
 -
 Conversion Factors For Production Traits. Source: INTERBULL 1912
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = PCORR2*Foreign Reliability

breed	country2	amilk	bmilk	afat	bfat	aprot	bprot	pcorr2
GUE	AUS	-167.658	1.3067	-10.335	1.3574	-2.328	1.2480	0.5184
GUE	GBR	-392.500	2.8940	-3.900	2.1330	-8.300	2.7090	0.7396
GUE	NZL	873.455	1.6701	35.098	1.3151	35.517	1.5025	0.4900
GUE	USA	89.900	1.0250	-4.900	1.1380	2.200	1.1140	0.8281

 -
 Conversion Factors For SCS Traits. Source: INTERBULL 1912
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = SCORR2*Foreign Reliability

breed	country2	a	b	scorr2
GUE	AUS	99.275	-19.2495	0.7569
GUE	GBR	101.600	-0.3890	0.8100
GUE	NZL	103.071	-8.2529	0.7569
GUE	USA	160.500	-20.1450	0.8100

 -
 Conversion Factors For Type. Source = INTERBULL MACE 1912
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=AUS

	c	c	f			
	a	o	o		a	b
	n	u	r		v	v
b	t	n	t		a	a
r	r	t	r		l	l
e	a	r	a		u	u
e	i	y	i		e	e
d	t	2	t			
GUE CONFORMATION		AUS CONFORMATION		1.3328	9.6926	0.35
GUE FEET AND LEGS		AUS OVERALL FEET & LEG		-44.6949	0.4545	
GUE MAMMARY SYSTEM		AUS OVERALL UDDER SCORE		1.3780	10.0371	
GUE STATURE		AUS STATURE		-2.1830	6.7692	
GUE CHEST WIDTH		AUS CHEST WIDTH		-0.9861	13.4779	
GUE BODY DEPTH		AUS BODY DEPTH		0.3970	12.6537	
GUE PIN WIDTH		AUS RUMP WIDTH		0.1259	9.4985	
GUE RUMP ANGLE		AUS RUMP ANGLE		-0.3519	7.9638	
GUE FOOT ANGLE		AUS FOOT ANGLE		1.3799	14.9016	
GUE REAR LEGS SIDE VIEW		AUS REAR LEG SET		-2.1757	17.6247	
GUE REAR LEG REAR VIEW		AUS REAR LEG REAR VIEW		0.1327	10.6302	
GUE UDDER DEPTH		AUS UDDER DEPTH		0.5080	10.8934	
GUE MEDIAN SUSPENSORY		AUS MEDIAN SUSPENSORY		1.8624	16.2762	

GUE FORE ATTACHMENT	AUS FORE UDDER	0.3727	12.1771
GUE TEAT PLACEMENT	AUS FRONT TEAT PLACEMENT	-0.4571	12.0942
GUE TEAT LENGTH	AUS TEAT LENGTH	1.5107	5.4368
GUE REAR ATTACHMENT HEIGHT	AUS REAR UDDER HEIGHT	-1.8990	12.8083
GUE REAR TEAT PLACEMENT	AUS REAR TEAT PLACEMENT	-0.3005	10.1714
GUE ANGULARITY	AUS ANGULARITY	-0.0220	12.9268

-
Conversion Factors For Type. Source = INTERBULL MACE 1912
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=GBR

	c	c	f			
	a	o	o			
	n	u	r	a	b	t
b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r
e	i	y	i	u	u	r
d	t	2	t	e	e	2

GUE FEET AND LEGS	GBR OVERALL FEET & LEG	0.4949	3.9292
GUE MAMMARY SYSTEM	GBR OVERALL UDDER SCORE	-1.8082	4.7814
GUE STATURE	GBR STATURE	-6.7978	5.6795
GUE CHEST WIDTH	GBR CHEST WIDTH	-0.7086	4.0598
GUE BODY DEPTH	GBR BODY DEPTH	-2.7650	4.1317
GUE PIN WIDTH	GBR RUMP WIDTH	-1.7056	4.4160
GUE RUMP ANGLE	GBR RUMP ANGLE	0.2067	3.9476
GUE FOOT ANGLE	GBR FOOT ANGLE	0.2676	3.8982
GUE REAR LEGS SIDE VIEW	GBR REAR LEG SET	-0.3644	3.6790
GUE UDDER DEPTH	GBR UDDER DEPTH	-1.1442	3.8233
GUE MEDIAN SUSPENSORY	GBR MEDIAN SUSPENSORY	-2.5893	3.8196
GUE FORE ATTACHMENT	GBR FORE UDDER	-0.6650	4.4891
GUE TEAT PLACEMENT	GBR FRONT TEAT PLACEMENT	-1.3835	4.4104
GUE TEAT LENGTH	GBR TEAT LENGTH	-1.3848	2.5039
GUE REAR ATTACHMENT HEIGHT	GBR REAR UDDER HEIGHT	-4.0370	3.0797
GUE ANGULARITY	GBR ANGULARITY	-5.8077	4.9986

-
Conversion Factors For Type. Source = INTERBULL MACE 1912
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=USA

	c	c	f			
	a	o	o			
	n	u	r	a	b	t
b	t	n	t	v	v	c
r	r	t	r	a	a	o
e	a	r	a	l	l	r
e	i	y	i	u	u	r
d	t	2	t	e	e	2

GUE CONFORMATION	USA PTA TYPE (FINAL SCORE)	0.9566	5.7773	0.64
GUE FEET AND LEGS	USA OVERALL FEET & LEG	1.0594	5.0108	
GUE MAMMARY SYSTEM	USA OVERALL UDDER SCORE	0.8452	9.8535	
GUE STATURE	USA STATURE	0.0987	2.5481	
GUE CHEST WIDTH	USA STRENGTH	1.2839	4.9915	
GUE BODY DEPTH	USA BODY DEPTH	0.9908	3.4887	
GUE PIN WIDTH	USA THURL WIDTH	1.0075	4.4114	
GUE RUMP ANGLE	USA RUMP ANGLE	0.2587	3.7578	
GUE FOOT ANGLE	USA FOOT ANGLE	1.0640	8.1371	
GUE REAR LEGS SIDE VIEW	USA REAR LEGS - SIDE VIEW	-0.9139	7.8063	
GUE REAR LEG REAR VIEW	USA REAR LEG REAR VIEW	0.1323	9.1204	
GUE UDDER DEPTH	USA UDDER DEPTH	0.5188	3.7409	
GUE MEDIAN SUSPENSORY	USA UDDER CLEFT	-0.8952	5.2616	
GUE FORE ATTACHMENT	USA FORE UDDER ATTACHMENT	0.9414	4.2076	
GUE FRONT TEAT PLACEMENT	USA FRONT TEAT PLACEMENT	-0.1745	3.8447	
GUE TEAT LENGTH	USA TEAT LENGTH	-0.4410	3.0613	
GUE REAR ATTACHMENT HEIGHT	USA REAR UDDER HEIGHT	-0.8753	3.6544	
GUE REAR TEAT PLACEMENT	USA REAR TEAT PLACEMENT	0.3045	3.8252	
GUE ANGULARITY	USA DAIRY FORM	0.3203	3.8936	

CALCULATION OF FAT% AND PROTEIN% FOR DECEMBER 2019

BREED	BMILK	BFAT	BPRT
-----	-----	-----	-----
AYS	7815	325	264
BSW	8623	365	304
CN	6050	262	214
GUE	6678	309	230
JER	6768	345	260
HOL	10402	408	336
MS	6633	264	221

$$\text{EBVFAT\%} = 200 * [(\text{BFAT} + \text{EBVFAT} * 0.5) / (\text{BMILK} + \text{EBVMILK} * 0.5) - (\text{BFAT} / \text{BMILK})]$$

$$\text{EBVPROT\%} = 200 * [(\text{BPRT} + \text{EBVPRT} * 0.5) / (\text{BMILK} + \text{EBVMILK} * 0.5) - (\text{BPRT} / \text{BMILK})]$$

EXAMPLE:

A HOLSTEIN bull has EBV MILK=+1000, EBVFAT=+50, EBVPROT=+40

$$\begin{aligned} \text{EBVFAT\%} &= 200 * [(408 + 50 * 0.5) / (10402 + 1000 * 0.5) - (408 / 1E4)] \\ &= 200 * [(408 + 25) / (10402 + 500) - (0.03922)] \\ &= 200 * [0.03972 - 0.03922] \\ &= 200 * 0.00049 \\ &= 0.10 \end{aligned}$$

$$\begin{aligned} \text{EBVPROT\%} &= 200 * [(336 + 40 * 0.5) / (10402 + 1000 * 0.5) - (336 / 1E4)] \\ &= 200 * [(336 + 20) / (10402 + 500) - (0.03230)] \\ &= 200 * [0.03265 - 0.03230] \\ &= 200 * 0.00035 \\ &= 0.07 \end{aligned}$$