



Mark Your Calendar!

- Tuesday May 1 – 7:00 p.m. (Central)
 - Dr. Dan Thomson – Feedyard Animal Health



AHA Chief Operating Officer and
Director of Breed Improvement



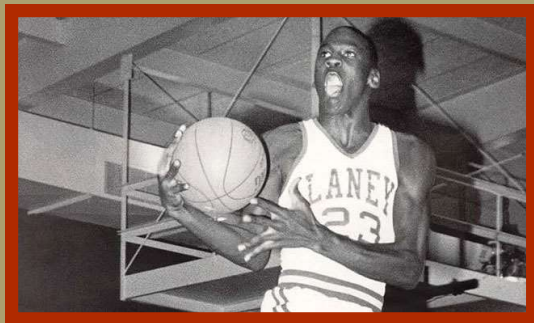
Getting The Most Out Of The Available Genetic Tools

Shane Bedwell
COO & Director of Breed Improvement



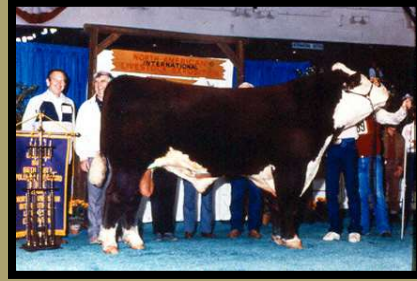
The Brand That Does It All

The Next Superstar



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The Old Days



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IS HE GOOD?????



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Performance Records

- Measure of an individual's actual performance
- Examples
 - Birth Weight
 - Weaning Weight
 - Yearling Weight
 - ADG



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EPD'S

- EPD'S = Expected Progeny Differences

EPD'S are an estimate of the genetic transmitting ability of an animal as a parent

Examples

- Birth , Weaning, and Yearling Weight



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Which ones better?

- Both are excellent tools utilized heavily
- EPD'S take into account the animals parentage while performance records only account for that individual.
- EPD's allow comparison of all animals within the breed while performance records can only compare that animal within herd.



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Breed Improvement

- Whole Herd Reporting (TPR)
 - Getting entire calf crops



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Whole Herd Reporting (TPR)

- AHA Board Implemented Policy
 - In Order To Have EPD's
 - Every Female must have the following:
 - Reproductive Status
 - CE Score
 - Every calf born
 - Weaning Weight (WW)



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Whole Herd Reporting (TPR)

- The value of accurate and good data

PRICELESS!!!!!!



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How do you get an EPD????

- Parentage Estimates
- Animal Phenotypes
- Progeny Phenotypes



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Production EPD'S

- BW - Birth Weight (pounds)
- WW - Weaning Weight (pounds)
- YW - Yearling Weight (pounds)
- CE- Calving Ease (percentage)
 - Predicts the ease with which a sire's calves will be born when he is bred to first calf heifers



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Maternal EPD's











- M – Milk (pounds)
 - Portions of a calf's weaning weight attributed to milk or mothering ability
- MCW – Mature Cow Weight(pounds)
 - Predicts mature size
 - Predictor of potential maintenance
- CEM – Calving Ease Maternal (percentage)
 - Predicts the ease with which a sire's daughters will calve as first calf heifers



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Maternal EPD's

- (TEAT) - Teat
– Length and shape
- (UDDR) - Udder
– Udder suspension
- Both based on

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	



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Carcass EPD'S

- MB -Marbling (fraction of marbling score)
- REA - Ribeye Area (square inches)
- Fat – Back Fat (inches)
- CW –Carcass Weight (pounds)



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NEW EPDs

- Sustained Cow Fertility – (SCF)
- Dry Matter Intake – (DMI)



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Collecting The Phenotypes

- Easy traits – BW, WW, YW, SC, Calving Ease, SCF and Udder Scores
- Medium Traits – Scan Data and Cow Weights,
- Hard Traits- Carcass Data – REA, Marb., BF, and CW.
Feed Intake - DMI



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NJW 33TB 100W TRUST 167Y {CHB,DLF,HYF,IEF} (P43214415)

[Home](#) [Animal Inquiry](#) [EPD Inquiry](#) [Member Inquiry](#)

Registration No.: 43214415
 Reg. Status: Registered
 Sex: Bull
 Tattoo: 33TB167Y
 Birth Date: 03/27/2011
 Calving Year: 2011
 Status: Active
 AI/ET: AI PERMITTED
 Sire: [NJW 73S M326 TRUST 100W ET {SOD,CHB,DLF,HYF,IEF} \(P43002897\)](#)
 Dam: [BROOKVIEW 242 TEQUILA ROSE 33T {DLF,HYF,IEF} \(P42827719\)](#)
 Breeder: [NED & JAN WARD](#)
 Current Owner: [Multiply Owned](#)
 Horn Status: Polled
 Herd ID: 167Y
 Pedigree: [\[View\]](#)
 EPD Graph: [\[View\]](#)
 DNA Parentage Profile: SNP and Microsatellite Profile
 Performance Pedigree: [\[View\]](#)

EPDS AS OF 04/02/18

	Calv Ease Direct (%)	Birth Wt	Weaning Wt	Yearling Wt	Dry Matter Intake	Scrotal Circ.	Sustained Cow Fertility	Milk & Growth	Calv Ease Mat (%)	Mature Cow Weight	Udder Suspension	Teat Size	Carc Wt	Fat	Rib Eye Area	Marbling	BMI Index (\$)	BI Index (\$)	CHB Index (\$)	
EPD	+2.2	+2.4	+48	+93	+0.3	+0.9	+16.6	+28	+52	+6.4	+104	+1.40	+1.50	+79	+0.035	+0.65	+0.60	+3.29	+3.25	+3.37
Acc	.47	.84	.75	.74	.43	.57	.23	.36	-.31	.50	.54	.56	.52	.52	.52	.52	-	-	-	
Breed Avg. EPDs for 2016 Born Calves Click for Percentiles																				
EPD	1.6	3.1	50	81	0.1	0.9	13.5	23	48	1.8	88	1.19	1.19	.63	0.008	0.35	0.10	22	19	28

Traits Observed: BWT,VVWT,YWT,SC,FAT,REA,IMF,

Statistics:

Statistics: BW:57/369, WW:40/267, YW:22/150, SC:8/47, Dgt:16, SCAN:133, HARVEST:24, MCW:16



THE BIRTH THAT DOESN'T FAIL

		INDIVIDUAL PERFORMANCE		PROGENY	
				NUMBER	AVERAGES
Animal	Birth Wt.	95.0 %		359	100.6 %
	Weaning Wt.	100.0 %		261	99.4 %
	Yearling Wt.	104.0 %		152	101.5 %
	Yearling Ht.			46	5.3 Frame
	Yr. Sc. Cir.	36.3 Cm.		53	35.9 Cm.
	Fat Depth	128.0 %		132	101.8 %
	Ribeye Area	107.0 %		132	102.3 %
	IMF	137.0 %		132	105.5 %
SIRE	Birth Wt.			2649	100.5 %
	Weaning Wt.			2274	101.5 %
	Yearling Wt.			1167	101.6 %
	Yearling Ht.			282	5.6 Frame
	Yr. Sc. Cir.	37.7 Cm.		423	36.5 Cm.
	Fat Depth	104.0 %		945	96.1 %
	Ribeye Area	127.0 %		946	102.6 %
	IMF	77.0 %		947	98.6 %
DAM	Birth Wt.	99.0 %		7	105.3 %
	Weaning Wt.	106.0 %		6	101.3 %
	Yearling Wt.	100.0 %		5	103.6 %
	Yearling Ht.				
	Yr. Sc. Cir.			3	37.7 Cm.
	Fat Depth	122.0 %		5	91.4 %
	Ribeye Area	100.0 %		5	105.0 %
	IMF	118.0 %		5	106.2 %



DNA Testing

- AHA uses Geneseek/Neogen
 - Located in Lincoln, NE
 - Global DNA company
 - Currently running 1,800 sample/month



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Reasons Why To DNA Test

- Check Parentage
- Check Horn/Poll Status
- Check for Abnormalities
- Get a set of GE-EPD's



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Reasons Why To DNA Test

- AI Permit Herd Bull
- Walking Herd Bull
- ET Permit Donor Female
- Consign Seedstock For AHA National Sale



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Current AHA DNA Tests

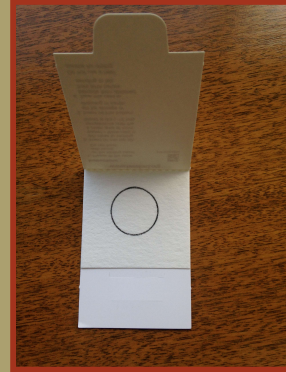
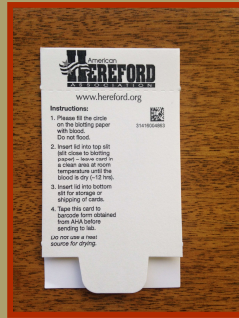
- \$38 – Profile, Parentage, Abnormalities, and GE- EPD's
- \$58 –Profile, Parentage, Abnormalities, GE- EPD's and Horn/Poll Test



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DNA Collection Methods

- Hair
- Semen (Bulls)
- Blood Cards



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DNA Collection Methods

- TSU – Tissue Sample Unit
 - Improved turn around time
 - Improved success rate



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Genomic Enhanced EPD's GE –EPD's

- Good Genes vs. Bad Genes



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Questions??



Don't Forget!

- Tuesday May 1 – 7:00 p.m. (Central)
 - Dr. Dan Thomson – Feedyard Animal Health

