Applied Approaches to Cow Efficiency

Art Brownlee
JHL Ranch
Ashby, NE

JHL Ranch Operation - Overview

The JHL ranch is located in the Western Nebraska grass-covered sand dunes called the Nebraska Sandhills. The operation consists of approximately 28,000 intensely managed acres running between 1400 and 1500 late spring calving cows.

Previous to 1999 it had been run with high growth continental cross cattle in 5-6,000 acre pastures. Since that time both the use of genetics and grass management have taken priority. The genetic direction has changed to recognize the value of marbling without giving up the other beneficial traits. The current genetics consist of a foundation type Angus base crossed with Braunvieh.

The ranch is blessed with abundant supplies of native meadow grasses. This along with imported supplements allows the ranch to additionally background the calves.

Animal ID and the Personal Computer are the cornerstones of the breeding program. Replacement heifers have been AI'd for almost 30 years. In tracking these AI'd animals to resulting females and carcass endpoints it become evident that matings could be tailored with beneficial effect for the individual cow. In 2000 the JHL began implementing a complete herd AI program based on individual cow data. The AI program also facilitated the two breed rotation.

Instrumental pieces that have proven merit in changing the direction of the beef program are ultrasound and DNA.

JHL first used ultrasound in 1991 bull selections before it was seedstock association required. We next used it in the feedlot in 1994 and became a consistent part of the program in 2000. Ultrasound allowed for a better base from which to analyze bull and cow carcass potentials by allowing each feedlot animal to come closer to its potential. Ultrasound was also incorporated into the heifer replacement program in 2005.

Our herd sizes, generally around 400 cows, necessitate multiple clean-up bulls. We began using DNA for parentage identification in 2000. We have since used it to cull for disposition, dystocia and carcass. In addition it has allowed us to prove out owned bulls and collect semen for the AI program.

Pasture size has been radically reduced to most pastures being approximately a section in size. In the size herds we run this makes for 7-10 day rotations. In the spring when the cows are chasing the early season grasses we allow the cows to flow more freely between pastures (2 and 3 days). At the present time we have between 80-90 paddocks which are watered by over 20 miles of pipelines.

The ground in the Sandhills is fragile. If the hills are grazed too intensely they are prone to severe erosion by both wind and water. If the very soft meadows are grazed too intensely they can become very rough. The meadows produce on average about 2400 tons of hay put up in 1400lb round bales. Bale size is important in that herds can be fed in one trip with a bale processor that carries 6 bales. Until calving the herds are widespread across the ranch so minimizing the number of trips is important.

The resident native grasses do not contain sufficient protein density to sustain a cow therefore the cows are generally protein supplemented starting in December. Haying the cows depends on range condition (including snow depth) but generally starts in January.

At pregnancy checking time the running age cows are separated into early and late calvers. The early calvers herd is generally started on rotations without supplementation by the end of April. The later calvers (with early grass coming on before they calve) do not receive much hay.

After AIing, where 4 synchronized herds are processed through the corrals three times within a three week period, the cows are turned out to clean-up bulls for a total of 60 days. .

Since we retain ownership on all calves we take special care in an attempt to stay ahead of health issues. Calves are inoculated with a clostridial/blackleg/7-way at birth and then a respiratory at about 30 days of age. We don't pre-condition but the calves are re-vaccinated at weaning with a respiratory booster around 14 days later.

Weaning takes place at calf ages of 140-180 days. Across fence line weaning is used with the cows kept in the corrals and the calves on the meadow. Since the calves have been separated 4 times previously with branding and AIing there is less stress

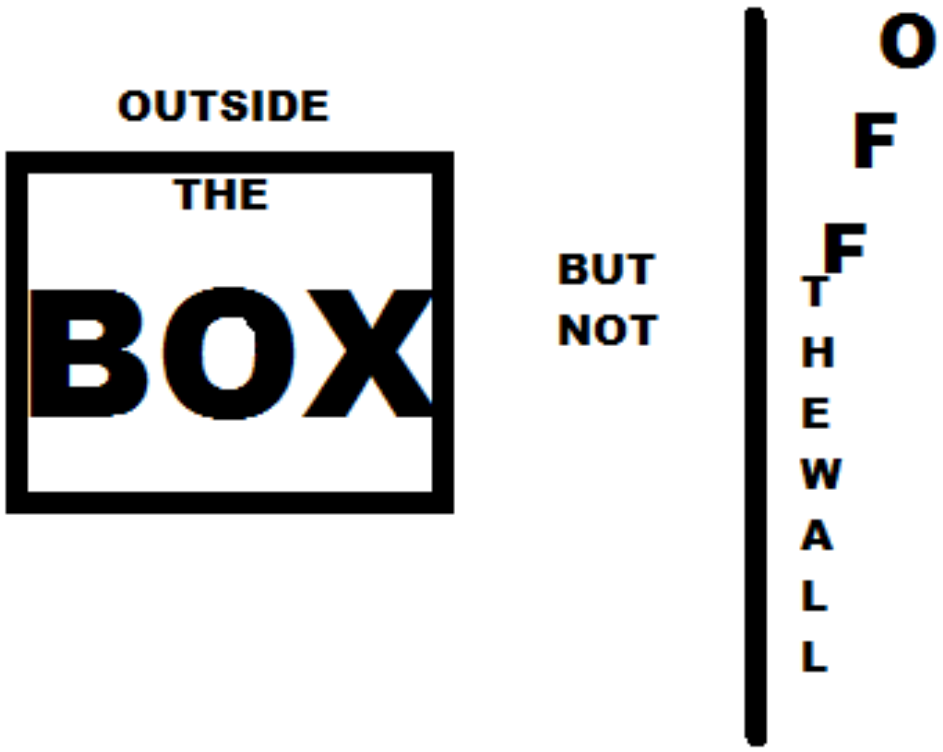
The calves are back-grounded on meadow after growth and currently DDG pellets. This usually runs until December when they start being fed hay in addition. After that time they are staged for moving to the feedlot from January to April providing a larger fed cattle marketing window.

We have an extensive mineral program that varies by the season. Before breeding, before weaning and mid-winter are the times when the cows receive a full mineral package. The weaned calves are on a full mineral program at all times. We go the extra distance in using some chelated minerals, an ionophore and pre-budded yeast.

Heifer calves are the last to leave as we attempt to pick replacement heifers as close to a year of age as possible. We believe that phenotypes are very important and want the heifer to be given every opportunity to express her eventual phenotype before selection. Since if selected we anticipate their residency on the ranch at 12 plus years numerous increasing hurdles are set before them including ultrasound, linear measurements and disposition scores.

The work from A to Z on the JHL is based on improving small margins in every aspect which ultimately emphasizes and supports the retention of a cow that is capable of doing her job with minimum human intervention.

Our attitude is that our program has "not arrived" yet. We hope to maintain that attitude. Everything is continually up for questioning.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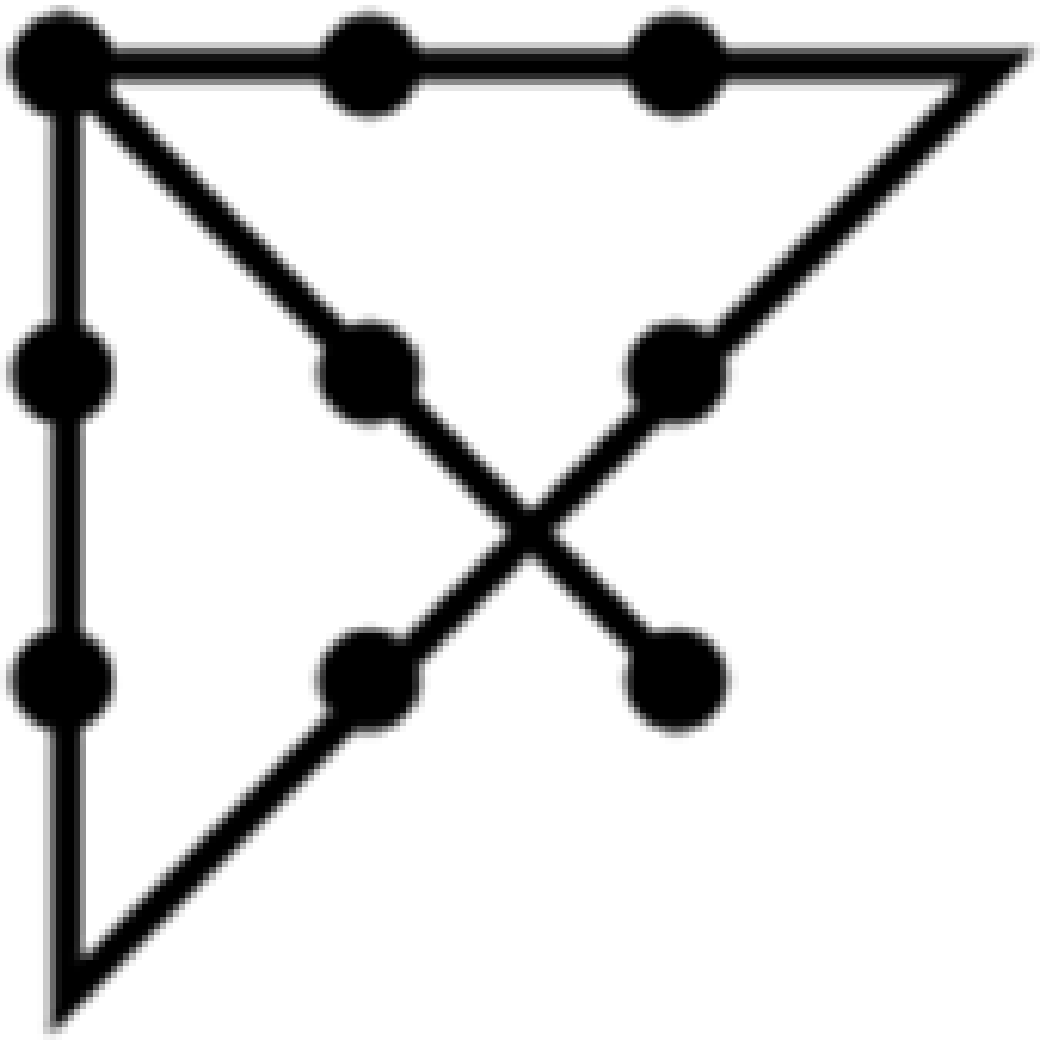

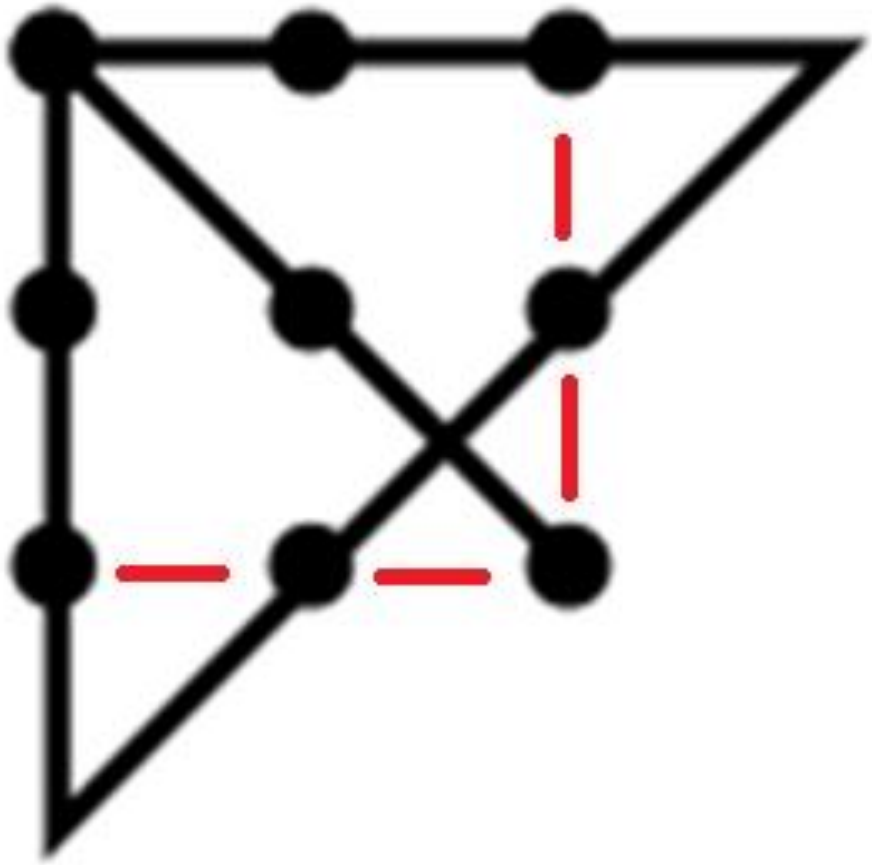

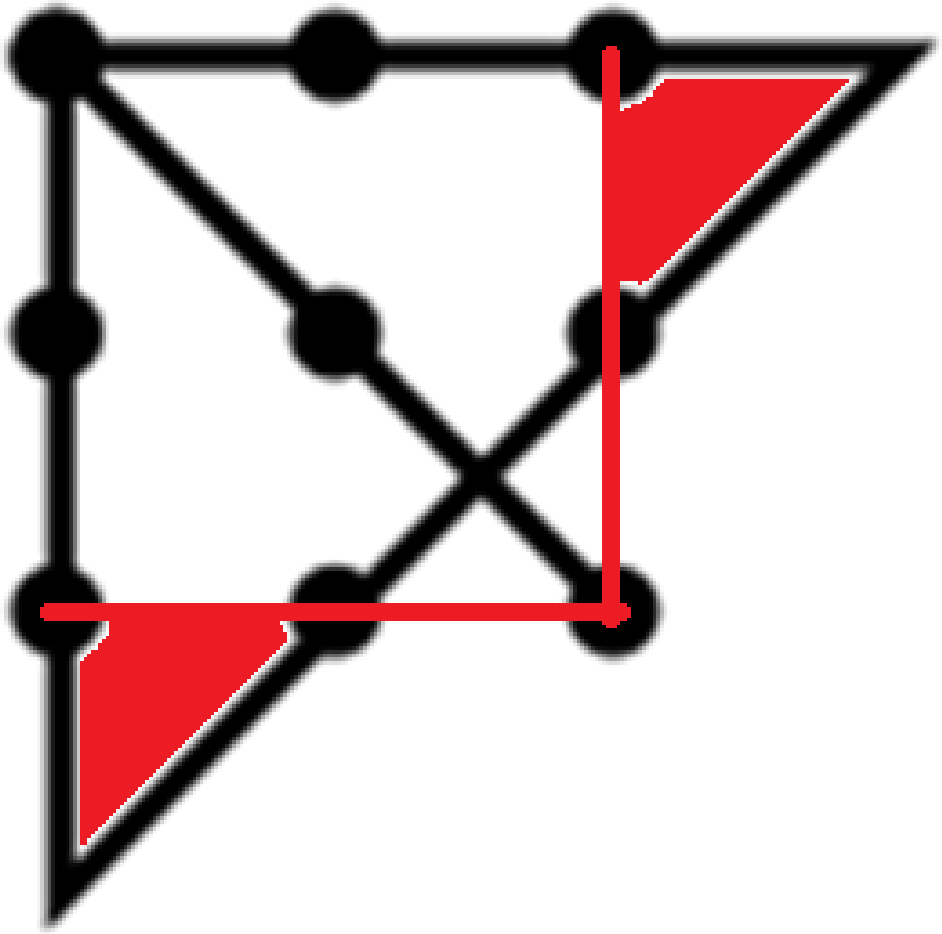

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LIFE

GOING SOMEWHERE?

“THE” PROGRAM

(OBJECTIVE)

The 1000 and the 10,000.

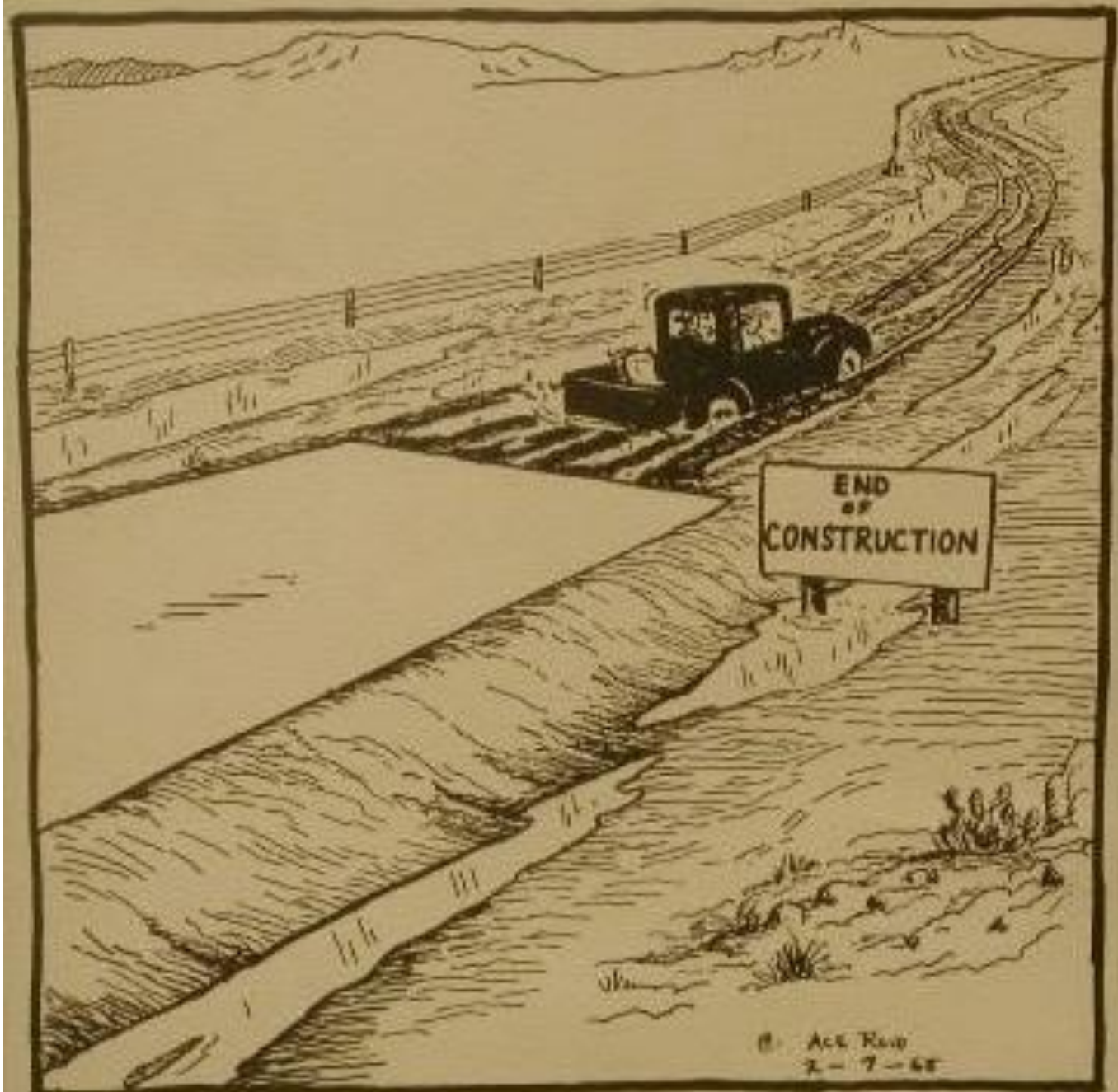
Pride…

…goeth before the fall.


NEBRASKA
SIOUX
DAWES
SHERIDAN
CHERRY
KEYA PAHA
BOYD
KNOX
CEDAR
DIXON
DAKOTA
HOLT
BROWN
ROCK
BOX BUTTE
SCOTTS BLUFF
MORRILL
GARDEN
GRANT
HOOKER
THOMAS
BLAINE
LOUP
GARFIELD
WHEELER
ANTELOPE
PIERCE
WAYNE
THURSTON
MADISON
STANTON
CUMING
BURT
BANNER
KIMBALL
CHEYENNE
DEUEL
KEITH
ARTHUR
MC PHERSON
LOGAN
CUSTER
VALLEY
GREELEY
BOONE
PLATTE
COLFAX
DODGE
WASHINGTON
NANCE
HOWARD
SHERMAN
MERRICK
POLK
BUTLER
SAUNDERS
DOUGLAS
SARPY
LINCOLN
PERKINS
DAWSON
BUFFALO
HALL
HAMILTON
YORK
SEWARD
LANCASTER
CASS
OTOE
CHASE
HAYES
FRONTIER
GOSPER
PHELPS
KEARNEY
ADAMS
CLAY
FILLMORE
SALINE
JOHNSON
NEMAHA
DUNDY
HITCHCOCK
RED WILLOW
FURNAS
HARLAN
FRANKLIN
WEBSTER
NUCKOLLS
THAYER
JEFFERSON
GAGE
PAWNEE
RICHARDSON
Chadron
Harrison
Rushville
Valentine
Springview
Butte
Bassett
Ainsworth
O'Neill
Center
Hartington
Ponca
Dakota City
Alliance
Gering
Bridgeport
Harrisburg
Kimball
Sidney
Oshkosh
Chappell
Ogallala
Arthur
Tryon
Stapleton
Hyannis
Mullen
Thedford
Brewster
Taylor
Burwell
Bartlett
Neligh
Pierce
Wayne
Pender
Madison
Stanton
West Point
Tekamah
Ord
Greeley
Albion
Columbus
Schuyler
Fremont
Blair
Broken Bow
Loup City
Saint Paul
Fullerton
Central City
Osceola
David City
Wahoo
Omaha
Papillion
Plattsmouth
North Platte
Lexington
Kearney
Grand Island
Aurora
York
Seward
Lincoln
Grant
Imperial
Hayes Center
Stockville
Elwood
Holdrege
Minden
Hastings
Clay Center
Geneva
Wilber
Nebraska City
Tecumseh
Auburn
Benkelman
Trenton
McCook
Beaver City
Alma
Franklin
Red Cloud
Nelson
Hebron
Fairbury
Beatrice
Pawnee City
Falls City
Niobrara
Snake River
North Loup
Middle Loup
South Loup
Elkhorn
Cedar
Loup River
Platte
North Platte
South Platte
Lodgepole Creek
Frenchman Creek
Republican
Big Blue
Little Blue
Lake McConaughy
Harlan County Lake
Hugh Butler Lake
Swanson Lake
Enders Res.
Johnson Res.
Sutherland Res.
Jeffrey Res.
Merritt Res.

COW POKES

By Ace Reid



FROM HERE TO THERE

(WITHOUT LOSING SOMETHING ALONG THE WAY)


Famine / Feast
Rags / Riches
Austerity / Luxury
Far Ends of the Same Pasture
FORCED EFFICIENCY

CONTRASTS


Convenience
Quality
Brand
Utilization
LR View
PROGRAM PRIORITIES

PROGRAM RESOURCES

- **FEED**
- **GEOGRAPHY**
- **OPERATION**
- **GENETICS**

- **CURRENT STATUS**
- **AVAILABILITY**
- **COST EFFECTIVE**


RESOURCES - WATER

RESOURCES: FEED

NATIVE

Resources - FEED

Resources - Feed

RESOURCES: FEED AVAILABILITY

RESOURCES: GEOGRAPHY

(Generally not your choice)

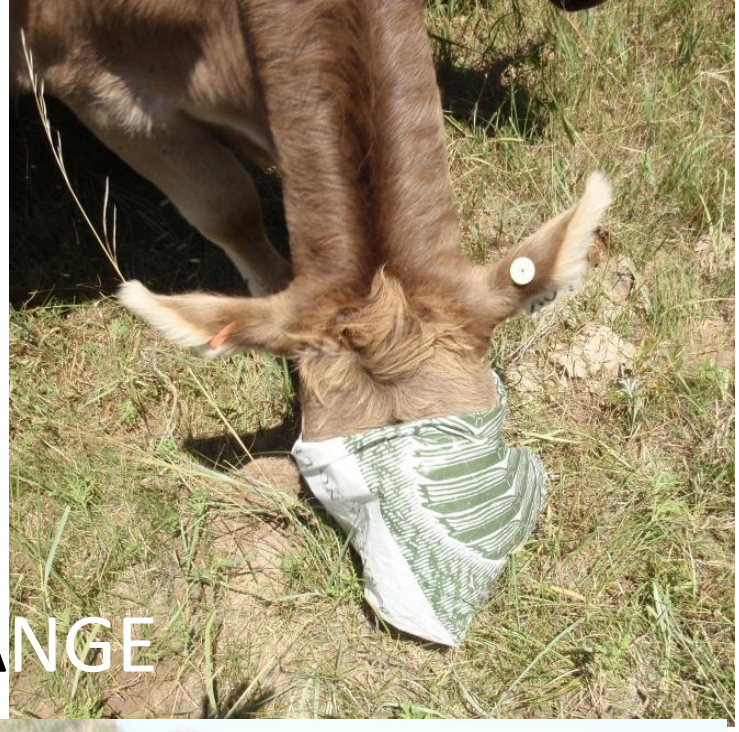
- Clime
- Moisture
- Topography

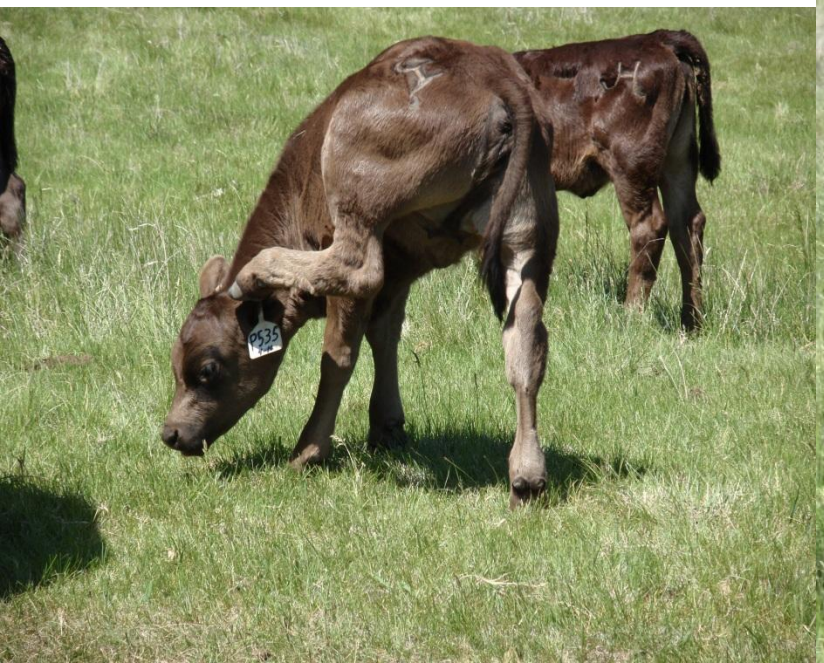
RESOURCES : OPERATION

- SCALE
  - Hands-on, discounts, costs
- TIMING
  - Safeguards, forage availability
- ENDPOINT
  - Auction, stalks, feedyard, rail

RESOURCES: GENETICS

- SATUS QUO
- CHANGE
- DECISIONS REGARDING CHANGE





GENETICS - STATUS QUO

FOCUS MANAGING RESOURCES

GENETICS - CHANGE

HOW AND WHAT

Matching up your program:

-Interests

-Resources

-Profits.

GENETICS - Matching Interest

- International
- Feed Efficiency
- Product
- Solid Foundation Female

International Market

Reach Out and Touch Someone - SAV

Trade Agreements

Northern Latitude/North America

EFFICIENCY

UNDEFINED – BIF

JHL Cattle

Confine

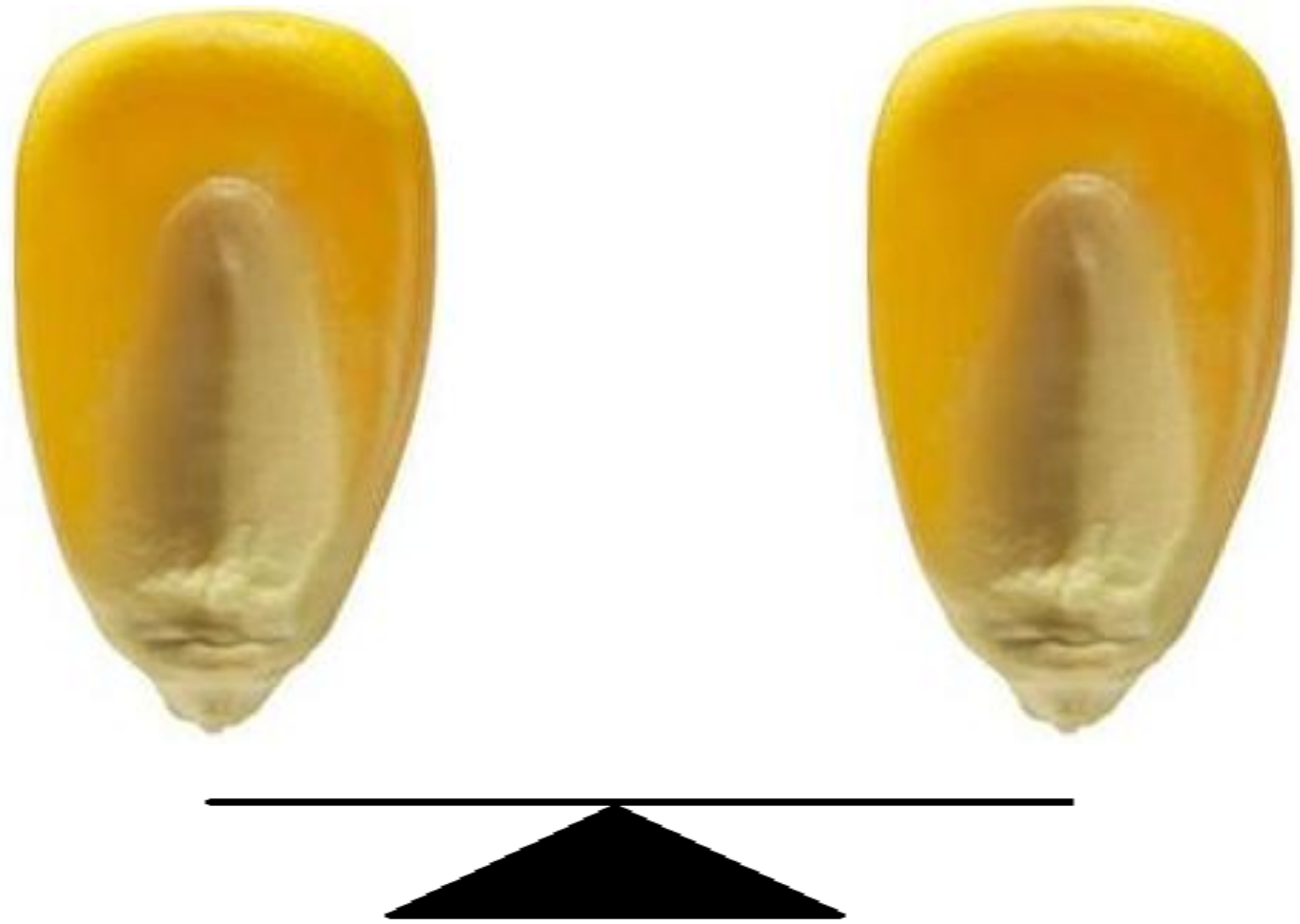
Feed Costs

The Cow's tale.

PRODUCT AIM

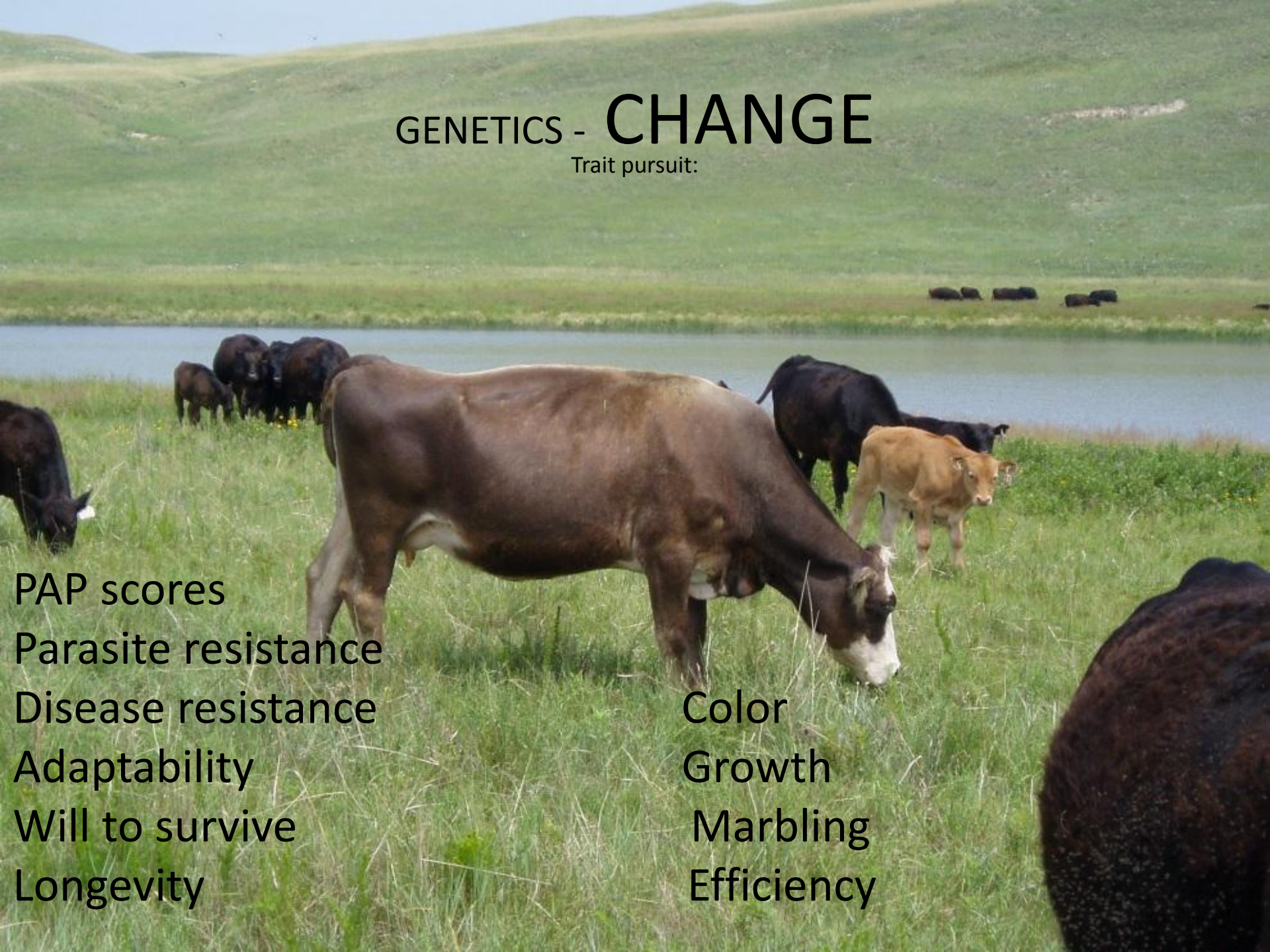
- **Meat**
  - Natural – Organic
  - Quality Grade
  - Quantity
- Females

$ VALUE ?



VALUE ?

VALUE vs. ID ?


GENETICS - CHANGE
Trait pursuit:
PAP scores
Parasite resistance
Disease resistance
Adaptability
Will to survive
Longevity
Color
Growth
Marbling
Efficiency

GENETICS - Matching Resources

- Terminal Cross
- Semi-Confinement
- Cost / Benefit

GENETICS – Matching Environ

GENETICS - Matching to profit

- No stone unturned.
- In and outside of the box
- BALANCE