

Bull Evaluation Centre Report

201706 CRYSTAL FARMS

(End of Test)

Test Date: 01 Apr 2017 Days on Test:112

Centre Manager: PAUL FERGUSON

Start of Test Date: 10 Dec 2016

Phone #: 613-275-2422

End of Test Date: 01 Apr 2017

EMail: ferguson.maryellen@gmail.com

Pick Up Date:

Address: 21 CRYSTAL RD..R.R. #3 . JASP

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21 CRYSTAL RD.,R.R. #3, JASPER, ON, KOG 1G0

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 (Ibs) - 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

201706 CRYSTAL FARMS



	Genetic	Evaluation	ns (02	May 20)17)							'		A A
Tag 0004 Pen Tattoo	DCJ 1D		CE	BW	WG	Milk	PWG	YG	FAT	REA	%IMF	sc	BIO\$	
Contact DON T. DUNHAM - DONALEEN BLONDES HC/Breed BLONDE D-AQUITAINE Birthdate 06Jan2016 Colour	705-653-4293	%ab ABC Acc %wb	14 -3 PE 22	32 .3 PE 44	13 28 Pl	75 27 PE 89	1 -5 46 2	1 23 PE 6	1 -1.04 F 72	PE		10 78 PE 73	N/R	
SireSire Sire VOB OK NORTHERN IMA VOB OK NORTHERN JUSTIN 1M CRYSTAL XCITE 19X DamSire		CE BV		/ WI		EOT ADG 1555 2.46	3.45	HH Fram	e Fat	REA AdjRE	A %Imf A	dj%lmf Grad	e SC	AdjSC
Tag 0005 Pen Tattoo	GLBF 2D		CE	BW	WG	Milk	PWG	YG	FAT	REA	%IMF	sc	BIO\$	
Contact GEORGE BELL - BELLSTAR FARM HC/Breed ANGUS Birthdate 05Jan2016 Colour	613-284-2475	%ab ABC Acc %wb	ender and another sectors and design	73 -2.7 PE 36	53 40 P 52	and the second s	95 49 39 87	85 89 PE 76					N/R	
SireSire Sire MOHNEN SOUTH DAKOTA 402 Dam ABV 34W DamSire		CE BV		/ WI	***************************************	EOT ADG		HH Fram	e Fat	REA AdjRE	A %Imf A	dj%lmf Grad	e SC	AdjSC
Tag 001D Pen Tattoo	GTN 01D		CE	BW	WG	Milk	PWG	YG	FAT	REA	%IMF	SC	BIO\$	a Cannona Fareful below home of discolory
Contact David and Lisa Payne - BAR K FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 03Jan2016 Colour SireSire ARSHAS POLLED TROOPER	613-859-9870	%ab ABC Acc %wb	31 0 PE 53	40 3 PE 55	49 39 P 67	51 22 PE 72	4 8 46 40	11 47 PE 58	1 -1.16 F 37	86 . 62 PE 44	1 37 PE 19	3 -1.37 PE 29	N/R	
Sire PFER 18A Dam PFER 11B DamSire CRYSTAL WALDO 23W		CE BV	programme (common de promotor y common de promotor	/ WI	SOT 875	EOT ADO 1240 3.29	2.73	HH Fram	e Fat	REA AdjRE	EA %Imf A	dj%lmf Grad	e SC	AdjSC
Tag 002D Pen Tattoo	GTN 02D		CE	BW	WG	Milk	PWG	YG	FAT	REA	%IMF	sc	BIO\$	
Contact David and Lisa Payne - BAR K FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 21Jan2016 Colour	613-859-9870	%ab ABC Acc %wb	60 2 30 83	46 8 58 65	75 46 4 88	31 19 18 54	5 10 50 51	22 56 49 77	1 -1.18 F 32	91 . 72 PE 66	1 37 PE 24	4 -1.22 PE 42	N/R	
SireSire DeeBran Pld Jail Bre Sire WEST WINDS BREAKER 36B Dam WEST WINDS BRITTNEY 152B DamSire WEST WINDS WORKMAN 9		CE BV	and the second	/ WI 101		EOT ADO		HH Fram	e Fat	REA AdjRE	EA %Imf A	dj%lmf Grad	e SC	AdjSC
Tag 003D Pen Tattoo	GTN 03D		CE	BW	WG	Milk	PWG	YG	FAT	REA	%IMF	sc	BIO\$	
Contact David and Lisa Payne - BAR K FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 25Jan2016 Colour	613-859-9870	%ab ABC Acc %wb	32 0 29 55	27 .8 57 35	44 38 4 63	43 3 21 18 65	4 9 49 47	11 47 48 58	1 -1.18 32	91 . 72 PE 66	1 37 PE 24	4 -1.22 PE 42	N/R	
SireSire DeeBran Pld Jail Bre Sire WEST WINDS BREAKER 36B Dam WEST WINDS BARBIE 25B		CE BV		/ WI 98	SOT 750	EOT ADO		HH Fram	ie Fat	REA AdjRE	EA %Imf A	dj%lmf Grad	e SC	AdjSC

WEST WINDS WORKMAN 9

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Genetic Evaluations (02 May 2017)

	Genetic	Evalua	atio	ns (02	May 20	J17)													* . C.
Tag 012D Pen Tattoo	PFER 12D			CE	BW	WG	i	Milk	PWG	Y	′G	FA	Т	REA	%IMF	S	3	BIO\$	
Contact PAUL FERGUSON - CRYSTAL FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 17Jan2016 Colour SireSire ARSHAS POLLED TROOPER	613-275-2422	%ab ABC A %wb	CC	63 2 32 85	67 -2.2 58 84	83 49 92	48	89 30 18 96	1 -4 47 3	į	-	1 -1.16 37	1	86 . 62 PE 44	1 37 PI 19	3 € -1.37 29	PE	N/R	
Sire PFER 18A		CE	BW	AWW	WI	SOT	EOT	ADG	WPDA	НН	Fram	e Fa	t REA	A AdjREA	%lmf /	Adj%lmf	Grade	sc	AdjSC
Dam PFER 3A DamSire CRYSTAL WALDO 23W		U	80	679	109	1135	142	2.53	3.24		-								
Tag 013D Pen Tattoo	PFER 13D			CE	BW	WG	and the same of th	Milk	PWG	Y	G	FA	T	REA	%IMF	SC	3	BIO\$	
Contact PAUL FERGUSON - CRYSTAL FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 17Jan2016 Colour SireSire CIA JAGUAR 1F	613-275-2422	%ab ABC Ao %wb		7 -4 38 9	10 3.0 60 10	86 50 93	51	62 24 32 80	44 30 50 99	71 80 98	51	1 98 81	PE	98 1.04 PE 90	1 41 PI 3	13 62 PE 81		N/R	
Sire HEARTWOODS EYECATCHER 10E		CE	BW	AWW	wi	SOT	ЕОТ	ADG	WPDA	нн	Fram	e Fa	t REA	A AdjREA	%lmf	Adj%lmf	Grade	SC	AdjSC
Dam PFER 14A DamSire CRYSTAL WALDO 23W		U	92	661	106	1070	1480	3.67	3.36										
Tag 020D Pen Tattoo	PFER 20D			CE	BW	WG	Total Control of the	Milk	PWG	Υ	'G	FA	Т	REA	%IMF	S	5 [BIO\$	
Contact PAUL FERGUSON - CRYSTAL FARMS HC/Breed BLONDE D-AQUITAINE Birthdate 30Jan2016 Colour SireSire ARSHAS POLLED TROOPER	613-275-2422	%ab ABC A %wb	сс	28 -1 32 48	30 . 5 58 41	90 53 96	48	90 31 20 97	3 8 47 37	29 60 84	48	1 -1.16 37	3	86 .62 PE	1 37 PI 19	3 -1.37 29	PE	N/R	
Sire PFER 18A Dam PFER 29A		CE	BW	1		SOT.	EOT			HH	Fram	e Fa	t REA	A AdjREA	%lmf /	\dj%lmf	Grade	SC	AdjSC
DamSire CRYSTAL WALDO 23W		U	95	704	113	1070	1420	3.12	3.33		<u></u>							Parameter and the second secon	1

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Genetic Evaluations (02 May 2017)

Breed Summary Averages

Breed	#	% U	BWT	AWW	SOT	28D	56D	84D	ЕОТ	ADG	WPDA	Hip Height	Frame Score	Back Fat	REA	Adj REA	Ad %IMF %	lj IMF Scrotal
ANGUS	1	100	85	779	1250	1400	1555	1610	1700	3.98	3.76	Samuel American Ameri						у от вите у дому, у отпорти, у учение и чуд вите вите бые во отпорци и во во во отпорти от ответство от ответс
BLONDE D-AQUITAINE	7	100	89	625	994	1096	1194	1265	1344	3.11	3.05	mal Harrimone en la britania a manamatana de distrac-	naministrativa (kilonomina) kananti kilonomina kilonomina kilonomina kilonomina kilonomina kilonomina kilonomi	des Militaries (Austres (Link)	terini delle essi in universi delevati del 2000		un y popular and un a mente en	and Caladianness and State States as in The man of the Caladian States (States States States American States A
Group Averages	8	100	88	644	1026	1134	1239	1308	1388	3.22	3.14		De Calenda Calenda Carresta Carresta Calenda (Calenda Calenda	etarieniaenakoko Celotek (2004)	and a second			

Provision and Use of Information Produced by BIO As part of the terms and conditions of Beef Improvement Opportunities (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 agrees to hold Beef Improvement Opportunities harmless for any losses or 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.

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