

Bull Evaluation Centre Report

201412 Miller Land and Livestock (End of Test) Test Date: 07 Mar 2014 Days on Test:120

Centre Manager: GEORGE & DWAYNE MILLER Start of Test Date: 07 Nov 2013

Phone #: 519-587-2755 End of Test Date: 07 Mar 2014

EMail: diannepmiller@sympatico.ca Pick Up Date:

Address: 406 CONCESSION 6,R.R. #1, JARVIS, ON, NOA 1J0

Ration Statement:

Note: 1. Check the information on your BULL(s) to ensure the pedigree, birth date, tattoo, and weaning data is complete and accurate.

- 2. For best results clients need to submit complete herd data with complete weaning weights on all their calves to bioTrack, our Herd Evaluation Service. Calves with incomplete herd data will not receive genetic evaluations nor BIO Economic Indexes. If no data is submitted to BIO, then the calves in the bull evaluation centre will be regarded as UNOFFICIAL. Unofficial calves will not receive genetic evaluations, BIO Economic Indexes nor certificates and may not eligible for awards that are offered from time to time.
- 3. If you have questions on data submission, please contact our office.

A Guide to BIO's Bull and Heifer Evaluation Reports and BIO's Genetic Evaluations

Report Features

- Objectively Compare all animals using our across breed comparisons -ABCs Allows you to compare all the bulls in the group for their genetics, regardless of their breed. Bulls are listed on the report by the tag number.
- Quickly know where an animal ranks for a trait using the percentile ranking. Our percentile rankings range from 1 (lowest) to 99 (highest) tells you how an animal ranks for the trait you're looking at. All animals are ranked for each trait! The rankings compare all animals evaluated over the past 3 years for that trait.

Across breed Percentiles (%AB) allow you to compare purebred, crossbred, and composite animals across breeds.

Within breed Percentiles (%WB) allow you to compare purebred animals within its breed.

Example: A bull or heifer that has a percentile of 99 (99th percentile) is in the top 1% of all animals evaluated for that trait or index; a bull in the 80th percentile is in the top 20%, etc.

Most current genetic evaluations - The Herd Recording traits (CE, BW, WG, MILK) are updated on the 84-day and End-of-test reports, to reflect the added information of weights taken on test. The End-of-test evaluations use the animal's on-test performance and all related performance data in the database to calculate the ABC and are therefore the most current evaluations in the industry.

Features of BIO's Genetic Evaluations (ABCs) and Economic Indexes

- Genetic Evaluations the most accurate method to express genetic ability of an animal. They are adjusted for environment and can be used to compare animals across herds and evaluation centres.
- ABC Across Breed EPD or Comparison Estimate of how future progeny of an animal are expected to perform in each of the traits. Comparisons can be made within breeds and across breeds. For example, a bull or heifer with a Yearling Gain ABC of +85 will produce progeny that are on average 50 pounds heavier than progeny from a bull with a Yearling Gain ABC of +35.
- Accuracy Measure of the amount of information used to calculate the ABC. Ranges from 1 (least) to 99 (most). Evaluations based on pedigree information only are noted as 'PE' (pedigree estimate).
- BIO\$: This is an index that considers several traits in determining better bulls when mated to average cows and is aiming at efficient lean meat production for a market focused on AA carcasses between 775 and 900 pounds. Use the BIO\$ index to identify top prospect bulls and then look at specific ABC's within that group for traits that you value in your operation.
- ABCs (Across Breed EPDs) for all animals evaluated by BIO are on a fixed base. The base is a multi-breed average of animals born 1995-1998:

Trait	CE	BW	WG	MILK	PWG	YG	FAT	REA	%IMF	SC	BIO\$
Base	0	0	+30	+15	+20	+50	0	0	0	0	+2000

Report Definitions and Legend

Herd Measurements (BIO believes in Whole Herd Recording)

CE - Calving Ease - The ease or difficulty with which the animal was born. The categories are unassisted (U), easy pull (E), hard pull (H), surgical (S) or malpresentation (M).

BW - Birth weight (lbs) of the animal.

AWW - Adjusted Weaning Weight (lbs) - The on-farm weaning weight of the animal adjusted to 200 days of age. Adjustments are made for age of dam and sex of calf.

WI - Weaning Index - Within-herd index based on adjusted weaning weight. Use to compare calves in the same pre-weaning management group. A minimum of five calves in a management group is required to receive an index. ET indicates an embryo transplant calf.

Test Evaluation Measurements (based on the animal's performance in the evaluation centre)

SOT - Start of Test Weight (lbs)

EOT - End of Test Weight (lbs)

ADG - Average Daily Gain (Ibs/day) - The regressed average daily gain during the animal evaluation period. All monthly weighings are used in determining the adg.

WPDA - Weight Per Day of Age (Ibs/day) - Weight taken at weigh period divided by days of age and includes birth weight.

HH - Hip Height (inches) - Height of the animal over the hip bones at EOT.

FRAME - Frame Score - A 1 to 10 scale calculated using hip height and age, according to Beef Improvement Federation guidelines.

FAT - Backfat (mm) - Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of the test.

REA & AdjREA - *Rib Eye Area (square inches)* - Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of the test. The AdjREA is adjusted to 365 days of age.

%IMF & Adj%IMF - *Percent Intramuscular Fat (Marbling) -* Measured ultrasonically between the 12th and 13th ribs (grading site) at the end of test. NR indicates the animal had too little %IMF to measure. Adj %IMF is adjusted to 365 days.

GRADE - %IMF expressed as marbling grade (A, AA or AAA) - PD indicates practically devoid, which is less than 1.86 %IMF. Animals near the border of a category are shown as a combination of the two categories (i.e. A-AA).

SC & AdjSC - Scrotal Circumference (cm) - End of test measure of scrotal circumference. Indication of the semen producing ability of the bull. 'ABN' indicates abnormal testicles (size, shape, injury) and no measurement is taken. AdjSC is adjusted Scrotal circumference and is adjusted to one year of age.

Genetic Evaluations - Across Breed EPDS (ABCs)

CE - Calving Ease ABC - is a genetic prediction of the increase (+) or decrease (-) in percent <u>unassisted</u> calvings if the bull is mated with heifers that are an average size and have average calving ability.

BW - Birth Weight ABC (Ibs) - The effect the animal will have on the birth weight of their calves.

WG - Weaning Gain ABC (Ibs) - The ability of the animal's calves to grow from birth to weaning.

MILK - Milk/ Mothering ability ABC (Ibs of calf at weaning) - The ability of a animal's daughters to provide their calves with milk and mothering ability.

PWG - Post-Weaning Gain ABC (Ibs) - Indicates the ability of an animal's calves to grow from weaning to yearling.

YG - Yearling Gain ABC (Ibs) - Indicates the ability of a animal's calves to grow from birth to yearling.

FAT - Backfat thickness ABC (mm) - The ability of a animal's progeny to deposit backfat (finishing ability), adjusted to a common age.

REA - Rib Eye Area ABC (square inches) - Predictor of the differences in progeny ribeye area (muscling), adjusted to a common age.

%IMF - Intramuscular Fat ABC (Marbling) - The ability of a animal's progeny to deposit marbling fat, adjusted to a common age.

SC - Scrotal Circumference ABC (cm) - Indicates the ability of a bull to transmit scrotal size to male progeny. It is a partial indicator of daughter's age at puberty.

Bull Evaluation EOT Report

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				Genetic	Evalu	atior	ns (07	Mar 20)14)											•		
Tag 000)9	Pen	Tattoo	MILR 9A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF		SC	BIO\$	
			MILLER	- MILLER LAND AND LIVESTOCK	%ab		27	9	30		32	77	58	3	18		30	38		56	16	
HC/Breed		CHAROLAIS	Calarin	519-587-2755	ABC	Acc	-1 27	3.4 54	33	14	18 19	39 48		46	46	50	13 45	04 4		70 63	2040	
Birthdate SireSire		n2013 ARROWS ALCA	Colour		%wb		68	31	16		51	56	34		25		6	49		73	12	
		RROWS PORTL			CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
	-	W SHOWGIRL 6			U	92	584	92	858		3.71		52.5	6.1		15.4	,	2.63	2.27	PD-A	40.0	37.9
DamSire	S \$	MONTANA SILV	'ER		0	92	304	92	000	1310	3.71	3.10	52.5	0.1	4	15.4	13.9	2.03	2.21	PD-A	40.0	07.0
Tag 001	10	Pen	Tattoo	MILR 10A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF		SC	BIO\$	
		RGE & DWAYNE	MILLER	- MILLER LAND AND LIVESTOCK	%ab		29	9	41		57	21	28		16		30	39		12	6	
HC/Breed	(CHAROLAIS		519-587-2755	ABC	Acc	-1 26	3.4 53	36	43	22 17	21 48		46	49	51	14 45	04 4		14 63	1451	
Birthdate			Colour		%wb		71	31	25		79	5	10)	22		6	51		55	3	
SireSire Sire	_	ARROWS ALCA RROWS PORTL			CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
	-	UTMOST 45U	AIID 3031	•							-						,		•			35.9
DamSire		ARROWS CORT	EZ 235P		U	90	644	102	901	1275	3.04	3.02	54.0	6.8	4	15.6	14.1	2.69	2.33	PD-A	38.0	33.9
Tag 001	11	Pen	Tattoo	MILR 11A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF		SC	BIO\$	
Contact	GEO	RGE & DWAYNE	MILLER	- MILLER LAND AND LIVESTOCK	%ab		34	14	98		21	96	98	3	47		23	25		41	35	
HC/Breed		CHAROLAIS		519-587-2755	ABC	Асс	0 24	2.4 51	61	12	15 16	50 47		45	06	50	22 44	11 4	4 .4	41 63	2724	
Birthdate			Colour		%wb		76	47	96		35	89	96	5	77		3	25		54	32	
SireSire Sire	_	ARROWS ALCA RROWS PORTL			CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	∆di%lmf	Grade	SC	AdjSC
Dam	-	M ROYALTY 24F		•	_									-			,		•		39.0	37.0
DamSire	DBI	KM NAPOLEON	6N		U	93	767	121	1071	1530	3.96	3.63	52.0	5.8	7	15.7	14.2	2.42	2.10	PD-A	39.0	37.0
Tag 001	19	Pen	Tattoo	MILR 19A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF		SC	BIO\$	
Contact	GEO	RGE & DWAYNE	MILLER	- MILLER LAND AND LIVESTOCK	%ab		32	14	94		40	30	71		21		31	20		58	13	
HC/Breed		CHAROLAIS		519-587-2755	ABC	Acc	0 22	2.5 49	54	40	19 16	25 46	78	43	42	49	13 44	14 4	4 .	73 62	1895	
Birthdate			Colour		%wb		73	45	89		62	10	49)	31		7	18		74	9	
SireSire Sire	_	ARROWS ALCA RROWS PORTL			CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
	-	RIGHTEOUS 11															,		•	PD-A	39.5	37.7
DamSire					U	90	750	118	982	1326	5 2.77	3.20	51.5	5.6	5	15.8	14.5	2.18	1.92	PD-A	39.5	37.7
Tag 002	20	Pen	Tattoo	MILR 20A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF		SC SC	BIO\$	
Contact	GEO	RGE & DWAYNE	MILLER	- MILLER LAND AND LIVESTOCK	%ab		4	14	99		49	77	98		29		59	34		69	54	
HC/Breed		CHAROLAIS		519-587-2755	ABC	Асс	-5 27	2.5 54	70	14	21 18	38 49	108	47	32	52	.21 47	06 4	7 .9	94 64	3210	
Birthdate	-		Colour		%wb		13	45	99		72	55	95	5	44		38	41	8	33	53	
SireSire Sire		X COUGARHILL R SYNERGY 721		:0G	CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdiREA	%lmf	Adi%lmf	Grade	SC	AdjSC
		WILDFIRE 18W	-		_						-						,	111	.,			37.7
DamSire		ARROWS CORT			Е	90	797	126	1035	1450	3.47	3.50	53.0	6.4	5	17.3	15.8	2.15	1.90	PD-A	39.5	31.1

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				Genetic	Evalu	atior	ns (07	Mar 20	14)								'					
Tag 002	5	Pen	Tattoo	MILR 25A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
	-		MILLER - MILLE	R LAND AND LIVESTOCK	%ab		18	11	60		10	8	22	2	53		52	50	3	7	10	
HC/Breed Birthdate	_	HAROLAIS	Colour	519-587-2755	ABC	Acc	-2 25	2.9 52	41	43	12 15	13 48		46	.06	51	.12 45	.02 4	1 -	2 63	1717	
SireSire		(COUGARHILL			%wb		52	39	44		16	1	6	6	87		26	74	4	7	6	
		SYNERGY 721			CE	BW	AWW	WI	SOT	EOT	r ADG	WPDA	НН	Frame	e Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam	DBKN	I URSULA 4U			U	90	574	91	785	112	5 2.81	2.74	47.5	3.7	6	16.0	14.8	2.73	2.43	PD-A	37.0	35.4
DamSire	MILI	R SIZZLER 7S				00	014	01	700	112	2.01	2.77	47.0	0.7	0	10.0	14.0	2.70	2.40	107		
Tag 002	9	Pen	Tattoo	MILR 29A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
Contact	GEOR	RGE & DWAYNE	MILLER - MILLE	R LAND AND LIVESTOCK	%ab		8	41	61		16	56	60)	4		21	36	7	8		
HC/Breed	_	HAROLAIS		519-587-2755	ABC	Acc	-4 28	2 54	41	45	14 18	32 50	73	48	72	53	25 48	05 4	8 1.1	5 PE	N/R	
Birthdate			Colour		%wb		26	84	45		26	31	36	6	5		2	46	8	8		
SireSire Sire	_	CLATORO 2630 ROWS MONTE			CE	BW	AWW	WI	SOT	EOT	Γ ADG	WPDA	НН	Frame	e Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam	MILR	WHOLESOME	14W		Е	75	578	91	785	1170	0 3.17	2.88	51.5	5.7	2	14.2	13.2	2.57	2.31	PD-A	ABN	
DamSire	SPA	RROWS CORT	EZ 235P			70	070	01	700	117	0 0.17	2.00	01.0	0.7		14.2	10.2	2.07	2.01	107	7,2,,	
Tag 003	7	Pen	Tattoo	MILR 37A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
	-		MILLER - MILLE	R LAND AND LIVESTOCK	%ab		2	6	43		8	9	18	3	27		50	55	5	3	7	
HC/Breed	_	HAROLAIS	0-1	519-587-2755	ABC	Acc	-6 26	4.0 53	37	43	11 13	14 47	50	45	35	50	.10 44	.05 4	4 .6	6 62	1552	
Birthdate SireSire		02013 (COUGARHILL	Colour		%wb		7	22	27		12	1	4		41		24	85	6	9	4	
		SYNERGY 721			CE	BW	AWW	WI	SOT	EOT	Γ ADG	WPDA	НН	Frame	e Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam	MILR	WHIZ-BANG 6V	V		Е	92	571	90	741	1090	0 2.75	2.74	51.0	5.6	4	16.1	15.1	2.94	2.70	Α	38.0	36.8
DamSire	SPA	RROWS BAJA	561R				0						00	0.0		10.1				,,		
Tag 003	9	Pen	Tattoo	MILR 39A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
			MILLER - MILLE	R LAND AND LIVESTOCK	%ab		33	10	15		19	30	21		2		19	44	2	5	4	
HC/Breed	_	HAROLAIS	Calaria	519-587-2755	ABC	Acc	0 26	3.1 53	28	44	15 17	25 48		46	86	51	28 45	02 4	1 -	2 63	1120	
Birthdate SireSire		RROWS ALCA	Colour		%wb		74	36	6		31	10	6	6	1		2	61	2	6	2	
	_	ROWS PORTL			CE	BW	AWW	WI	SOT	EOT	Γ ADG	WPDA	НН	Frame	e Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam	MILR	TOPPER 20T			U	90	544	86	698	1090	0 3.24	2.80	50.0	5.2	2	14.9	14.2	2.84	2.66	PD-A	35.5	34.6
DamSire	SPA	RROWS CORT	EZ 235P			- 00	011		000	100	0.21	2.00	00.0	0.2		14.5	1	2.01	2.00			
Tag 004	3	Pen	Tattoo	MILR 43A			CE	BW	WG		Milk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
	-		MILLER - MILLE	R LAND AND LIVESTOCK	%ab		14	8	21		27	1	4		21		42	63	1	8	2	
HC/Breed	_	HAROLAIS	0.1	519-587-2755	ABC	Acc	-3 23	3.5 50	31	40	17 10	0 45	31	43	41	48	.00 43	.15 4	3 2	2 61	851	
Birthdate SireSire		2013 COUGARHILL	Colour		%wb		42	29	9		44	1	1		31		14	96	1	5	1	
		SYNERGY 721			CE	BW	AWW	WI	SOT	EOT	Γ ADG	WPDA	НН	Frame	e Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
	VIC 6				U	92	582	92	730	980			51.0	5.8	3	14.8	1	3.51	3.34	A-AA	34.5	33.8
DamSire						32	302	JZ	130	500	2.02	2.00	51.0	0.0	٥	14.0	17.5	0.01	0.04	7.77	34.0	-0.0

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Genetic Evaluations (07 Mar 2014)

			Genetic	Lvaiu	ations	3 (01 1	viai 20	' 1 ' ' '													
Tag 0055	Pen	Tattoo	MILR 55A		C	CE	BW	WG	1	Иilk	PWG	Y	G	FAT		REA	%IMF	S	С	BIO\$	
Contact GEOF	RGE & DWAYN	E MILLER - MILLEF	R LAND AND LIVESTOCK	%ab		9	9	62		23	51	58		17		17	33	2	6	7	
HC/Breed C	HAROLAIS		519-587-2755	ABC A	.cc -	-4 27	3.4 53	41 4	14 '	16 13	31 48	72	46	47	50 - .	.32 45	07 4	5 .0	5 63	1492	
Birthdate 08Ma	r2013	Colour		%wb	3	30	31	47	;	37	26	34	.	24		1	39	2	8	4	
SireSire MV)	X COUGARHIL	L HANK 720G																			
Sire DBAR	R SYNERGY 72	1T		CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Frame	Fat	REA	AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam MILR	WHAM 11W			ш	90	573	91	665	1045	3.16	2.87	48.0	4.5	3	13.3	13.3	2.14	2.15	PD-A	34.0	34.0
DamSire SPA	ARROWS MON	TENEGRO 726T			30	010	01	000	10-10	0.10	2.01	10.0	7.0	9	13.3	10.0	2.17	2.10	107	0	

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Genetic Evaluations (07 Mar 2014)

Breed Summary Averages

Breed	#	% U	BWT	AWW	SOT	28D	56D	84D	EOT	ADG	WPDA	Hip Height	Frame Score	Back Fat	REA	Adj REA	%IMF	Adj %IMF	Scrotal
CHAROLAIS	11	73	89	633	841	941	1036	1125	1217	3.10	3.00	51.1	5.6	4	15.4	14.3	2.62	2.37	37.5
Group Averages	11	73	89	633	841	941	1036	1125	1217	3.10	3.00	51.1	5.6	4	15.4	14.3	2.62	2.37	37.5

Provision and Use of Information Produced by BIO As part of the terms and conditions of Beef Improvement Ontario (BIO) Beef Evaluation Services, it is understood that information provided by BIO including, but not limited to, genetic and carcass evaluations are produced using the very best knowledge available and are pursuant to generally accepted industry standards. The raw data and pedigree used in calculations is provided by the client. The intent of the information provided by BIO is for comparative purposes only for both the animal consignor and buyer. This information is provided for the purpose of general guidance only to beef producers. The purpose of damages that may be incurred as a result of receipt of and/or reliance upon this general comparative information. This clause shall be a complete defense to any claim brought by the purchaser and/or user in relation to such services.