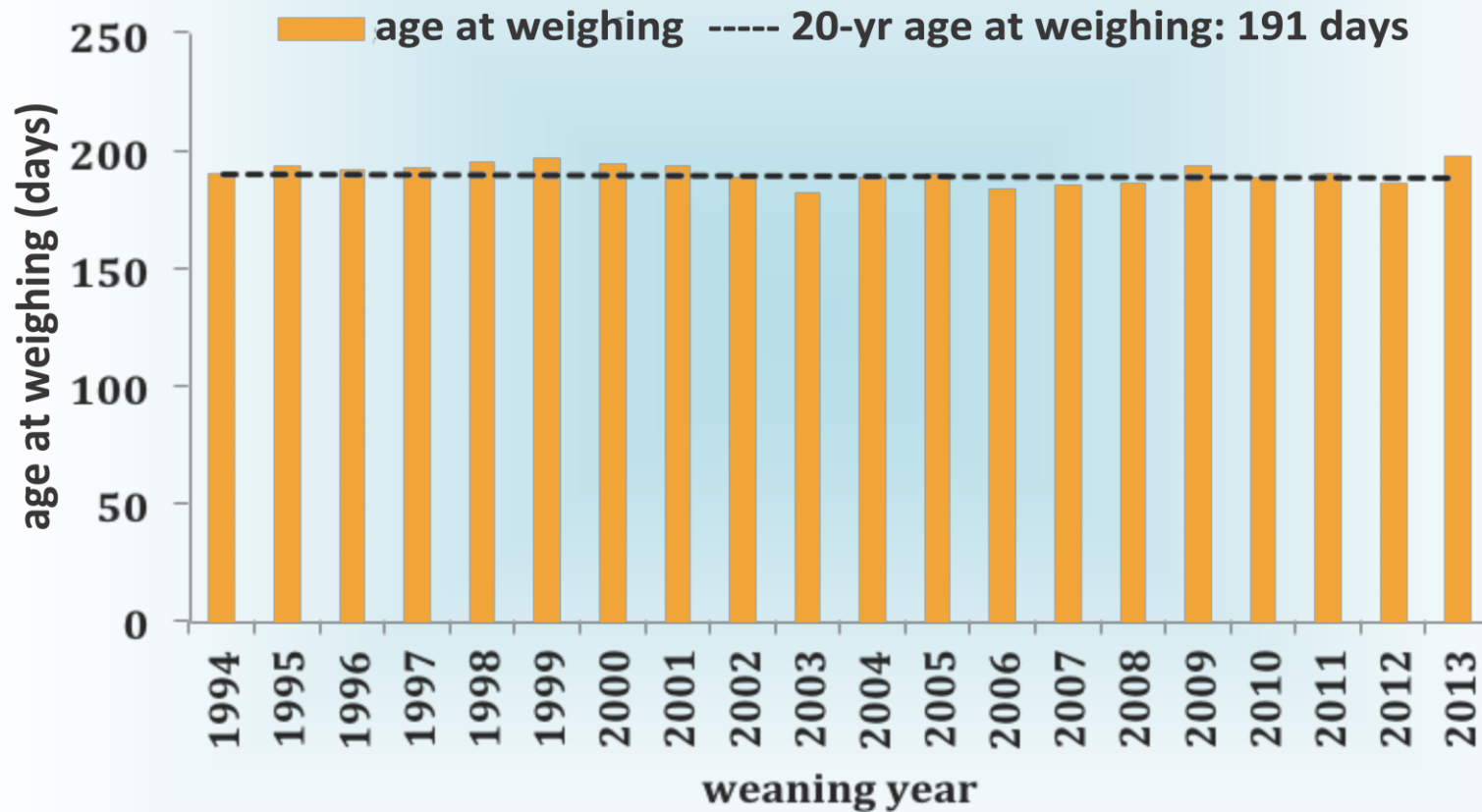
CHAPS20Y: mean calving date over time (years)



# 20-year Average Weigh Age



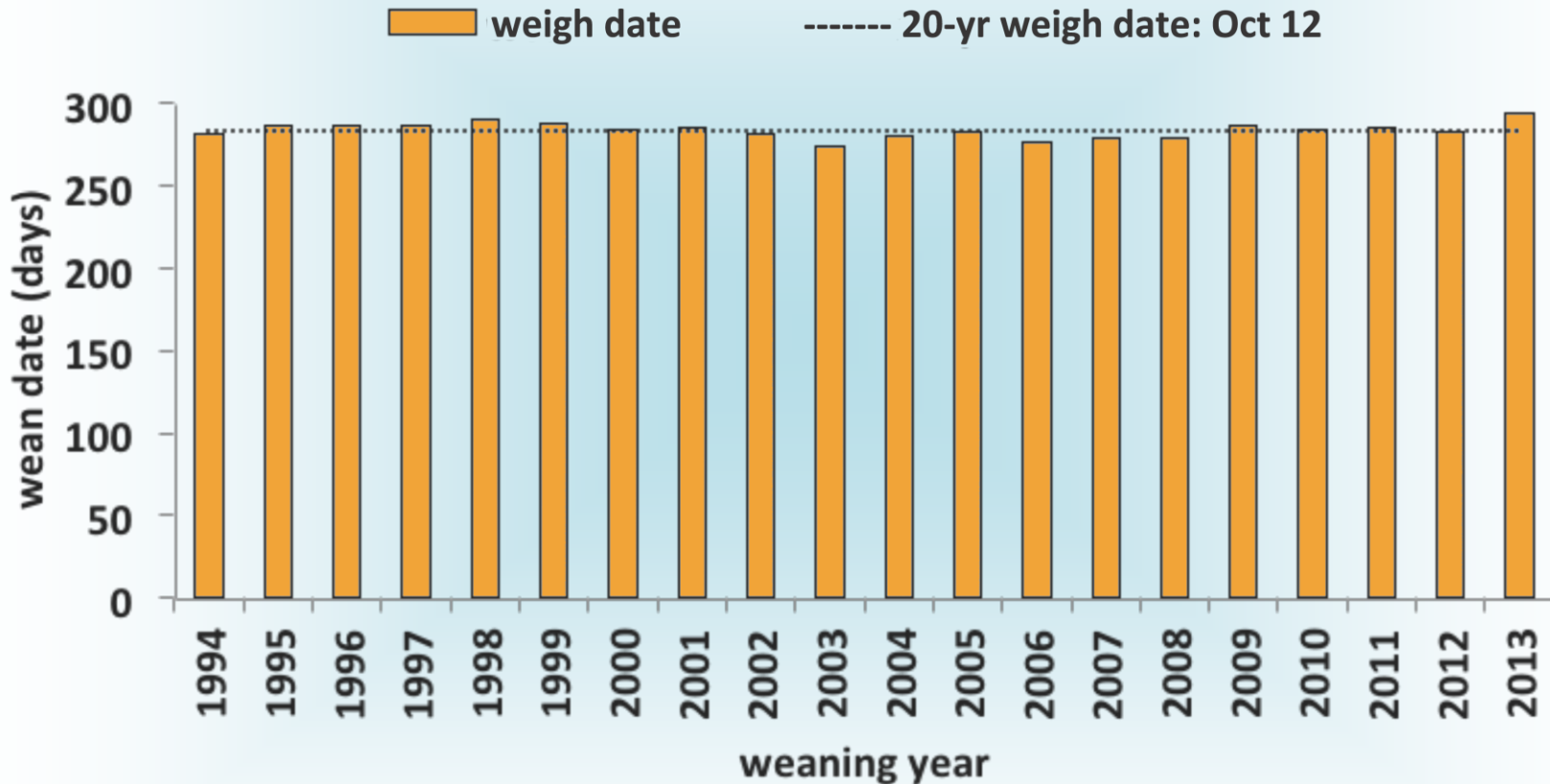
CHAPS20Y: mean age at weighing over time with 20-yr trends



# 20-year Average Weigh Date



CHAPS20Y: mean weigh date over time with 20-yr trends





# Benchmarks



## Animal Performance

<a href="http://www.chaps2000.com/benchmarks.htm">www.chaps2000.com/benchmarks.htm</a> as of March 29, 2015	
Average Age at Weaning	191
Steers WWT	571
Heifers WWT	542
Bulls WWT	595
Average WWt	558
Lbs Weaned/Cow Exposed	495



# Benchmarks



## Animal Performance

<a href="http://www.chaps2000.com/benchmarks.htm">www.chaps2000.com/benchmarks.htm</a> as of March 29, 2015	
Average Daily Gain	2.49
Weight Per Day of Age	2.95
Birth Weight	84
Adjusted 205 Day Weight	623
Frame Score	5.6





# Benchmarks



## Reproductive Efficiency

[www.chaps2000.com/benchmarks.htm](http://www.chaps2000.com/benchmarks.htm) as of March 29, 2015

% Pregnancy	93.1
% Pregnancy Loss	0.65
% Calving	92.5
% Calf Death Loss	3.4
% Weaning	89.8
% Replacement Rate	15.7



## Benchmarks



# Reproductive Efficiency

[www.chaps2000.com/benchmarks.htm](http://www.chaps2000.com/benchmarks.htm) as of March 29, 2015

% Cows Calving at 42 Days

86.4

Cow Age

5.5

Cow Weight

1418

Cow Body Condition Score

5.9

# This Is Beef Production!



- Keep calves healthy
- Work the cows
- Wean the calves
- Fit cattle to nutritional needs

# We Know What Has Worked

The Northern Plains nutritional curve fits  
March-April calving

- Access to Crested Wheatgrass
- Cows milk well
- March-April calves can utilize grass
- Sell hefty, healthy, heavy calves

**This is not a discussion about cow size.**

# So What?

**Attitudes!**

**Traditional goals of beef managers are  
changing.**

**Nontraditional focus changes the paradigm.**

# Why look at something different?

May-June calving presents opportunities

- ❖ Decreased labor need
- ❖ Reduced facilities
- ❖ Matching feed to 3<sup>rd</sup> trimester needs
- ❖ Potential to capture profit

# Things That Remain Constant

A photograph of two cows in a field of tall, dry grass. The cow in the foreground is black with a yellow ear tag that says '818'. The cow in the background is black and white. The field is filled with tall, dry grass and some green plants. The background shows a fence and rolling hills under a bright sky.

Nutritional requirements of cows

# Things That Remain Constant



**Need for calves to grow**



# Things That Remain Constant



**Every operation needs good genetics**

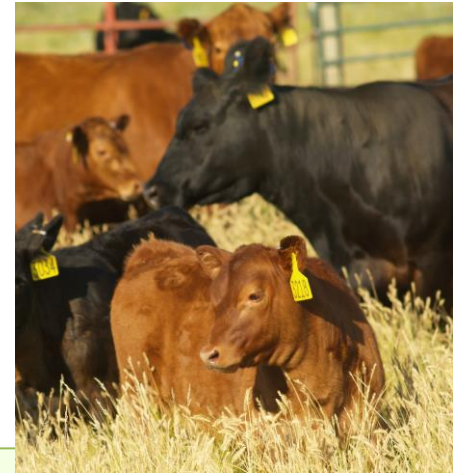
# Dickinson Research Extension Center Ranch Headquarters, Manning, ND



**March-April Calving Data**  
**May-June Calving Data**

**2009-2011**  
**2012-2014**

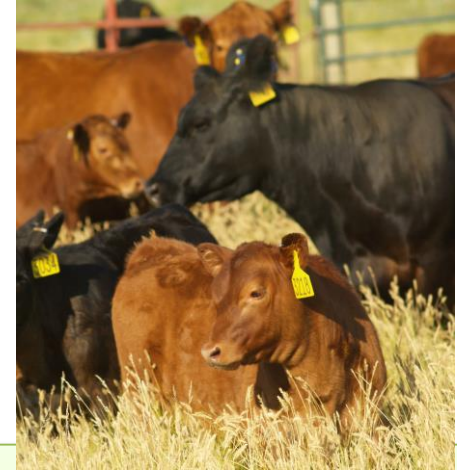
# Herd H38 Management



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

\* = Average date when 3<sup>rd</sup> cow in herd calves

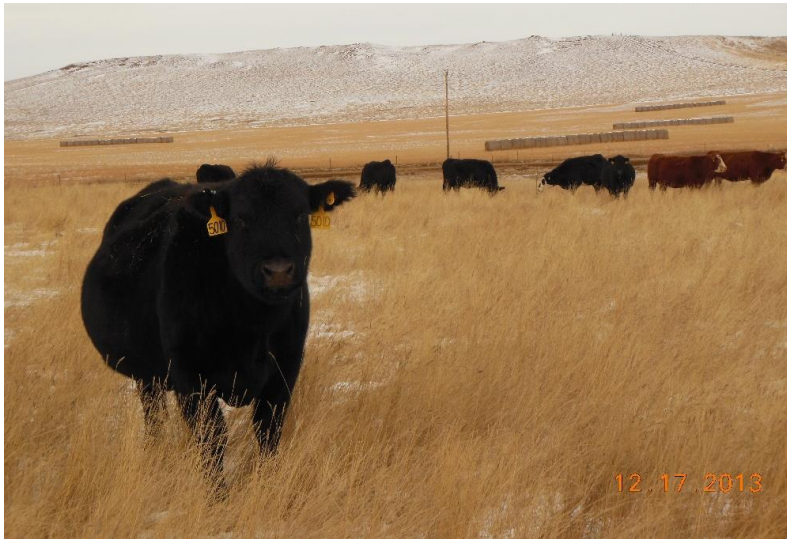
# Average Calving Date Statistics



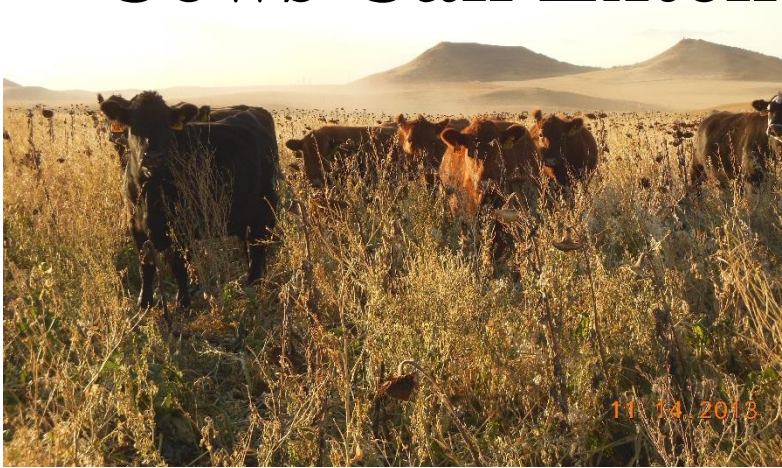
CHAPS (20 year average)	April 4
Herd 38 (DREC, March-April Calving)	March 29
Herd 38 (DREC, May-June Calving)	May 25

# Cows Can Extend the Grazing Season

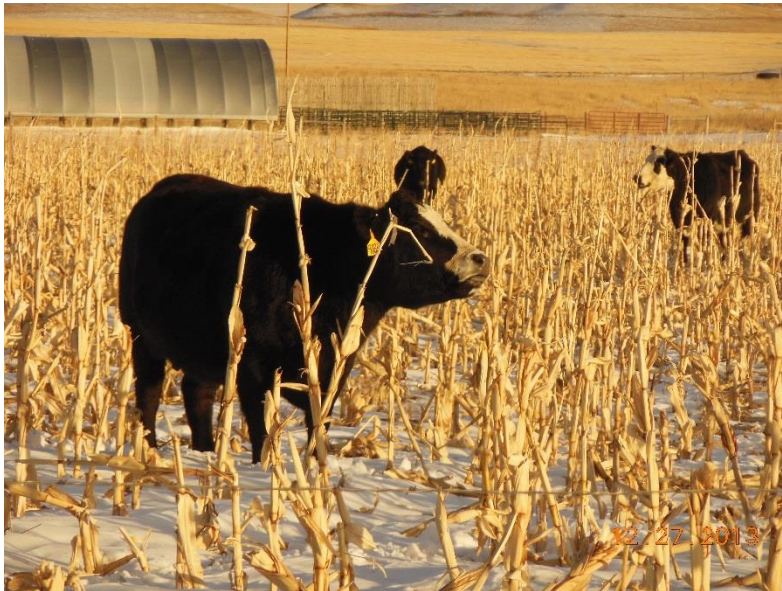
Grazing stockpiled mixed pastures of brome grass and crested wheatgrass followed by corn stalk residue



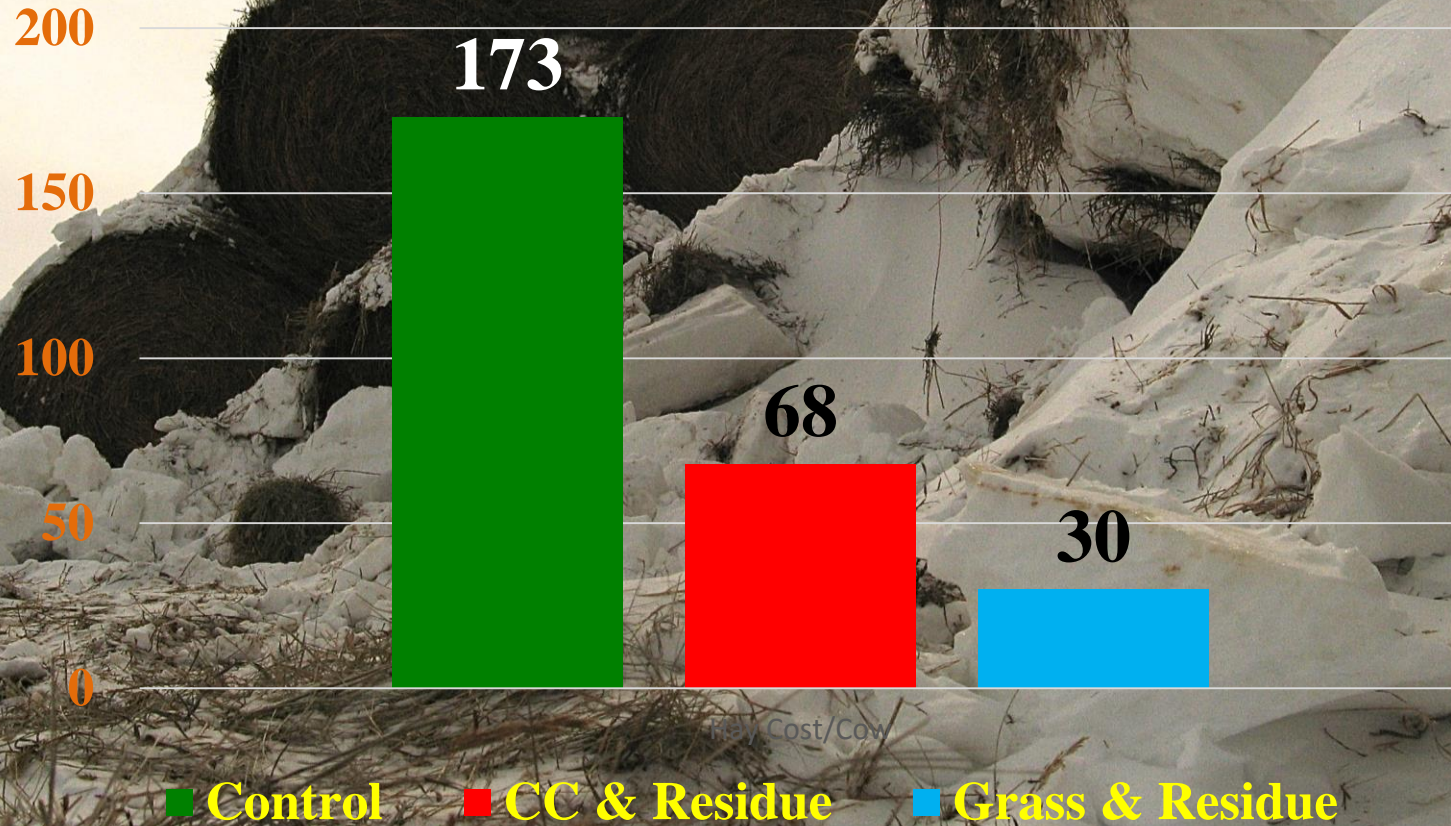
# Cows Can Extend the Grazing Season



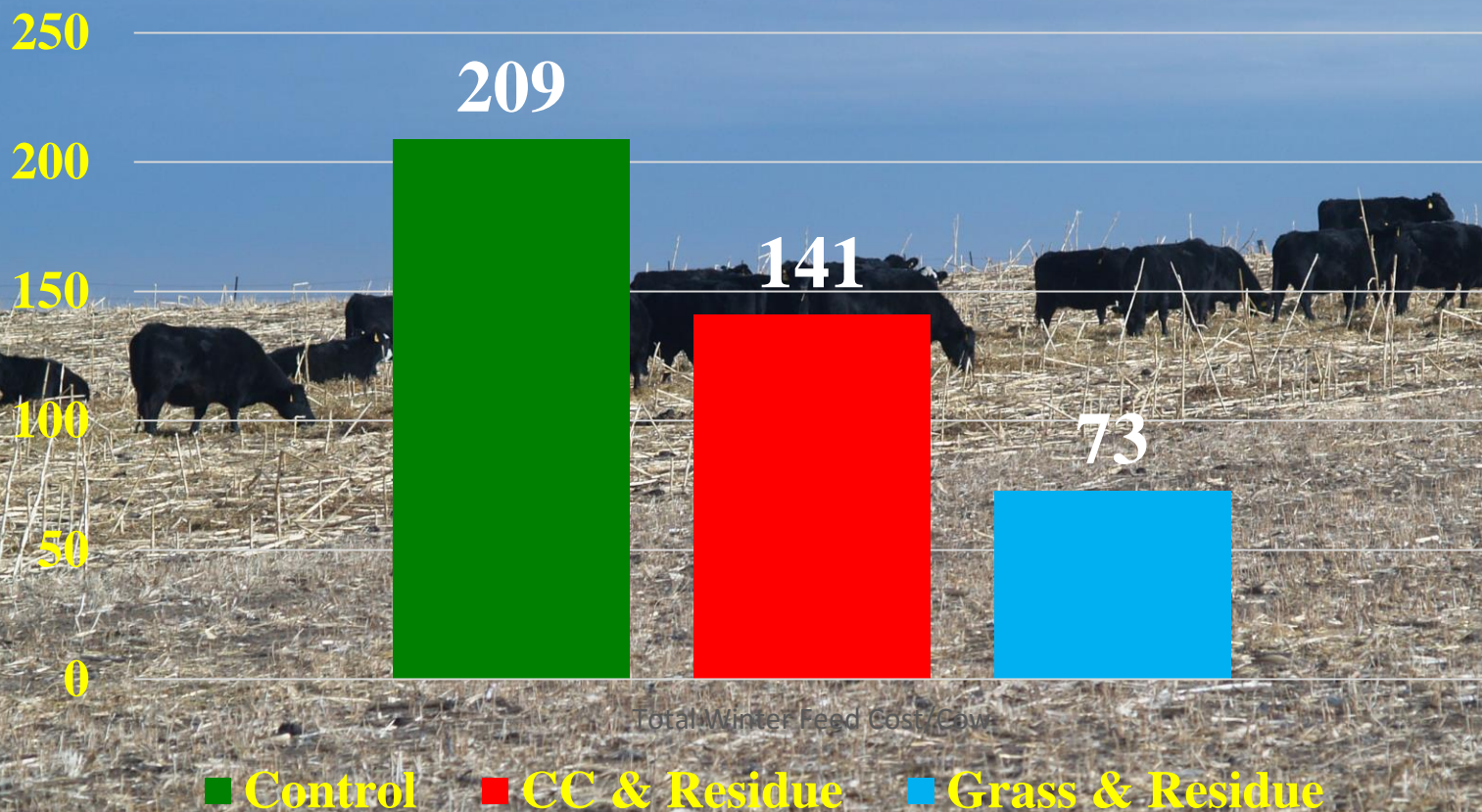
**By Utilizing  
Cover Crops  
Crop Residue**



# Hay Cost/Cow, \$



# Total Winter Feed Cost/Cow





# Dickinson Research Extension Center Ranch Headquarters, Manning, ND



**March-April Calving Data**  
**May-June Calving Data**

**2009-2011**  
**2012-2014**

# Herd H38

## Animal Performance



Critical Success Factors	Mar-Apr 2009-2011	May-June 2012-2014
Average Age at Weaning	205	168
Steers	609	537
Heifers	587	487
Bulls	NA	NA
Average Weaning Weight	598	514

# Herd H38

## Animal Performance



Critical Success Factors		
	Mar-Apr 2009-2011	May-June 2012-2014
Average Daily Gain	2.51	2.52
Weight Per Day of Age	2.94	3.06
Birth Weight	86	89
Adjusted 205 Day Weight	640	639
Frame Score	5.0	5.0

# Herd H38

## Reproductive Efficiency



Critical Success Factors		
	Mar-Apr 2009-2011	May-June 2012-2014
% Cows Calving in 42 Days	95.2	95.2
Cow Age	4.8	5.0
Cow Weight	1307	1437
Cow Condition	5.6	5.3

# Herd H38

## Reproductive Efficiency



Critical Success Factors	Mar-Apr	May-June
	2009-2011	2012-2014
% Pregnancy Loss	0.50	0.85
% of Cow Calving	98.46	97.38
% Calf Death loss	6.50	3.72
% Cows Weaning Calves	91.96	93.66

# Average Daily Gain

**March-April Calves = 2.50**  
**May-June Calves = 2.50**

# Calf Growth

(Early November weaning; no birthweight included)

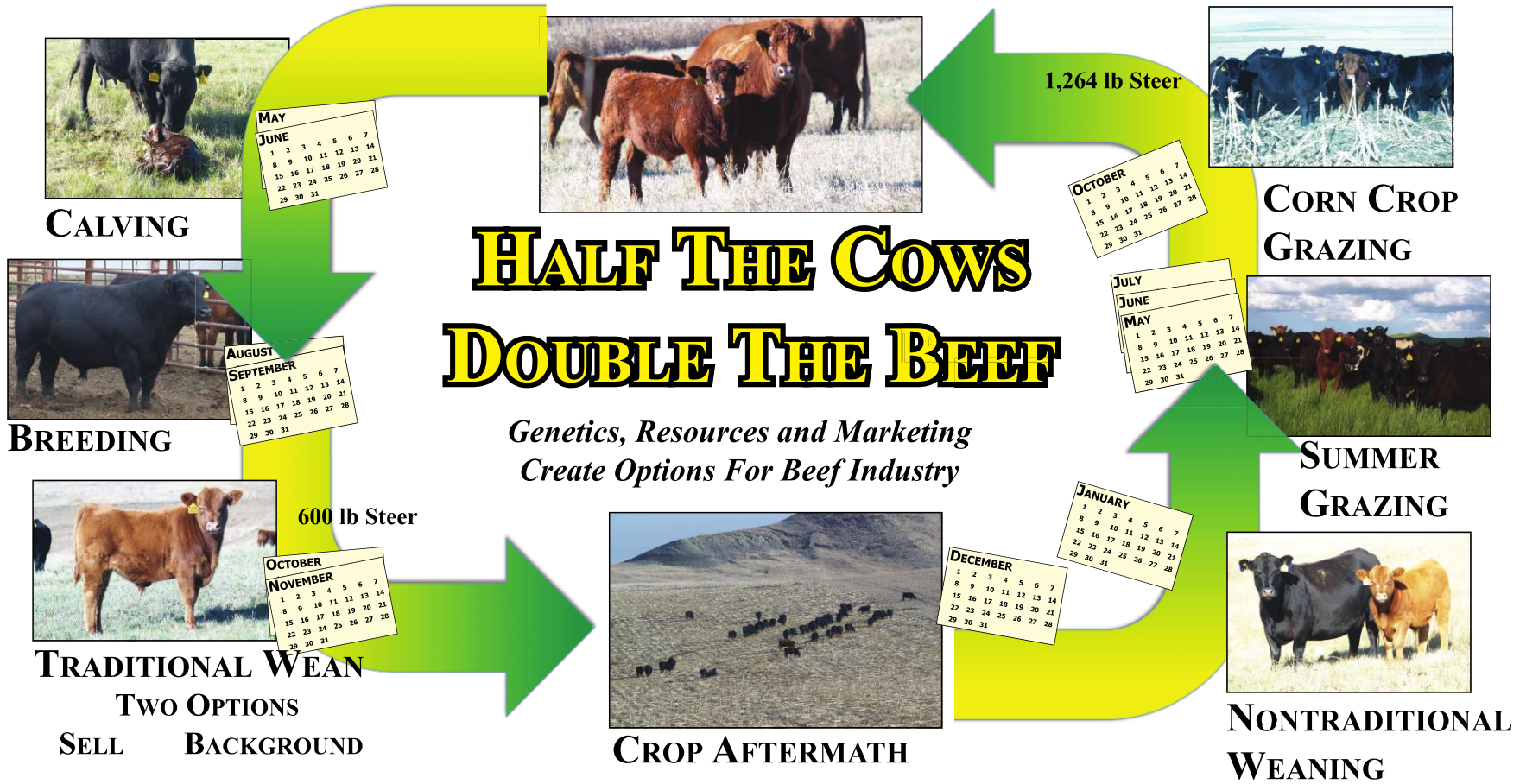
**March-April Calves (205 days @ 2.50) = 512.5**  
**May-June Calves (168 days @ 2.50) = 420.0**

# The BIG Question:

**HOW DO WE MAKE UP FOR  
92.5 POUNDS OF LOST GAIN?**



# BEEF STREAM



# The Next Step:



# JANUARY WEANING

# 2015 Calves Weaning Plan

**Mid to late October**

**Work Calves, Cows**

**Precondition (calves)**

**Weigh (calves and cows)**

**Condition score (calves and cows)**

**Pregnancy check (cows)**



**Mid December**

**Wean Calves**

**From 2 and 3 year old cows**

**Mid January**

**Wean Calves**

**From mature cows**

# Management Goals

**Winter calves for three-plus months**

**Weight gain goal of 1 to 1.5 lbs/day**

**Diet is primarily forage based**

**Turn yearlings onto Crested Wheatgrass May 1**

**Target is breed yearling heifers in August**

# The Next BIG Question



**HOW DOES BACKGROUNDING GAIN  
COMPARE WITH JANUARY WEANING?**

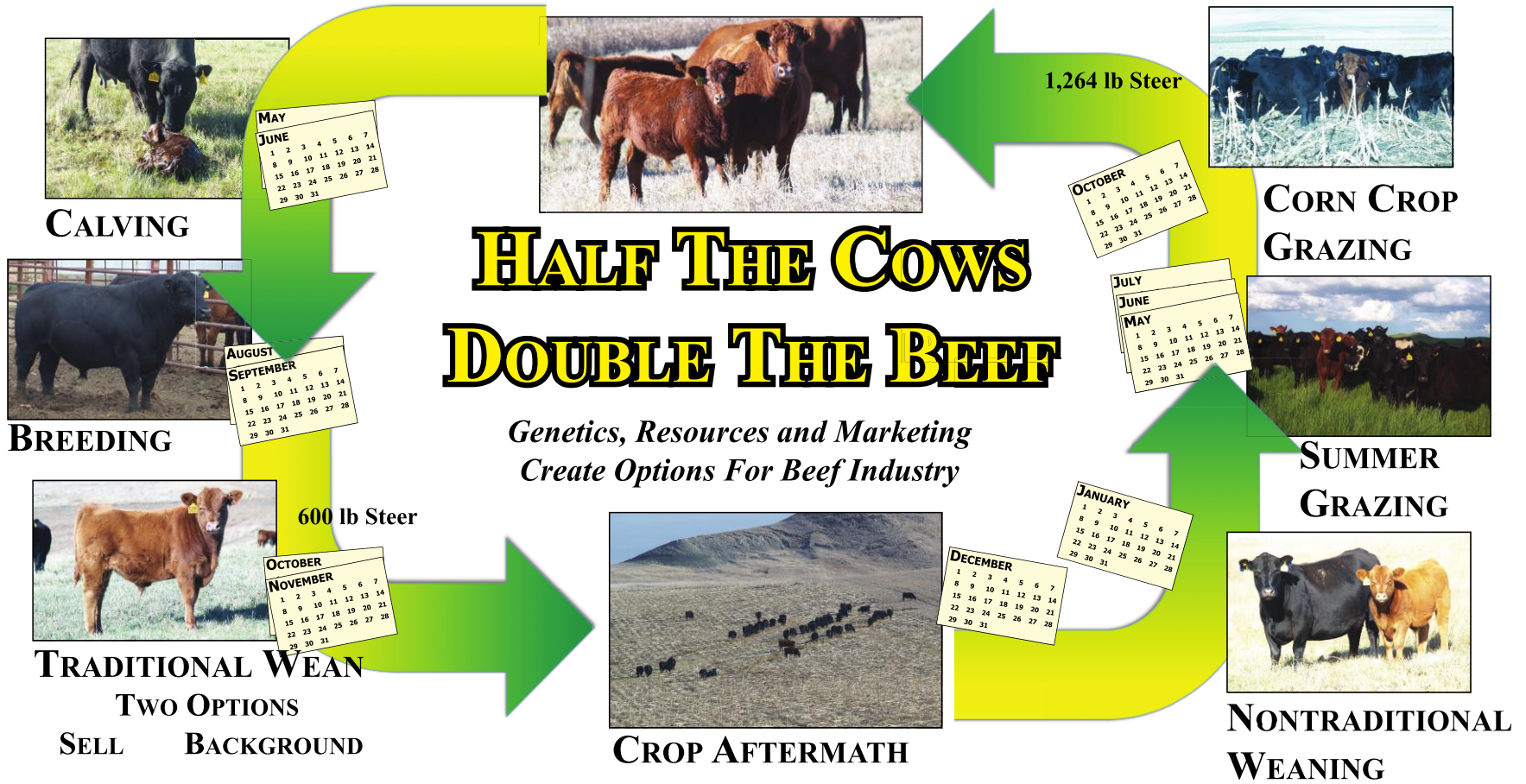
# **This Is Beef Production!**

**YOU GET TO DECIDE TO DO  
SOMETHING DIFFERENT!**

**YOU CHANGE THE GAME PLAN!**

**A NEW PARADIGM EXISTS!**

# BEEF STREAM



# **This Is Beef Production!**

**You cannot control the markets**

**You can react to opportunities**





# EXPLORE SOME OPTIONS:



# What Are Our Options?

A photograph of a herd of cattle in a grassy field. In the foreground, a black and white cow is looking towards the camera. In the background, there are several brown cows and a calf. The field is filled with tall, dry grass.

- Sell Younger Calves**
- Begin Backgrounding in January**
- Keep Calves for Yearling Operation**
  - **Use May Crested Wheatgrass**
  - **Utilize Cover Crops**
    - ✓ **Supplement Weight Gain**
    - ✓ **Build Soil Quality**
  - **Capture Additional Revenue**

# What Are Our Options?

A herd of brown cows and calves in a grassy field. The cows are of various sizes, and the calves are smaller. They are standing in a field of tall, dry grass under a bright sky.

**Sell Younger Calves**

**How do we make up the the 92.5 pound difference?**

A black cow and a black calf with white faces in a grassy field. The cow is larger and has a white patch on its face, while the calf is smaller and also has a white patch on its face. They are standing in a field of tall, dry grass.

# What Are Our Options?



**Wean calves in January**

**On crop residue.**

**Overwinter calves with 1-1.5 lb/day gain**

**Cows begin third trimester in February**

# What Are Our Options?

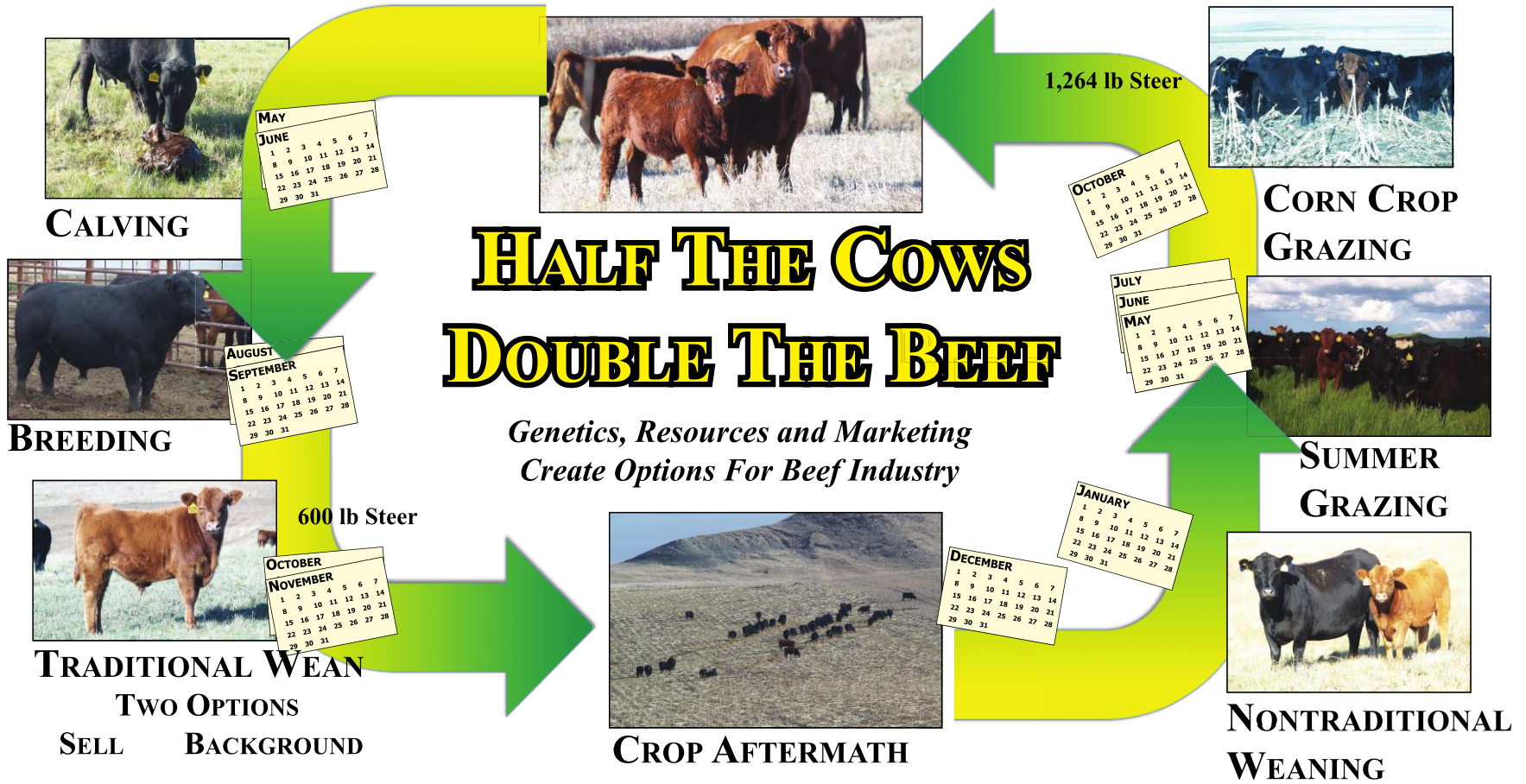


**Keep Calves for Yearling Operation**

- Use May Crested Wheatgrass
- Utilize Cover Crops

**Earn Supplemental Weight Gain**  
**Build Soil Quality**  
**Capture Additional Revenue**

# BEEF STREAM



# WEATHER IS ALWAYS A CONCERN!



Can be cold in March-April  
Spring snowstorms in May-June  
Cold, snowy weather in November



# May-June Calving



# May-June Calving



*We pulled off 665-pound calves from May calving. They were not that much lighter than our February calves we weaned in mid-October . . . and they all have their ears and tails.*

**Garry Ottmar, DREC Ranch Manager**

# May-June Calving



*Those early born calves can get their feet froze a little (and) once those calves go to the feedlot they do not do well . . . If the calf gets in trouble, the calf will be fine with (May-June) temperatures. In the winter, if you are not there right away, the calf is gone.*

**Garry Ottmar**  
**DREC Ranch Manager**

# May-June Calving



*I would never go back to February and March calving. This is a good option (for) husband and wife teams that are so prevalent out there (on the farm or ranch). I don't know a better way to do it.*

**Garry Ottmar, DREC  
Ranch Manager, and  
wife Wanda.**

# May-June Calving

*I love it (May-June calving).  
The (warmer) weather seems to  
quiet the cows down, the cows  
are more healthy, there is less  
disease . . . I would never want  
to go back. It's just Dean and I  
. . .*

**Bob Paluck**  
**DREC Research Technician**



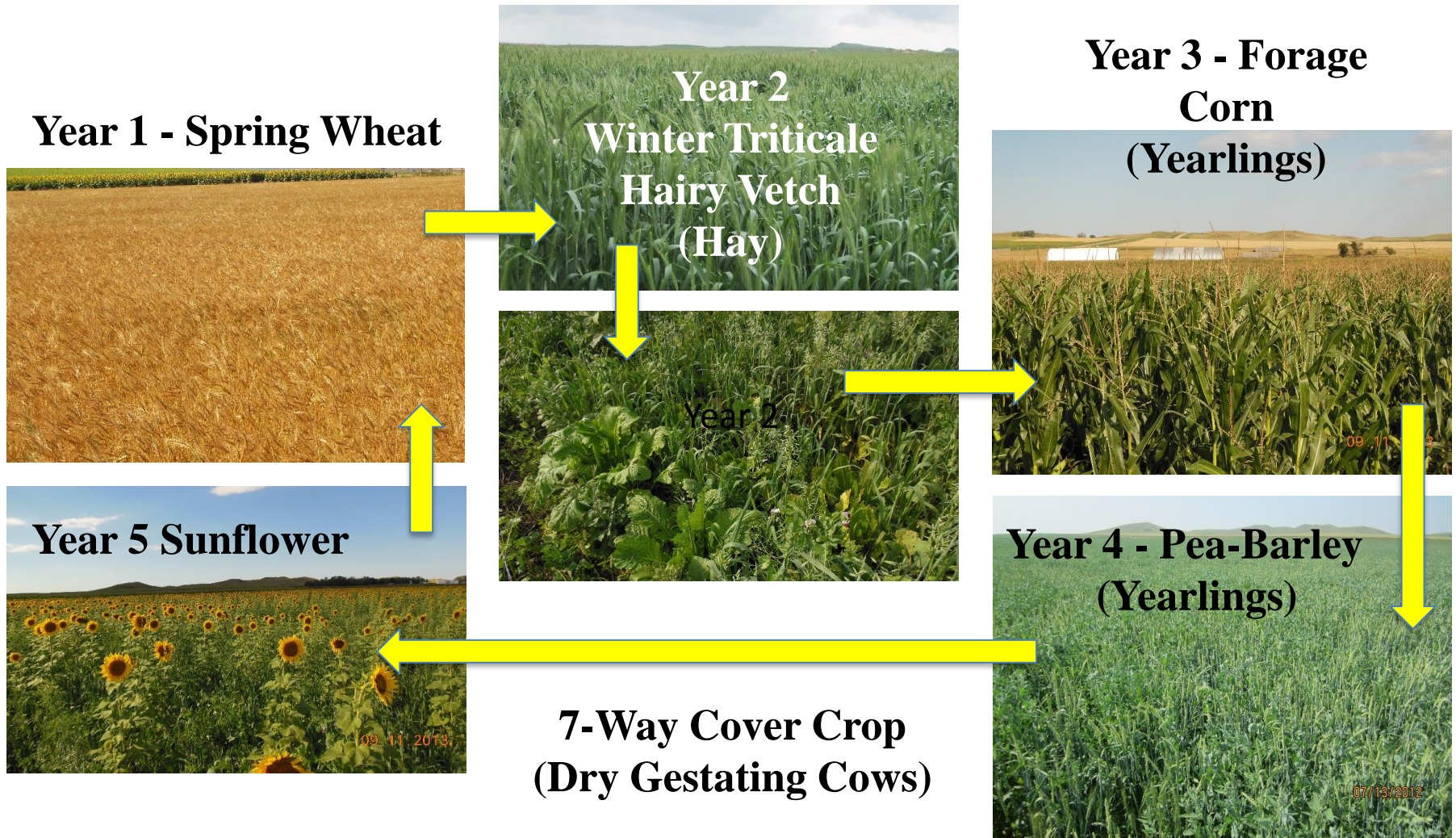
**DREC research technicians  
Dean Nelson and Bob Paluck**

# 2014 May Wean Data

Herd	Wean Age (days)	Wean WT
<b>DREC Herd 38</b>	<b>164</b>	<b>540</b>
<b>CHAPS Avg</b>	<b>191</b>	<b>558</b>

**May born calves grow and are marketable using traditional management systems.**

# Graze to Slaughter Crop Rotation



# Grazing Sequence Perennial Pastures

- **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**



# 2014 May Wean Data

## Pounds weaned per cow exposed

Herd

**DREC Herd 38**

**CHAPS Avg**

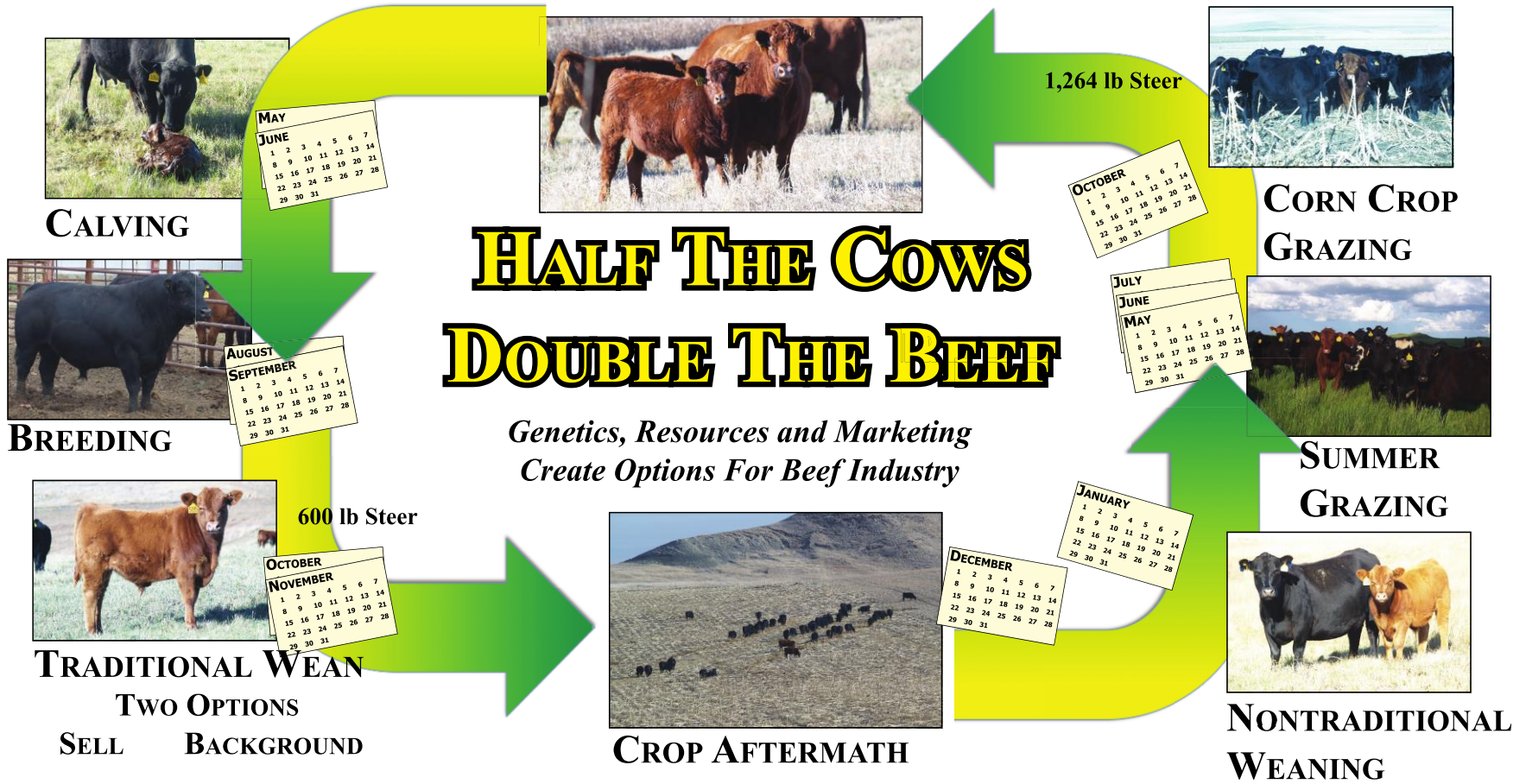
Lbs weaned/cow exposed

**524**

**495**

**May born calves grow.**

# BEEF STREAM



# **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!

A sunset over a range of mountains. The sun is low on the horizon, casting a warm orange and red glow across the sky. The mountains are silhouetted against the bright sky.

There Are Opportunities In The Beef Business!

THANK YOU FOR YOUR ATTENTION

701-483-1100

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[www.ag.ndsu.edu/DickinsonREC](http://www.ag.ndsu.edu/DickinsonREC)