

Beef Improvement Federation Genetic Prediction Committee

Jack Ward
American Hereford Association

Inclusion of Genetic Prediction in to National Cattle Evaluation, Hereford

- First inclusion was done on Fall 2012 NCE and the correlations were based off of about 1100 high accuracy bulls.
- Spring 2013 NCE was run with the same correlations.
- April 2013, updated the correlations based off of nearly 3500 animals.
- Post Evaluation blending method is used today.

Inclusion of Genetic Prediction in to National Cattle Evaluation, Hereford

- Fall 2013, will include Genomic component into evaluation so it will affect animals up and down the pedigree.
- May 1, 2013 the AHA switched from the 50K chip to the HD 77K chip offered by GeneSeek which includes, parentage, genetic abnormalities and GE-EPD.

New vs Old (added over 2000 new bulls to training)

AHA trait	Old Correlation MBV & EPD	New correlation MBV & EPD
CE	.33	.68
BW	.40	.68
WW	.34	.52
YW	.33	.60
MM	.21	.37
MCE	.18	.51
MCW		.64
SC	.25	.43
FAT	.43	.48
REA	.25	.49
MARB	.41	.43
AVG	.31	.53

What does Breeder receive?

American Hereford Association
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Loewen Herefords 951804
John Loewen
9815 South 68th
Waukomis OK 73773-0120

DNA RESULT STATEMENT Page: 1

Registration No: 43395297 Name: LOEWEN 94X 1042 93Z
 Herd Id: 33Z Birth Date: 06/28/12
 Tattoo: 33Z Sex: Bull

Results for Case No. ANA43395297-01 Date Sent: 05/09/13 Date Tested: 05/03/13

Parentage Request Type: Parent Verification Panel Type: SNP Panel

Name	Registration Number	Result
Sire: LOEWEN FOUNDATION 34X	43074063	Qualifier
Dam: ALH 0850 XENA 1042	43102409	Qualifier

COLOR DILUTOR **IDIOPATHIC EPILEPSY** **HYPOTRICHOSIS** 06/03/13
 Homozygous Normal Homozygous Normal Homozygous Normal

GE-EPD 06/03/13

Tested	CE	BW	WW	YW	MM	MSD	MCE	MCW	SC	FAT	REA	MARB	EPD	EPD	EPD	EPD	EPD	EPD	EPD
15	36	26	28	12	21	11	11	15	11	15	11	15	11	15	11	15	11	15	11
EPD FA-GE Data	4.5	0.2	47	15	11	40	2.3	90	10	0.031	0.41	0.30	24	20	22	29			

Horn/Hall: Homozygous Polled 06/03/13

Report Printed: 06/03/13

Where to find Hereford animals that have GE-EPD

- Animals are recognized on the web with
- The EPD Inquiry can be used by a quest and animals can be "sort if"

Future Development

- Continue to look at ways for better inclusion.
- Work with other Pan American countries to develop tests that work across continents.
- Sequencing and identifying possible causative genes or at least genes with large affects.
- Continue to collect phenotypes through Whole Herd TPR

Recognition

- NBCEC (Dorian Garrick, Mahdi Saatchi)
- USMARC (John Pollak, Mark Thallman, Larry Kuehn)
- Jerry Taylor
- Dan Moser
- Matt Spangler
- Mike MacNeil
- AGBU, ABRI
- GeneSeek
- AHA staff and BOD