

“Breed Performance Update”



Matt Woolfolk
2019 ASA Annual Meeting

Facts, Figures, and Ramblings from a Cow Guy



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Listen to the Customer

- 2018 NCBA Trade Show Survey of cattlemen who stopped by ASA booth
- “What percentage of importance do you feel EPDs/Performance data are in bull selection?”
 - 83% of responses placed an 80% or higher importance on EPDs/Performance Data

ASA NCBA Survey 2018

- 59% of those that responded had NEVER used Shorthorns in their operation
- 76% said they WOULD consider using them!
- “What Shorthorn traits appeal to you the most?” 3-way tie for the top response:
 - Maternal
 - Crossbreeding/Heterosis
 - Docility

2019 ASA Survey

- We used some digital marketing outlets to survey commercial cattlemen
- The idea and some of the survey content came from the ASA Commercial Acceptance Committee

Response Background

- 88% retain their own replacement heifers
- 62% marketing calves only at the sale barn
 - 19% Retained ownership
 - 19% “Other”
 - Heifer development, partnerships, VAC45, etc.
- 73% were NOT using Shorthorn bulls!

The Big Question

- “When purchasing a bull, which traits are most important to you? (Select 3-5)”
 - Calving Ease
 - Carcass Traits
 - Longevity
 - Visual Appraisal
 - Birth Weight
 - Bull’s Own Performance
 - Fertility
 - Breeder Reputation
 - Weaning Weight
 - EPDs
 - Docility
 - Replacement Females



Traits of Importance 2019

- 1. Calving Ease: 77%
- 2. Visual Appraisal: 38%
- 2. EPDs: 38%
- 3. Replacement Females: 35%
- 3. Carcass Traits: 35%
- 3. Fertility: 35%
- EVERY trait was mentioned on at least 23% of responses

2019 Survey

- 88% felt selection indexes (\$BMI, \$F, \$CEZ) are useful for selecting cattle to suit their operation
- 77% find value in genomically-enhanced EPDs

Expected Progeny Differences

- Comments from Shorthorn breeders:
 - “I don’t trust them.”
 - “They’re not accurate.”
 - “My grandfather didn’t need them to breed cattle.”
- My Shorthorn Country Article: Sept. 2018
 - The great livestock breeders of the old days had the same goal we do: breed good ones!!
 - Just because they didn’t have the tools then doesn’t mean they wouldn’t use them now

Grandpa (or Dad or You) bred some
like these...



...and now we breed some like this!



NCE Results		EPDs												Indexes Values			
Dated: 10/22/2019		Growth and Maternal						Intake and Carcass						\$CEZ	\$BMI	\$F	\$Fescue
Subject		CED	BW	WW	YW	MK	TM	CEM	ST	YG	CW	REA	MB	FT			
	EPD	14	-0.2	59	84	18	47	7	17	-0.38	-11	0.29	0.06	-0.08	46.24	144.75	57.70
	+/- Chg	6	1.8	10	15	8		8	6	0.14	12	0.3	0.18	0.03			
Genomics applied	ACC	0.37	0.46	0.42	0.43	0.36		0.17	0.19	0.32	0.41	0.38	0.36	0.31			
% Ranked	% Rank	10	20	20	30	60	35	20	15	40	40	10	20	85	10	4	10
vs Non-parents																	

- 737 lb 205-WWW
- 15.9 REA and 4.3 IMF (100+ ratio for both)
- 6.2 frame score

Accuracy of our EPDs

Carcass Data from the 2017 National Sire Test at University of Illinois

Sire	REA EPD 10/1/19	REA Ratio
Waukaru Patent 8161	0.62	112
Waukaru Orion 2047	0.57	108
JSF Compass 186A	0.34	103
Byland Top Gun 2G8	0.33	106
Saskvalley Imperative 33	0.26	104
SBF Hot Shot 88A	0.16	103
Waukaru Optimus 4095	0.05	97
Saskvalley Outlaw 173Z	-0.01	97
Studer's Taylor Made 7Y	-0.02	96
Leveldale Ringo 337A	-0.11	96
KL Prime Time Teddy	-0.12	101
Shadybrook Qantas 2B	-0.21	95
Balmoral Oaks Eagle 9X	-0.49	93
Muridale Bateman 27A	-0.53	95
PVSF Leader 720Z	-0.63	93

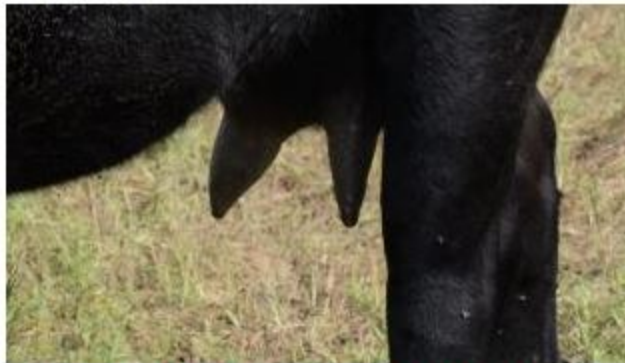
Sire	MB EPD 10/1/19	MB Ratio
Byland Top Gun 2G8	0.47	119
Balmoral Oaks Eagle 9X	0.31	116
Waukaru Optimus 4095	0.19	109
PVSF Leader 720Z	0.09	107
Muridale Bateman 27A	0.07	109
KL Prime Time Teddy	0.01	101
JSF Compass 186A	-0.03	109
Shadybrook Qantas 2B	-0.08	94
Leveldale Ringo 337A	-0.15	100
Studer's Taylor Made 7Y	-0.15	97
Saskvalley Imperative 33	-0.16	97
Saskvalley Outlaw 173Z	-0.24	90
Waukaru Orion 2047	-0.35	91
SBF Hot Shot 88A	-0.41	90
Waukaru Patent 8161	-0.43	91

Maternal & Heterosis

- “Maternal” is something that is hard to quantify
 - There’s plenty of good, hard-working cows in this breed, so there has to be some maternal ability
- Heterosis is proven time and time again. We have that to our advantage!

Matt Gets on a Maternal Soapbox

Cow-Calf



Most udders don't matter

By Alan Newport

Nebraska research on range cows found calf performance unaffected by udder quality, unless it prevented nursing.

[FULL ARTICLE](#)

“Udders Don’t Matter”

- About 2,000 crossbred cows
 - 1,742 “Good” udders
 - 223 “Bad” udders
- No difference in Preg % in Good & Bad Udders
- No difference in 205-day weights
- No difference in ADG, F:G in feedlot
- Only statistical difference: CW and backfat?
- Paraphrased Conclusion: if the calf can nurse, the udder isn’t a problem

My Response to the Article

- Reading the lack of growth significance between udder groups, I keep thinking: “Well Duh!!”
 - I didn’t know it was even a question that bad (or good) udders might have calves that perform better
 - Udder quality is a longevity trait, not a growth indicator
- No mention anywhere of differences in longevity of the cow in the 2 groups
- The udder is ok if it can be nursed, but how much quicker did the “bad” udder cows reach that point??
- Matt’s plea: PLEASE don’t stop worrying about udder quality & record udder scores when registering calves!

Recording Udder Scores

Home page

Work order received on 09/17/2019

Birth Data Entry Screen for Work Order #201909170049











After initial Validation, records are color-coded to show the selected birth season. Each have a differ

Dam						
RegNo	Tattoo	Shorthorn%	Temper	Susp	Teat	Calf Birth Date
X ?	Reg # or Prefix/Tattoo	0%		▼	▼	m /dd/yyyy

Errors: Sex of calf not identified.

Delete ALL Add row Validate Commit to Registry *

- Use the drop down menu on the birth recording screen to record your cow's udder quality based on the chart to the right
- Should be documented within 24 hours of calving

Udder Suspension			Teat Size		
Score	Description	Example	Score	Description	Example
9	Very Tight		9	Very small	
7	Tight		7	Small	
5	Intermediate/moderate		5	Intermediate/moderate	
3	Pendulous		3	Large	
1	Very pendulous, broken floor		1	Very large, balloon-shaped	

Question: is a “99” a “perfect udder”?

Docility

- We talk about it being a selling point of Shorthorn cattle...
 - What do we have to prove it?



Docility

- 2017 National Sire Test data
 - 108 head Docility Score 1
 - 26 head Docility Score 2
 - 12 head Docility Score 3
- Average Daily Gain on Test
 - Docility Score 1: 3.59 lb/day
 - Docility Score 2: 3.44 lb/day
 - Docility Score 3: 3.31 lb/day

Docility & Intake

- Do nervous cattle eat more? Less?
- Same cattle as previous slide (2017 NST)
- Dry Matter Intake on Test (Pounds per day)
 - Docility Score 1: 18.70 lb
 - Docility Score 2: 18.56 lb
 - Docility Score 3: 18.14 lb
- Feed to Gain Ratio (lb feed per lb gain)
 - Docility Score 1: 5.21
 - Docility Score 2: 5.40
 - Docility Score 3: 5.48

TCSCF Data

- 2015 Tri County Steer Carcass Futurity Sire Profit Analysis
- Comparison of Shorthorn, Angus, Hereford sired cattle


TCSCF Data

- Shorthorn (348 head)
 - 1.59 Docility
 - 3.27 ADG
 - 6.39 Feed to gain
 - 2.76 YG
 - 49% Choice; 7% Upper 2/3 Choice
- Hereford (470 head)
 - 1.51 Docility
 - 3.41 ADG
 - 6.83 Feed to gain
 - 3.25 YG
 - 59% Choice; 7% Upper 2/3 Choice
- Angus (7,069 head)
 - 1.80 Docility
 - 3.40 ADG
 - 6.76 Feed to gain
 - 3.07 YG
 - 80% Choice; 22 % Upper 2/3 Choice









Recording Docility Scores

Work order received on 09/17/2019

 PRINT VERSION Birth Data Entry Screen for Work Order #201909170049

After initial Validation, records are color-coded to show the selected birth season. Each have a different color


Dam						Calf Birth Date
RegNo	Tattoo	Shorthorn%	Temper	Susp	Teat	
  Reg # or Prefix/Tattoo 		0%				mm/dd/yyyy



Errors: Sex of calf not identified.

Delete ALL Add row Validate Commit to Registry *

Birth recording screen (cow's temperament)

Weaning Data Entry Screen for Work Order #201909170049 Member #14-13

If some fields will have the same value, you can  Pre-fill common fields

Error Descriptors	Reg No	Name	Prefix Tattoo	Sex	Weaning Date	Age	Weight	Adj	Temper	Height
						0		N/A		

Delete ALL Add row Validate

Weaning/Yearling recording screen (temperament of calf)

Iowa State Heifer Feed Intake Project

- Working with ISU Beef Extension
- Examining relationship between feed intake and measures of fertility in growing heifers
 - Reaching puberty, age of cycling, etc.
- 42 Shorthorn/Plus heifers in this project
- Patrick Wall talked on this yesterday

NST Intake Data

- “That was good data!” –Bryce Schumann
- Dry Matter Intake
- Heifers
 - Average: 18.05 lb/day
 - Range: 13.06-22.41 lb/day
- Steers
 - Average: 19.28 lb/day
 - Range: 14.05 -23.62 lb/day
- Over 180 days in the yard, that’s 1,500+ lb of feed difference from high to low

2017 NST Feedout Data

- Feed:Gain

- Heifers: 5.60 lb feed/lb gain
- Steers: 5.00 lb feed/ lb gain

- Gain

- Heifers:ADG 3.25 lb /day
- Steers: ADG 3.87 lb / day

- My conclusion: the cattle gained well and converted efficiently

2017 NST Carcass Data

- Carcass Weight

- Heifers: 761 lb
- Steers: 860 lb

- Ribeye Area

- Heifers: 13.1 sq in.
- Steers: 14.1 sq in

- Fat Thickness

- Heifers: 0.57 in
- Steers: 0.58 in



2017 NST Carcass Data

- **Marbling Scores**

- Heifers: Average MS 509 (USDA Mid Choice)
- Steers: Average MS 456 (USDA Choice)
- 85% of all calves MS above 400 (USDA Choice)

- **Yield Grades**

- Heifers: 2.71
- Steers: 2.72

How Does This Data Compare?

- 2016 National Beef Quality Audit
 - 4.5 million head
 - HCW: 868 lb
 - REA: 13.78 sq. in.
 - Backfat: 0.54 in
 - Marbling: 475 (Choice)
 - YG: 3.1
- We're doing pretty good!

NST Calving/Birth Weight Data

- 2017
 - 155 calves, Steers 91lb, Heifers 82lb, 100% Unassisted
- 2018
 - 94 calves, Steers 88 lb, Heifers 77 lb, 99% Unassisted
- 2019
 - 98 calves , Steers 80lb , Heifers 70 lb, 100% Unassisted
- Total (33 Sires)
 - 347 calves, Steers 87 lb Heifers 77lb, 346 Unassisted

Food for Thought

- “The true moment of selection is at breeding. The rest of the time we are just culling.”
- The only time we make a decision that isn't the removal of an animal from the herd is the day the cow gets AI bred or turned in with the herd bull. After that, we're always culling in some way!

