FORT KEOGH LIVESTOCK AND RANGE RESEARCH LABORATORY

RESEARCH ANIMAL SALE

Miles City
Livestock Commission
Miles City, Montana

Tuesday
March 19
2013

Line 1 Hereford
79 Years of Excellence

FORT KEOGH LIVESTOCK AND RANGE RESEARCH LABORATORY

RESEARCH CATTLE SALE

Line 1 Hereford Bulls

Selling 6 herd bulls inc. 2 ET bulls & 27 coming 2-year-olds

Tuesday
March 19, 2013
1:00 p.m.

Miles City Livestock Commission
Miles City, Montana

Rob Fraser, Auctioneer
(406) 234-1790

Lunch will be served
12:00 p.m.
Sale Day

Mark Petersen **(406)874-8200**
Research Leader/Superintendant

Tom Mott **(406)874-8238 or**
Herd Manager **(406)853-2637**

Brad Eik **(406)874-8226 or**
Asst. to Superintendant **(406)853-2635**

Lindsey Cook **(406)874-8201**
Records

REPRESENTATIVES

Ben Brillhart	(406)947-2222	American Hereford Assn.
Byron Bayers	(406)684-5465	Hereford America

WE'RE ON THE WEB!!

View the following website for more information about the 2013 Line 1 Hereford Bull sale as well as information about Fort Keogh's long and rich history:

www.ars.usda.gov/npa/ftkeogh

Hosted by:
Montana Agricultural Experiment Station

MONTANA STATE UNIVERSITY
MONTANA AGRICULTURAL EXPERIMENT STATION

BUYERS, UNABLE TO ATTEND THE SALE?? VIEW AND BID ONLINE OR BY TELEPHONE!

This sale will be broadcast live over the Internet on sale day. For buyers that are unable to attend the sale, you will have the option of bidding online using your computer or you can place a bid using the sale day bidline.

Buyers must pre-register for a buyer number and password.

Visit Frontier Stockyards website to register.

Online videos, pedigrees and EPDs can be found along with more information about the sale at:

www.frontierstockyards.com

SALE DAY BIDLINE:

406-234-8721

Sale broadcast by Frontier Stockyards
866-621-5546 or 406-234-8710
frontier@frontierstockyards.com
www.frontierstockyards.com

TERMS

All sales are cash. Payment must be submitted to the Miles City Livestock Commission within 24 hours.

Animals become the buyer's property at the time of sale. The buyer assumes all risk to purchases immediately following the auctioneer's call of "sold." Care of purchased animals can be arranged if animals cannot be picked up by noon on the day following the sale. See Tom Mott or Brad Eik

All animals offered for sale are guaranteed at the time of sale as breeders for natural service, as being in good health, and as otherwise represented by authorized representatives (Research Leader and Superintendent, Line 1 Genetics Project Leader or Assistant to Superintendent) of LARRL. If an animal fails to meet these standards, then the buyer shall provide written notice of said deficiency to the Research Leader, Fort Keogh LARRL. Fort Keogh LARRL reserves the right to examine the animal and to attempt to prove the terms of its guarantee within 90 days of such notice. If it is agreed between buyer and seller that the animal fails to meet the standards for which it is guaranteed, then a settlement satisfactory to both parties and not to exceed the price paid for the animal will be negotiated. No other guarantees are offered or implied.

A copy of the receipt of sale will be given the buyer to be taken up by the Brand Inspector when issuing a brand clearance.

Animals are Bangs and TB tested for interstate shipment within the 48 contiguous states. Bulls have passed a breeding soundness exam.

Registration certificates will be sent to buyers of Line 1 cattle.

Cattle offered are "by-products" of the research program at Fort Keogh LARRL. They are surplus to current research needs. Receipts from this sale defray operating expenses at the Laboratory.

A Brief History...

Line 1 was founded from cows purchased in 1926 from George M. Miles of Miles City, Montana. In 1933, two sons of Advance Domino 13 were purchased from Fred C. DeBerard of Martin, Colorado. The line was closed in 1934 without any further introduction of germplasm. Throughout its history Line 1 has been selected for increased growth to one year of age.

A recessive gene for spotted coat pattern is present throughout the Hereford breed, including Line 1, in low frequency.

In 2008, we asked John Beaver at the University of Illinois to test every animal in the herd for the presence of the mutation causing epilepsy in Hereford cattle. ***The mutation is not present in the Line 1 herd at <u>Miles City</u>***.

Beginning in 2007, Line 1 Hereford bulls used for breeding by Fort Keogh LARRL and offered for sale will be DNA profiled as required by the American Hereford Association for registration of AI sired calves. Fort Keogh LARRL collects DNA as a component of its ongoing research program. Upon request of the buyer of an animal in this, Fort Keogh LARRL will furnish aliquot of DNA (if available) from the purchased animal and its parents to any laboratory authorized by the American Hereford Association to conduct DNA profiling for the purpose of parentage verification only. All costs associated with the requested parentage verification will be the responsibility of the buyer.

ABOUT EPDs

The EPDs published in the sale catalog were downloaded from the American Hereford Association (AHA) web-site in January, 2013.

EPDs are best used to compare two individuals. The actual values of the EPDs do not correlate well with the future performance of one individual's progeny. For example, a bull (Bull A) whose birth weight EPD is 3.5 may very well sire progeny that have an average birth weight of 75 pounds in one herd and 90 pounds in another. However, if Bull A is com-

pared with one (Bull B) whose EPD is -1.5 pounds, then the difference in birth weights of progeny sired by the two bulls is expected to be about 5 pounds in both herds.

EPDs for calving ease are new. The calving ease EPD have great promise in helping Hereford breeders reduce problems with calving difficulty both in seedstock and commercial production situations. These calving ease EPDs optimally combine information from both birth weight and the calving difficulty scores. Thus, if birth weight was being used previously as an indicator of potential calving difficulty, a more efficient approach is to now use the calving ease EPDs instead.

With all the traits being measured and genetic evaluations being conducted cattle producers, purebred and commercial alike, need to give serious thought as to how they use this information. In my opinion, Hereford cattle should not be extreme. The beauty of Hereford cattle is in their moderation of milk, growth, muscle, etc., and in their fitness in range and pasture based production systems. Making Hereford cattle extreme can only add cost for producers whose cattle turn forages into beef.

That said, we believe the information about the genetic potential of cattle should be used in making selection decisions. Be willing to make trade offs among the various traits in ways that best suit your farm or ranch. For many traits the best genetic potential is somewhere in the middle. Too little milk may lead to unthrifty calves. Too much milk may increase energy requirements and use of supplemental feeds or to reduced pregnancy rates. Too little muscle may lead to unacceptable carcasses and discounted prices. Too much muscle may lead to reduced fertility. To this end we try to 1) give every animal an equal chance to perform and 2) provide you with the information you need to evaluate them.

The American Hereford Association indexes are a product of research conducted at Fort Keogh LARRL. The indexes trade-off superiority and inferiority in EPDs, for the traits

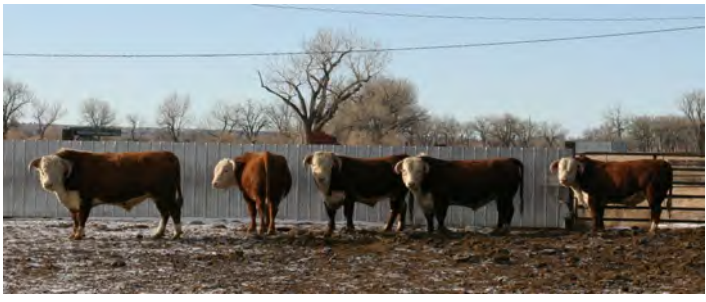
evaluating in a manner that is economically consistent with profitability of commercial production. Thus, these indexes enable Hereford breeders and their commercial bull customers to select sires that maximize profit under commercial production situations.

-NOTES-

Herd Sires

Fort Keogh retains a semen interest in all bulls sold, for research purposes. The purchaser of the bull will have possession of the bull and all salvage rights. Fort Keogh retains the semen interest if the bull is sold to subsequent purchasers. Fort Keogh also reserves the right to collect semen from the bull at the buyer's convenience and our expense. This retained semen interest extends to any clone of the bull.

If you have any questions about the retained semen interest, please contact us prior to the sale.



Herd Bulls

3.5 year-old ET bulls

L1 Domino 98300
L1 Domino 01384
L1 Dominette 99374
L1 Domino 03571
L1 Domino 98324
L1 Dominette 00532
L1 Dominette 94399

L1 Domino 09643E

DOB 9/18/2009
30% inbred

L1 Domino 96961
L1 Domino 99360
L1 Dominette 95348
L1 Dominette 02352
29% inbred
L1 Domino 97315
L1 Dominette 99468
L1 Dominette 96893

CE_d	1.7
BW	1.1
WW	42
YW	66
MM	24
CE_m	1.8
SC	0.7
Fat	0.08
REA	-0.08
IMF	0.17
$BMI	$15
$CEZ	$16
$BII	$13
$CHB	$16

	BW	WW	YW	SC
Own	98	459	946	
2012 progeny	77	384		
Progeny of Dam:	Exposed 7	Calved 7	Weaned 7	
Pigment of bull:	SC 100%	L. eye 50%	R. eye 10%	

L1 Domino 09652E

L1 Domino 920501
L1 Domino 95430
L1 Dominette 900391
L1 Domino 97349
L1 Domino 910079
L1 Dominette 93451
L1 Dominette 910390

L1 Domino 09652E

DOB 9/30/2009
32% inbred

L1 Domino 95439
L1 Domino 98300
L1 Dominette 95491
L1 Dominette 00477
30% inbred
L1 Domino 920448
L1 Dominette 95348
L1 Dominette 920484

CE_d	2.5
BW	-1.5
WW	33
YW	58
MM	21
CE_m	4.6
SC	0.8
Fat	0.015
REA	0.32
IMF	0.19
$BMI	$20
$CEZ	$19
$BII	$19
$CHB	$18

	BW	WW	YW	SC
Own	96	550	984	
2012 progeny	72	327		
Progeny of Dam:	Exposed 8	Calved 8	Weaned 8	
Pigment of bull:	SC 75%	L. eye 90%	R. eye 50%	

L1 Domino 09643E

L1 Domino 97349
L1 Domino 99496
L1 Dominette 95369
L1 Domino 02398
L1 Domino 95439
L1 Dominette 98345
L1 Dominette 95320

L1 Domino 10454

DOB 3/10/2010
31% inbred

L1 Domino 02336
L1 Domino 05505
L1 Dominette 02406
L1 Dominette 08430
L1 Domino 03426
L1 Dominette 06427
L1 Dominette 03552

CE_d	-0.2
BW	3.1
WW	48
YW	90
MM	17
CE_m	1.5
SC	0.9
Fat	0.02
REA	0.34
IMF	0.06
$BMI	$17
$CEZ	$14
$BII	$15
$CHB	$22

	BW	WW	YW	SC
Own	84	501	1015.5	40.3
2012 Progeny	73	294		

Progeny of Dam:	Exposed 3	Calved 2	Weaned 2
Pigment of calf:	SC 85%	L. eye 40%	R. eye 40%

L1 Domino 02382
L1 Domino 04457
L1 Dominette 02339
L1 Domino 07505
L1 Domino 01475
L1 Dominette 04494
L1 Dominette 02379

L1 Domino 10476

DOB 3/18/2010
30% inbred

L1 Domino 02492
L1 Domino 04434
L1 Dominette 97325
L1 Dominette 07415
L1 Domino 98367
L1 Dominette 00456
L1 Dominette 95451

CE_d	4
BW	1.8
WW	45
YW	72
MM	19
CE_m	1.3
SC	1
Fat	0.023
REA	0.24
IMF	0.18
$BMI	$22
$CEZ	$19
$BII	$20
$CHB	$23

	BW	WW	YW	SC
Own	86	593	1005	36.5
2012 Progeny	70	349		

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 85%	L. eye 40%	R. eye 30%

Out of a Dam of Distinction!

L1 Domino 10476

L1 Domino 10454

L1 Domino 02382
L1 Domino 04457
L1 Dominette 02339
L1 Domino 07467
L1 Domino 98281
L1 Dominette 00523
L1 Dominette 98280

L1 Domino 10515
DOB 3/31/2010
32% inbred

L1 Domino 01418
L1 Domino 03473
L1 Dominette 95435
L1 Dominette 06562
29% inbred
L1 Domino 02382
L1 Dominette 04464
L1 Dominette 02442

CE_d	4.5
BW	2.2
WW	38
YW	69
MM	17
CE_m	0.2
SC	0.7
Fat	0.033
REA	-0.08
IMF	0.14
$BMI	$17
$CEZ	$18
$BII	$15
$CHB	$18

	BW	WW	YW	SC
Own	84	493	978	38
2012 Progeny	74	322		

Progeny of Dam:	Exposed 4	Calved 3	Weaned 3
Pigment of calf:	SC 40%	L. eye 50%	R. eye 50%

Out of a Dam of Distinction!

L1 Domino 10515

L1 Domino 10516

DOB 3/31/2010
32% inbred

L1 Domino 04457
L1 Domino 06474
L1 Dominette 99408
L1 Domino 08542
L1 Domino 99360
L1 Dominette 02352
L1 Dominette 99468
L1 Domino 97349
L1 Domino 00499
L1 Dominette 95491
L1 Dominette 02439
29% inbred
L1 Domino 98273
L1 Dominette 00463
L1 Dominette 96893

CE_d	1.2
BW	2.2
WW	38
YW	74
MM	19
CE_m	3.2
SC	0.7
Fat	0.026
REA	0.19
IMF	0.16
$BMI	$17
$CEZ	$16
$BII	$15
$CHB	$19

	BW	WW	YW	SC
Own	98	563	1003	39.3
2012 Progeny	76	381		
Progeny of Dam:	Exposed 10	Calved 9	Weaned 9	
Pigment of calf:	SC 85%	L. eye 60%	R. eye 50%	

Out of a Dam of Distinction!

Coming 2-year old Bulls

This offering of coming two-year-old bulls was selected from the **81** bull calves born in 2011. With the exception of the 2011 born herd bulls we are using, these are the only 2011 born Line 1 bulls we sell as breeding bulls. We believe the combination of data integrity, performance selection, and moderate prices make them one of the best genetic values available.

Several investigations show heterosis or hybrid vigor is worth about $100 per cow annually. Research supports the popular adage that, "the black-baldie female is the queen of the prairies." Let our Hereford bulls start the process for you!

Ratios are not computed for the 2011 bulls because some of the calves with lighter weaning weights were sent to the Poisonous Plants Laboratory in Logan, UT for research. Therefore, any ratios calculated from the calves remaining here would be bi-ased. This selection bias is taken into account in the calculation of the EPD. Therefore, the comparisons among these bulls for weaning weight and yearling weight should be based on their EPD. All birth weights are actual measurements.

L1 Domino 04434
L1 Domino 07431
L1 Dominette 04407
L1 Domino 09501
L1 Domino 00478
L1 Dominette 03460
L1 Dominette 01492

L1 Domino 11466

DOB 3/13/2011
33% inbred

L1 Domino 04457
L1 Domino 06474
L1 Dominette 99408
L1 Dominette 08442
31% inbred
L1 Domino 04434
L1 Dominette 06574
L1 Dominette 02419

CE_d	-2.1
BW	3
WW	47
YW	80
MM	19
CE_m	1.3
SC	1.3
Fat	0.052
REA	-0.02
IMF	0.26
$BMI	$21
$CEZ	$14
$BII	$21
$CHB	$21

	BW	WW	YW	SC
Own	88	541	1003.5	36

Progeny of Dam:	Exposed 4	Calved 3	Weaned 3
Pigment of calf:	SC 65%	L. eye 50%	R. eye 40%

L1 Domino 03564
L1 Domino 05516
L1 Dominette 02377
L1 Domino 08554
L1 Domino 00499
L1 Dominette 02439
L1 Dominette 00463

L1 Domino 11470

DOB 3/14/2011
30% inbred

L1 Domino 96961
L1 Domino 99371
L1 Dominette 94339
L1 Dominette 01373
L1 Domino 94446
L1 Dominette 96908
L1 Dominette 94365

CE_d	1.4
BW	0.2
WW	37
YW	63
MM	19
CE_m	2.1
SC	0.1
Fat	0.024
REA	0.33
IMF	0.21
$BMI	$13
$CEZ	$15
$BII	$11
$CHB	$20

	BW	WW	YW	SC
Own	80	492	866	29

Progeny of Dam:	Exposed 10	Calved 9	Weaned 8
Pigment of calf:	SC 65%	L. eye 0%	R. eye 0%

L1 Domino 04434
L1 Domino 06557
L1 Dominette 03586
L1 Domino 09521
L1 Domino 04380
L1 Dominette 07461
L1 Dominette 00437

L1 Domino 11476

DOB 3/15/2011
34% inbred

L1 Domino 02437
L1 Domino 04380
L1 Dominette 00532
L1 Dominette 06437
L1 Domino 99402
L1 Dominette 02413
L1 Dominette 96863

CE_d	-0.3
BW	4.4
WW	43
YW	79
MM	15
CE_m	0.2
SC	0.7
Fat	0.036
REA	0.03
IMF	-0.05
$BMI	$13
$CEZ	$13
$BII	$12
$CHB	$15

	BW	WW	YW	SC
Own	94	556	978.5	34

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 100%	L. eye 0%	R. eye 0%

Out of a Dam of Distinction

L1 Domino 11476

L1 Domino 03426
L1 Domino 05426
L1 Dominette 02407
L1 Domino 08545
L1 Domino 98367
L1 Dominette 01341
L1 Dominette 97357

L1 Domino 11490

DOB 3/17/2011
38% inbred

L1 Domino 97349
L1 Domino 99496
L1 Dominette 95369
L1 Dominette 02407
29% inbred
L1 Domino 93507
L1 Dominette 95452
L1 Dominette 920424

CE_d	0.6
BW	2.5
WW	35
YW	60
MM	18
CE_m	3
SC	0.5
Fat	0.029
REA	-0.02
IMF	0.18
$BMI	$15
$CEZ	$16
$BII	$14
$CHB	$16

	BW	WW	YW	SC
Own	90	539	980.5	34.5

Progeny of Dam:	Exposed 9	Calved 8	Weaned 8
Pigment of calf:	SC 90%	L. eye 0%	R. eye 0%

L1 Domino 03473
L1 Domino 06472
L1 Dominette 00532
L1 Domino 09500
L1 Domino 99513
L1 Dominette 02428
L1 Dominette 99480

L1 Domino 11494

DOB 3/19/2011
30% inbred

L1 Domino 02492
L1 Domino 04434
L1 Dominette 97325
L1 Dominette 07538
30% inbred
L1 Domino 01362
L1 Dominette 04401
L1 Dominette 99429

CE_d	1.6
BW	-1.2
WW	37
YW	55
MM	20
CE_m	1.3
SC	0.8
Fat	0.09
REA	-0.46
IMF	0.34
$BMI	$17
$CEZ	$16
$BII	$17
$CHB	$15

	BW	WW	YW	SC
Own	80	602	932.5	33

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 75%	L. eye 60%	R. eye 80%

L1 Domino 11503

L1 Domino 97349
L1 Domino 99496
L1 Dominette 95369
L1 Domino 02398
L1 Domino 95439
L1 Dominette 98345
L1 Dominette 95320

L1 Domino 11502

DOB 3/20/2011
31% inbred

L1 Domino 03473
L1 Domino 06472
L1 Dominette 00532
L1 Dominette 09483
30% inbred
L1 Domino 04434
L1 Dominette 06439
L1 Dominette 99515

CE_d	1
BW	2
WW	38
YW	66
MM	20
CE_m	1.5
SC	1
Fat	0.061
REA	-0.25
IMF	0.07
$BMI	$16
$CEZ	$16
$BII	$16
$CHB	$12

	BW	WW	YW	SC
Own	88	478	917	35

Progeny of Dam:	Exposed 3	Calved 2	Weaned 2
Pigment of calf:	SC 60%	L. eye 30%	R. eye 20%

L1 Domino 11494

L1 Domino 03473
L1 Domino 06472
L1 Dominette 00532
L1 Domino 09500
L1 Domino 99513
L1 Dominette 02428
L1 Dominette 99480

L1 Domino 11503

DOB 3/21/2011
29% inbred

L1 Domino 98300
L1 Domino 00546
L1 Dominette 97377
L1 Dominette 02419
29% inbred
L1 Domino 93567
L1 Dominette 95382
L1 Dominette 93535

CE_d	-0.7
BW	3.1
WW	44
YW	82
MM	15
CE_m	-1.6
SC	0.8
Fat	0.054
REA	0.02
IMF	0.24
$BMI	$16
$CEZ	$13
$BII	$16
$CHB	$21

	BW	WW	YW	SC
Own	94	569	1036.5	38

Progeny of Dam:	Exposed 10	Calved 9	Weaned 9
Pigment of calf:	SC 0%	L. eye 20%	R. eye 0%

Out of a Dam of Distinction!

L1 Domino 11514

L1 Domino 97349
L1 Domino 99496
L1 Dominette 95369
L1 Domino 02398
L1 Domino 95439
L1 Dominette 98345
L1 Dominette 95320

L1 Domino 11505

DOB 3/21/2011
30% inbred

L1 Domino 04434
L1 Domino 06557
L1 Dominette 03586
L1 Dominette 09479
L1 Domino 96855
L1 Dominette 99410
L1 Dominette 920521

CE_d	-0.5
BW	5.1
WW	44
YW	78
MM	19
CE_m	1.4
SC	0.8
Fat	-0.002
REA	0.14
IMF	-0.05
$BMI	$15
$CEZ	$14
$BII	$13
$CHB	$18

	BW	WW	YW	SC
Own	100	497	917.5	34

Progeny of Dam:	Exposed 2	Calved 1	Weaned 1
Pigment of calf:	SC 75%	L. eye 90%	R. eye 75%

L1 Domino 03564
L1 Domino 05516
L1 Dominette 02377
L1 Domino 08554
L1 Domino 00499
L1 Dominette 02439
L1 Dominette 00463

L1 Domino 11507

DOB 3/22/2011
31% inbred

L1 Domino 03541
L1 Domino 06453
L1 Dominette 04376
L1 Dominette 08423
L1 Domino 02347
L1 Dominette 04419
L1 Dominette 00407

CE_d	0
BW	4.1
WW	50
YW	85
MM	18
CE_m	0.4
SC	0.6
Fat	0.042
REA	0.24
IMF	0.49
$BMI	$19
$CEZ	$14
$BII	$16
$CHB	$30

	BW	WW	YW	SC
Own	90	572	1033	35

Progeny of Dam:	Exposed 4	Calved 3	Weaned 2
Pigment of calf:	SC 85%	L. eye 0%	R. eye 30%

L1 Domino 03426
L1 Domino 05426
L1 Dominette 02407
L1 Domino 08545
L1 Domino 98367
L1 Dominette 01341
L1 Dominette 97357

L1 Domino 11514

DOB 3/23/2011
32% inbred

L1 Domino 00478
L1 Domino 03541
L1 Dominette 99537
L1 Dominette 06462
29% inbred
L1 Domino 00552
L1 Dominette 03391
L1 Dominette 97357

CE_d	2.6
BW	2.1
WW	33
YW	61
MM	14
CE_m	-0.3
SC	0.6
Fat	-0.007
REA	0.16
IMF	0.1
$BMI	$17
$CEZ	$17
$BII	$17
$CHB	$17

	BW	WW	YW	SC
Own	82	491	927.5	33

Progeny of Dam:	Exposed 6	Calved 5	Weaned 5
Pigment of calf:	SC 85%	L. eye 10%	R. eye 60%

L1 Domino 11515

L1 Domino 05496
L1 Domino 07514
L1 Dominette 02439
L1 Domino 09533
L1 Domino 99402
L1 Dominette 02339
L1 Dominette 00561

L1 Domino 11515

DOB 3/23/2011
31% inbred

L1 Domino 02336
L1 Domino 05505
L1 Dominette 02406
L1 Dominette 08434
31% inbred
L1 Domino 03541
L1 Dominette 06448
L1 Dominette 01395

CE_d	0.1
BW	2.1
WW	40
YW	73
MM	14
CE_m	0.5
SC	0.8
Fat	0.045
REA	-0.04
IMF	0.33
$BMI	$19
$CEZ	$15
$BII	$18
$CHB	$21

	BW	WW	YW	SC
Own	80	481	966.5	32.5

Progeny of Dam:	Exposed 4	Calved 3	Weaned 3
Pigment of calf:	SC 100%	L. eye 100%	R. eye 40%

L1 Domino 04434
L1 Domino 07431
L1 Dominette 04407
L1 Domino 09501
L1 Domino 00478
L1 Dominette 03460
L1 Dominette 01492

L1 Domino 11516

DOB 3/23/2011
33% inbred
L1 Domino 03490
L1 Domino 05496
L1 Dominette 99455
L1 Dominette 08477
30% inbred
L1 Domino 04434
L1 Dominette 06480
L1 Dominette 03439

CE_d	-5.5
BW	5.1
WW	44
YW	71
MM	18
CE_m	-1.9
SC	1.1
Fat	0.035
REA	-0.32
IMF	0.03
$BMI	$14
$CEZ	$9
$BII	$16
$CHB	$13

	BW	WW	YW	SC
Own	98	488	859.5	34.5

Progeny of Dam:	Exposed 4	Calved 3	Weaned 2
Pigment of calf:	SC 75%	L. eye 100%	R. eye 80%

L1 Domino 11518

L1 Domino 05496
L1 Domino 07514
L1 Dominette 02439
L1 Domino 09533
L1 Domino 99402
L1 Dominette 02339
L1 Dominette 00561

L1 Domino 11518

DOB 3/24/2011
30% inbred
L1 Domino 02492
L1 Domino 04434
L1 Dominette 97325
L1 Dominette 06507
29% inbred
L1 Domino 01475
L1 Dominette 04521
L1 Dominette 02373

CE_d	-1.8
BW	1.6
WW	36
YW	70
MM	17
CE_m	0.3
SC	0.9
Fat	0.021
REA	-0.07
IMF	0.16
$BMI	$17
$CEZ	$13
$BII	$17
$CHB	$17

	BW	WW	YW	SC
Own	84	536	987	35

Progeny of Dam:	Exposed 6	Calved 5	Weaned 4
Pigment of calf:	SC 0%	L. eye 70%	R. eye 95%

L1 Domino 11524

L1 Domino 04434
L1 Domino 06557
L1 Dominette 03586
L1 Domino 09521
L1 Domino 04380
L1 Dominette 07461
L1 Dominette 00437

L1 Domino 11524

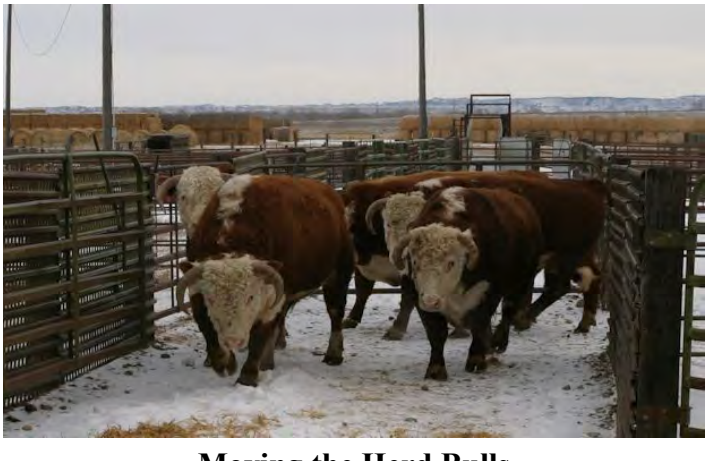
DOB 3/26/2011
30% inbred

L1 Domino 98367
L1 Domino 01418
L1 Dominette 98299
L1 Dominette 04449
30% inbred
L1 Domino 99496
L1 Dominette 02407
L1 Dominette 95452

CE_d	1.9
BW	0.2
WW	31
YW	53
MM	19
CE_m	2.9
SC	0.8
Fat	0.062
REA	-0.19
IMF	0.12
$BMI	$16
$CEZ	$17
$BII	$16
$CHB	$11

	BW	WW	YW	SC
Own	80	496	880	32.5

Progeny of Dam:	Exposed 7	Calved 6	Weaned 5
Pigment of calf:	SC 75%	L. eye 60%	R. eye 50%



Moving the Herd Bulls

L1 Domino 11531

L1 Domino 11531
DOB 3/28/2011
30% inbred
28% inbred

L1 Domino 03564
L1 Domino 05516
L1 Dominette 02377
L1 Domino 08554
L1 Domino 00499
L1 Dominette 02439
L1 Dominette 00463
L1 Domino 02347
L1 Domino 04380
L1 Dominette 00532
L1 Dominette 07532
L1 Domino 96855
L1 Dominette 99410
L1 Dominette 920521

CE_d	-0.3
BW	4.5
WW	48
YW	100
MM	16
CE_m	1.2
SC	0.3
Fat	0.031
REA	0.38
IMF	0.24
$BMI	$13
$CEZ	$12
$BII	$9
$CHB	$27

	BW	WW	YW	SC
Own	92	509	1089.5	31.5

Progeny of Dam:	Exposed 5	Calved 4	Weaned 3
Pigment of calf:	SC 60%	L. eye 95%	R. eye 90%

Out of a Dam of Distinction!

L1 Domino 11539

L1 Domino 11534

		L1 Domino 04434	
	L1 Domino 07431		
		L1 Dominette 04407	
L1 Domino 09501			
		L1 Domino 00478	
	L1 Dominette 03460		
		L1 Dominette 01492	

L1 Domino 11534

DOB 3/30/2011		L1 Domino 01384	
30% inbred	L1 Domino 03426		
		L1 Dominette 01373	
L1 Dominette 06441			
29% inbred		L1 Domino 98367	
	L1 Dominette 01424		
		L1 Dominette 99385	

CE_d	-1.2
BW	1.5
WW	46
YW	65
MM	19
CE_m	0.6
SC	0.8
Fat	0.063
REA	-0.02
IMF	0.11
$BMI	$16
$CEZ	$13
$BII	$15
$CHB	$16

	BW	WW	YW	SC
Own	86	552	892	35

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 75%	L. eye 80%	R. eye 20%

		L1 Domino 04434	
	L1 Domino 06557		
		L1 Dominette 03586	
L1 Domino 09521			
		L1 Domino 04380	
	L1 Dominette 07461		
		L1 Dominette 00437	

L1 Domino 11539

DOB 3/30/2011		L1 Domino 01354	
31% inbred	L1 Domino 03564		
		L1 Dominette 96845	
L1 Dominette 06561			
29% inbred		L1 Domino 02492	
	L1 Dominette 04551		
		L1 Dominette 02440	

CE_d	0
BW	2.3
WW	36
YW	67
MM	18
CE_m	-0.7
SC	0.7
Fat	0.023
REA	-0.11
IMF	0.13
$BMI	$15
$CEZ	$14
$BII	$15
$CHB	$16

	BW	WW	YW	SC
Own	90	536	962.5	34.5

Progeny of Dam:	Exposed 4	Calved 3	Weaned 2
Pigment of calf:	SC 75%	L. eye 20%	R. eye 20%

L1 Domino 02336
L1 Domino 05505
L1 Dominette 02406
L1 Domino 08526
L1 Domino 04380
L1 Dominette 06437
L1 Dominette 02413

L1 Domino 11541

DOB 3/31/2011
30% inbred

L1 Domino 02492
L1 Domino 04434
L1 Dominette 97325
L1 Dominette 07409
L1 Domino 99371
L1 Dominette 01373
L1 Dominette 96908

CE_d	2
BW	0.2
WW	45
YW	75
MM	16
CE_m	2.3
SC	0.7
Fat	0.063
REA	0.28
IMF	0.11
$BMI	$17
$CEZ	$16
$BII	$15
$CHB	$19

	BW	WW	YW	SC
Own	80	525	934	33

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 75%	L. eye 10%	R. eye 0%

L1 Domino 11541

L1 Domino 03426
L1 Domino 05426
L1 Dominette 02407
L1 Domino 08545
L1 Domino 98367
L1 Dominette 01341
L1 Dominette 97357

L1 Domino 11543

DOB 3/31/2011
30% inbred

L1 Domino 02347
L1 Domino 04570
L1 Dominette 99410
L1 Dominette 07480
L1 Domino 99360
L1 Dominette 02386
L1 Dominette 98339

CE_d	-0.5
BW	4.7
WW	39
YW	70
MM	16
CE_m	-0.5
SC	0.4
Fat	0.014
REA	-0.05
IMF	0.19
$BMI	$13
$CEZ	$13
$BII	$12
$CHB	$19

	BW	WW	YW	SC
Own	92	501	916	34

Progeny of Dam:	Exposed 5	Calved 4	Weaned 4
Pigment of calf:	SC 55%	L. eye 40%	R. eye 60%

L1 Domino 03564
L1 Domino 05516
L1 Dominette 02377
L1 Domino 08554
L1 Domino 00499
L1 Dominette 02439
L1 Dominette 00463

L1 Domino 11550

DOB 4/2/2011
30% inbred

L1 Domino 02347
L1 Domino 04380
L1 Dominette 00532
L1 Dominette 06423
29% inbred
L1 Domino 99371
L1 Dominette 01373
L1 Dominette 96908

CE_d	-0.5
BW	4.7
WW	39
YW	70
MM	16
CE_m	-0.5
SC	0.4
Fat	0.014
REA	-0.05
IMF	0.19
$BMI	$13
$CEZ	$13
$BII	$12
$CHB	$19

	BW	WW	YW	SC
Own	98	575	994	36

Progeny of Dam:	Exposed 6	Calved 5	Weaned 4
Pigment of calf:	SC 75%	L. eye 20%	R. eye 0%

L1 Domino 03447
L1 Domino 05469
L1 Dominette 03540
L1 Domino 08489
L1 Domino 99513
L1 Dominette 02428
L1 Dominette 99480

L1 Domino 11561

DOB 4/5/2011
30% inbred

L1 Domino 03541
L1 Domino 06453
L1 Dominette 04376
L1 Dominette 09489
30% inbred
L1 Domino 96961
L1 Dominette 99454
L1 Dominette 95396

CE_d	-0.4
BW	2.9
WW	34
YW	61
MM	13
CE_m	-1.2
SC	0.9
Fat	0.036
REA	-0.11
IMF	0.34
$BMI	$20
$CEZ	$15
$BII	$21
$CHB	$18

	BW	WW	YW	SC
Own	82	423	875.5	31

Progeny of Dam:	Exposed 3	Calved 2	Weaned 2
Pigment of calf:	SC 40%	L. eye 0%	R. eye 0%

L1 Domino 11561

L1 Domino 11566

		L1 Domino 03426	CE_d	0.3
	L1 Domino 05426		BW	2.2
		L1 Dominette 02407	WW	39
L1 Domino 08545			YW	54
		L1 Domino 98367	MM	17
	L1 Dominette 01341		CE_m	0.2
		L1 Dominette 97357	SC	0.4
L1 Domino 11566			Fat	0.012
DOB 4/7/2011		L1 Domino 97329	REA	0.16
30% inbred	L1 Domino 00478		IMF	0.11
		L1 Dominette 96911	$BMI	$15
L1 Dominette 03460			$CEZ	$14
29% inbred		L1 Domino 99402	$BII	$14
	L1 Dominette 01492		$CHB	$17
		L1 Dominette 97347		

	BW	WW	YW	SC
Own	94	554	933.5	32

Progeny of Dam:	Exposed 9	Calved 8	Weaned 8
Pigment of calf:	SC 75%	L. eye 90%	R. eye 90%

Out of a Dam of Distinction!

L1 Domino 11581

L1 Domino 05496
L1 Domino 07514
L1 Dominette 02439
L1 Domino 09533
L1 Domino 99402
L1 Dominette 02339
L1 Dominette 00561

L1 Domino 11578

DOB 4/13/2011
30% inbred

L1 Domino 02347
L1 Domino 04570
L1 Dominette 99410
L1 Dominette 06442
38% inbred
L1 Domino 02347
L1 Dominette 04511
L1 Dominette 01371

CE_d	-2.2
BW	3.4
WW	38
YW	77
MM	14
CE_m	0.6
SC	0.9
Fat	0.035
REA	-0.07
IMF	0.22
$BMI	$17
$CEZ	$13
$BII	$18
$CHB	$18

	BW	WW	YW	SC
Own	88	505	971	35.5

Progeny of Dam:	Exposed 5	Calved 4	Weaned 3
Pigment of calf:	SC 75%	L. eye 50%	R. eye 95%

Out of a Dam of Distinction!

L1 Domino 11578

L1 Domino 03426
L1 Domino 05426
L1 Dominette 02407
L1 Domino 08545
L1 Domino 98367
L1 Dominette 01341
L1 Dominette 97357

L1 Domino 11581

DOB 4/16/2011
30% inbred

L1 Domino 01418
L1 Domino 03473
L1 Dominette 95435
L1 Dominette 06536
30% inbred
L1 Domino 00499
L1 Dominette 02351
L1 Dominette 98313

CE_d	0.9
BW	3.4
WW	37
YW	72
MM	15
CE_m	1.6
SC	0.4
Fat	0.034
REA	-0.11
IMF	0.2
$BMI	$14
$CEZ	$15
$BII	$12
$CHB	$18

	BW	WW	YW	SC
Own	96	489	915	31

Progeny of Dam:	Exposed 6	Calved 5	Weaned 5
Pigment of calf:	SC 85%	L. eye 70%	R. eye 100%

.

L1 Domino 04434
L1 Domino 06557
L1 Dominette 03586
L1 Domino 09521
L1 Domino 04380
L1 Dominette 07461
L1 Dominette 00437

L1 Domino 11591

DOB 4/21/2011
30% inbred

L1 Domino 01460
L1 Domino 03490
L1 Dominette 99420
L1 Dominette 06499
L1 Domino 99496
L1 Dominette 02358
L1 Dominette 93560

CE_d	-3.5
BW	5.7
WW	43
YW	80
MM	17
CE_m	-1.3
SC	0.7
Fat	0.039
REA	-0.13
IMF	0.12
$BMI	$13
$CEZ	$10
$BII	$13
$CHB	$17

	BW	WW	YW	SC
Own	104	491	926	33

Progeny of Dam:	Exposed 5	Calved 4	Weaned 3
Pigment of calf:	SC 50%	L. eye 80%	R. eye 10%

L1 Domino 11614

L1 Domino 04457
L1 Domino 06474
L1 Dominette 99408
L1 Domino 08542
L1 Domino 99360
L1 Dominette 02352
L1 Dominette 99468

L1 Domino 11614

DOB 5/23/2011
35% inbred

L1 Domino 96961
L1 Domino 99360
L1 Dominette 95348
L1 Dominette 02377
L1 Domino 920501
L1 Dominette 95449
L1 Dominette 900329

CE_d	-0.8
BW	4.7
WW	45
YW	78
MM	20
CE_m	0
SC	0.8
Fat	0.05
REA	0.07
IMF	0.31
$BMI	$17
$CEZ	$13
$BII	$16
$CHB	$22

	BW	WW	YW	SC
Own	102	396	845.5	33

Progeny of Dam:	Exposed 9	Calved 7	Weaned 7
Pigment of calf:	SC 80%	L. eye 100%	R. eye 100%

L1 Domino 11591

- NOTES -

Coming 2-year old Redface Bulls

Marker assisted selection (MAS) is the practice of combining traditional genetics and molecular biology using DNA markers associated with the trait of interest. Combined with traditional selection techniques, MAS had become a valuable tool in selecting organisms for traits of interest, such as color, meat quality, or disease resistance.

The Redface project at Fort Keogh has been a 10+ year project utilizing MAS techniques for the selection of coat color. Utilizing these techniques for the selection of color, the project began with a selection of CGC (Combined Genetic Composite (1/2 Red Angus, 1/4 Charolais, and 1/4 Tarentaise) cows. These cows were back crossed onto Line 1 bulls, yielding progeny that were red calves with white faces. Over a period of time the first red calf with a red face was produced. For the past several years, there has been a consistent number of red-faced calves born to this herd. Upon evaluation, red-faced bull calves have been utilized as sires.

Redface 11e12

	BW	WW	YW	SC
Own	86	512	953	37

Progeny of Dam:	Exposed 9	Calved 8	Weaned 8
Pigment of calf:	SC 100%	L. eye 100%	R. eye 100%

11e12

DOB 3/26/2011

Redface 11e25

DOB 4/4/2011

	BW	WW	YW	SC
Own	98	473	883.5	35.5

Progeny of Dam:	Exposed 7	Calved 6	Weaned 6
Pigment of calf:	SC 100%	L. eye 100%	R. eye 100%

11e25

LINE 1 REFERENCE SIRES

Bull No	F_x	Sire	Dam	Birth Wt	Weaning wt	%	Yearling Wt	%
78033	25	75809	72026	80	559	125	1009	115
78045	27	74503	76065	76	485	109	935	107
78318	26	73088	74822	84	518	116	1021	116
78325	25	75827	74395	76	499	112	977	111
78608	22	73088	75533	90	453	101	879	100
78639	22	74084	70714	98	493	110	943	107
79435	25	75809	77151	68	511	117	939	106
79476	25	77618	75893	101	498	114	983	111
79484	27	76744	73025	94	522	120	1026	116
80142	23	78045	78044	80	504	99	1025	104
80626	25	77426	77248	94	576	113	1142	116
80713	28	78318	78042	72	546	107	1102	112
80813	26	78325	78560	76	471	93	1023	104
80859	22	78325	74801	76	537	106	994	101
80878	24	78325	73025	78	556	109	1079	110
810052	23	78045	74834	80	563	107	944	100
810066	26	79476	78412	104	627	119	1129	120
810075	26	78045	77151	88	589	112	1014	108
810287	25	78639	76791	108	607	115	1005	107
810573	27	78033	78415	80	577	110	1049	111
810668	27	78639	77248	98	605	115	1055	112
820112	24	78033	74616	70	589	113	1077	113
820225	26	79484	78364	82	570	110	1038	109
820307	27	80713	76784	70	569	109	987	104
820603	24	80813	77047	84	565	109	1066	112
820608	27	78033	78357	72	639	123	1073	113
820673	29	80713	77083	88	594	114	1103	116
820683	24	79484	77248	90	629	121	1094	115
830184	27	80813	76711	77	553	116	987	116
830227	25	80878	78406	90	533	112	896	105
830297	24	80713	77524	89	565	119	960	112
830325	29	810066	810407	74	488	102	835	98
830517	30	80626	78412	101	547	115	944	111
830577	27	810573	80908	68	490	103	882	103
830582	29	810066	78424	74	482	111	880	103
830709	27	80813	78134	68	499	105	965	112
830722	27	80813	77616	82	562	118	920	108
830743	26	80142	75893	78	471	99	885	104
830745	30	80713	78364	102	512	108	902	106
840110	29	810066	80074	96	566	110	965	105
840136	27	810052	76711	76	542	105	977	107
840486	28	80878	76784	86	590	115	1063	116
840509	30	820225	78406	86	603	117	1011	110
840516	26	810052	79059	88	534	104	947	103
840615	25	810287	810515	90	615	120	1041	114
840657	25	80878	810407	110	573	111	1039	113
840662	27	810573	810270	82	531	103	979	107
840668	27	810066	810416	102	490	95	943	103
840768	24	810573	810225	80	536	104	1006	110
840795	28	810066	820070	92	535	104	913	100

Bull No	F_x	Sire	Dam	Birth Wt	Weaning Wt	%	Yearling Wt	%
850044	26	820603	78050	72	621	123	1117	120
850136	30	820683	78596	104	580	115	1060	114
850148	27	820673	78027	94	535	106	1003	108
850227	25	820603	820062	76	492	97	1012	109
850286	29	820683	830375	72	526	104	990	107
850335	34	810052	810225	80	538	107	969	104
850585	27	820225	820209	88	528	105	981	106
850636	31	830709	78605	80	576	114	983	106
860041	26	830577	820423	59	459	100	881	103
860046	28	830582	820070	86	548	120	959	112
860308	27	830184	78044	78	484	106	906	106
860321	29	830184	79676	82	494	108	896	105
860329	28	820673	840056	78	457	100	859	101
860336	32	820683	830443	100	533	116	980	115
860440	28	830517	820665	70	542	118	967	113
870130	26	830577	810186	88	595	104	1085	113
870135	27	840110	830785	102	588	103	1068	111
870253	34	830582	820676	80	599	104	1083	113
870274	28	850227	810141	90	554	97	1076	112
870351	27	830582	810407	112	695	121	1022	107
870424	25	850044	810270	80	569	99	960	100
870485	29	830577	840408	85	609	106	1015	106
870486	29	830582	840559	90	627	109	1023	107
870504	28	840662	78539	80	570	99	985	103
880006	35	850227	840711	78	435	95	1017	108
880118	28	840409	840248	88	500	109	1001	106
880122	35	840662	830087	86	524	114	1138	120
880171	29	840110	820070	76	563	122	1113	118
880243	32	860046	830443	108	530	116	1023	108
880253	33	840110	840412	90	502	109	1060	112
880412	25	850044	840488	78	451	96	968	102
880470	27	850227	78605	74	520	113	1070	113
890020*	27	870274	860378	72	519	109	993	107
890029	27	860046	850413	82	563	119	1051	114
890046	28	860445	810515	98	540	114	1030	111
890072	29	870274	870282	75	470	99	914	99
890173	28	870130	840317	68	457	96	900	97
890262	29	860041	850124	74	504	106	970	105
890302	26	860336	850138	97	556	117	1113	120
890325	30	860445	850011	101	565	119	1096	118
900098	27	870130	850092	72	486	102	990	109
900200	26	870130	850421	82	560	118	1034	114
900234	28	870253	840432	110	494	104	980	108
900289	32	870485	850100	82	500	105	965	106
900304	27	870486	830629	110	599	126	1115	123
900308	27	880122	880008	81	490	103	978	108
900383	28	880118	850244	94	602	127	1085	120
900401	31	880171	860107	95	612	129	1085	120
910026	30	880243	840412	88	580	120	1082	117
910038	27	890262	880502	65	442	91	910	98
910057	28	880253	880467	105	544	112	1070	116

Bull No.	F_x	Sire	Dam	Birth Wt.	Weaning Wt.	Weaning %	Yearling Wt.	Yearling %
910079	28	890302	850413	82	620	128	1151	124
910205	27	880412	880257	79	486	100	945	102
910218	29	890325	860107	90	704	145	1169	126
910382	27	880470	860448	76	575	119	1053	114
910402	27	880470	850281	68	519	107	951	103
920416	32	900304	890243	82	512	103	1009	104
920421	30	900304	870117	94	574	115	1053	109
920448	26	900200	850625	82	606	121	1135	117
920449	27	890302	880413	85	536	107	1005	104
920454	29	900234	850033	100	607	122	1153	119
920498	29	900098	880276	81	577	116	1032	106
920501	27	890029	850206	112	577	116	1101	114
920524	30	900098	880364	93	545	109	1023	106
920540	25	73186	78406	ET				
93502	31	900234	880413	90	546	103	1015	106
93552	30	900383	870505	100	620	117	1088	114
93452	28	910402	910365	70	572	108	1022	107
93469	30	900401	880493	96	601	113	1072	112
93507	28	910218	910034	88	694	131	1211	126
93515	28	910079	910017	86	611	115	1063	111
93546	30	900304	880152	96	625	118	1117	117
93567	30	900383	880392	78	549	104	973	102
93572	34	910026	860107	74	560	106	969	101
94325	31	910026	910186	86	589	129	1074	122
94446	27	910402	880467	92	561	122	1101	125
94458	30	920421	900411	78	554	121	1024	116
95344	27	920454	880276	92	531	117	1082	109
95430	27	920501	900391	90	478	105	1100	110
95439	31	93507	93451	93	577	127	1134	114
95465	28	920448	910298	89	510	112	1083	109
96855	28	93546	910113	98	494	106	1081	110
96868	26	93452	890218	94	532	114	1121	114
96871	27	93452	880467	96	524	112	1089	110
96882	28	94458	94364	88	500	107	1045	106
96961	30	93552	93451	115	593	127	1241	126
96988	32	94325	93506	82	460	99	958	97
97315	27	94325	910367	99	495	116	953	110
97322	27	94446	93430	93	445	105	925	107
97329	29	94325	95320	79	475	112	933	108
97349	30	95430	93451	85	466	110	1045	121
97363	28	94446	95334	98	536	126	1018	118
98273	29	890029	96911	93	501	115	1053	118
98281	28	95344	95413	73	476	109	1047	117
98300	31	95439	95491	84	469	107	1002	112
98324	29	95430	93426	91	444	102	1028	115
98361	30	95469	95369	100	549	126	1122	126
98364	29	96868	920469	88	500	115	958	107
98367	27	95344	920528	82	462	106	977	109
98377	31	95465	93438	98	463	106	1013	113
99360	30	96961	95348	105	610	133	1182	127
99371	31	96961	94339	74	538	118	1080	116

Bull No.	F_x	Sire	Dam	Birth Wt	Weaning Wt	%	Yearling Wt	%
99375	31	96882	96932	93	497	109	1007	108
99402	30	97363	95443	94	535	117	1094	118
99428	29	97329	95491	86	540	118	1020	110
99441	29	97363	95469	99	533	117	1079	116
99496	30	97349	95369	78	571	125	1130	122
99513	28	96868	910050	86	506	111	1073	115
00478	28	97329	96911	83	488	114	1100	109
00489	30	98364	95369	76	494	116	1097	109
00499	29	97349	95491	90	425	99	1092	108
00525	30	98273	94324	78	443	104	1107	110
00546	30	98300	97377	94	541	127	1127	112
00549	34	98318	97333	94	540	127	1145	113
00552	29	97363	95365	98	477	112	1127	111
01347	29	99428	96893	92	519	111	1009	106
01354	28	98281	97342	86	491	105	1074	113
01362	29	98324	99455	89	560	120	1077	113
01384	31	98300	99374	81	498	107	1081	114
01418	27	98367	98299	75	497	106	1063	112
01460	31	99371	98354	71	499	107	1004	105
01475	29	99513	98342	73	533	114	1081	114
02336	32	00499	95443	102	514	112	990	119
02347	30	00546	97365	88	531	116	978	118
02349	29	99496	95334	90	515	112	948	114
02382	31	99428	00466	90	483	105	922	111
02398	32	99496	98345	83	516		891	
02423	30	00525	00527	90	550	120	920	111
02492	29	00489	94432	98	533	116	931	112
03426	31	01384	01373	93	646	128	1087	111
03447	31	01362	01420	99	665	131	1033	105
03473	29	01418	95435	94	570	113	991	101
03490	31	01460	99420	91	609	120	1046	106
03541	31	00478	99537	87	557	110	997	102
03564	31	01354	96845	82	565	112	997	102
03571	30	01384	00532	101	576		1051	
04380	31	02347	00532	92	624	116	1169	118
04434	32	02492	97325	84	553	102	1035	110
04457	31	02382	02339	86	604	112	1064	108
04490	29	01475	02353	64	613	114	1065	108
04570	28	02347	99410	84	635	118	1088	110
05426	30	03426	02407	111	580	106	1090	112
05444	30	02423	01510	83	573	105	1047	108
05469	31	03447	03540	82	716	131	1158	119
05496	30	03490	99455	90	612	112	1040	107
05505	29	02336	02406	77	535	98	1062	109
05516	28	03564	02377	83	644	118	1108	114
06453	30	03541	04376	88	487	106	976	112
06472	29	03473	00532	88	508	111	939	109
06474	30	04457	99408	82	522	114	957	111
06509	31	04380	02339*	95	653	120	1064	123
06557	29	04434	03586	91	505	110	965	111
06575	28	03447	99410*	88	502	110	950	110

Bull No.	F_x	Sire	Dam	Birth Wt.	Weaning Wt.	%	Yearling Wt.	%
07407	30	05516	02428	96	556	111	1130	115
07431	31	04434	04407	83	510	102	1071	109
07467	30	04457	00523	94	557	111	1113	113
07505	29	04457	04494	89	543	109	1095	111
07514	31	05496	02439	84	610	122	1110	113
07520	29	04490	00477	96	586	117	1043	106
08489	29	05469	02428	88	609	112	1158	109
08526	32	05505	06437	102	640	117	1240	116
08542	31	06474	02352	94	605	111	1135	107
08545	30	05426	01341	86	562	103	1120	105
08554	30	05516	02439	98	625	115	1209	114
08590	30	06509	03574	78	566	104	1145	108
09500	29	06472	02428	90	623		1152	
09501	30	07431	03460	94	624		1091	
09521	30	06557	07461	78	511		1020	
09533	30	07514	02339	100	542		1079	
09643E	30	03571	02352	98	459		946	
09652E	32	97349	00477	96	550		984	
10454	31	02398	08430	84	501		1016	
10476	30	07505	07415	86	593		1005	
10515	32	07467	06562	84	493		978	
10516	32	08542	02439	98	563		1003	
11488	30	08545	07445	102	631		1121.5	
11489	32	08526	07415	86	565		980	
11492	28	08489	07408	82	580		1022.5	
11512	30	09521	05550	100	590		1058.5	

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