

Spring 2012

Charolais
Sire Summary

P R E F A C E



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On behalf of the American-International Charolais Association we are pleased to present the Spring 2012 Charolais National Cattle Evaluation. This current analysis represents the most accurate and comprehensive analysis for the US Charolais cattle population.

This genetic evaluation includes Expected Progeny Differences for economically important traits. EPDs are computed for calving ease (CE), birth weight (BW), weaning weight (WW), yearling weight (YW), maternal milk (Milk), maternal calving ease (MCE), total maternal (MTNL), scrotal circumference (SC) and for carcass merit which is presented on a carcass basis for hot carcass weight (HCW), ribeye area (REA), fat thickness (FAT) and marbling (MARB).

The carcass records for this genetic evaluation represents the combined efforts of breeders that have conducted their own structured sire evaluation program or submitted carcass data on non-replacement Charolais heifers and steers along with carcass data from the AICA Sire Evaluation Program (SEP). Also included in this analysis is ultrasound data on yearling heifers and bulls.

An EPD is currently the best estimate of an animals genetic worth given the information available for the analysis. Numerous studies using research herds and field records have validated the merit of an EPD as a selection tool to make directional change in beef herds for the traits evaluated. Research has further shown that even for young animals, an EPD can be as much as 9 times more accurate than a within herd ratio or weight. However, there are many traits that impact the profitability of the beef enterprise, not all of those traits are reported here in this analysis. Furthermore, proper management practices must be matched to your genetics to realize the best opportunity for profitability.

The production of this analysis involves the input of many people. First, members of AICA enrolled in the Whole Herds Rewards or Performance Plus Registry supplied information in the form of phenotypic data for growth and carcass (including ultrasound) along with pedigree and birth information. The accuracy and quality of this analysis can only be as good as this data collectively as the EPD are a direct reflection of the completeness and accuracy of phenotypic data reported. Additionally, Dr. Keith Bertrand, Dr. Ignacy Misztal and their professional staff at the University of Georgia for conducting the research and model development for editing and calculation of genetic values. And finally AGI for providing professional genetic evaluation services to the AICA. Without the cumulative efforts and dedication to the Charolais breed of all involved, this analysis would not be possible.

A handwritten signature in black ink that reads "Robert E. Williams". The signature is fluid and cursive, with a long horizontal stroke at the end.

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SIRE SELECTION

Trait Leaders

Progeny Proven sires identified from the evaluation as trait leaders are those that excel in a specific trait. The determination of a trait leader is based on meeting superior standards in both EPD and accuracy values for a trait. The sires listed include the top 25 sires for BWT, WWT, YWT, and Maternal Milk considering EPD criterion with an accuracy of .55 or greater for that trait. (Top 10 Sires for HCW, REA, FAT, MARB).

Multiple Trait Sires: Active Progeny Proven sires identified from the genetic evaluation as multiple trait leaders are those sires that excel in the traits of Birth Weight, Weaning Weight, Yearling Weight and Total Maternal. These traits are each standardized so that equal emphasis can be placed on each of the 4 traits. To qualify for the list a sire must be listed as a Progeny Proven Sire, must have an accuracy value greater than .55 for weaning weight, and must be in the top 50th percentile for BWT, WWT, YWT, MAT, and TotMat EPD among active sires.

Active Sires

Progeny Proven Sires (Denoted PP): These sires are those that have met an accuracy standard of .55 in the weaning weight EPD evaluation and have at least five (5) calves sired by him with performance information reported within the last two years. The weaning weight EPD factor is used as a selection criterion as it is least subject to bias and the trait with the most information. EPD and accuracy values for other traits are published for these sires. Sires listed in this category have sired enough performance-tested progeny to warrant considerable predictability.

Young Sires (Denoted YS): These sires must be born after January 1, 2007 and meet an accuracy of .35 in the weaning EPD analysis. The value of this category is to distribute information on young sires with potential for use in breeding programs. The EPD values expressed should be considered in relation to lower accuracy values.

EVALUATION OF SIRE INFORMATION

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Matnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
PP BULL'S NAME 03/22/1999 M 000000 BULL'S SIRE	AICA PO BOX 20247 KANSAS CITY, MO 64195	2 107 9	14 0.58	-1.8 0.76	22 0.65	39 0.20	4 0.26	12 0.24	15	N/A	0 1 1	16 0.16	0.17 0.13	-0.003 0.09	0.03 0.05
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

1 Bull's official name, birth date, AICA registration number, sire.

2 Bull's current owner and address.

3 Herds, Progeny and Daughters in Production (DIP) – reflects the number of herds this sire has been used in, the number of progeny whose performance was evaluated for this edition of the sire summary, and the number of daughters whose offspring were evaluated for calculating the Maternal Milk EPD.

4 Calving Ease Direct (CE) - expressed as a difference in percentage of unassisted births in first calf heifers. A higher value indicates greater calving ease. It predicts the average difference in unassisted births with which a sire's calves will be born when bred to first-calf heifers.

5 Birth Weight EPD – the expected difference in average birth weight (pounds) of progeny. Birth weight reflects prenatal growth.

6 Weaning Weight EPD – the expected difference in average weaning weight of calves. The evaluation reflects the genetic influence on pre-weaning growth rate.

7 Yearling Weight EPD – the expected difference in average yearling weight of progeny. The evaluation reflects genetic influence on both pre-weaning and post-weaning growth rate.

8 Maternal Milk EPD – the genetic ability of a sire's daughters to express in pounds of weaning weight in her calves due to her maternal ability through mothering instinct and milk.

9 Calving Ease Maternal (MCE) - expressed as a difference in percentage of unassisted births in first calf daughters. A higher value indicates greater

calving ease. It predicts the average difference in unassisted births with which a sire's daughters will calve as first-calf heifers when compared to daughters of other sires.

10 Total Maternal EPD – a value to predict the weaning weight performance of calves from a sire's daughters due to genetics for growth and maternal ability. Total Maternal is calculated by adding 1/2 the WWT EPD to the Maternal Milk EPD.

11 Scrotal Circumference EPD — the expected difference in scrotal circumference (expressed in centimeters) of a bulls male offspring at yearling compared to progeny of all other bulls evaluated. Research has also indicated a relationship between increased scrotal circumference and decreased age at puberty for a sire's daughters.

12 Carc, Ultra, U Hrd – reflects the number of carcass progeny used in computing the carcass EPD, the number of progeny with ultrasound data used in computing the carcass EPD and the number of herds that have contributed ultrasound records for progeny.

13 Hot Carcass Weight EPD (HCW) – the expected difference in average hot carcass weight of progeny at a constant age endpoint.

14 Ribeye Area EPD (REA) – the expected difference in average ribeye area of progeny at a constant age endpoint.

15 12th-13th Rib Fat Thickness EPD (FAT) – the expected difference in average fat thickness at the 12th and 13th rib of progeny at a constant age endpoint.

16 Marbling EPD (MARB) – the expected difference in average USDA marbling score of progeny at a constant age endpoint.

Sire summaries use the term Expected Progeny Difference (EPD) to express genetic transmitting ability of a sire for the various traits listed. An EPD is a prediction of how future progeny of a sire are expected to perform in a particular trait relative to other sires in the analysis. The key word is "difference." The EPD itself does not imply "good" or "bad" performance. But rather, the EPD gives a prediction of the average difference to expect in the performance of a sire's progeny relative to other sires in the same analysis.

The EPD for a given trait on each bull listed in the Sire Summary is compared to every other bull in this sire summary report. The EPD is reported as a plus or minus value in the unit which the trait is measured.

Each EPD reported is accompanied with an Accuracy (ACC) figure. ACC is a measure of reliability regarding the EPD evaluation for a performance trait. Accuracy is reported as a decimal number between zero and one: large values indicate greater accuracy and more certainty that the EPD will show little change as additional progeny information is obtained.

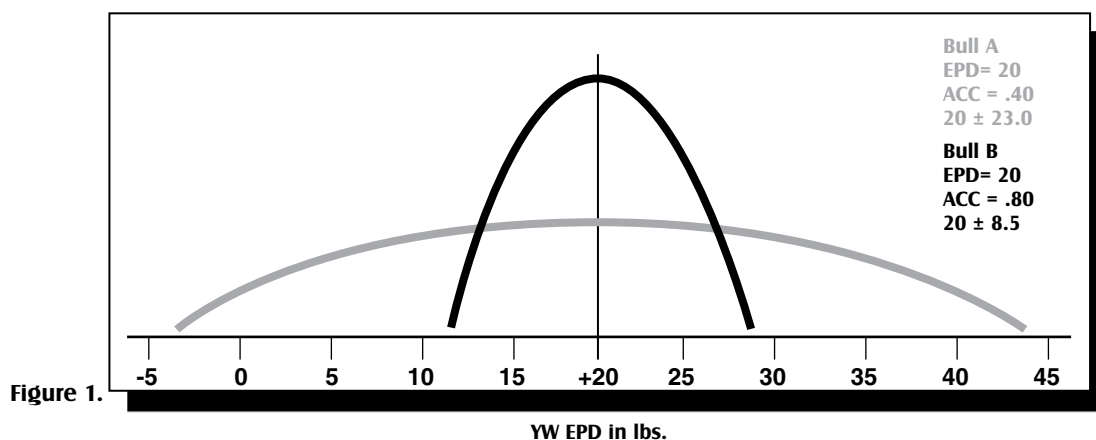
ACCURACY VALUES

USING ACCURACY VALUES

Accuracy values give us an indication of how close our estimates are to an animal's true genetic value. Accuracy values are extremely useful to breeders in determining the **reliability** of an EPD. An accuracy value can range from 0.0 to 1.0, depending on the amount of information that is known about an animal for any one of the reported traits. **As the** amount of information included in the analysis of a trait for an individual increases, the accuracy value for that trait increases accordingly.

Table 1 shows the standard error of prediction (possible change value for an EPD) at various levels of accuracy for the traits reported. You will notice that as the accuracy level increases, the possible change value decreases. Still, an EPD can change from year to year even though it may have a high level of accuracy. The point to remember is that the expected change of an EPD with a high ACC is correspondingly less than those of an EPD with a lower ACC value.

The possible change of identical EPD, given different levels of accuracy, can be seen in Figure 1. Two bulls have YW EPD of +20, but different ACC values. This figure illustrates the possible range within where the true genetic value is. Bull A has an ACC of .40 with a possible change of ± 23.0 pounds, and Bull B has an ACC of .80 with a possible change value of ± 8.5 pounds. As additional information is reported and accuracy levels increase, we would expect the EPD to stay within the range of the possible change value.



Even though both bulls have an EPD of +20 pounds for yearling weight; Bull B has a higher reliability that his true genetic value is within the narrower range of 11.50 to 28.50 (20~8.50).

The ACC of a given EPD can help determine the amount of risk a breeder is willing to take in his breeding decisions. Let us compare the bulls in Figure 1 again. Which bull is more desirable for your breeding program? The bull with the high ACC is more predictable, but the amount of genetic change that can be made is correspondingly limited as well. Bull A has the same YW EPD, but his true genetic value may be beyond that of Bull B. Therefore Bull A could possibly increase the amount of genetic progress made, but he is also more of a risk because his true genetic value falls within a wider range.

POSSIBLE CHANGE

Accuracy values help determine the amount of risk associated with genetic repeatability, but they are not foolproof. Table 1 shows the possible change values of an EPD with a given ACC. Approximately 70 percent of the time the EPD will not deviate outside of these parameters.

Table 1.

ACC	BWT	WWT	MILK	YWT	SC	HCW	REA	FAT	MARB	CE	MCE
0.0	4.1	21.1	14.0	31.3	0.75	16.7	0.42	0.038	0.27	14.2	13.4
0.1	3.9	20.4	14.0	30.3	0.69	15.0	0.38	0.034	0.24	12.7	12.0
0.2	3.7	19.4	13.6	28.8	0.62	13.5	0.34	0.030	0.21	11.2	10.6
0.3	3.4	17.8	12.9	26.4	0.55	11.9	0.30	0.027	0.18	9.8	9.2
0.4	3.0	15.5	11.8	23.0	0.48	10.1	0.26	0.023	0.16	8.3	7.9
0.5	2.6	13.1	10.1	19.5	0.41	8.4	0.22	0.019	0.13	6.9	6.5
0.6	2.2	10.7	8.5	16.0	0.35	6.7	0.18	0.015	0.10	5.5	5.2
0.7	1.8	8.2	6.7	12.3	0.28	5.1	0.14	0.011	0.08	4.1	3.9
0.8	1.3	5.7	5.5	8.5	0.21	3.6	0.10	0.008	0.05	2.7	2.6
0.9	0.8	3.1	3.7	5.0	0.14	2.0	0.06	0.004	0.03	1.3	1.3
1.0	0.0	0.0	1.9	0.0	0.00	0.0	0.00	0.000	0.00	0.0	0.0

HERITABILITY / GENETIC TREND

HERITABILITY

Heritability may be defined as the proportion of the observed phenotypic variation that is due to genetic variation. For example, when analyzing a group of Charolais calves from the same sire, one would expect some variation in the weaning weights. Since weaning weight is 25 percent heritable, 25 percent of the observed variation is attributable to genetics while the remaining 75 percent of the observed variation is due to environmental influences.

Traits with low heritability estimates are influenced more by environment than by genetics, thus genetic progress from selection may be slow. Traits with low heritability respond greater to the effects of crossbreeding. Since heritability is already an integral part of the EPD formula, EPD reflect actual differences and require no adjustment.

	ULTRASOUND MEASUREMENTS (Correlated Traits)																
	BWT	WWT	PWG	MAT	SC	REA	HCW	FAT	MARB	CE	MCE	IMF	REA	SCAN WT	FAT THICK	RUMP FAT	
BWT	0.49	0.47	0.22								-0.76	0.16					
WWT		0.25	0.49	-0.32	0.28	0.35	0.45	-0.10	-0.07								
PWG			0.31		0.35												
MAT				0.14													
SC					0.31												
REA						0.34	0.40						0.70				
HCW							0.21							0.75			
FAT								0.26	0.15							0.70	0.48
MARB									0.36				0.68				
CE										0.24	-0.06						
MCE											0.16						
IMF												0.23					
REA													0.39				
SCAN WT														0.27			
FAT THICK															0.35		
RUMP FAT																0.38	

GENETIC TREND

This chart lists the genetic trend for birth weight, weaning weight, yearling weight and maternal milk.

YEAR	BWT	WWT	YWT	MILK	SC	TOTMAT	CE	MCE	CWT	REA	FAT	MARB
1990	0.9	6.0	11.1	0.3	0.01	3.3	-2.2	0.7	3.8	0.03	-0.003	0.01
1991	1.0	7.1	12.9	0.7	0.04	4.2	-2.0	1.0	4.5	0.03	-0.003	0.01
1992	1.0	7.9	14.2	1.0	0.06	4.9	-1.9	1.2	4.9	0.04	-0.003	0.01
1993	1.1	8.7	15.7	1.2	0.08	5.6	-1.8	1.5	5.4	0.04	-0.003	0.01
1994	1.1	9.6	17.2	1.6	0.10	6.4	-1.4	1.9	5.8	0.05	-0.003	0.01
1995	1.1	10.5	18.6	2.1	0.13	7.4	-1.3	1.9	6.3	0.05	-0.003	0.01
1996	1.0	11.6	20.3	2.7	0.16	8.4	-0.9	2.2	6.9	0.06	-0.003	0.01
1997	1.0	12.5	21.9	3.2	0.19	9.4	-0.6	2.4	7.5	0.08	-0.003	0.01
1998	0.9	13.4	23.4	3.4	0.23	10.1	-0.2	2.7	7.9	0.08	-0.003	0.01
1999	0.9	14.4	25.0	4.0	0.26	11.2	0.2	2.8	8.3	0.09	-0.002	0.01
2000	0.9	15.4	26.6	4.4	0.29	12.1	0.8	3.2	8.8	0.09	-0.002	0.01
2001	0.9	16.5	28.7	4.7	0.33	13.0	1.0	3.2	9.7	0.10	-0.002	0.01
2002	0.9	18.1	31.2	5.0	0.38	14.1	1.3	10.4	10.4	0.11	-0.002	0.01
2003	0.8	19.0	32.7	5.4	0.42	14.8	1.6	10.9	11.0	0.12	-0.002	0.01
2004	0.8	19.8	34.4	5.5	0.45	15.4	1.9	11.4	11.5	0.13	-0.001	0.01
2005	0.8	20.7	36.0	5.8	0.48	16.1	2.0	11.8	11.9	0.13	-0.001	0.01
2006	0.7	21.6	37.6	6.1	0.51	16.8	2.2	12.4	12.5	0.15	-0.001	0.01
2007	0.7	22.3	39.1	6.4	0.54	17.6	2.4	12.8	12.9	0.15	0.000	0.01
2008	0.7	23.2	41.0	6.7	0.58	18.3	2.6	13.5	13.6	0.17	0.000	0.01
2009	0.6	24.0	42.1	6.6	0.59	18.6	2.8	14.1	14.2	0.18	-0.001	0.02
2010	0.6	24.7	43.7	7.0	0.64	19.3	2.9	14.6	14.7	0.19	0.000	0.02
2011	0.5	25.9	45.6	7.3	0.67	20.2	3.0	15.3	19.7	0.21	0.000	0.02

EPD DISTRIBUTION TABLES

ACTIVE SIRE EPD DISTRIBUTION					
Trait	N	Average	Std Dev	Min	Max
BWT	3,230	0.5	2.22	-10.2	9.7
WWT	3,230	25.3	10.32	-24	65
YWT	3,230	44.8	18.08	-32	106
MAT	3,230	6.9	6.54	-19	33
TOT MAT	3,230	19.6	8.51	-8	47
SC	3,230	0.64	0.39	-0.9	2.5
CE	3,194	3.1	5.17	-20.2	20.9
MCE	3,194	3.8	4	-25	14.5
HCW	3,635	12.1	9.98	-25	48
REA	3,635	0.15	0.22	-0.70	1.27
FAT	3,635	-0.001	0.016	-0.066	0.073
MARB	3,635	0.01	0.12	-0.48	0.53

ACTIVE DAM EPD DISTRIBUTION					
Trait	N	Average	Std Dev	Min	Max
BWT	36,490	0.8	1.91	-8.1	10.2
WWT	36,490	22.2	8.89	-26	60
YWT	36,490	38.7	15.58	-36	103
MAT	36,490	6.7	6.22	-24	36
TOT MAT	36,490	17.8	8.01	-17	53
SC	36,490	0.54	0.33	-0.7	1.8
CE	36,073	2.1	4.72	-23.5	18.2
MCE	36,073	3.5	4.21	-30.1	15.4
HCW	28,937	9.4	8.49	-27	48
REA	28,937	0.10	0.17	-0.78	0.92
FAT	28,937	-0.002	0.013	-0.053	0.143
MARB	28,937	0.02	0.09	-0.39	0.48

NON PARENT EPD DISTRIBUTION (last 2 years)					
Trait	N	Average	Std Dev	Min	Max
BWT	108,999	0.6	1.99	-9.3	11
WWT	108,999	24.2	8.67	-26	62
YWT	108,999	42.6	14.97	-35	112
MAT	108,999	6.8	5.27	-17	36
TOT MAT	108,999	18.9	6.93	-8	53
SC	108,999	0.61	0.3	-1.4	2.5
CE	105,569	2.8	4.6	-23.7	20.0
MCE	105,569	3.7	3.62	-27.7	14.6
HCW	10,848	14.5	8.43	-18	50
REA	10,848	0.20	0.20	-0.57	1.17
FAT	10,848	0.000	0.015	-0.050	0.063
MARB	10,848	0.03	0.10	-0.34	0.42

CARCASS EPD INTRODUCTION

Carcass traits evaluated in the AICA Genetic Analysis for carcass merit include Carcass Weight, Fat Thickness, Ribeye Area and Marbling. The records were analyzed using multiple trait animal models that included genetic relationships between animals and traits. Carcass and ultrasound records represents the combined efforts of breeders that have conducted their own structured sire evaluation program, submitted carcass data on non-replacement Charolais heifers and steers, reported ultrasound scan data on yearling heifers and bulls, along with carcass data from the AICA Sire Evaluation Program (SEP).

To include more sires in the analysis it is important that Charolais breeders continue collecting and reporting carcass information on fed progeny and ultrasound data on yearling replacement heifers and bulls to AICA. For more information on carcass data collection or ultrasound scanning of yearling bulls and heifers please contact the AICA Director of Breed Improvement programs.

USING CARCASS EPD

The objective of a carcass evaluation is to provide genetic information that will aid the producer in making selection decisions based on carcass merit. Used properly Carcass EPD provide the best information available to make directional change for carcass merit in breeding programs. Breeders should be cautioned about the dangers of single trait selection for any trait. Genetic correlations exist between many economically important traits, and not all are favorable. Producers should select for multiple traits that have direct impact on the profitability of their enterprise.

Records were adjusted to an age constant endpoint. Therefore selection based on any or all of the carcass merit EPD are comparable among cattle at the same age endpoint. For example selection based on increased EPD for carcass weight will result in heavier carcass weights than those animals with lower EPD for carcass weights when the cattle are harvested at the same age.

Progeny. The number of progeny records that contributed to the genetic analysis for carcass weight. The number of progeny that contributed to the other carcass traits may be slightly different due to lost or edited data.

Carcass Weight EPD (HCW). Expected Progeny Differences for Carcass weight is a predictor of pounds of retail product at a constant age endpoint. Selection for increased values should result in heavier carcasses, while selection for decreased values should result in lighter carcass weights at the same age endpoint. Carcass Weight EPD are expressed in pounds and is a predictor of the differences in hot carcass weight between sires progeny at an age constant endpoint.

Ribeye Area (REA). Ribeye area is measured from a cross-sectional area of the longissimus dorsi muscle at the 12th rib. Ribeye area is a major component of the USDA yield grade equation and selection for increased ribeye area should result in larger ribeyes and lower yield grades between animals with the same carcass weight. Ribeye area has a positive relationship with weight, the larger an animal the larger the ribeye area. Ribeye Area EPD are expressed in square inches and is a predictor of differences in ribeye area between sires progeny at a constant age endpoint.

Fat Thickness (FAT). Fat thickness is measured at the 12th rib and is the primary component to the USDA Yield Grade equation. Fat thickness has a negative relationship to cutability; therefore, selection based on decreased fat thickness should result in lower yield grades and leaner cattle given the same age endpoint. Fat Thickness EPD are expressed in inches and are a predictor of differences in fat thickness between sires progeny at an age constant endpoint.

Marbling Score (MARB). Marbling is a subjective measure of the amount of intramuscular fat in the ribeye muscle. Marbling score is the primary component of USDA Quality grade and selection for increased Marbling Score EPD should result in cattle with higher quality grades at the same age endpoints. Marbling score has a small genetic correlation with fat, therefore producers may select for increased marbling score EPD while not changing external fat thickness when cattle are harvested at the same age-constant endpoint. Marbling EPD is a prediction of the differences in the USDA subjective marbling score between sires progeny at an age constant endpoint. Marbling EPD is expressed in the same units as the USDA Marbling Score, see the accompanying table for USDA Marbling Score.

USDA QUALITY GRADING SYSTEM AND MARBLING SCORE

Quality Grade	Amount of Marbling	Numerical Score
Prime +	Abundant	10.0 - 10.9
Prime	Moderately Abundant	9.0 - 9.9
Prime -	Slightly Abundant	8.0 - 8.9
Choice +	Moderate	7.0 - 7.9
Choice	Modest	6.0 - 6.9
Choice -	Small	5.0 - 5.9
Select	Slight	4.0 - 4.9
Standard	Traces	3.0 - 3.9
Standard	Practically Dvoid	2.0 - 2.9
Utility	Devoid	1.0 - 1.9

PERCENTILE BREAKDOWNS

EPD Percentile Breakdown for Active Sires												
Top %	BWT	WWT	YWT	MAT	TOT MAT	SC	CE	MCE	HCW	REA	FAT	MARB
1	≤ -5.6	≥ 48.7	≥ 86.0	≥ 22.1	≥ 40.1	≥ 1.5	≥ 14.2	≥ 12.4	≥ 36.1	≥ 0.74	≤ -0.040	≥ 0.32
2	-4.7	45.8	81.8	20.5	37.4	1.4	13.0	10.9	32.5	0.64	-0.034	0.27
3	-4.2	43.8	77.5	19.3	36.0	1.3	12.1	10.3	30.8	0.58	-0.031	0.24
4	-3.8	42.8	74.9	18.7	34.3	1.3	11.5	9.9	29.6	0.55	-0.028	0.23
5	-3.4	41.9	73.0	17.7	33.2	1.2	11.1	9.5	28.7	0.52	-0.027	0.21
6	-3.1	41.1	72.0	17.1	32.4	1.2	10.6	9.2	27.8	0.49	-0.025	0.20
7	-2.9	40.1	70.7	16.6	31.6	1.2	10.3	8.9	27.0	0.48	-0.024	0.19
8	-2.6	39.4	69.8	16.1	31.0	1.2	10.0	8.6	26.3	0.46	-0.022	0.18
9	-2.4	38.7	68.8	15.6	30.5	1.1	9.7	8.4	25.6	0.44	-0.021	0.17
10	-2.2	38.1	67.4	15.3	30.1	1.1	9.4	8.2	24.9	0.43	-0.021	0.17
15	-1.6	35.9	62.7	13.6	27.9	1.0	8.2	7.5	22.1	0.37	-0.017	0.13
20	-1.1	33.8	59.4	12.4	26.5	1.0	7.3	6.9	20.0	0.32	-0.014	0.11
25	-0.7	31.8	57.1	11.2	25.2	0.9	6.6	6.4	18.3	0.28	-0.012	0.09
30	-0.4	30.4	54.5	10.2	24.1	0.8	5.9	6.0	17.0	0.25	-0.009	0.07
35	-0.1	29.1	51.7	9.3	22.9	0.8	5.2	5.6	15.6	0.22	-0.007	0.05
40	0.2	27.9	49.6	8.5	21.8	0.7	4.6	5.1	14.5	0.20	-0.006	0.04
45	0.4	26.7	47.4	7.7	20.8	0.7	4.0	4.7	13.2	0.17	-0.004	0.03
50	0.7	25.5	45.0	6.9	19.7	0.6	3.3	4.2	12.0	0.15	-0.002	0.01
55	1.0	24.5	42.9	6.2	18.8	0.6	2.7	3.8	10.8	0.12	0.000	0.00
60	1.2	23.4	40.6	5.4	17.9	0.5	2.2	3.3	9.5	0.09	0.002	-0.01
65	1.4	22.1	38.3	4.4	16.8	0.5	1.5	2.8	8.3	0.07	0.004	-0.03
70	1.7	20.6	36.4	3.4	15.6	0.5	0.8	2.3	7.0	0.04	0.006	-0.04
75	2.0	19.1	33.9	2.6	14.2	0.4	0.1	1.7	5.7	0.01	0.008	-0.06
80	2.3	17.4	30.7	1.5	12.8	0.3	-0.9	1.0	4.2	-0.02	0.011	-0.08
85	2.7	15.1	26.9	0.2	10.9	0.2	-2.0	0.2	2.2	-0.06	0.015	-0.10
90	3.1	12.1	22.1	-1.4	8.4	0.1	-3.6	-1.2	-0.5	-0.12	0.019	-0.13
95	3.8	7.8	13.3	-3.8	4.9	0.0	-5.8	-3.4	-4.3	-0.20	0.026	-0.17
100	9.7	-24.3	-32.4	-19.1	-8.1	-0.9	-20.2	-25.0	-25.2	-0.70	0.073	-0.48

This chart is applicable to all active bulls that have progeny registered with the AICA.

Percentile breakdowns make it possible to determine where an animal ranks within the Charolais breed, based on its EPD. For example, if your herd sire's WWT EPD is +24, he would rank in the top 60 percent for active Charolais sires for weaning weight.

EPD Percentile Breakdown for Non-Parent												
TOP %	BW	WW	YW	Milk	TM	SC	CE	MCE	HCW	REA	FAT	MARB
1	≤ -4.8	≥ 43.9	≥ 77.0	≥ 19.1	≥ 35.2	≥ 1.3	≥ 12.7	≥ 10.8	≥ 35.0	≥ 0.70	≤ -0.031	≥ 0.27
2	-4.0	41.6	72.6	17.7	33.2	1.2	11.6	10.0	32.4	0.63	-0.027	0.24
3	-3.5	40.0	70.0	16.8	32.0	1.2	10.8	9.5	30.7	0.59	-0.025	0.22
4	-3.2	38.9	68.1	16.1	31.0	1.1	10.3	9.1	29.5	0.56	-0.024	0.21
5	-2.9	38.1	66.5	15.5	30.2	1.1	9.8	8.8	28.6	0.54	-0.023	0.20
6	-2.6	37.3	65.2	15.1	29.6	1.1	9.5	8.5	27.8	0.52	-0.021	0.19
7	-2.4	36.6	64.1	14.6	29.0	1.0	9.1	8.3	27.1	0.50	-0.021	0.18
8	-2.2	36.0	63.1	14.3	28.5	1.0	8.8	8.1	26.5	0.49	-0.020	0.17
9	-2.1	35.5	62.2	13.9	28.0	1.0	8.6	7.9	25.8	0.48	-0.019	0.17
10	-1.9	35.0	61.4	13.6	27.6	1.0	8.3	7.8	25.3	0.46	-0.018	0.16
15	-1.4	32.9	57.9	12.3	26.0	0.9	7.3	7.1	23.1	0.41	-0.015	0.13
20	-0.9	31.3	55.1	11.2	24.6	0.9	6.5	6.5	21.5	0.37	-0.013	0.11
25	-0.6	30.0	52.7	10.3	23.5	0.8	5.8	6.1	20.1	0.33	-0.010	0.10
30	-0.3	28.7	50.5	9.5	22.5	0.8	5.2	5.7	18.8	0.30	-0.008	0.08
35	0.0	27.6	48.4	8.8	21.6	0.7	4.6	5.3	17.6	0.27	-0.006	0.07
40	0.3	26.5	46.5	8.1	20.7	0.7	4.1	4.9	16.5	0.24	-0.004	0.06
45	0.5	25.4	44.6	7.4	19.8	0.6	3.6	4.5	15.4	0.22	-0.002	0.04
50	0.7	24.4	42.8	6.8	19.0	0.6	3.0	4.1	14.4	0.20	-0.001	0.03
55	0.9	23.3	41.0	6.1	18.1	0.6	2.5	3.7	13.3	0.18	0.001	0.02
60	1.2	22.3	39.1	5.4	17.2	0.5	2.0	3.3	12.3	0.15	0.003	0.01
65	1.4	21.1	37.2	4.8	16.3	0.5	1.4	2.9	11.2	0.12	0.005	-0.01
70	1.6	19.9	35.1	4.0	15.4	0.5	0.8	2.4	10.0	0.10	0.008	-0.02
75	1.9	18.6	32.8	3.3	14.3	0.4	0.1	1.8	8.8	0.07	0.010	-0.04
80	2.2	17.1	30.3	2.4	13.2	0.4	-0.7	1.2	7.5	0.04	0.013	-0.05
85	2.5	15.4	27.3	1.4	11.8	0.3	-1.7	0.3	5.8	0.00	0.017	-0.07
90	3.0	13.1	23.4	0.1	10.0	0.2	-3.0	-0.8	3.7	-0.05	0.021	-0.10
95	3.7	9.5	17.5	-1.9	7.3	0.1	-5.2	-2.9	0.8	-0.12	0.028	-0.14
100	11.0	-26.1	-35.0	-16.7	-7.8	-1.4	-23.7	-27.7	-18.2	-0.57	0.063	-0.34

This chart is applicable to all active heifers and bulls born in the last two years that do not have progeny registered with the AICA.

EPD Percentile Breakdown for Active Dams												
Top %	BWT	WWT	YWT	MAT	TOT MAT	SC	CE	MCE	HCW	REA	FAT	MARB
1	≤ -4.2	≥ 42.1	≥ 73.9	≥ 21.2	≥ 36.3	≥ 1.3	≥ 11.9	≥ 11.3	≥ 29.7	≥ 0.53	≤ -0.031	≥ 0.26
2	-3.5	39.8	69.7	19.4	34.0	1.2	10.9	10.6	27.0	0.48	-0.027	0.22
3	-3.1	38.3	67.1	18.4	32.6	1.2	10.2	10.0	25.6	0.44	-0.025	0.20
4	-2.7	37.3	65.1	17.5	31.6	1.1	9.7	9.5	24.4	0.41	-0.024	0.19
5	-2.5	36.4	63.6	16.8	30.7	1.1	9.3	9.2	23.4	0.39	-0.022	0.17
6	-2.3	35.7	62.3	16.3	30.0	1.0	8.9	8.9	22.6	0.37	-0.021	0.16
7	-2.1	34.9	61.1	15.8	29.4	1.0	8.6	8.7	21.9	0.36	-0.020	0.15
8	-1.9	34.3	60.1	15.4	28.8	1.0	8.3	8.5	21.4	0.34	-0.019	0.15
9	-1.8	33.8	59.2	15.0	28.3	1.0	8.0	8.3	20.8	0.33	-0.019	0.14
10	-1.6	33.3	58.3	14.7	27.9	1.0	7.8	8.1	20.2	0.32	-0.018	0.13
15	-1.1	31.2	54.7	13.1	26.1	0.9	6.8	7.4	18.0	0.28	-0.015	0.11
20	-0.7	29.6	51.8	11.9	24.5	0.8	6.0	6.8	16.4	0.24	-0.013	0.09
25	-0.4	28.3	49.3	10.9	23.3	0.8	5.3	6.3	15.1	0.21	-0.011	0.08
30	-0.1	27.0	47.1	9.9	22.1	0.7	4.7	5.8	13.7	0.19	-0.009	0.06
35	0.2	25.8	45.0	9.1	21.0	0.7	4.1	5.3	12.6	0.16	-0.007	0.05
40	0.4	24.7	43.0	8.3	20.0	0.6	3.5	4.9	11.5	0.14	-0.006	0.04
45	0.6	23.5	41.0	7.5	19.0	0.6	3.0	4.5	10.5	0.12	-0.004	0.03
50	0.9	22.5	39.1	6.8	18.0	0.5	2.4	4.1	9.5	0.10	-0.003	0.02
55	1.1	21.4	37.2	6.0	17.0	0.5	1.9	3.6	8.4	0.08	-0.001	0.00
60	1.3	20.3	35.1	5.2	16.0	0.5	1.3	3.1	7.4	0.06	0.000	-0.01
65	1.5	19.0	33.2	4.4	14.9	0.4	0.7	2.6	6.3	0.03	0.002	-0.02
70	1.7	17.8	30.9	3.5	13.8	0.4	0.0	2.0	5.1	0.01	0.004	-0.03
75	2.0	16.5	28.6	2.6	12.5	0.3	-0.7	1.3	4.1	-0.01	0.006	-0.04
80	2.3	14.9	25.9	1.5	11.1	0.3	-1.6	0.6	2.5	-0.04	0.008	-0.06
85	2.6	13.1	22.7	0.3	9.6	0.2	-2.6	-0.5	0.9	-0.07	0.011	-0.07
90	3.1	10.7	18.4	-1.2	7.4	0.1	-3.9	-1.9	-1.2	-0.11	0.015	-0.10
95	3.8	7.0	12.3	-3.5	4.3	0.0	-6.2	-4.4	-4.5	-0.18	0.021	-0.14
100	10.2	-26.4	-36.2	-23.8	-16.7	-0.7	-23.5	-30.1	-26.6	-0.78	0.143	-0.39

This chart is applicable to all active cows that have progeny registered with the AICA.

P H E N O T Y P I C T R E N D S

Includes all animals in the AICA Performance Database used in computation of EPD

YEAR	MALES				FEMALES			
	BWT	WWT	GAIN	YWT	BWT	WWT	GAIN	YWT
1990	92	634	494	1131	88	580	287	871
1991	92	634	491	1124	88	580	298	876
1992	92	645	486	1134	88	591	292	882
1993	92	643	495	1151	87	592	288	882
1994	91	637	493	1135	87	584	290	875
1995	91	635	481	1128	87	583	287	871
1996	90	626	484	1114	86	574	282	861
1997	90	634	495	1141	86	579	293	884
1998	90	635	498	1143	85	582	300	888
1999	89	648	519	1175	85	592	310	906
2000	89	657	500	1166	85	598	304	913
2001	89	652	499	1159	85	596	298	902
2002	89	654	507	1171	85	594	312	914
2003	89	653	503	1172	85	596	308	912
2004	89	669	511	1193	84	603	291	906
2005	89	665	513	1195	85	600	314	923
2006	89	674	499	1185	84	607	307	913
2007	89	665	503	1182	84	595	300	898
2008	89	665	503	1191	84	601	280	886
2009	88	669	496	1182	84	603	282	892
2010	88	671	498	1195	84	601	283	882
2011	89	673			84	605		

Phenotypic Distribution for Carcasses in the Charolais Database. Adjusted to 480 days (Steers).

Trait	No. of Records	Avg	Std. Dev	Min	Max
Hot Carcass Weight (HCW)	6,875	803	96.99	410	1135
Ribeye Area (REA)	7,055	14.06	1.58	9.10	20.10
Fat Thickness (FAT)	7,022	0.40	0.17	0.01	2.22
Marbling (MARB)	7,008	4.95	0.94	1.10	10.00

Phenotypic Distribution for Carcasses in the Charolais Database. Adjusted to 480 days (Heifers).

Trait	No. of Records	Avg	Std. Dev	Min	Max
Hot Carcass Weight (HCW)	2,967	803	78.54	466	1072
Ribeye Area (REA)	2,968	14.99	1.79	9.50	21.70
Fat Thickness (FAT)	2,761	0.37	0.17	0.05	3.53
Marbling (MARB)	2,743	4.49	1.02	2.12	9.55

Phenotypic Distribution for Ultrasound (Bulls) in the Charolais Database. Adjusted to 365 days.

Trait	No. of Records	Avg	Std. Dev	Min	Max
Scan Weight	34,777	1143	134	405	1653
Ribeye Area	35,295	13.61	1.85	5.70	20.90
Rib Fat Thickness	32,614	0.17	0.06	0.04	0.60
Rump Fat Thickness	28,137	0.19	0.06	0.02	0.50
% IMF	34,057	2.75	0.64	0.65	6.04

Phenotypic Distribution for Ultrasound (Heifers) in the Charolais Database. Adjusted to 365 days.

Trait	No. of Records	Avg	Std. Dev	Min	Max
Scan Weight	8,798	851	108	424	1438
Ribeye Area	8,787	10.32	1.58	5.80	17.00
Rib Fat Thickness	7,916	0.16	0.06	0.03	0.47
Rump Fat Thickness	6,901	0.21	0.08	0.03	0.58
% IMF	8,560	3.30	0.78	0.95	6.73

G L O S S A R Y

Accuracy- the correlation between an animal's unknown actual breeding value and a calculated estimated breeding value. This figure will range between 0.0 and 1.0.

Backsolution EPD (BKS)- a matrix technique that is used with the Reduced Animal Model to obtain breeding values of non-parents by back-solving from the predicted parental breeding values. A BKS EPD is exactly the same as it would be from the full model.

Correlation- a measure of how two (2) traits vary or influence each other. Correlations range from -1.0 to +1.0. A positive correlation indicates that as one trait increases the other trait increases, and a negative correlation indicates that as one trait increases the other trait decreases. A correlation of, or around 0.0 indicates that neither trait influences the other.

Contemporary group- the proper identification of contemporary groups is of critical importance to the overall accuracy of the analysis. Contemporary groups are defined as 1) animals of the same sex, 2) animals of similar ages (usually not more than a 90-day spread in birth dates), and 3) animals managed together and given equal opportunity to perform (same pasture, same weigh dates, etc.).

Deviation- the difference between an individual record and the average for that trait for that contemporary group.

Environmental effects- all external (non-genetic) conditions that influence the reproduction, performance and carcass merit of cattle. These effects are accounted for in EPD calculation so that animals of the same breed from different parts of the country can be compared.

Expected Progeny Difference (EPD)- the difference in performance to be expected from future progeny of an individual, compared with the average. EPD is an estimate based on available performance data and is equal to one-half the estimate of breeding value. EPDs are generally reported in the units of measure of the trait (e.g., lb., cm., etc.).

Genes- the basic units of heredity that occur in pairs and have their effect in pairs in the individual, but which are transmitted singly from each parent to the offspring.

Genetic correlations- correlations between two traits that arise because some of the same genes affect both traits. When two traits (i.e., weaning and yearling weight) are positively and highly correlated to one another, successful selection for one will result in an increase in the other trait. When two traits are negatively and highly correlated, successful selection for one will result in a decrease in the other trait.

Genotype- actual genetic makeup of an individual determined by its genes or germplasm.

Genotype-environment interaction- variation in the relative performance of different genotypes from one environment to another. For example, the best cattle (genotypes) for one environment may not be the best cattle for another environment.

Half sibs- individuals having the same sire or dam. Half brothers and/or half sisters.

Heritability- the proportion of the differences among cattle, measured or observed, that is transmitted to the offspring. Heritability varies from 0.0 to 1.0. the higher the heritability of a trait, the more accurately the independent performance predict breeding value and the more rapid should be the response due to selection for the trait.

Heterosis (hybrid vigor)- amount by which measured traits of the crossbreds exceed the average of the two or more purebreds that are mated to produce the crossbreds.

Heterozygous- genes of a specific pair that are different in an individual. This gene combination has one gene that is dominant and one gene that is recessive (e.g., a bull that is heterozygous polled has the following gene combination, Pp, P=polled, p=horned).

Homozygous- genes of a specific pair that are alike in an individual. This gene combination expresses both genes in either the dominant or recessive form (e.g., PP=polled or pp=horned).

Intensity of selection- the difference between the selected animals and the average of the animals from which they came, expressed relative to the amount of variation in the traits. Intensity is a function of the fraction of a population saved as replacements.

Interim EPD- An expected progeny difference computed from an individual's own performance information and (or) the EPD of its parents. Interim EPD may be used to support selection and merchandizing decisions before EPD from regularly scheduled national cattle evaluation runs become available.

National Cattle Evaluation- Programs of cattle evaluation conducted by breed associations to compute estimated genetic merit of a population of animals. Carefully conducted national cattle evaluation programs give unbiased estimates of expected progeny differences (EPD). Cattle evaluations are based on field data and rely on information from the individual animal, relatives, and progeny to calculate EPD.

Number of contemporaries- the number of animals of the same breed, sex and age, against which an animal was compared in performance tests. The greater the number of contemporaries, the greater the accuracy of comparisons.

Optimum level of performance- the most profitable or favorable ranges in levels of performance for the economically important traits in a given environment and management system. For example, matching the mature size and milk production of a cow to her environment and available feed stuffs, to maximize her fertility and productivity.

Pedigree- a record of the names of the ancestors of an individual.

Pedigree estimate EPD (PE)- an EPD that is calculated by taking half of the EPD from each parent for a particular trait and adding them together. The resulting EPD has no accuracy value associated with it.

Performance pedigree- a pedigree that includes performance records of ancestors, half and full sibs, and progeny in addition to the usual pedigree information.

Performance testing- the systematic collection of comparative production information for use in decision making to improve efficiency and profitability in beef production. Differences in performance among cattle must be used in decision making for performance testing to be beneficial. The most useful performance records for management, selection and promotion decisions will vary among breeders.

Phenotype- the visible or measurable expression of a character; for example, weaning weight, post-weaning gain, reproduction, etc. Phenotype is influenced by genotype and environment.

Phenotypic correlations- correlations between two traits caused by both genetic and environmental factors influencing both traits.

Polled- naturally hornless cattle. Having no horns or scurs.

Possible change- the variation (either plus or minus) that is possible for each expected progeny difference (EPD). This measurement of error in prediction or estimation of EPD decreases as the number of progeny, with usable performance records, from a sire increases.

Progeny- the offspring of an animal.

Progeny records- the average, comparative performance of the progeny of sires and dams.

Progeny testing- evaluating the genotype of an individual by a study of its progeny.

Rate of genetic improvement- rate of improvement per unit of time (year). The rate of improvement is dependent upon: (1) heritability of traits considered; (2) selection differentials; (3) genetic correlations among traits considered; (4) generation interval in the herd; (5) the number of traits for which selections are made.

Scurs- horny tissue of rudimentary horns that are attached to the skin rather than the bony parts of the head.

Selection differential- the difference between the average for a trait in selected cattle and the average for the group from which they came.

Selection index- a formula that combines performance records from several traits or different measurements of the same trait into a single value for each animal.

Sibs- brothers and sisters of an individual.

Sire summary- published results of national sire evaluation programs.

Trait ratio- an expression of an animal's performance for a particular trait relative to the herd or contemporary group average. It is usually calculated for most traits as:

$$\frac{\text{Individual record}}{\text{Average of animals in group}} \times 100$$

Variance- a statistic that describes the variation we see in a trait. Without variation, no genetic progress is possible, since genetically superior animals would not be distinguishable from genetically inferior ones.

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
WCR BOOTS ON3 POLLED 03/05/1995 M 423097 RAC NINTENDO G1249 POLD	SAND HILL CHAROLAIS INC HC 1 BOX 69 BOISE CITY OK 73933	2 369 59	21 0.80	-10.2 0.87	-3 0.81	-8 0.23	2 0.62	14 0.54	0	0.1 PE	0 0 0	N/A	N/A	N/A	N/A
BAR S HIGH NOON 68L PLD 02/14/2001 M 622467 BALDRIDGE FASTTRACK 82F	BAR S RANCH 5302 182ND ST PARADISE KS 67658	2 126 8	19 0.67	-6.0 0.78	2 0.67	-9 0.42	14 0.35	12 0.29	15	-0.2 0.36	0 26 1	-23 0.32	-0.61 0.32	-0.005 0.29	0.00 0.27
CMF 192 WRANGLER 256 11/22/2000 M 615145 BALDRIDGE FASTTRACK 82F	YOST FARMS RT 4 BOX 186 KINGFISHER OK 73750	20 200 17	18 0.69	-5.0 0.82	31 0.72	51 0.63	3 0.37	12 0.34	19	0.8 0.52	0 27 3	10 0.32	0.05 0.31	0.001 0.28	0.05 0.26
ACF DUKE 422 POLL 03/12/2004 M 684791 BALDRIDGE KOJACK 29K	AMBURGEY CHAROLAIS FARM 3171 CAMARGO RD MT STERLING KY 40353	1 126 4	17 0.62	-6.5 0.77	17 0.67	27 0.66	16 0.28	9 0.23	25	0.1 PE	0 0 0	5 PE	-0.12 PE	-0.013 PE	0.00 PE
M6 SLEEP EASY 734 PLD 02/18/2007 M 739763 THREE TREES WIND 0383 ET	KEVIN J MOORE ALVARADO TX JOE & LINDA GARCIA DONALSONVILLE GA JOHN D MILTON JR SCOTTSVILLE VA	4 66 0	17 0.56	-4.6 0.70	38 0.59	72 0.42	4 0.21	9 0.18	23	1.4 0.39	0 13 3	21 0.25	0.48 0.25	-0.008 0.22	0.08 0.19
SCHURRTOP JK 2201-2283P 03/13/2001 M 624670 SCHURRTOP JK 5627 2201P	RAY D WINZ & SONS 72354 Q RD HOLDREGE NE 68949-3449	1 170 28	16 0.72	-5.7 0.81	15 0.73	36 0.70	10 0.51	14 0.45	18	0.9 0.56	0 0 0	12 BK	0.36 BK	0.009 BK	0.01 BK
HDR HI DOLLAR L43 PLD 04/14/2001 M 624897 MOORES DUKE 6111 P	NIPP CHAROLAIS OVERBROOK OK DENNIS CHAROLAIS FARMS SAINT JO TX GRISSOM CHAROLAIS WILSON OK	4 125 12	16 0.65	-3.1 0.77	13 0.65	17 0.63	12 0.30	11 0.22	19	0.4 0.58	0 37 2	-9 0.27	-0.26 0.27	0.001 0.24	0.02 0.20
GC EASY SUPREME F59 03/17/2005 M 709844 GCR D8	GRAU CHAROLAIS 1680 CR 37 GRADY NM 88120	3 59 2	16 0.57	-9.5 0.69	-5 0.55	-3 0.12	6 0.17	6 0.13	4	0.3 PE	0 0 0	N/A	N/A	N/A	N/A
WCCC-RC PROMISEKEEPER0323 02/24/2003 M 679955 SCR ROCKER 1755 PLD	WOODEN CROSS CATTLE CO 557 190TH ROAD HILLSBORO KS 67063	6 182 28	15 0.68	-4.1 0.81	11 0.72	29 0.70	2 0.43	11 0.37	7	0.5 0.29	0 4 1	5 0.23	0.12 0.22	-0.015 0.19	-0.08 0.15
BALDRIDGE FASTTRACK 82F 02/10/1996 M 447863 LT UNLIMITED EASE 9108	L R WAKEFIELD & SONS NEW RICHLAND MN JERRY D VAUGHAN DERBY KS MITCHELL R COX CAMPBELLSVILLE KY	414 3698 873	14 0.91	-3.0 0.96	26 0.93	39 0.90	14 0.87	8 0.84	28	-0.1 0.81	48 438 66	10 0.59	-0.05 0.65	0.020 0.59	-0.06 0.63
THREE TREES WIND 0383 ET 09/15/2000 M 637722 LT WYOMING WIND 4020 PLD	CROSTIMBER CATTLE CO CANTON TX LINDSKOV-THIEL CHAROLAIS ISABEL SD ANDREW DOUB DANVILLE INDIANA	95 627 103	14 0.79	-2.8 0.89	29 0.82	57 0.73	3 0.59	7 0.57	17	0.8 0.61	0 82 25	16 0.37	0.18 0.36	0.009 0.33	0.10 0.31
NF POWERBALL II POLLED 01/02/1996 M 432926 ASC ELIMINATOR 032	NOLLER & FRANK 405 W KELLY STREET SIGOURNEY IA 52591	33 362 85	14 0.71	-1.2 0.86	22 0.78	20 0.68	-11 0.62	10 0.54	1	0.2 0.48	33 49 7	5 0.49	-0.22 0.56	0.001 0.50	-0.11 0.54
RC PHASE 450 PD 02/21/2004 M 686837 LT DISTANCE 5025 PLD	RAMBUR CHAROLAIS SIDNEY MT CREEKSIDE CHAROLAIS HOLYOKE CO	2 236 11	14 0.68	-3.8 0.83	-4 0.75	11 0.62	17 0.31	13 0.29	15	0.2 PE	0 29 1	-3 0.32	-0.09 0.31	0.021 0.28	0.21 0.26
LT EASY AIR 3920 PLD ET 03/27/2003 M 671248 LT UNLIMITED EASE 9108	CLARK ALAN BREVIG LEWISTOWN MT LINDSKOV-THIEL CHAROLAIS ISABEL SD	7 228 25	14 0.63	-3.4 0.83	19 0.74	20 0.62	6 0.44	9 0.42	15	0.6 0.60	0 76 5	-2 0.35	-0.25 0.34	0.002 0.32	0.04 0.30
HCR PHOENIX 8007 POLLED 02/11/1998 M 479933 LT UNLIMITED EASE 9108	JOHN F ALLISON P O BOX 124 NEW CASTLE KY 40050	2 113 12	14 0.61	-2.9 0.77	22 0.68	30 0.27	12 0.39	7 0.30	23	0.4 0.22	0 0 0	12 PE	0.12 PE	0.008 PE	-0.02 PE
NC POWERPLAY F912 P 09/11/2006 M 734474 BALDRIDGE KOJACK 29K	THREE TREES RANCH SHARPSBURG GA NIPP CHAROLAIS OVERBROOK OK	3 73 5	14 0.58	-3.3 0.71	28 0.58	38 0.43	15 0.28	11 0.26	28	0.4 0.33	0 10 1	5 0.26	0.05 0.26	-0.008 0.23	0.01 0.21
BALDRIDGE KOJACK 29K 01/16/2000 M 602060 BALDRIDGE FASTTRACK 82F	SELECT SIRE INC 11740 US 42 PLAIN CITY OH 43064	228 1552 258	13 0.87	-4.2 0.93	29 0.89	45 0.84	21 0.75	6 0.71	36	-0.5 0.66	7 140 42	1 0.43	-0.27 0.48	-0.003 0.43	-0.03 0.44
NWMSU DOC SILVER 362 PLD 03/07/2003 M 669488 SS MONTANA SILVER	BJR SUMMERFORD CHAROLAIS FALKVILLE AL HUBERT CHAROLAIS RANCH OAKLEY KS	36 507 85	13 0.80	-4.1 0.88	33 0.82	66 0.77	2 0.58	9 0.59	18	0.3 0.67	25 205 16	18 0.50	-0.18 0.55	0.055 0.50	0.25 0.53
JES CORONA J370 04/04/1999 M 498013 HCR CORONA 2105 POLLED	JEROME (JERRY) M STOUT 21804 SD HWY 248 KADOKA SD 57543	2 175 38	13 0.72	-5.8 0.81	22 0.73	43 0.74	16 0.52	6 0.44	27	1.1 0.45	0 30 1	3 0.28	-0.18 0.27	-0.001 0.24	-0.05 0.20
LT LONG DISTANCE 9001 PLD 02/09/2009 M 780143 LT SILVER DISTANCE 5342P	DERRY & MARY WRIGHT RICHMOND MO DUANE OR JILL DOMEK WIBAUX MT LINDSKOV-THIEL CHAROLAIS ISABEL SD HEBBERT CHAROLAIS HYANNIS NE	9 113 0	13 0.66	-5.6 0.76	25 0.65	40 0.32	15 0.20	1 0.16	28	0.5 PE	0 0 0	14 BK	0.09 BK	0.018 BK	0.09 BK
LT PRIMED 0262 PLD 04/13/2000 M 517206 WCR PRIME CUT 764 PLD	BIERLE CHAROLAIS BOX 15 LESTERVILLE SD 57040	1 146 7	13 0.58	-2.8 0.79	26 0.70	58 0.58	10 0.33	8 0.28	23	0.9 PE	0 2 1	22 0.28	-0.15 0.27	0.019 0.24	0.06 0.23
LT UNLIMITED EASE 9108 04/17/1989 M 301930 BCR POLLED UNLIMITED 003	THOUSAND OAKS RANCH CARTHAGE MO LINDSKOV-THIEL CHAROLAIS ISABEL SD ABS GLOBAL INC DE FOREST WI	378 3822 1093	12 0.92	-2.1 0.96	23 0.94	28 0.91	8 0.90	0 0.87	20	0.6 0.82	67 504 79	7 0.64	-0.07 0.70	0.010 0.65	0.13 0.69
EC NO DOUBT 2022 P 03/10/2004 M 685500 M6 GRID MAKER 104 PET	GENEX COOPERATIVE INC SHAWANO WI JAMIE EGGLESTON WESSINGTON SD CARSTENS FARMS LTD ADAIR IA	64 732 47	12 0.75	0.1 0.90	35 0.85	71 0.77	10 0.49	11 0.47	27	0.3 0.59	0 113 18	28 0.35	0.64 0.34	-0.005 0.31	0.15 0.29
BBCR MIGHTY MAN 836 PLD 03/27/1996 M 445862 HCR MAC 0177 POLLED	ALVIE FRED 42327 RD 800 MERNA NE 68856	13 392 79	12 0.72	-6.4 0.87	17 0.82	38 0.81	19 0.64	3 0.57	27	-0.1 0.63	23 43 4	8 0.47	0.44 0.52	-0.035 0.47	-0.18 0.50
MC-OW SANDCREEK 375 03/06/2003 M 666702 HOODOO SANDCREEK 9008	OAKWATER RANCH 1040 HAWN AVE SHREVEPORT LA 71107	1 141 10	12 0.66	-6.9 0.79	16 0.68	26 0.66	6 0.27	7 0.23	13	0.2 0.53	3 39 1	-8 0.29	0.30 0.30	-0.003 0.23	0.11 0.18

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
WCR BOOTS ON3 POLLED 03/05/1995 M 423097 RAC NINTENDO G1249 POLD	SAND HILL CHAROLAIS INC HC 1 BOX 69 BOISE CITY OK 73933	2 369 59	21 0.80	-10.2 0.87	-3 0.81	-8 0.23	2 0.62	14 0.54	0	0.1 PE	0 0 0	N/A	N/A	N/A	N/A
GC EASY SUPREME F59 03/17/2005 M 709844 GCR D8	GRAU CHAROLAIS 1680 CR 37 GRADY NM 88120	3 59 2	16 0.57	-9.5 0.69	-5 0.55	-3 0.12	6 0.17	6 0.13	4	0.3 PE	0 0 0	N/A	N/A	N/A	N/A
WAGNER SHALAKO 833 03/25/2008 M 768217 WAGNERS CARDINAL 607	WAGNER CHAROLAIS 18025 WCR 128 NUNN CO 80648	1 102 0	17 0.50	-8.8 0.75	9 0.60	15 0.42	2 0.15	11 0.09	6	0.5 0.27	0 0 0	N/A	N/A	N/A	N/A
MC-OW SANDCREEK 375 03/06/2003 M 666702 HOODOO SANDCREEK 9008	OAKWATER RANCH 1040 HAWN AVE SHREVEPORT LA 71107	1 141 10	12 0.66	-6.9 0.79	16 0.68	26 0.66	6 0.27	7 0.23	13	0.2 0.53	3 39 1	-8 0.29	0.30 0.30	-0.008 0.23	0.11 0.18
WR EASE 4434 03/27/2004 M 689431 LT UNLIMITED EASE 9108	SCHUTTE CHAROLAIS 2912 TIPPERARY LANE IDAHO FALLS ID 83404	2 94 19	17 0.48	-6.6 0.75	16 0.65	19 0.57	16 0.37	2 0.31	24	0.7 PE	0 10 1	5 0.29	-0.21 0.29	0.008 0.25	0.06 0.24
LK EASY ELIMINATOR 716 02/01/1997 M 473717 ASC ELIMINATOR 032	BOB BLACK 1115 PURDY MESA RD WHITEWATER CO 81527	1 201 34	17 0.50	-6.5 0.82	30 0.73	51 0.67	13 0.55	9 0.42	28	1.3 0.59	0 0 0	4 PE	0.16 PE	0.001 PE	-0.11 PE
DC-OW MAXIMIZER 385PLD 03/17/2003 M 675875 FC MAGIC WIND 0105 P	OAKWATER RANCH 1040 HAWN AVE SHREVEPORT LA 71107	3 170 31	6 0.61	-6.5 0.81	24 0.72	32 0.71	5 0.45	-4 0.42	17	1.1 0.61	1 50 3	3 0.31	0.16 0.30	0.030 0.25	0.03 0.22
ACF DUKE 422 POLL 03/12/2004 M 684791 BALDRIDGE KOJACK 29K	AMBURGEY CHAROLAIS FARM 3171 CAMARGO RD MT STERLING KY 40353	1 126 4	17 0.62	-6.5 0.77	17 0.67	27 0.66	16 0.28	9 0.23	25	0.1 PE	0 0 0	5 PE	-0.12 PE	-0.018 PE	0.00 PE
BBCR MIGHTY MAN 836 PLD 03/27/1996 M 445862 HCR MAC 0177 POLLED	ALVIE FRED 42327 RD 800 MERNA NE 68856	13 392 79	12 0.72	-6.4 0.87	17 0.82	38 0.81	19 0.64	3 0.57	27	-0.1 0.63	23 43 4	8 0.47	0.44 0.52	-0.035 0.47	-0.18 0.50
BAR S HIGH NOON 68L PLD 02/14/2001 M 622467 BALDRIDGE FASTTRACK 82F	BAR S RANCH 5302 182ND ST PARADISE KS 67658	2 126 8	19 0.67	-6.0 0.78	2 0.67	-9 0.42	14 0.35	12 0.29	15	-0.2 0.36	0 26 1	-23 0.32	-0.61 0.32	-0.005 0.29	0.00 0.27
JES CORONA J370 04/04/1999 M 498013 HCR CORONA 2105 POLLED	JEROME (JERRY) M STOUT 21804 SD HWY 248 KADOKA SD 57543	2 175 38	13 0.72	-5.8 0.81	22 0.73	43 0.74	16 0.52	6 0.44	27	1.1 0.45	0 30 1	3 0.28	-0.18 0.27	-0.001 0.24	-0.05 0.20
WCR SIR TRADITION5056ETP 08/25/2005 M 716920 WCR SIR TRADITION 066	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	2 197 16	11 0.47	-5.7 0.82	24 0.74	43 0.72	12 0.36	1 0.37	24	0.4 0.48	0 33 2	19 0.32	0.49 0.31	-0.008 0.28	-0.02 0.26
SCHURRTOP JK 2201-2283P 03/13/2001 M 624670 SCHURRTOP JK 5627 2201P	RAY D WINZ & SONS 72354 Q RD HOLDREGE NE 68949-3449	1 170 28	16 0.72	-5.7 0.81	15 0.73	36 0.70	10 0.51	14 0.45	18	0.9 0.56	0 0 0	12 BK	0.36 BK	0.009 BK	0.01 BK
LT LONG DISTANCE 9001 PLD 02/09/2009 M 780143 LT SILVER DISTANCE 5342P	DERRY & MARY WRIGHT RICHMOND MO DUANE OR JILL DOMEK WIBAUX MT LINDSKOV-THIEL CHAROLAIS ISABEL SD HEBBERT CHAROLAIS HYANNIS NE	9 113 0	13 0.66	-5.6 0.76	25 0.65	40 0.32	15 0.20	1 0.16	28	0.5 PE	0 0 0	14 BK	0.09 BK	0.018 BK	0.09 BK
JCR IMPRESSIVE 626 TW P 02/15/2006 M 724000 WCR SIR IMPRESS 1325 P	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	3 99 12	8 0.58	-5.5 0.75	33 0.63	50 0.63	-1 0.31	-7 0.32	16	0.4 0.35	0 20 1	16 0.26	0.04 0.25	-0.001 0.23	0.13 0.19
FCR LEGACY 6013 PLD 03/22/2006 M 719605 FCR LEGACY 204 P	FRENCH CHAROLAIS RANCH 37151 HERITAGE ROAD MULLEN NE 69152	1 75 3	7 0.41	-5.5 0.72	12 0.61	27 0.56	10 0.23	-4 0.16	16	0.9 0.42	0 0 0	N/A	N/A	N/A	N/A
VCR SIR DUKE 9918 ET P 08/20/1999 M 508800 VCR SIR DUKE 914 PLD	VEDVEI CHAROLAIS RANCH 44213 204TH ST LAKE PRESTON SD 57249	23 242 46	12 0.65	-5.4 0.83	28 0.75	46 0.72	10 0.51	5 0.48	24	0.4 0.55	0 45 5	3 0.34	-0.24 0.33	-0.028 0.30	0.08 0.28
EATONS EXPEDITION P 5004 02/27/2005 M 706506 EATONS PIONEER 9161	EATON CHAROLAIS HCR 67 BOX 96 LINDSAY MT 59339	1 43 2	14 0.50	-5.4 0.66	14 0.55	47 0.42	13 0.23	11 0.18	20	0.9 0.32	0 6 1	5 0.24	-0.02 0.25	0.031 0.20	-0.03 0.20
CMF 192 WRANGLER 256 11/22/2000 M 615145 BALDRIDGE FASTTRACK 82F	YOST FARMS RT 4 BOX 186 KINGFISHER OK 73750	20 200 17	18 0.69	-5.0 0.82	31 0.72	51 0.63	3 0.37	12 0.34	19	0.8 0.52	0 27 3	10 0.32	0.05 0.31	0.001 0.28	0.05 0.26
LT SILVER DISTANCE 5342P 03/31/2005 M 707559 LT SILVER YIELD 3196 P	SHANE D JOHNSON BROOKINGS SD LINDSKOV-THIEL CHAROLAIS ISABEL SD	33 311 48	7 0.77	-4.6 0.85	29 0.77	44 0.66	13 0.49	-5 0.48	28	0.6 0.58	0 68 8	6 0.32	-0.06 0.30	0.026 0.28	0.03 0.25
M6 SLEEP EASY 734 PLD 02/18/2007 M 739763 THREE TREES WIND 0383 ET	KEVIN J MOORE ALVARADO TX JOE & LINDA GARCIA DONALSONVILLE GA JOHN D MILTON JR SCOTTSVILLE VA	4 66 0	17 0.56	-4.6 0.70	38 0.59	72 0.42	4 0.21	9 0.18	23	1.4 0.39	0 13 3	21 0.25	0.48 0.25	-0.008 0.22	0.08 0.19
EATONS AVALANCH 3192 03/30/2003 M 657607 EATONS SUPREMEVAL1003	EATON CHAROLAIS LINDSAY MT SOUTHERN CATTLE COMPANY MARIANNA FL	2 151 17	11 0.54	-4.5 0.80	13 0.70	43 0.69	16 0.37	11 0.32	23	1.1 0.55	11 29 2	19 0.40	-0.54 0.44	0.070 0.38	0.09 0.41
EATONS VISIONARY 2044 P 03/21/2002 M 652186 EATONS VISION 0484	WIENK CHAROLAIS RANCH LAKE PRESTON SD EATON CHAROLAIS LINDSAY MT DEER VALLEY CHAROLAIS RANCH LAURENS SC	21 422 85	6 0.78	-4.4 0.88	14 0.81	46 0.81	17 0.62	7 0.59	24	1.8 0.69	46 114 7	5 0.56	-0.66 0.62	0.022 0.57	-0.07 0.61
PLT SIR DUKES FLASH 5527 03/23/1997 M 462166 HCR FLASH 5074 POLLED	VEDVEI CHAROLAIS RANCH 44213 204TH ST LAKE PRESTON SD 57249	22 170 45	1 0.68	-4.4 0.81	19 0.72	33 0.69	9 0.54	-7 0.46	18	0.4 0.50	16 16 3	-8 0.40	0.01 0.45	-0.062 0.39	0.29 0.42
SIR DUKE II OF DVFETD02 04/09/2002 M 652247 VCR SIR DUKE 914 PLD	MUNCY CHAROLAIS FARMS PIPESTEM WV VEDVEI CHAROLAIS RANCH LAKE PRESTON SD	20 105 11	10 0.54	-4.3 0.75	20 0.64	53 0.56	21 0.35	3 0.31	31	1.0 0.34	0 26 5	17 0.31	0.09 0.31	-0.024 0.28	-0.05 0.26

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herd Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
WCCC STONEY 7133 04/14/2007 M 737526 RC ROCKER 0341	WOODEN CROSS CATTLE CO 557 190TH ROAD HILLSBORO KS 67063	2 58 0	4 0.34	0.0 0.69	63 0.58	92 0.55	0 0.19	3 0.14	31	0.8 PE	0 0	22 PE	0.47 PE	-0.015 PE	-0.13 PE
M6 FORWARD 062S 09/08/2006 EM 748704 LHD CIGAR E46	JOE & LINDA GARCIA DONALSONVILLE GA JOHN D MILTON JR SCOTTSVILLE VA	2 86 0	-2 0.42	3.1 0.73	59 0.62	94 0.45	2 0.26	3 0.21	32	1.1 0.40	0 17 2	32 0.27	0.59 0.27	-0.016 0.25	-0.06 0.22
FC TURBO 756 P 03/07/2007 M 741172 SCR MR TURBO 4009	LARRY DYBDAL NEWCASTLE NE DALE FUNK OMAHA NE SONDERUP CHAROLAIS RANCH FULLERTON NE	7 87 10	-1 0.39	1.1 0.74	53 0.59	69 0.55	-2 0.25	1 0.25	25	0.8 PE	0 3 1	34 0.14	0.43 0.12	-0.005 0.08	-0.02 0.06
M6 MOMENTUM 4247 P ET 09/14/2004 M 697649 LHD CIGAR E46	JANTZEN D LORD MARIANNA FL KEVIN J MOORE ALVARADO TX SOUTHERN CATTLE COMPANY MARIANNA FL	3 99 29	5 0.44	0.3 0.75	52 0.65	86 0.54	6 0.42	7 0.36	32	1.1 0.51	0 35 2	33 0.31	0.47 0.31	-0.011 0.28	-0.13 0.26
DA PASSPORT 502 P ET 01/04/2005 M 699727 JDJ SMOKESTER J1377 P ET	MITCHELL HARL THOMAS RAYMONDVLE TX DERRY & MARY WRIGHT RICHMOND MO	9 85 6	-1 0.41	2.5 0.72	52 0.64	83 0.61	16 0.28	1 0.21	42	1.1 0.49	0 26 5	26 0.30	0.89 0.31	-0.026 0.27	-0.35 0.25
HEP AUTO PILOT 101H ET 10/22/1998 M 492170 HEP KING GRAZER 25A	COMPTON CHAROLAIS NANAFALIA AL DR HARLAN B ROGERS COLLINS MS	8 168 21	-1 0.50	4.7 0.81	51 0.66	100 0.40	21 0.45	8 0.39	46	0.6 0.18	0 1 1	45 0.21	0.53 0.19	0.006 0.15	-0.04 0.14
SC SHADOWBROOK 484 ET 08/31/2004 M 690415 LC BUSINESS 06P	ROBERT C NICHOLS 10591 CO ROAD 37 S LETOHATCHEE AL 36047	1 106 3	3 0.52	3.6 0.74	51 0.60	85 0.31	12 0.23	7 0.20	37	0.9 PE	0 0 0	17 PE	0.26 PE	-0.012 PE	-0.05 PE
SCR WIND POWER 8166 03/08/2008 M 769025 FREDS WYOMING LAD A40 ET	JEROME (JERRY) M STOUT 21804 SD HWY 248 KADOKA SD 57543	1 39 0	4 0.34	1.0 0.65	51 0.57	91 0.47	6 0.21	5 0.16	32	0.4 0.35	0 5 1	34 0.22	0.58 0.22	-0.002 0.19	-0.02 0.16
SC SHADOWBROOK 65 ET 10/25/2003 M 679846 BALDRIDGE FASTTRACK 82F	EDWIN G PERKINS H C 63 BOX 58 A MULLIN TX 76864	1 101 14	9 0.62	2.0 0.74	51 0.56	77 0.27	13 0.33	8 0.31	38	0.6 PE	0 0 0	9 PE	0.04 PE	-0.002 PE	-0.05 PE
BJR THUNDERING VALUE 7124 P 04/18/2007 M 751654 LT THUNDERING WIND 5200P	BJR SUMMERFORD CHAROLAIS FALKVILLE AL DOUBLE O CHAROLAIS MARSHALL TX	1 106 0	-1 0.42	2.6 0.75	50 0.63	83 0.34	8 0.26	1 0.21	33	1.3 PE	0 0 0	36 BK	0.34 BK	0.037 BK	0.05 BK
TR MR PRIME PLUS 7720T 05/14/2007 M 744515 WCR SIR PRIMEPLUS 580 P	THOMAS RANCH HARROLD SD SUMMIT FARMS ALDEN IA	4 126 1	-6 0.37	3.6 0.77	49 0.68	92 0.66	2 0.22	-6 0.15	27	0.4 PE	0 28 2	45 0.27	0.34 0.26	-0.006 0.23	0.01 0.19
HBR AUTO PILOT 282 P 12/05/2003 M 677775 HEP AUTO PILOT 101H ET	VAN WINDHAM 7 CR 295 BAY SPRINGS MS 39422	1 141 2	1 0.48	2.7 0.79	49 0.68	93 0.23	14 0.24	7 0.19	39	0.5 PE	0 0 0	35 PE	0.31 PE	0.006 PE	0.03 PE
M6 RIGHT NOW 5239 PLD ET 09/25/2005 M 718494 M6 GRID MAKER 104 PET	KEVIN J MOORE ALVARADO TX BRUNA BEEF GENETICS BARNES KS	6 129 5	10 0.44	-1.2 0.77	49 0.65	75 0.55	1 0.30	6 0.28	25	1.4 0.41	0 16 3	25 0.29	0.68 0.29	-0.016 0.26	-0.09 0.24
HBR PROGRAM 218 P 03/09/2002 M 634843 VCR SIR DUKE 914 PLD	DR HARLAN B ROGERS COLLINS MS DR HARLAN B ROGERS COLLINS MS	22 163 15	2 0.52	2.0 0.80	48 0.67	75 0.45	19 0.34	1 0.32	43	1.0 0.33	0 4 3	24 0.25	0.22 0.24	-0.017 0.20	0.05 0.20
RW WESTERN SPUR 691 02/27/2006 M 727438 LT WESTERN SPUR 2061 PLD	KEPPEN CHAROLAIS RANCH 405 SAMARA AVE VOLGA SD 57071	2 85 3	7 0.46	-1.1 0.73	47 0.63	67 0.44	-5 0.25	9 0.21	19	1.4 0.41	0 22 2	34 0.29	0.79 0.29	0.021 0.26	0.19 0.24
KEYS TEN-ACIOUS 166S 03/10/2006 M 724532 KEYS MCTENDER 279P	EFFERTZ KEY RANCH PO BOX 640 VELVA ND 58790-0640	10 237 29	-1 0.51	2.5 0.84	46 0.76	88 0.72	-3 0.40	0 0.39	20	1.6 0.17	0 16 3	46 0.22	0.75 0.21	0.007 0.18	-0.03 0.14
VCR DAKOTA VISION 619 P 02/13/2006 M 721849 WCR SIR VISION 4246 P	SOREIDE CHAROLAIS 8307 149TH AVE SW BOWMAN ND 58623	1 56 2	2 0.47	1.5 0.69	46 0.57	83 0.34	6 0.22	6 0.19	30	1.1 PE	0 0 0	27 BK	0.24 BK	0.004 BK	0.01 BK
LT RIO BLANCO 1234 P 04/04/2001 M 620591 WCR PRIME CUT 764 PLD	MIKE CALLIS MILLBROOK AL PATE CHAROLAIS RANCH LOWNDESBORO AL LINDSKOV-THIEL CHAROLAIS ISABEL SD	141 1127 270	-3 0.75	3.5 0.92	45 0.88	87 0.83	8 0.76	3 0.71	30	1.3 0.74	1 190 38	46 0.39	0.49 0.39	0.047 0.36	0.14 0.35
KEYS MCHENRY 24M 02/01/2002 M 645472 KEYS HANDYMAN PLD 255H	EFFERTZ KEY RANCH PO BOX 640 VELVA ND 58790-0640	81 651 138	1 0.63	1.3 0.90	45 0.84	74 0.82	-2 0.68	3 0.63	21	1.1 0.55	0 54 20	40 0.29	0.64 0.27	0.002 0.24	-0.06 0.20
RDW SIR FLASH N391PDW 03/23/2003 M 680718 RDW SIR FLASH H9109P	RAY D WINZ & SONS 72354 Q RD HOLDREGE NE 68949-3449	1 112 18	-4 0.40	2.8 0.77	45 0.66	78 0.61	12 0.38	-3 0.34	34	0.5 0.42	0 0 0	N/A	N/A	N/A	N/A
RCB DAKOTA SPUR S022 03/17/2006 M 728757 LT WESTERN SPUR 2061 PLD	RONALD C BOCK DICKINSON ND SOREIDE CHAROLAIS BOWMAN ND	3 107 10	-4 0.50	3.4 0.76	45 0.66	66 0.29	-4 0.30	7 0.28	18	0.8 PE	0 0 0	2 PE	0.17 PE	0.015 PE	0.01 PE
WM ALI STAR 250 PET 03/18/2002 M 648601 VCR SIR DUKE 914 PLD	DOUBLE O CHAROLAIS MARSHALL TX DOUBLE O CHAROLAIS MARSHALL TX	16 333 12	5 0.59	1.3 0.85	44 0.76	75 0.39	18 0.35	3 0.30	40	1.1 0.29	0 5 2	20 0.26	0.18 0.24	-0.034 0.21	0.11 0.19
HBR CANNON 2250 ET 05/02/2002 M 652166 VCR SIR DUKE 914 PLD	DR HARLAN ROGERS PO BOX 1718 COLLINS MS 39428	9 209 23	2 0.57	1.0 0.82	44 0.70	75 0.35	23 0.41	-2 0.39	45	1.4 0.28	0 1 1	28 0.23	0.21 0.22	-0.025 0.18	-0.04 0.18
PLUCKER'S BEYOND BELIEF P 03/19/2006 M 737798 EATONS BEYOND 7243	PLUCKER CHAROLAIS 45678 275TH ST PARKER SD 57053	1 58 3	11 0.51	-4.2 0.69	44 0.59	98 0.42	3 0.25	12 0.20	25	0.8 PE	0 0 0	2 PE	-0.07 PE	0.010 PE	0.25 PE
BHD ROYAL GRID T556 04/08/2007 M 752489 JDJ ROYAL TRADE N134	BRETT DE BRUYCKER DUTTON MT ROMANS RANCHES VALE OR	2 73 0	10 0.37	-0.8 0.72	44 0.59	63 0.59	-1 0.19	6 0.13	21	1.3 PE	0 36 2	27 0.27	0.37 0.27	-0.001 0.25	-0.13 0.21

T R A I T L E A D E R S

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
TR MR PRIME PLUS 720T 05/14/2007 M 744515 WCR SIR PRIMEPLUS 580 P	THOMAS RANCH HARROLD SD SUMMIT FARMS ALDEN IA	4 126 1	-6 0.37	3.6 0.77	49 0.68	92 0.66	2 0.22	-6 0.15	27	0.4 PE	0 28 2	45 0.27	0.34 0.26	-0.006 0.23	0.01 0.19
WCCC STONEY 7133 04/14/2007 M 737526 RC ROCKER 0341	WOODEN CROSS CATTLE CO 557 190TH ROAD HILLSBORO KS 67063	2 58 0	4 0.34	0.0 0.69	63 0.58	92 0.55	0 0.19	3 0.14	31	0.8 PE	0 0 0	22 PE	0.47 PE	-0.015 PE	-0.13 PE
BHD COBALT S553 03/23/2006 M 735863 CJC SMOKIN TRADE P115	BRETT DE BRUYCKER 1692 6TH LANE N E DUTTON MT 59433	9 70 6	6 0.45	1.1 0.71	31 0.60	91 0.59	16 0.23	0 0.15	32	0.9 0.47	3 0 0	22 0.18	0.30 0.19	-0.008 0.13	0.05 0.15
KEYS TEN-ACIOUS 166S 03/10/2006 M 724532 KEYS MCTENDER 279P	EFFERTZ KEY RANCH PO BOX 640 VELVA ND 58790-0640	10 237 29	-1 0.51	2.5 0.84	46 0.76	88 0.72	-3 0.40	0 0.39	20	1.6 0.17	0 16 3	46 0.22	0.75 0.21	0.007 0.18	-0.03 0.14
LT RIO BLANCO 1234 P 04/04/2001 M 620591 WCR PRIME CUT 764 PLD	MIKE CALLIS MILLBROOK AL PATE CHAROLAIS RANCH LOWNDESBO RO AL LINDSKOV-THIEL CHAROLAIS ISABEL SD	141 1127 270	-3 0.75	3.5 0.92	45 0.88	87 0.83	8 0.76	3 0.71	30	1.3 0.74	1 190 38	46 0.39	0.49 0.39	0.047 0.36	0.14 0.35
DA PASSPORT 502 P ET 01/04/2005 M 699727 JDJ SMOKESTER J1377 P ET	MITCHELL HARL THOMAS RAYMONDVLE TX DERRY & MARY WRIGHT RICHMOND MO	9 85 6	-1 0.41	2.5 0.72	52 0.64	83 0.61	16 0.28	1 0.21	42	1.1 0.49	0 26 5	26 0.30	0.89 0.31	-0.026 0.27	-0.35 0.25
MD CIRCULAR R2003 08/26/2005 M 735576 MD OUTBACK M1046	MARK & BELVA DE BRUYCKER 2649 12TH LANE NW BYNUM MT 59419	2 120 11	4 0.45	0.6 0.77	39 0.68	81 0.64	7 0.29	6 0.25	27	0.9 0.52	0 0 0	13 PE	0.13 PE	-0.008 PE	0.02 PE
CFL NO QUESTION 732 04/04/2007 M 751586 EC NO DOUBT 2022 P	WIENK CHAROLAIS RANCH LAKE PRESTON SD CARSTENS FARMS LTD ADAIR IA GENEX COOPERATIVE INC SHAWANO WI	2 76 0	-4 0.38	6.4 0.72	39 0.59	81 0.55	10 0.20	6 0.14	29	0.6 0.26	0 10 1	36 0.24	0.80 0.24	0.020 0.21	0.13 0.17
EATONS ENERGY 7047 03/10/2007 M 745088 EATONS IMPACT 2034	EATON CHAROLAIS LINDSAY MT FRANZ RANCH SIDNEY MT	2 128 0	-1 0.55	2.6 0.78	36 0.60	80 0.59	15 0.20	8 0.23	33	1.7 0.47	0 0 0	21 BK	0.29 BK	0.019 BK	0.03 BK
WCR SIR IMPRESSIVE 8191P 03/26/1998 M 477998 JWK IMPRESSIVE D040 ET	JERRY DALLING SUGAR CITY ID PLUCKER CHAROLAIS PARKER SD MYERS' CIRCLE FARM ELKTON KY	69 712 184	3 0.72	0.7 0.90	41 0.85	78 0.82	3 0.72	2 0.67	24	1.6 0.73	14 94 23	30 0.45	0.11 0.49	0.034 0.44	0.18 0.46
4L MR SAM PLD/S 8312 02/26/1998 M 480932 LCR ROYAL SAM M4 POLLED	PETERSON'S 4L CHAROLAIS 4703 S KENANSVILLE RD KEECHOBEE FL 34972	2 132 27	-4 0.52	2.6 0.79	29 0.69	78 0.62	7 0.48	1 0.40	22	1.1 0.32	0 2 1	17 0.17	0.33 0.14	-0.007 0.10	-0.16 0.08
RDW SIR FLASH N391PDW 03/23/2003 M 680718 RDW SIR FLASH H9109P	RAY D WINZ & SONS 72354 Q RD HOLDREGE NE 68949-3449	1 112 18	-4 0.40	2.8 0.77	45 0.66	78 0.61	12 0.38	-3 0.34	34	0.5 0.42	0 0 0	N/A	N/A	N/A	N/A
LCOC POLLED VALUE P063S P 02/20/2006 M 724767 LT POLLED VALUE 9089	SILVER SPUR LAND AND CATTLE LLC PO BOX 714 ENCAMPMENT WY 82325	2 67 0	6 0.43	-1.4 0.71	36 0.59	78 0.56	15 0.24	5 0.20	33	0.3 0.49	0 16 1	32 0.30	0.07 0.30	0.017 0.27	0.01 0.25
LHD PATHWAY R1581 02/27/2005 M 716786 LHD VOLTAGE N335	LLOYD & JANE DE BRUYCKER 1690 6TH LANE NE DUTTON MT 59433	6 76 10	-4 0.38	4.5 0.72	37 0.62	76 0.58	9 0.26	1 0.23	27	0.9 0.44	1 0 0	20 0.18	0.31 0.19	-0.016 0.15	-0.14 0.12
TR SMOKEONTHWATER ET 03/15/2004 M 690545 THOMAS OAH WIND 0772ET P	COUDRON CHAROLAIS MONTICELLO MN THOMAS RANCH HARROLD SD ALEX P BULLARD CORNELL IL	17 95 15	-4 0.45	2.4 0.74	41 0.64	75 0.58	4 0.36	-2 0.29	25	1.2 0.45	0 23 6	29 0.29	0.48 0.29	0.014 0.26	-0.22 0.23
LT SOUTHERN RIO 3293 P 04/02/2003 M 665526 LT RIO BLANCO 1234 P	MUNCY CHAROLAIS FARMS PO BOX 209 PIPESTEM WV 25979	7 139 12	-1 0.50	2.8 0.78	37 0.67	75 0.56	8 0.35	3 0.35	27	1.2 0.32	0 0 0	25 BK	0.46 BK	0.032 BK	0.14 BK
M6 RIGHT NOW 5239 PLD ET 09/25/2005 M 718494 M6 GRID MAKER 104 PET	KEVIN J MOORE ALVARADO TX BRUNA BEEF GENETICS BARNES KS	6 129 5	10 0.44	-1.2 0.77	49 0.65	75 0.55	1 0.30	6 0.28	25	1.4 0.41	0 16 3	25 0.29	0.68 0.29	-0.016 0.26	-0.09 0.24
KEYS MCHENRY 24M 02/01/2002 M 645472 KEYS HANDYMAN PLD 255H	EFFERTZ KEY RANCH PO BOX 640 VELVA ND 58790-0640	81 651 138	1 0.63	1.3 0.90	45 0.84	74 0.82	-2 0.68	3 0.63	21	1.1 0.55	0 54 20	40 0.29	0.64 0.27	0.002 0.24	-0.06 0.20
LT WESTERN EDGE 4057 PLD 03/02/2004 M 686616 LT WESTERN SPUR 2061 PLD	HUBERT/LEHMAN/WRIGHT CHAROLAIS OAKLEY KS LINDSKOV-THIEL CHAROLAIS ISABEL SD LANE & PETERSON CATTLE CO CHARLES CITY IA	71 747 150	0 0.73	-0.2 0.91	37 0.86	74 0.78	12 0.66	6 0.65	31	1.3 0.67	1 217 30	29 0.38	0.15 0.37	0.027 0.33	-0.06 0.31
TW ELIMINATOR J102 P 09/02/1999 M 508565 ASC ELIMINATOR 032	AMBURGEY CHAROLAIS FARM 3171 CAMARGO RD MT STERLING KY 40353	2 333 31	5 0.51	-0.3 0.86	42 0.78	74 0.77	14 0.46	8 0.41	35	0.8 0.24	0 0 0	7 PE	0.18 PE	0.000 PE	-0.11 PE
BEM BULLDOZER 51M 01/24/2002 M 662948 HTA WHITEHOT 105A	J C H DOLL 3991 36TH ST NEW SALEM ND 58563	3 260 60	9 0.52	0.1 0.84	35 0.78	74 0.74	-4 0.57	13 0.52	14	1.3 0.52	0 57 2	44 0.33	0.52 0.32	-0.023 0.29	-0.02 0.26
THREE TREES WIND 2638 ET 09/21/2002 M 661622 LT WYOMING WIND 4020 PLD	NIPP CHAROLAIS OVERBROOK OK GRISSOM CHAROLAIS WILSON OK DENNIS CHAROLAIS FARMS SAINT JO TX	5 127 9	4 0.47	1.2 0.77	40 0.64	74 0.63	-1 0.32	3 0.29	19	0.7 0.52	0 41 4	28 0.34	0.58 0.33	-0.001 0.31	0.13 0.29
ENDSLEY'S DUKE STONE 257 03/24/2002 M 641628 VCR SIR DUKE 914 PLD	ENDSLEY'S CHAROLAIS FARMS 5590 E STATE RD HASTINGS MI 49058	3 343 70	7 0.58	0.3 0.86	38 0.80	73 0.81	8 0.58	4 0.54	27	1.0 0.21	0 0 0	N/A	N/A	N/A	N/A
SR/NC FIELD REP 2158 P ET 10/21/2002 M 665948 LHD MR PERFECT Y416	DENNIS CHAROLAIS FARMS SAINT JO TX NIPP CHAROLAIS OVERBROOK OK GRISSOM CHAROLAIS WILSON OK	59 678 73	-2 0.59	2.3 0.90	43 0.83	73 0.81	10 0.54	3 0.52	31	1.0 0.73	0 156 17	29 0.37	0.53 0.35	-0.003 0.33	-0.13 0.31
M6 TRADE MARK 2234 P ET 10/30/2002 M 660997 CJC TRADEMARK H45	KEVIN J MOORE ALVARADO TX ALBERT CHAROLAIS RANCH KENEDY TX	1 147 21	6 0.43	2.2 0.79	37 0.70	72 0.65	10 0.40	3 0.34	29	1.3 0.55	0 0 0	21 PE	0.34 PE	-0.022 PE	-0.03 PE

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
EC BRONSON 204 POLLED 04/05/1993 M 375306 SIR EC STINGER 48	LONE TREE CHAROLAIS 5516 WILDWOOD DR RAPID CITY SD 57702-8812	24 227 77	-2 0.58	2.9 0.84	16 0.77	59 0.66	25 0.66	1 0.56	33	1.1 0.27	0 2 2	18 0.21	0.16 0.20	-0.014 0.15	0.04 0.11
JDJ SMOKESTER J1377 P ET 02/25/1999 M 509419 LHD CIGAR E46	JACQUE DE BRUYCKER DUTTON MT RAMBUR CHAROLAIS SIDNEY MT RIVERDALE LAND & LIVESTOCK CORP. SUNSET HILLS MO	86 817 140	-4 0.69	2.3 0.91	28 0.85	39 0.82	24 0.70	-3 0.67	38	1.0 0.72	18 153 23	16 0.49	0.91 0.54	-0.046 0.49	-0.47 0.52
KC DESIGN 4246 P 03/04/2004 M 679384 PF EL DUKE 9021 P ET	KEPPEN CHAROLAIS RANCH VOLGA SD WIENK CHAROLAIS RANCH LAKE PRESTON SD	18 447 84	-10 0.73	1.7 0.88	30 0.81	48 0.80	24 0.57	-10 0.55	39	1.3 0.67	41 117 5	6 0.53	0.19 0.60	-0.013 0.54	-0.05 0.58
LT EASY PRO 1158 PLD 03/18/2001 M 620348 LT UNLIMITED EASE 9108	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	98 1141 201	8 0.83	-1.7 0.92	23 0.88	35 0.84	22 0.72	-5 0.68	33	-0.3 0.75	41 365 38	15 0.56	-0.03 0.61	0.019 0.56	0.37 0.60
HEP KING GRAZER 25A 02/01/1991 M 333937 BR DUKE 261	PATE CHAROLAIS RANCH LOWNDESBORO AL KINMONT FARM WAYNESBORO VA PATE CHAROLAIS RANCH LOWNDESBORO AL	124 1182 356	6 0.80	0.6 0.93	32 0.88	62 0.83	21 0.82	10 0.76	37	-0.3 0.57	0 68 15	32 0.39	0.26 0.39	0.031 0.35	0.09 0.35
BALDRIDGE KOJACK 29K 01/16/2000 M 602060 BALDRIDGE FASTTRACK 82F	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	228 1552 258	13 0.87	-4.2 0.93	29 0.89	45 0.84	21 0.75	6 0.71	36	-0.5 0.66	7 140 42	1 0.43	-0.27 0.48	-0.003 0.43	-0.03 0.44
LT RIO BRAVO 3181 P 03/17/2003 M 665507 LT RIO BLANCO 1234 P	LINDSKOV-THIEL CHAROLAIS ISABEL SD ABS GLOBAL INC DE FOREST WI	68 577 120	1 0.65	0.2 0.89	36 0.84	71 0.78	21 0.64	-2 0.60	39	1.5 0.65	3 183 39	37 0.37	0.63 0.36	0.047 0.33	0.20 0.32
VCR SIR DUKE 914 PLD 03/01/1989 M 297007 WCR SIR DUKE 761	VEDVEI CHAROLAIS RANCH LAKE PRESTON SD ABS GLOBAL INC DE FOREST WI VEDVEI CHAROLAIS RANCH LAKE PRESTON SD	409 3795 1483	10 0.91	-0.4 0.96	40 0.94	63 0.92	20 0.91	4 0.88	40	1.3 0.84	37 344 67	16 0.59	0.08 0.65	-0.045 0.60	0.07 0.63
WCR SIR DUKE 835 03/02/1988 M 286251 BR DUKE 261	WIENK CHAROLAIS RANCH LAKE PRESTON SD JERRY DALLING SUGAR CITY ID JIM BUTLER COLLEGE STATION TX	47 556 132	1 0.78	-0.8 0.89	11 0.84	14 0.82	19 0.74	-12 0.67	24	0.3 0.69	0 0 0	13 PE	-0.10 PE	0.003 PE	0.10 PE
BBCR MIGHTY MAN 836 PLD 03/27/1996 M 445862 HCR MAC 0177 POLLED	ALVIE FRED 42327 RD 800 MERNA NE 68856	13 392 79	12 0.72	-6.4 0.87	17 0.82	38 0.81	19 0.64	3 0.57	27	-0.1 0.63	23 43 4	8 0.47	0.44 0.52	-0.035 0.47	-0.18 0.50
M6 FUNCTION 169 PET 03/07/2001 M 631721 LHD CIGAR E46	STALLINGS CHAROLAIS 1169 OLD DANDRIDGE PIKE NEW MARKET TN 37820	47 282 82	3 0.62	0.9 0.85	14 0.76	34 0.66	19 0.57	5 0.53	26	0.6 0.53	26 56 10	-1 0.51	0.80 0.57	-0.046 0.51	-0.13 0.55
WCR SIR DUKE 0267 04/14/1990 M 318081 BR DUKE 261	COMPTON CHAROLAIS BOX 160 NANAFALIA AL 36764	19 300 139	2 0.69	-0.1 0.87	23 0.82	37 0.62	18 0.72	-2 0.61	29	0.5 0.40	0 1 1	19 0.28	0.03 0.28	0.009 0.23	0.14 0.23
MD SENTINAL RULER G1520 09/18/1997 M 509416 LHD MR RULER D310	MARK & BELVA DE BRUYCKER 2649 12TH LANE NW BYNUM MT 59419	19 302 55	9 0.56	-0.7 0.85	17 0.79	38 0.75	18 0.60	9 0.42	27	-0.4 0.65	11 55 6	14 0.39	0.27 0.43	-0.005 0.38	0.47 0.39
JWK CHOICE PLUS E203 ET 09/03/1995 M 439382 VCR SIR DUKE 914 PLD	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	123 835 164	10 0.74	0.6 0.91	40 0.84	63 0.79	17 0.70	3 0.65	37	1.3 0.57	6 43 15	15 0.40	0.19 0.44	-0.032 0.39	-0.05 0.38
EATONS VISIONARY 2044 P 03/21/2002 M 652186 EATONS VISION 0484	WIENK CHAROLAIS RANCH LAKE PRESTON SD EATON CHAROLAIS LINDSAY MT DEER VALLEY CHAROLAIS RANCH LAURENS SC	21 422 85	6 0.78	-4.4 0.88	14 0.81	46 0.81	17 0.62	7 0.59	24	1.8 0.69	46 114 7	5 0.56	-0.66 0.62	0.022 0.57	-0.07 0.61
HCR FLASH 5074 POLLED 03/21/1985 M 252884 HCR EXODUS 9033 POLLED	MARK THOMPSON 8603 211TH AVE N W ELK RIVER MN 55330	242 1755 530	5 0.88	-2.7 0.94	15 0.91	39 0.85	16 0.85	3 0.80	23	-0.3 0.66	17 35 11	2 0.49	0.03 0.54	-0.019 0.48	0.53 0.50
SCHURRTOP HCR RANCHER 03/02/1998 M 479774 SCHURRTOP EASE 8953 PLD	SCHURR BROS FARNAM NE HUBERT CHAROLAIS RANCH OAKLEY KS LARRY & ROBBIE LEHMAN TIOGA TX	51 875 178	3 0.75	2.1 0.91	27 0.87	57 0.80	15 0.72	3 0.68	29	0.9 0.66	0 327 14	22 0.36	0.38 0.33	-0.012 0.31	0.16 0.29
LT WIND STORM 8223 PLD 04/08/1998 M 480910 LT WYOMING WIND 4020 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD GROSS & SONS FARMS MOUNTAIN HOME AR MARY E MALZAHN PERRY OK	23 449 84	11 0.75	-4.1 0.88	1 0.81	-2 0.75	15 0.63	5 0.58	16	0.0 0.63	39 59 8	-11 0.52	-0.25 0.58	0.038 0.53	0.10 0.57
LT DUKE OF WINDSOR 7120P 03/17/1997 M 462144 LT UNLIMITED DUKE 1172 P	DOUBLE D CATTLE CO 31522 T R 312 COSHOCTON OH 43812	1 139 38	1 0.61	0.7 0.79	15 0.69	19 0.63	15 0.55	-6 0.48	22	1.2 0.36	0 4 1	8 0.25	-0.01 0.25	0.015 0.21	0.13 0.21
BALDRIDGE FASTTRACK 82F 02/10/1996 M 447863 LT UNLIMITED EASE 9108	L R WAKEFIELD & SONS NEW RICHLAND MN JERRY D VAUGHAN DERBY KS MITCHELL R COX CAMPBELLSVILLE KY	414 3698 873	14 0.91	-3.0 0.96	26 0.93	39 0.90	14 0.87	8 0.84	28	-0.1 0.81	48 438 66	10 0.59	-0.05 0.65	0.020 0.59	-0.06 0.63
M6 GRID MAKER 104 PET 01/01/2001 M 633377 WCR SIR TRADITION 066	LINDSKOV-THIEL CHAROLAIS & TIM LESLIE ISABEL SD LARRY BANEY MOUNTAIN GROVE MO ABS GLOBAL INC DE FOREST WI	306 3127 651	7 0.86	0.5 0.95	32 0.93	66 0.90	14 0.83	4 0.80	30	0.8 0.81	22 573 100	24 0.50	0.74 0.55	-0.029 0.49	0.15 0.51
LT POLLED VALUE 9089 03/10/1999 M 501702 WCR PRIME CUT 764 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD EATON CHAROLAIS LINDSAY MT MYERS' CIRCLE FARM ELKTON KY	142 1738 413	4 0.87	-0.8 0.94	33 0.90	63 0.88	13 0.81	8 0.79	30	1.4 0.83	48 446 45	38 0.62	0.22 0.68	0.027 0.63	0.00 0.67
WCR SIR DUKE 17J ET P 01/01/2000 M 511446 VCR SIR DUKE 914 PLD	WIENK CHAROLAIS/MID TENN CHAROLAIS LAKE PRESTON SD DUBAS CHAROLAIS PAT DUBAS WOODBINE IA LEE FARMS CHAROLAIS MOORHEAD IA	17 546 114	-1 0.75	0.8 0.89	30 0.83	60 0.82	13 0.67	-2 0.64	28	0.5 0.72	0 220 7	17 0.38	0.06 0.36	-0.012 0.33	0.00 0.32
DOUBLE D STONEWALL P356 03/31/1993 M 384013 MR CAMELOT POLLED	DOUBLE D CATTLE CO 31522 T R 312 COSHOCTON OH 43812	4 130 44	-7 0.50	2.9 0.79	17 0.69	31 0.54	13 0.55	-7 0.48	22	0.4 0.18	0 1 1	13 0.15	0.17 0.14	-0.007 0.09	0.00 0.08
LK EASY ELIMINATOR 716 02/01/1997 M 473717 ASC ELIMINATOR 032	BOB BLACK 1115 PURDY MESA RD WHITEWATER CO 81527	1 201 34	17 0.50	-6.5 0.82	30 0.73	51 0.67	13 0.55	9 0.42	28	1.3 0.59	0 0 0	4 PE	0.16 PE	0.001 PE	-0.11 PE

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
LT WIND TIME 7070 PLD 03/10/1997 M 462119 LT WYOMING WIND 4020 PLD	CLARK ALAN BREVIG 676 QUARRY VIEW LANE LEWISTOWN MT 59457	9 311 98	8 0.69	0.2 0.86	24 0.80	34 0.73	1 0.69	15 0.60	13	1.8 0.68	7 67 8	7 0.41	-0.03 0.43	0.017 0.39	0.23 0.40
HTA WHITEHOT 105A 01/19/1991 M 402510 KJP SKY FIRE 51T	H T AIREY RIVERS MANITOBA CAN NORHEIM CHAROLAIS FARM SASK CAN SANDRA CARLES RADVILLE SASK CANADA	45 247 93	9 0.69	1.9 0.86	28 0.80	62 0.75	2 0.73	14 0.66	16	1.5 0.64	0 47 7	28 0.44	0.21 0.45	-0.013 0.42	0.09 0.42
EATONS LEADER 2233 P 04/04/2002 M 652217 EATONS CANDIDATE 9177	EATON CHAROLAIS LINDSAY MT LINDSKOV-THIEL CHAROLAIS ISABEL SD	54 667 133	9 0.79	-0.5 0.90	19 0.85	45 0.81	-10 0.65	14 0.64	0	0.5 0.73	12 242 27	13 0.44	0.36 0.47	0.067 0.42	-0.07 0.44
HEP KING GRAZER 25A 02/01/1991 M 333937 BR DUKE 261	PATE CHAROLAIS RANCH LOWNDESBORO AL KINMONT FARM WAYNESBORO VA PATE CHAROLAIS RANCH LOWNDESBORO AL	124 1182 356	6 0.80	0.6 0.93	32 0.88	62 0.83	21 0.82	10 0.76	37	-0.3 0.57	0 68 15	32 0.39	0.26 0.39	0.031 0.35	0.09 0.35
ASC ELIMINATOR 032 03/17/1990 M 319454 HCR EXONERATOR POLLED	ARROW S FARMS SHARON SPGS KS JUDDSON & DENISE BALDRIDGE NORTH PLATTE NE	498 4543 1351	9 0.92	-2.3 0.96	30 0.94	39 0.92	11 0.91	10 0.88	26	0.5 0.81	19 186 46	4 0.54	0.35 0.59	-0.004 0.54	-0.28 0.57
PF IMPRESSED 620 P ET 07/10/1996 M 450023 JWK IMPRESSIVE D040 ET	STEVE PETERSON MT GROVE MO WOODEN CROSS CATTLE CO HILLSBORO KS	82 513 170	10 0.69	1.4 0.89	29 0.83	51 0.80	3 0.74	10 0.65	18	0.7 0.53	0 22 15	13 0.34	0.17 0.33	0.007 0.30	0.20 0.28
SKYMONT FLASH 5030 02/27/1995 M 427074 HCR FLASH 5074 POLLED	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	109 539 110	7 0.74	0.7 0.89	27 0.81	36 0.67	13 0.66	10 0.59	26	-0.2 0.39	54 16 9	2 0.56	-0.10 0.63	-0.004 0.57	0.31 0.62
FREDS HUSKER 7701 07/30/1997 M 472880 LT WYOMING WIND 4020 PLD	JAMIE G FRED FAMILY ROSE NE BRIAN FERRIS FORT MORGAN CO	41 400 101	5 0.74	-3.2 0.87	14 0.81	39 0.73	-3 0.65	10 0.58	4	0.6 0.58	7 77 17	10 0.39	-0.10 0.41	0.017 0.37	-0.10 0.38
FH-RRR SEQUOIA 148 04/03/1988 M 282394 SILVER CREEK HIGH-RISE	BRAZOS VALLEY CHAROLAIS NAVASOTA TX BRAZOS VALLEY CHAROLAIS NAVASOTA TX BRAZOS VALLEY CHAROLAIS NAVASOTA TX	154 1092 295	-9 0.78	5.0 0.92	19 0.86	49 0.77	0 0.79	9 0.70	9	0.0 0.30	0 3 1	15 0.24	0.28 0.25	-0.020 0.19	0.01 0.19
NWMSU DOC SILVER 362 PLD 03/07/2003 M 669488 S\$ MONTANA SILVER	BJR SUMMERFORD CHAROLAIS FALKVILLE AL HUBERT CHAROLAIS RANCH OAKLEY KS	36 507 85	13 0.80	-4.1 0.88	33 0.82	66 0.77	2 0.58	9 0.59	18	0.3 0.67	25 205 16	18 0.50	-0.18 0.55	0.055 0.50	0.25 0.53
SCM MONTANA MARBLER G216 03/12/1997 M 470827 SCM DOUBLE JOE D96	SONDERUP CHAROLAIS RANCH FULLERTON NE MAY W STIPE MOIESE MT J-MAR GENETICS GOODE VA	56 458 106	5 0.70	-0.6 0.88	27 0.81	69 0.76	3 0.67	9 0.55	16	0.6 0.53	24 50 13	21 0.44	0.39 0.50	0.006 0.44	0.01 0.48
JWK IMPRESSIVE D040 ET 03/29/1994 M 413653 WCR SIR FA MAC 2244	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	328 2297 807	10 0.86	0.8 0.95	24 0.92	43 0.90	3 0.88	9 0.84	15	0.2 0.79	27 166 48	13 0.57	-0.13 0.61	0.029 0.57	0.22 0.60
LT WYOMING WIND 4020 PLD 02/27/1994 M 411450 SCHURRTOP 5627	LINDSKOV-THIEL CHAROLAIS ISABEL SD LARRY & ROBBIE LEHMAN TIOGA TX	549 5425 2075	5 0.92	1.1 0.97	25 0.95	40 0.93	0 0.92	8 0.90	12	1.5 0.88	56 909 124	4 0.65	0.19 0.70	0.027 0.66	0.00 0.69
BALDRIDGE FASTTRACK 82F 02/10/1996 M 447863 LT UNLIMITED EASE 9108	L R WAKEFIELD & SONS NEW RICHLAND MN JERRY D VAUGHAN DERBY KS MITCHELL R COX CAMPBELLSVILLE KY	414 3698 873	14 0.91	-3.0 0.96	26 0.93	39 0.90	14 0.87	8 0.84	28	-0.1 0.81	48 438 66	10 0.59	-0.05 0.65	0.020 0.59	-0.06 0.63
LT POLLED VALUE 9089 03/10/1999 M 501702 WCR PRIME CUT 764 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD EATON CHAROLAIS LINDSAY MT MYERS' CIRCLE FARM ELKTON KY	142 1738 413	4 0.87	-0.8 0.94	33 0.90	63 0.88	13 0.81	8 0.79	30	1.4 0.83	48 446 45	38 0.62	0.22 0.68	0.027 0.63	0.00 0.67
LT WESTERN SPUR 2061 PLD 03/04/2002 M 645786 EATONS PREDICTOR 9230	LINDSKOV-THIEL CHAROLAIS ISABEL SD ROCKY MEADOW FARM CHICHESTER NH LARRY BANAY MOUNTAIN GROVE MO	115 718 139	1 0.76	-1.0 0.90	21 0.85	38 0.79	-11 0.67	8 0.63	0	1.2 0.70	19 200 37	4 0.48	0.31 0.52	0.027 0.47	0.07 0.50
LT ASSERTION 1277 P 05/04/2001 M 620193 EATONS ASSERT 9171	LINDSKOV-THIEL CHAROLAIS ISABEL SD HARRIS MORGAN CAMILLA GA	97 750 182	6 0.83	-1.7 0.91	14 0.86	26 0.79	-5 0.73	7 0.67	2	-0.2 0.70	1 148 38	-9 0.36	-0.11 0.36	0.025 0.32	-0.01 0.30
VCR SIR DUKE 135 PLD 03/10/1991 M 335048 VCR SIR DUKE 914 PLD	PATE CHAROLAIS RANCH 6437 COUNTY RD 40 E. LOWNDESBORO AL 36752	47 500 165	6 0.77	-1.9 0.89	32 0.84	55 0.81	10 0.74	7 0.67	26	0.7 0.57	7 62 10	21 0.40	0.25 0.42	-0.006 0.38	-0.04 0.39
LT DISTANCE 5025 PLD 03/06/1995 M 428076 HTA TUNDRA PLD 222B	LINDSKOV-THIEL CHAROLAIS ISABEL SD RAMBUR CHAROLAIS SIDNEY MT LAWRENCE J DANNA WEST MONROE LA	8 412 80	5 0.76	-2.2 0.88	9 0.82	24 0.79	9 0.66	7 0.60	14	0.5 0.69	40 106 3	7 0.54	0.24 0.61	0.041 0.55	0.28 0.59
EATONS VISIONARY 2044 P 03/21/2002 M 652186 EATONS VISION 0484	WIENK CHAROLAIS RANCH LAKE PRESTON SD EATON CHAROLAIS LINDSAY MT DEER VALLEY CHAROLAIS RANCH LAURENS SC	21 422 85	6 0.78	-4.4 0.88	14 0.81	46 0.81	17 0.62	7 0.59	24	1.8 0.69	46 114 7	5 0.56	-0.66 0.62	0.022 0.57	-0.07 0.61
DOUBLE D P10 03/08/1990 M 321300 WDW PRESTIGE 650U	DOUBLE D CATTLE CO COSHOCTON OH SELECT SIRES INC PLAIN CITY OH	121 489 106	-3 0.66	1.5 0.88	12 0.80	42 0.71	8 0.66	7 0.56	14	0.3 0.22	0 0 0	N/A	N/A	N/A	N/A
THREE TREES WIND 0383 ET 09/15/2000 M 637722 LT WYOMING WIND 4020 PLD	CROSSTIMBER CATTLE CO CANTON TX LINDSKOV-THIEL CHAROLAIS ISABEL SD ANDREW DOUB DANVILLE INDIANA	95 627 103	14 0.79	-2.8 0.89	29 0.82	57 0.73	3 0.59	7 0.57	17	0.8 0.61	0 82 25	16 0.37	0.18 0.36	0.009 0.33	0.10 0.31
SPARROWS ALLIANCE 513G 02/11/1997 M 469401 LT WYOMING WIND 4020 PLD	BRIGGS.BROBERG,DYBDAL,GREER, & WILSON CHICHESTER NH LINDSKOV-THIEL CHAROLAIS ISABEL SD SOUTHERN CATTLE COMPANY MARIANNA FL	21 709 238	7 0.75	2.1 0.91	21 0.86	39 0.80	-9 0.77	7 0.73	2	0.7 0.68	11 105 5	6 0.45	0.43 0.48	0.033 0.43	-0.09 0.45
LHD CIGAR E46 02/15/1995 M 434790 LHD MR PERFECT Y416	LLOYD & JANE DE BRUYCKER DUTTON MT JOCKO VALLEY CHAROLAIS ARLEE MT LLOYD & JANE DE BRUYCKER DUTTON MT	283 3506 1097	-3 0.87	3.2 0.96	31 0.94	49 0.91	9 0.89	6 0.85	25	0.8 0.87	11 394 80	14 0.56	0.56 0.61	-0.007 0.56	-0.37 0.59
LHD MR PERFECT Y416 03/19/1989 M 314744 WCR SIR PERFECTION 734	SCHURR BROS FARNAM NE COBB CHAROLAIS RANCH INC AUGUSTA MT LLOYD & JANE DE BRUYCKER DUTTON MT	172 1647 668	0 0.89	-0.1 0.94	20 0.91	28 0.89	9 0.88	6 0.84	18	1.1 0.78	16 21 11	12 0.54	0.23 0.59	0.020 0.53	-0.06 0.55

TRAIT LEADERS

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PP M6 NEW STANDARD 842 P ET 02/12/2008 M 499573 LT RIO BRAVO 3181 P	JOE & LINDA GARCIA DONALSONVILLE GA KEVIN J MOORE ALVARADO TX JOE & LINDA GARCIA DONALSONVILLE GA	14 106 0	8 0.45	-1.0 0.74	43 0.61	83 0.48	13 0.23	4 0.19	35	1.7 0.44	0 23 5	39 0.26	0.83 0.26	0.000 0.23	0.17 0.20
PP OAKDALE DUKE 9003P 08/18/1998 M 499574 VCR SIR DUKE 135 PLD	NORD FARMS BLOOMINGTON IL ROGER E PARKS REVOCABLE TRUST EARLSBORO OK	48 368 42	5 0.76	-3.5 0.86	28 0.79	62 0.73	33 0.46	4 0.40	47	0.8 0.57	0 79 13	11 0.33	0.15 0.31	-0.011 0.29	0.14 0.26
PP TW ELIMINATOR J102 P 09/02/1999 M 508565 ASC ELIMINATOR 032	AMBURGEY CHAROLAIS FARM 3171 CAMARGO RD MT STERLING KY 40353	2 333 31	5 0.51	-0.3 0.86	42 0.78	74 0.77	14 0.46	8 0.41	35	0.8 0.24	0 0 0	7 PE	0.18 PE	0.000 PE	-0.11 PE
PP LCOC POLLED VALUE P063S P 02/20/2006 M 724767 LT POLLED VALUE 9089	SILVER SPUR LAND AND CATTLE LLC PO BOX 714 ENCAMPMENT WY 82325	2 67 0	6 0.43	-1.4 0.71	36 0.59	78 0.56	15 0.24	5 0.20	33	0.3 0.49	0 16 1	32 0.30	0.07 0.30	0.017 0.27	0.01 0.25
PP DA NEW DESIGN 104 P ET 01/02/2001 M 612108 BALDRIDGE FASTTRACK 82F	OAKWATER RANCH 1040 HAWN AVE SHREVEPORT LA 71107	2 245 49	2 0.68	-2.5 0.84	42 0.76	65 0.76	8 0.54	-2 0.51	30	0.3 0.68	12 86 1	20 0.42	0.15 0.45	-0.021 0.33	0.08 0.32
VCR SIR DUKE 914 PLD 03/01/1989 M 297007 WCR SIR DUKE 761	VEDVEI CHAROLAIS RANCH LAKE PRESTON SD ABS GLOBAL INC DE FOREST WI VEDVEI CHAROLAIS RANCH LAKE PRESTON SD	409 3795 1483	10 0.91	-0.4 0.96	40 0.94	63 0.92	20 0.91	4 0.88	40	1.3 0.84	37 344 67	16 0.59	0.08 0.65	-0.045 0.60	0.07 0.63
PP LK EASY ELIMINATOR 716 02/01/1997 M 473717 ASC ELIMINATOR 032	BOB BLACK 1115 PURDY MESA RD WHITewater CO 81527	1 201 34	17 0.50	-6.5 0.82	30 0.73	51 0.67	13 0.55	9 0.42	28	1.3 0.59	0 0 0	4 PE	0.16 PE	0.001 PE	-0.11 PE
PP LT RIO BRAVO 3181 P 03/17/2003 M 665507 LT RIO BLANCO 1234 P	LINDSKOV-THIEL CHAROLAIS ISABEL SD ABS GLOBAL INC DE FOREST WI	68 577 120	1 0.65	0.2 0.89	36 0.84	71 0.78	21 0.64	-2 0.60	39	1.5 0.65	3 183 39	37 0.37	0.63 0.36	0.047 0.33	0.20 0.32
PP DOUBLE-H KAHLUA 240M ET 09/17/2002 M 654206 VCR SIR DUKE 914 PLD	HARLIN HECHT PAYNESVILLE MN SPRING RIDGE CATTLE CO WINCHESTER KY	13 62 12	4 0.44	0.5 0.68	36 0.57	67 0.46	23 0.35	1 0.30	42	1.1 0.28	0 3 1	13 0.25	0.23 0.25	-0.038 0.22	0.21 0.21
PP WCR SIR DUKE 7340 P 01/01/2007 M 745064 WCR OZ SIR DUKE 1155 PET	WIENK CHAROLAIS RANCH LAKE PRESTON SD BAMBOO ROAD FARMS LLC MARSHALLVILLE GA	8 121 3	4 0.51	-1.4 0.77	41 0.65	60 0.56	10 0.25	-3 0.22	30	1.4 0.35	0 14 3	19 0.25	0.06 0.24	-0.017 0.22	0.06 0.18
PP JWK CHOICE PLUS E203 ET 09/03/1995 M 439382 VCR SIR DUKE 914 PLD	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	123 835 164	10 0.74	0.6 0.91	40 0.84	63 0.79	17 0.70	3 0.65	37	1.3 0.57	6 43 15	15 0.40	0.19 0.44	-0.032 0.39	-0.05 0.38
PP LT WESTERN EDGE 4057 PLD 03/02/2004 M 686616 LT WESTERN SPUR 2061 PLD	HUBERT/LEHMAN/WRIGHT CHAROLAIS OAKLEY KS LINDSKOV-THIEL CHAROLAIS ISABEL SD LANE & PETERSON CATTLE CO CHARLES CITY IA	71 747 150	0 0.73	-0.2 0.91	37 0.86	74 0.78	12 0.66	6 0.65	31	1.3 0.67	1 217 30	29 0.38	0.15 0.37	0.027 0.33	-0.06 0.31
PP BALDRIDGE KOJACK 29K 01/16/2000 M 602060 BALDRIDGE FASTTRACK 82F	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	228 1552 258	13 0.87	-4.2 0.93	29 0.89	45 0.84	21 0.75	6 0.71	36	-0.5 0.66	7 140 42	1 0.43	-0.27 0.48	-0.003 0.43	-0.03 0.44
PP WF ROADRUNNER 140 PLD 03/30/2001 M 620845 LT WYOMING WIND 4020 PLD	BEDWELL CHAROLAIS 5215 WYOMING ST OSCEOLA IA 50213	5 176 34	10 0.49	-0.9 0.81	39 0.71	68 0.28	9 0.48	9 0.45	29	1.2 0.22	0 4 1	19 0.26	0.37 0.25	0.012 0.21	-0.11 0.21
PP MD CIRCULAR R2003 08/26/2005 M 735576 MD OUTBACK M1046	MARK & BELVA DE BRUYCKER 2649 12TH LANE NW BYNUM MT 59419	2 120 11	4 0.45	0.6 0.77	39 0.68	81 0.64	7 0.29	6 0.25	27	0.9 0.52	0 0 0	13 PE	0.13 PE	-0.008 PE	0.02 PE
PP E4C P814 MR HIGH POINT 05/16/2005 M 720991 HBR LO-HI 967 P	TOM ENMON 360 SOUTH 5TH ST PONCHATOUA LA 70454	1 62 2	10 0.41	-1.3 0.69	36 0.55	58 0.23	14 0.20	7 0.14	32	0.8 PE	0 0 0	N/A	N/A	N/A	N/A
PP SC SHADOWBROOK 449 ET 12/07/2003 M 683939 LT POLLED VALUE 9089	DR HARLAN ROGERS PO BOX 1718 COLLINS MS 39428	4 132 5	2 0.57	0.6 0.78	39 0.62	69 0.29	12 0.30	0 0.26	31	1.2 0.21	0 1 1	30 0.25	0.25 0.24	0.004 0.20	-0.02 0.20
PP CMR SLAMMER 3089 P 03/21/2003 M 664400 BCI SLAMMER 9128 PD	MARVIN & FRANCES BROWN 35155 160TH ST HOPKINS MO 64461	1 128 8	4 0.40	-0.4 0.78	35 0.66	68 0.48	13 0.23	2 0.17	31	0.4 0.17	0 31 1	12 0.27	0.10 0.27	-0.009 0.22	-0.09 0.20
PP WCR SIR DESIGN 851 P 02/17/2008 M 758732 KC DESIGN 4246 P	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	2 54 0	-2 0.56	-2.4 0.68	31 0.55	57 0.51	15 0.20	-8 0.17	31	1.5 0.34	0 8 1	10 0.27	-0.01 0.27	-0.007 0.24	0.10 0.23
PP JCR SIR DUKE 041 03/05/2000 M 509856 VCR SIR DUKE 914 PLD	DANIELLE MIKKELSON LAKE PRESTON SD C-B CHAROLAIS MONTPELIER ND LINDSKOV-THIEL CHAROLAIS ISABEL SD	27 294 44	1 0.61	-0.5 0.85	32 0.78	50 0.66	24 0.53	-4 0.44	40	1.2 0.57	0 26 4	13 0.32	-0.03 0.31	-0.036 0.28	0.14 0.26
PP OW DESIGN S519 02/18/2006 EM 733207 DA NEW DESIGN 104 P ET	OAKWATER RANCH 1040 HAWN AVE SHREVEPORT LA 71107	1 74 6	3 0.40	-0.9 0.71	31 0.60	58 0.57	19 0.27	1 0.25	34	1.4 0.48	0 23 1	16 0.28	-0.14 0.28	-0.017 0.24	0.11 0.21
PP ENDSLEY'S DUKE STONE 257 03/24/2002 M 641628 VCR SIR DUKE 914 PLD	ENDSLEY'S CHAROLAIS FARMS 5590 E STATE RD HASTINGS MI 49058	3 343 70	7 0.58	0.3 0.86	38 0.80	73 0.81	8 0.58	4 0.54	27	1.0 0.21	0 0 0	N/A	N/A	N/A	N/A
PP HEP KING GRAZER 25A 02/01/1991 M 333937 BR DUKE 261	PATE CHAROLAIS RANCH LOWNDESBORO AL KINMONT FARM WAYNESBORO VA PATE CHAROLAIS RANCH LOWNDESBORO AL	124 1182 356	6 0.80	0.6 0.93	32 0.88	62 0.83	21 0.82	10 0.76	37	-0.3 0.57	0 68 15	32 0.39	0.26 0.39	0.031 0.35	0.09 0.35
PP LT POLLED VALUE 9089 03/10/1999 M 501702 WCR PRIME CUT 764 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD EATON CHAROLAIS LINDSAY MT MYERS' CIRCLE FARM ELKTON KY PLUCKER CHAROLAIS PARKER SD	142 1738 413	4 0.87	-0.8 0.94	33 0.90	63 0.88	13 0.81	8 0.79	30	1.4 0.83	48 446 45	38 0.62	0.22 0.68	0.027 0.63	0.00 0.67
PP VCR SIR DUKE 9918 ET P 08/20/1999 M 508800 VCR SIR DUKE 914 PLD	VEDVEI CHAROLAIS RANCH 44213 204TH ST LAKE PRESTON SD 57249	23 242 46	12 0.65	-5.4 0.83	28 0.75	46 0.72	10 0.51	5 0.48	24	0.4 0.55	0 45 5	3 0.34	-0.24 0.33	-0.028 0.30	0.08 0.28

TRAIT LEADERS

Name of Bull Date of Birth/Reg. No. Sire	Current Owner/Address	Herds Progeny DIP	CE EPD ACC	BW EPD ACC	WW EPD ACC	YW EPD ACC	Mat. EPD ACC	MCE EPD ACC	Total Mtnl. EPD	SC EPD ACC	Carc. Ultra U Hrd	HCW EPD ACC	REA EPD ACC	FAT EPD ACC	MARB EPD ACC
LT POLLED VALUE 9089 03/10/1999 M 501702 WCR PRIME CUT 764 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD EATON CHAROLAIS LINDSAY MT MYERS' CIRCLE FARM ELKTON KY	142 1738 413	4 0.87	-0.8 0.94	33 0.90	63 0.88	13 0.81	8 0.79	30	1.4 0.83	48 446 45	38 0.62	0.22 0.68	0.027 0.63	0.00 0.67
WCR PRIME CUT 764 PLD 03/01/1997 M 460645 JWK IMPRESSIVE D040 ET	WIENK CHAROLAIS RANCH LAKE PRESTON SD ASCHERMANN CHAROLAIS CARTHAGE MO LINDSKOV-THIEL AND KARR FARMS HOLLY SPRINGS MS	360 3413 938	7 0.89	-0.4 0.96	27 0.93	57 0.92	-1 0.88	5 0.84	13	1.1 0.82	50 473 64	37 0.61	-0.09 0.67	0.045 0.62	0.11 0.65
RC MONTANA 644 POLLED 02/17/1996 M 444364 HTA WHITEHOT 105A	RAMBUR CHAROLAIS SIDNEY MT HEBBERT CHAROLAIS HYANNIS NE	36 815 231	2 0.75	1.7 0.91	18 0.87	50 0.82	11 0.78	4 0.74	20	0.8 0.68	82 261 9	32 0.64	-0.19 0.70	0.006 0.66	0.20 0.70
BR DUKE 261 04/24/1983 M 246564 BR DUKE 295	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	246 2649 1156	-7 0.89	2.3 0.96	34 0.93	50 0.92	11 0.91	-3 0.88	28	0.4 0.84	26 34 8	21 0.56	-0.03 0.62	0.000 0.56	0.08 0.59
LT THUNDERING WIND 5200P 03/09/2005 M 705186 LT WYOMING WIND 4020 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	43 548 76	2 0.61	0.6 0.89	37 0.83	61 0.79	-1 0.54	-3 0.52	18	1.4 0.74	40 213 23	21 0.55	0.01 0.61	0.061 0.56	0.15 0.59
WCR SIR FA MAC 2244 04/05/1982 M 234430 WCR SIR FAB MAC 809	VEDVEI CHAROLAIS RANCH 44213 204TH ST LAKE PRESTON SD 57249	202 1644 843	-6 0.85	3.0 0.95	29 0.92	57 0.90	11 0.89	4 0.85	25	0.4 0.77	13 27 11	19 0.55	0.01 0.59	0.007 0.55	0.12 0.57
M6 GAIN & GRADE 927 PLD 01/20/1999 M 511007 WCR SIR DUKE 761	ABS GLOBAL INC DE FOREST WI SPRING RIDGE CATTLE CO WINCHESTER KY KEVIN J MOORE ALVARADO TX	162 1077 278	1 0.80	0.4 0.92	40 0.88	67 0.82	6 0.75	1 0.68	26	1.0 0.69	44 216 44	18 0.55	-0.37 0.61	-0.039 0.54	0.40 0.58
VCR SIR DUKE 914 PLD 03/01/1989 M 297007 WCR SIR DUKE 761	VEDVEI CHAROLAIS RANCH LAKE PRESTON SD ABS GLOBAL INC DE FOREST WI VEDVEI CHAROLAIS RANCH LAKE PRESTON SD	409 3795 1483	10 0.91	-0.4 0.96	40 0.94	63 0.92	20 0.91	4 0.88	40	1.3 0.84	37 344 67	16 0.59	0.08 0.65	-0.045 0.60	0.07 0.63
LT EASY PRO 1158 PLD 03/18/2001 M 620348 LT UNLIMITED EASE 9108	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	98 1141 201	8 0.83	-1.7 0.92	23 0.88	35 0.84	22 0.72	-5 0.68	33	-0.3 0.75	41 365 38	15 0.56	-0.03 0.61	0.019 0.56	0.37 0.60
LHD CIGAR E46 02/15/1995 M 434790 LHD MR PERFECT Y416	LLOYD & JANE DE BRUYCKER DUTTON MT JOCKO VALLEY CHAROLAIS ARLEE MT LLOYD & JANE DE BRUYCKER DUTTON MT	283 3506 1097	-3 0.87	3.2 0.96	31 0.94	49 0.91	9 0.89	6 0.85	25	0.8 0.87	11 394 80	14 0.56	0.56 0.61	-0.007 0.56	-0.37 0.59

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M6 BIG TOP 268 PLD ET 03/19/2002 M 655289 LHD CIGAR E46	ROGER E PARKS REVOCABLE TRUST 36455 ST HWY 9 WEWOKA OK 74884	20 257 39	4 0.56	1.5 0.84	27 0.71	28 0.65	5 0.47	6 0.42	18	0.4 0.44	38 90 6	11 0.53	0.85 0.59	0.023 0.54	0.18 0.58
M6 FUNCTION 169 PET 03/07/2001 M 631721 LHD CIGAR E46	STALLINGS CHAROLAIS 1169 OLD DANDRIDGE PIKE NEW MARKET TN 37820	47 282 82	3 0.62	0.9 0.85	14 0.76	34 0.66	19 0.57	5 0.53	26	0.6 0.53	26 56 10	-1 0.51	0.80 0.57	-0.046 0.51	-0.13 0.55
M6 GRID MAKER 104 PET 01/01/2001 M 633377 WCR SIR TRADITION 066	LINDSKOV-THIEL CHAROLAIS & TIM LESLIE ISABEL SD LARRY BANEY MOUNTAIN GROVE MO ABS GLOBAL INC DE FOREST WI	306 3127 651	7 0.86	0.5 0.95	32 0.93	66 0.90	14 0.83	4 0.80	30	0.8 0.81	22 573 100	24 0.50	0.74 0.55	-0.029 0.49	0.15 0.51
LHD CIGAR E46 02/15/1995 M 434790 LHD MR PERFECT Y416	LLOYD & JANE DE BRUYCKER DUTTON MT JOCKO VALLEY CHAROLAIS ARLEE MT LLOYD & JANE DE BRUYCKER DUTTON MT	283 3506 1097	-3 0.87	3.2 0.96	31 0.94	49 0.91	9 0.89	6 0.85	25	0.8 0.87	11 394 80	14 0.56	0.56 0.61	-0.007 0.56	-0.37 0.59
EATONS TRUEVALUE 1026 03/03/2001 M 628479 LT POLLED VALUE 9089	VEDVEI CHAROLAIS RANCH LAKE PRESTON SD EATON CHAROLAIS LINDSAY MT NOLLER & FRANK SIGOURNEY IA	52 491 121	2 0.77	1.2 0.88	26 0.83	56 0.80	8 0.68	5 0.62	21	0.7 0.65	26 102 16	20 0.50	0.48 0.55	0.008 0.49	-0.19 0.53
WCR SIR TRADITION 066 02/27/1990 M 318119 WCR SIR TRADITION 4402	WIENK CHAROLAIS RANCH LAKE PRESTON SD J-MAR GENETICS GOODE VA	177 1810 728	-2 0.86	1.7 0.94	27 0.91	51 0.90	3 0.87	-3 0.84	16	0.4 0.82	29 162 31	9 0.57	0.36 0.61	-0.038 0.57	0.04 0.60
ASC ELIMINATOR 032 03/17/1990 M 319454 HCR EXONERATOR POLLED	ARROW S FARMS SHARON SPGS KS JUDSON & DENISE BALDRIDGE NORTH PLATTE NE	498 4543 1351	9 0.92	-2.3 0.96	30 0.94	39 0.92	11 0.91	10 0.88	26	0.5 0.81	19 186 46	4 0.54	0.35 0.59	-0.004 0.54	-0.28 0.57
BALDRIDGE CADILLAC 74E 03/18/1995 M 431824 HBR PERFORMER 181 P	HEBBERT CHAROLAIS HYANNIS NE DISMUKES RANCH ELK GROVE CA	32 915 252	2 0.79	-0.5 0.92	25 0.88	36 0.79	5 0.79	1 0.75	18	1.6 0.63	48 225 13	8 0.56	0.30 0.62	0.024 0.57	0.05 0.61
LT DISTANCE 5025 PLD 03/06/1995 M 428076 HTA TUNDRA PLD 222B	LINDSKOV-THIEL CHAROLAIS ISABEL SD RAMBUR CHAROLAIS SIDNEY MT LAWRENCE J DANNA WEST MONROE LA	8 412 80	5 0.76	-2.2 0.88	9 0.82	24 0.79	9 0.66	7 0.60	14	0.5 0.69	40 106 3	7 0.54	0.24 0.61	0.041 0.55	0.28 0.59
LHD MR PERFECT Y416 03/19/1989 M 314744 WCR SIR PERFECTION 734	SCHURR BROS FARNAM NE COBB CHAROLAIS RANCH INC AUGUSTA MT LLOYD & JANE DE BRUYCKER DUTTON MT	172 1647 668	0 0.89	-0.1 0.94	20 0.91	28 0.89	9 0.88	6 0.84	18	1.1 0.78	16 21 11	12 0.54	0.23 0.59	0.020 0.53	-0.06 0.55

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VCR SIR DUKE 914 PLD 03/01/1989 M 297007 WCR SIR DUKE 761	VEDVEI CHAROLAIS RANCH LAKE PRESTON SD ABS GLOBAL INC DE FOREST WI VEDVEI CHAROLAIS RANCH LAKE PRESTON SD	409 3795 1483	10 0.91	-0.4 0.96	40 0.94	63 0.92	20 0.91	4 0.88	40	1.3 0.84	37 344 67	16 0.59	0.08 0.65	-0.045 0.60	0.07 0.63
WCR SIR TRADITION 066 02/27/1990 M 318119 WCR SIR TRADITION 4402	WIENK CHAROLAIS RANCH LAKE PRESTON SD J-MAR GENETICS GOODE VA	177 1810 728	-2 0.86	1.7 0.94	27 0.91	51 0.90	3 0.87	-3 0.84	16	0.4 0.82	29 162 31	9 0.57	0.36 0.61	-0.038 0.57	0.04 0.60
LHD CIGAR E46 02/15/1995 M 434790 LHD MR PERFECT Y416	LLOYD & JANE DE BRUYCKER DUTTON MT JOCKO VALLEY CHAROLAIS ARLEE MT LLOYD & JANE DE BRUYCKER DUTTON MT	283 3506 1097	-3 0.87	3.2 0.96	31 0.94	49 0.91	9 0.89	6 0.85	25	0.8 0.87	11 394 80	14 0.56	0.56 0.61	-0.007 0.56	-0.37 0.59
4-L UNLIMITED YL13POLLED 02/26/1989 M 301495 BCR POLLED UNLIMITED 003	DARWIN H OLIVER SHADEHILL S D PETERSON'S 4L PIERRE SD & MATT SUTTON AG GOOSE POND FARM PULASKI TN	198 2022 598	8 0.88	-3.7 0.94	13 0.91	30 0.90	12 0.86	3 0.81	19	0.1 0.69	55 46 11	-5 0.58	-0.22 0.64	-0.004 0.58	-0.13 0.62
SKYMONT FLASH 5030 02/27/1995 M 427074 HCR FLASH 5074 POLLED	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	109 539 110	7 0.74	0.7 0.89	27 0.81	36 0.67	13 0.66	10 0.59	26	-0.2 0.39	54 16 9	2 0.56	-0.10 0.63	-0.004 0.57	0.31 0.62
BR DUKE 261 04/24/1983 M 246564 BR DUKE 295	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	246 2649 1156	-7 0.89	2.3 0.96	34 0.93	50 0.92	11 0.91	-3 0.88	28	0.4 0.84	26 34 8	21 0.56	-0.03 0.62	0.000 0.56	0.08 0.59
RC MONTANA 644 POLLED 02/17/1996 M 444364 HTA WHITEHOT 105A	RAMBUR CHAROLAIS SIDNEY MT HEBBERT CHAROLAIS HYANNIS NE	36 815 231	2 0.75	1.7 0.91	18 0.87	50 0.82	11 0.78	4 0.74	20	0.8 0.68	82 261 9	32 0.64	-0.19 0.70	0.006 0.66	0.20 0.70
WCR SIR FA MAC 2244 04/05/1982 M 234430 WCR SIR FAB MAC 809	VEDVEI CHAROLAIS RANCH 44213 204TH ST LAKE PRESTON SD 57249	202 1644 843	-6 0.85	3.0 0.95	29 0.92	57 0.90	11 0.89	4 0.85	25	0.4 0.77	13 27 11	19 0.55	0.01 0.59	0.007 0.55	0.12 0.57
LT UNLIMITED EASE 9108 04/17/1989 M 301930 BCR POLLED UNLIMITED 003	THOUSAND OAKS RANCH CARTHAGE MO LINDSKOV-THIEL CHAROLAIS ISABEL SD ABS GLOBAL INC DE FOREST WI	378 3822 1093	12 0.92	-2.1 0.96	23 0.94	28 0.91	8 0.90	0 0.87	20	0.6 0.82	67 504 79	7 0.64	-0.07 0.70	0.010 0.65	0.13 0.69
LT EASY PRO 1158 PLD 03/18/2001 M 620348 LT UNLIMITED EASE 9108	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	98 1141 201	8 0.83	-1.7 0.92	23 0.88	35 0.84	22 0.72	-5 0.68	33	-0.3 0.75	41 365 38	15 0.56	-0.03 0.61	0.019 0.56	0.37 0.60

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M6 GAIN & GRADE 927 PLD 01/20/1999 M 511007 WCR SIR DUKE 761	ABS GLOBAL INC DE FOREST WI SPRING RIDGE CATTLE CO WINCHESTER KY KEVIN J MOORE ALVARADO TX	162 1077 278	1 0.80	0.4 0.92	40 0.88	67 0.82	6 0.75	1 0.68	26	1.0 0.69	44 216 44	18 0.55	-0.37 0.61	-0.039 0.54	0.40 0.58
EATONS BULLSEYE 3033 TW 03/13/2003 M 660576 EATONS BEYOND 7243	RIVERDALE BULLSEYE SYNDICATE 3287 LICK CREEK ROAD LEASBURG MO 65535	14 161 31	6 0.66	0.0 0.80	11 0.68	38 0.62	15 0.44	14 0.46	20	1.3 0.45	45 33 9	5 0.53	-0.63 0.60	0.030 0.54	0.39 0.59
LT EASY PRO 1158 PLD 03/18/2001 M 620348 LT UNLIMITED EASE 9108	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	98 1141 201	8 0.83	-1.7 0.92	23 0.88	35 0.84	22 0.72	-5 0.68	33	-0.3 0.75	41 365 38	15 0.56	-0.03 0.61	0.019 0.56	0.37 0.60
SKYMONT FLASH 5030 02/27/1995 M 427074 HCR FLASH 5074 POLLED	SELECT SIRES INC 11740 US 42 PLAIN CITY OH 43064	109 539 110	7 0.74	0.7 0.89	27 0.81	36 0.67	13 0.66	10 0.59	26	-0.2 0.39	54 16 9	2 0.56	-0.10 0.63	-0.004 0.57	0.31 0.62
LT DISTANCE 5025 PLD 03/06/1995 M 428076 HTA TUNDRA PLD 222B	LINDSKOV-THIEL CHAROLAIS ISABEL SD RAMBUR CHAROLAIS SIDNEY MT LAWRENCE J DANNA WEST MONROE LA	8 412 80	5 0.76	-2.2 0.88	9 0.82	24 0.79	9 0.66	7 0.60	14	0.5 0.69	40 106 3	7 0.54	0.24 0.61	0.041 0.55	0.28 0.59
JWK IMPRESSIVE D040 ET 03/29/1994 M 413653 WCR SIR FA MAC 2244	WIENK CHAROLAIS RANCH 44210 205TH STREET LAKE PRESTON SD 57249	328 2297 807	10 0.86	0.8 0.95	24 0.92	43 0.90	3 0.88	9 0.84	15	0.2 0.79	27 166 48	13 0.57	-0.13 0.61	0.029 0.57	0.22 0.60
RC MONTANA 644 POLLED 02/17/1996 M 444364 HTA WHITEHOT 105A	RAMBUR CHAROLAIS SIDNEY MT HEBBERT CHAROLAIS HYANNIS NE	36 815 231	2 0.75	1.7 0.91	18 0.87	50 0.82	11 0.78	4 0.74	20	0.8 0.68	82 261 9	32 0.64	-0.19 0.70	0.006 0.66	0.20 0.70
M6 BIG TOP 268 PLD ET 03/19/2002 M 655289 LHD CIGAR E46	ROGER E PARKS REVOCABLE TRUST 36455 ST HWY 9 WEWOKA OK 74884	20 257 39	4 0.56	1.5 0.84	27 0.71	28 0.65	5 0.47	6 0.42	18	0.4 0.44	38 90 6	11 0.53	0.85 0.59	0.023 0.54	0.18 0.58
LT THUNDERING WIND 5200P 03/09/2005 M 705186 LT WYOMING WIND 4020 PLD	LINDSKOV-THIEL CHAROLAIS ISABEL SD BJR SUMMERFORD CHAROLAIS FALKVILLE AL	43 548 76	2 0.61	0.6 0.89	37 0.83	61 0.79	-1 0.54	-3 0.52	18	1.4 0.74	40 213 23	21 0.55	0.01 0.61	0.061 0.56	0.15 0.59
LT UNLIMITED EASE 9108 04/17/1989 M 301930 BCR POLLED UNLIMITED 003	THOUSAND OAKS RANCH CARTHAGE MO LINDSKOV-THIEL CHAROLAIS ISABEL SD ABS GLOBAL INC DE FOREST WI	378 3822 1093	12 0.92	-2.1 0.96	23 0.94	28 0.91	8 0.90	0 0.87	20	0.6 0.82	67 504 79	7 0.64	-0.07 0.70	0.010 0.65	0.13 0.69