


## The Bull should fit the Market



## Things are not always what it appears to be



## Reading EPD's

Larger Number is Better:

- Calving Ease
- Maternal traits
- Milk


Expected Progeny Difference (EPD)


An Estimate of how future progeny of each sire are expected to perform relative to the progeny of other sires listed in the database.



## Suggested EPD's

- Birth
-Top 50\%



## Suggested EPD's

## - Carcass:

-Top 50\%

- Rib Eye Area
- Marbling


Most Ranchers should be TERMINAL focused.

Size and scale fits better.
$>$ Not efficient to produce replacements
$>$ Not productive yet
$>$ Still eating forage and costing money
$>$ Don't get a calf until 24 months
$>$ Can't sell until ~30-32 months
$>$ No Tax basis for ranch raised replacement



## Bull \#1

- Neighbor or Friend
-Individual Performance Information
-No EPD's
-No known or reliable ancestral history



## Bull \# 1




## Yearly Per Cow Bull Cash Costs

|  | Bull \# 1 | Bull \#2 |
| :--- | :---: | :---: |
| Bull <br> Purchase <br> Price | $\$ 2500$ | $\$ 4500$ |
| Total Annual <br> Bull Cash <br> Costs/cow | $\$ 24.28$ | $\$ 43.33$ |
| Bull \#1/Cow <br> Advantage | XX | $\mathbf{( \$ 1 9 . 0 5 )}$ |

## Increased Value at Weaning (October)

|  | Bull \#1 520 lbs @ Weaning |  | Bull \#2 585 lbs @ weaning |
| :---: | :---: | :---: | :---: |
| Selling price, \$/lb | \$ | 1.4374 | \$ 1.3634 |
| Value of calf | \$ | 754.64 | \$ 818.04 |
| Bull \#1/Cow Advantage |  | XX | (\$19.05) |
| Adjusted Calf Value | \$ | 754.64 | \$ 798.99 |
| Difference |  | XX | \$ 44.35 |
| Increased Revenue \$/25 cows/yr |  | XX | \$1,108.75 |
| Net increase revenue \$/bull (5 yr) $\qquad$ |  | XX | \$5,544.43 |
|  |  |  | ${ }^{35}$ |


| Increased Value after Backgrounding <br> (December) |  |  |
| :---: | :---: | :---: |
|  | Bull \#1 655 lbs @ Backgrounding | Bull \#2 779 lbs @ Backgrounding |
| Selling price, \$/lb | \$ 1.2536 | \$ 1.2036 |
| Value of calf | \$ 821.11 | \$ 937.30 |
| Bull \#1/Cow Advantage | XX | (\$ 19.05) |
| Adjusted Calf Value | \$ 821.11 | \$ 918.25 |
| Difference | XX | \$ 97.14 |
| Increased Revenue \$/25 cows/yr | XX | \$2,428.50 |
| Net increase revenue \$/bull (5 yr) | XX | \$12,143.24 |
|  |  | ${ }^{36}$ |

Now add the price you were willing to pay for the Neighbor's bull $(\$ 2,500)$ to the increased revenue the better bull provides $(\$ 5,544.43)=\$ 8,044.43$ Bull Breakeven price at weaning.


Take Home Message

The more expensive bull that has high quality performance traits will typically make you more money in the long run.

You can't afford not to buy them.

Now add the price you were willing to pay for the Neighbor's bull $(\$ 2,500)$ to the increased revenue the better bull provides $\mathbf{( \$ 1 2 , 1 4 3 . 2 4 )}=\mathbf{\$ 1 4 , 6 4 3 . 2 4}$ Bull Breakeven price after a preconditioning program.


| Review the Data |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sakdown I ID | DOB | Age as of (Months) 5/1/2009 | BWRank | - | Bw | ww | WWRank |  |
| 7589 P | 9/29/07 | 19 | 15\% |  | -0.9 | 34 | 10\% |  |
| 95 P | 10/22/07 | 19 | 20\% |  | -0.7 | 34 | 10\% |  |
| P | 9/26/07 | 19 | 30\% |  | 0 | 41 | 2\% |  |
| 7597 P | 9/21/07 | 20 | 35\% |  | 0.2 | 42 | 2\% |  |
| 4 P | 10/19/07 | 19 | 35\% |  | 0.2 | 35 | 8\% |  |
| 445 P | 10/25/07 | 18 | 35\% |  | 0.2 | 31 | 20\% |  |
| 119 P | 10/5/07 | 19 | 35\% |  | 0.2 | 31 | 20\% |  |
| 73003 | 9/18/07 | 20 | 40\% |  | 0.4 | 40 | 3\% |  |
| 3010 P | 10/19/07 | 19 | 40\% |  | 0.4 | 28 | 30\% |  |
| 7016 P | 9/27/07 | 19 | 45\% |  | 0.6 | 39 | 4\% |  |
|  | 10/8/07 | 19 | 50\% |  | 0.8 | 40 | 3\% |  |
| P | 10/5/07 | 19 | 55\% |  | 1.1 | 43 | 1\% |  |
| $p$ | 10/8/07 | 19 | 55\% |  | 1.1 | 43 | 1\% |  |
| BP | 9/17/07 | 20 | 55\% |  | 1.1 | 38 | 4\% |  |
| N71 P | 9/21/07 | 20 | 55\% |  | 1.1 | 38 | 4\% |  |
| 3 P | 10/2/07 | 19 | 60\% |  | 1.3 | 42 | 2\% |  |
| 335 | 10/4/07 | 19 | 60\% |  | 12 | 39 | 4\% |  |
| 19 P | 10/26/07 | 18 | 60\% |  | 1.3 | 37 | 6\% |  |
|  | 10/11/07 | 19 | 60\% |  | 1.3 | 33 | 15\% |  |



Don't go to the weekly cattle sale


# NOBLE <br> (1) $)$ RESEARCH <br> Science Serving Agriculture 



## 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



Breed average or better for all carcass traits



| Nutrient Requirements |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1100\# Cow |  |  | vs |  | 1300\# Cow |  |  |  |
| Average Millk |  |  |  |  |  |  |  |  |
| Calving to <br> Breeding |  |  | Breeding to Weaning |  | Weaning to Last 1/3 |  | Last <br> Trimester |  |
| Dry Mater, lbs 10.2\% |  |  | 10.6\% |  | 13.1\% |  | 13.7\% |  |
|  |  |  | 25.5 | 28.5 | 21.4 | 24.2 | 22.7 | 25.8 |
| CP, lbs | 2.75 | 3.06 | 2.18 | 2.5 | 1,41 | 1.6 | 1.93 | 2.03 |
| TDN/Energy, lbs | 15.5 |  | 14.3 |  | 10.1 | 11.4 | 11.9 | 13.57 |
|  |  |  |  |  |  |  |  |  |



## Sensitivity Analysis

| Value of Added Gain <br> ( $\mathbf{\$ / c w t )}$ | Value of Added Income <br> ( <br> $\mathbf{( \$ / c w t )}$ |
| :---: | :---: |
| 0.80 | 4.86 |
| 1.00 | 6.07 |
| 1.20 | 7.28 |

Annual cost / 100 lb of additional cow BW = \$42 (Doye and Lalman, 2011)
Slide from:
al. Advanced Cattle Management School

## How does cow size affect stocking rate?

- 500 acre property
- (350 grazable, no brush)
- Forage production ( $2300 \mathrm{lbs} / \mathrm{ac}$.)
- Average/good production $115 \mathrm{lbs} / \mathrm{ac}$. in.
$-30 \%$ utilization = 690 lbs edible forage/ac (as fed)
- 550 lbs dry matter basis
$-550 \mathrm{lbs} / \mathrm{ac} * 350 \mathrm{ac}=192,500 \mathrm{lbs}$ available forage
- 1100 lbs cow consumes $26.4 \mathrm{lbs} / \mathrm{d}(9,636 \mathrm{lbs} / \mathrm{yr})$
- 1300 lbs cow consumes $29.1 \mathrm{lbs} / \mathrm{d}(10,621 \mathrm{lbs} / \mathrm{yr})$
- 1500 lbs cow consumes $36.0 \mathrm{lbs} / \mathrm{d}(\mathbf{1 3 , 1 4 0} \mathrm{lbs} / \mathrm{yr})$



## Summary

- Every 100 lb increase in additional cow BW resulted in 6.07 lb increase in weaning weight
- Every 1 lb increase in birth weight resulted in 2.07 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

Slide from:
Lalman, et al. Advanced Cattle Management School

## Economics of Cow Size

Every 100 lbs increase in cow weight yields
6.07 Ibs increase in calf weaning weight

|  | Cow weight, lbs |  |  |
| :--- | :---: | :---: | :---: |
|  | 1100 | 1300 | 1500 |
| Calf WW, Ibs | 550 | 562 | 574 |
| \# Cows on pasture | 20 | 18 | 14 |
| Total lbs weaned calves | 11,000 | 10,116 | 8,036 |







