Selecting Replacement Females

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The Ideal Cow

- Early puberty
- Never misses a breeding season (1 calf/365 d)
- Calves unassisted
- Doesn't require a lot of supplemental feed
- Easy fleshing
- Converts forage to lbs of raised calf
- Stays in the herd a long time
- Good temperament
- Good muscling and carcass characteristics
- Adequate but not too much milk
- Looks good doing all the above

Don't go to the weekly cattle sale





The Ideal Cow

The Ideal Cow



Uniform

1 Ranch brand females



Easy fleshing

Good Udder

No Broken Down Udders



No Cow-bras!



Leg Structure

Healthy: PI-BVDV negative



Profitability with Crossbred Cow

Heterosis

Cade Richmond 325-330-0590

Heterosis = Hybrid vigor

Hybrid Vigor

 The increase/decrease in a particular trait when compared to the average of that trait for each parent.

 Maternal hybrid vigor increases calving rate (6%), weaning rate (8%), weaning weight (6%), and birth weight (2%).

Levels of Heterosis

Trait	Individual Heterosis. %	Maternal Heterosis. %	Total Heterosis. %
Calf WW/exposed cow			18
Cow longevity			38
Cow lifetime productivity			25
Age @ Puberty	-3		-3
Weaning rate	0	8	8
Weaning weight	5	6	11
Birth weight	4	2	6
Yearling weight	4		4
Cow Condition	-4		-4
Carcass weight	3		3
USDA quality grade	2		2
Rib eye area	2		2
Feed conversion, (F:G)	-2		-2
Days on feed	-4		-4 ²⁰





Hip Height, inches

	Frame Score, inches								
Age in Months	1	2	3	4	5	6	7	8	9
6	34.1	36.2	38.2	40.3	42.3	44.4	46.5	48.5	50.6
12	39.0	41.0	43.0	45.0	47.0	49.0	51.0	53.0	55.0
16	41.0	43.0	44.9	46.9	48.9	50.8	52.8	54.8	56.7
18	41.7	43.6	45.6	47.5	49.5	51.4	53.4	55.3	57.3
20	42.1	44.1	46.0	47.9	49.8	51.8	53.7	55.6	57.6
Mature Weight, Ibs			1100	1200	1300				



Calf WW vs Cow BW



Lalman, et al. Advanced Cattle Management School

Sensitivity Analysis

Value of Added Gain (\$/cwt)	Value of Added Income ¹ (\$/cwt)
0.80	4.86
1.00	6.07
1.20	7.28



Summary

• Every 100 lb increase in additional cow BW resulted in 6.07 lb increase in weaning weight

 The response determined (6.07 lb) was only 11%-17% needed to breakeven to offset the cost of the larger cow size

Calving season

Cow Nutrient Requirements



The <u>cow</u> should <u>fit</u> her <u>environment</u>

What happens if she doesn't:
Body condition score is low
Rebreeding rate is low
Weaning weights are affected.
Increase in supplemental feed and hay requirements

Heifers – calve at least 1 month early

1621203



60 lbs @ \$2.02/lb +\$117.00

Cow Calving in 1st 3rd of Season







Got Milk?

Milk vs. Efficiency

Increased milk = increased feed for maintenance AND increased feed for milk

Genetic Trend for Milk



Consider:

Is there a limit of milk production that forages in this region can support?



Milk yield for spring calvers by month



Increased risk when:

a) forage resources limit the expression of genetic potential for milk

b) Production costs have increased because the "environment" has been artificially modified to fit the cows

Bull EPD's to Reduce Calving Risk

Registered bulls Calving Ease Direct (CE, CED): Top 25% of breed Birthweight (BW): top 30% of breed

Known Genetics

Generation from last known registered calving ease bull in pedigree	of BW or CE in subsequent calf
Registered bull	50%
Son of registered bull	25%
Grandson of registered bull	12.5%
Great grandson of registered bull	6.25%
Great, great grandson of registered bull	3.125%



DNA Information

Use Igenity[®], Zoetis[®], or Molecular Genetics genomic results to increase predictability of heifer's potential

> Genomic results are a way to enhance current selection tools to achieve more accuracy on predictions for younger animals, and to characterize genetics for traits where it's difficult to measure phenotype.

> > --Sally Northcutt, Ph.D., Molecular Genetics

- Information on:
- Calving ease maternal
- Stayability
- Residual feed intake
- Average daily gain
- Tenderness
- Marbling
- Docility
- Milk



Allows You to Get Under the Hide





Quarantine New Arrivals

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<u>Game Plan</u>

- Uniform, 1 ranch cattle
- Calve before your calving season
- Right size
- Not too much milk
- Utilize crossbred females
- Use DNA tools



Buy from Similarly Managed Herd or worse!

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THE SAMUEL ROBERTS **INDESTIGATION**

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