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 Conversion Factors For Production Traits. Source: INTERBULL 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = PCORR2*Foreign Reliability

breed	country2	amilk	bmilk	afat	bfat	aprot	bprot	pcorr2
AYS	AUS	363.40	1.2190	24.200	1.3260	18.900	1.2980	0.4761
AYS	DEU	479.30	0.8880	36.800	0.8230	25.000	0.8510	0.7744
AYS	DFS	-4469.00	54.4480	-154.600	1.9980	-115.800	1.5860	0.7921
AYS	EST	460.60	1.0600	21.000	1.0670	20.800	0.9550	0.6724
AYS	GBR	-375.20	2.3040	-16.100	2.6130	-9.600	2.5440	0.6889
AYS	IRL	1015.25	3.6471	32.689	3.1033	35.785	3.3212	0.5476
AYS	LTU	-486.90	1.5100	-6.800	1.3000	-7.600	1.6240	0.6889
AYS	LVA	220.40	1.8300	17.200	1.6790	13.200	2.0060	0.6724
AYS	NLD	1473.81	0.7798	53.229	0.7258	50.364	0.6356	0.7744
AYS	NOR	-3701.30	44.4020	-132.400	1.6200	-99.300	1.3290	0.7569
AYS	NZL	-3.10	1.6670	29.500	1.4670	16.900	1.8290	0.4761
AYS	USA	-181.00	0.8870	-12.400	0.9020	-7.800	0.8950	0.7921
AYS	ZAF	-20.98	0.8812	-3.515	0.9350	0.291	0.8893	0.6561

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 Conversion Factors For SCS Traits. Source: INTERBULL 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = SCORR2*Foreign Reliability

breed	country2	a	b	scorr2
AYS	AUS	3.800	-0.0070	0.7921
AYS	DEU	4.600	-0.0160	0.8649
AYS	DFS	4.700	-0.0180	0.8836
AYS	EST	4.900	-0.0180	0.7921
AYS	GBR	3.000	0.0190	0.8649
AYS	LTU	3.100	0.5980	0.8100
AYS	LVA	3.100	0.4910	0.8100
AYS	NLD	-1.965	0.0490	0.8281
AYS	NOR	4.500	-0.0150	0.8464
AYS	NZL	3.200	0.5240	0.7569
AYS	USA	0.100	0.9590	0.8649
AYS	ZAF	3.024	0.0087	0.7921

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 Conversion Factors For Type. Source = INTERBULL MACE 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=AUS

c	c	f			
a	o	o			
n	u	r	a	b	t
b	n	t	v	v	c
r	r	t	a	a	o

e e d	a i t	r y 2	a i t	l u e	l u e	r r 2
AYS	CONFORMATION	AUS	CONFORMATION	-74.758	0.6883	0.35
AYS	FEET AND LEGS	AUS	OVERALL FEET & LEG	-39.605	0.3426	
AYS	MAMMARY SYSTEM	AUS	OVERALL UDDER SCORE	-71.179	0.6577	
AYS	STATURE	AUS	STATURE	-86.135	0.8210	
AYS	CHEST WIDTH	AUS	CHEST WIDTH	-74.234	0.7560	
AYS	BODY DEPTH	AUS	BODY DEPTH	-75.743	0.7390	
AYS	PIN WIDTH	AUS	RUMP WIDTH	-86.799	0.8512	
AYS	RUMP ANGLE	AUS	RUMP ANGLE	-73.902	0.7255	
AYS	FOOT ANGLE	AUS	FOOT ANGLE	-59.975	0.5892	
AYS	REAR LEGS SIDE VIEW	AUS	REAR LEG SET	-59.551	0.6387	
AYS	REAR LEG REAR VIEW	AUS	REAR LEG REAR VIEW	-58.666	0.5586	
AYS	UDDER DEPTH	AUS	UDDER DEPTH	-64.809	0.6021	
AYS	MEDIAN SUSPENSORY	AUS	MEDIAN SUSPENSORY	-62.695	0.5991	
AYS	FORE ATTACHMENT	AUS	FORE UDDER	-70.311	0.6547	
AYS	TEAT PLACEMENT	AUS	FRONT TEAT PLACEMENT	-78.852	0.7785	
AYS	TEAT LENGTH	AUS	TEAT LENGTH	-65.034	0.6629	
AYS	REAR ATTACHMENT HEIGHT	AUS	REAR UDDER HEIGHT	-81.716	0.7329	
AYS	REAR TEAT PLACEMENT	AUS	REAR TEAT PLACEMENT	-86.721	0.8368	
AYS	ANGULARITY	AUS	ANGULARITY	-62.538	0.5616	

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Converted Proof Reliability = TCORR2*Foreign Reliability

country2=DEU

b r e e d	c a n r a i t	c o u n t r y 2	f o r a i t	a v e r a g e	b v a r i a n c e	t c o r r e c t
AYS	FEET AND LEGS	DEU	OVERALL FEET & LEG	-32.648	0.3180	
AYS	MAMMARY SYSTEM	DEU	OVERALL UDDER SCORE	-34.861	0.3323	
AYS	STATURE	DEU	STATURE	-40.914	0.4273	
AYS	CHEST WIDTH	DEU	CHEST WIDTH	-46.773	0.4781	
AYS	BODY DEPTH	DEU	BODY DEPTH	-50.390	0.5198	
AYS	PIN WIDTH	DEU	RUMP WIDTH	-54.872	0.5729	
AYS	RUMP ANGLE	DEU	RUMP ANGLE	-66.016	0.6199	
AYS	FOOT ANGLE	DEU	FOOT ANGLE	-34.640	0.3726	
AYS	REAR LEGS SIDE VIEW	DEU	REAR LEG SET	-63.050	0.6135	
AYS	REAR LEG REAR VIEW	DEU	REAR LEG REAR VIEW	-56.533	0.5772	
AYS	UDDER DEPTH	DEU	UDDER DEPTH	-44.776	0.4372	
AYS	MEDIAN SUSPENSORY	DEU	MEDIAN SUSPENSORY	-41.501	0.4075	
AYS	FORE ATTACHMENT	DEU	FORE UDDER	-49.819	0.4636	
AYS	FRONT TEAT PLACEMENT	DEU	FRONT TEAT PLACEMENT	-39.441	0.3816	
AYS	TEAT LENGTH	DEU	TEAT LENGTH	-35.294	0.3413	
AYS	REAR ATTACHMENT HEIGHT	DEU	REAR UDDER HEIGHT	-40.149	0.3602	
AYS	REAR TEAT PLACEMENT	DEU	REAR TEAT PLACEMENT	-44.199	0.4091	
AYS	ANGULARITY	DEU	ANGULARITY	-44.322	0.4430	

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 Conversion Factors For Type. Source = INTERBULL MACE 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=DFS

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		
AYS	CONFORMATION	DFS	OVERALL CONFORMATION	-51.430	0.4598	0.56		
AYS	FEET AND LEGS	DFS	OVERALL FEET & LEG	-40.324	0.3738			
AYS	MAMMARY SYSTEM	DFS	OVERALL UDDER SCORE	-46.369	0.4298			
AYS	STATURE	DFS	STATURE	-66.750	0.6470			
AYS	CHEST WIDTH	DFS	CHEST WIDTH	-44.657	0.4606			
AYS	BODY DEPTH	DFS	BODY DEPTH	-46.385	0.4299			
AYS	PIN WIDTH	DFS	RUMP WIDTH	-52.799	0.5241			
AYS	RUMP ANGLE	DFS	RUMP ANGLE	-55.235	0.5551			
AYS	FOOT ANGLE	DFS	FOOT ANGLE	-50.276	0.5131			
AYS	REAR LEGS SIDE VIEW	DFS	REAR LEG SET	-63.184	0.6709			
AYS	REAR LEG REAR VIEW	DFS	REAR LEG REAR VIEW	-53.123	0.5184			
AYS	UDDER DEPTH	DFS	UDDER DEPTH	-48.822	0.4760			
AYS	MEDIAN SUSPENSORY	DFS	MEDIAN SUSPENSORY	-36.627	0.3420			
AYS	FORE ATTACHMENT	DFS	FORE UDDER	-43.971	0.4154			
AYS	FRONT TEAT PLACEMENT	DFS	FRONT TEAT PLACEMENT	-41.310	0.4116			
AYS	TEAT LENGTH	DFS	TEAT LENGTH	-43.778	0.4243			
AYS	REAR ATTACHMENT HEIGHT	DFS	REAR UDDER HEIGHT	-55.828	0.4957			
AYS	REAR TEAT PLACEMENT	DFS	REAR TEAT PLACEMENT	-46.706	0.4502			
AYS	ANGULARITY	DFS	ANGULARITY	-64.587	0.5838			

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 Conversion Factors For Type. Source = INTERBULL MACE 1704
 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		
AYS	FEET AND LEGS	GBR	OVERALL FEET & LEG	-3.674	2.8990			
AYS	MAMMARY SYSTEM	GBR	OVERALL UDDER SCORE	-1.884	3.1889			
AYS	STATURE	GBR	STATURE	-2.250	4.6314			

AYS	CHEST WIDTH	GBR	CHEST WIDTH	2.025	3.8416
AYS	BODY DEPTH	GBR	BODY DEPTH	0.849	3.4988
AYS	PIN WIDTH	GBR	RUMP WIDTH	-0.660	4.1119
AYS	RUMP ANGLE	GBR	RUMP ANGLE	-2.202	3.7858
AYS	FOOT ANGLE	GBR	FOOT ANGLE	-1.141	2.9564
AYS	REAR LEGS SIDE VIEW	GBR	REAR LEG SET	-0.942	3.6096
AYS	UDDER DEPTH	GBR	UDDER DEPTH	-0.840	2.8307
AYS	MEDIAN SUSPENSORY	GBR	MEDIAN SUSPENSORY	-1.251	2.6218
AYS	FORE ATTACHMENT	GBR	FORE UDDER	-0.071	3.0633
AYS	TEAT PLACEMENT	GBR	FRONT TEAT PLACEMENT	2.054	3.1917
AYS	TEAT LENGTH	GBR	TEAT LENGTH	-1.026	3.2452
AYS	REAR ATTACHMENT HEIGHT	GBR	REAR UDDER HEIGHT	-3.224	3.6519
AYS	ANGULARITY	GBR	ANGULARITY	-5.810	4.5833

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Conversion Factors For Type. Source = INTERBULL MACE 1704
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NLD

	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
AYS	CONFORMATION	NLD	CONFORMATION	-126.757	1.3231	0.62
AYS	FEET AND LEGS	NLD	OVERALL FEET & LEG	-54.345	0.5256	
AYS	MAMMARY SYSTEM	NLD	OVERALL UDDER SCORE	-105.557	1.1092	
AYS	STATURE	NLD	STATURE	-106.838	1.1815	
AYS	CHEST WIDTH	NLD	CHEST WIDTH	-182.942	1.9540	
AYS	BODY DEPTH	NLD	BODY DEPTH	-120.191	1.3202	
AYS	PIN WIDTH	NLD	RUMP WIDTH	-94.351	1.0254	
AYS	RUMP ANGLE	NLD	RUMP ANGLE	-99.913	0.9867	
AYS	FOOT ANGLE	NLD	FOOT ANGLE	-98.401	1.0316	
AYS	REAR LEGS SIDE VIEW	NLD	REAR LEG SET	-109.052	1.0715	
AYS	REAR LEG REAR VIEW	NLD	REAR LEG REAR VIEW	-107.019	1.0748	
AYS	UDDER DEPTH	NLD	UDDER DEPTH	-107.515	1.1101	
AYS	MEDIAN SUSPENSORY	NLD	MEDIAN SUSPENSORY	-96.355	0.9839	
AYS	FORE ATTACHMENT	NLD	FORE UDDER	-120.421	1.2293	
AYS	TEAT PLACEMENT	NLD	FRONT TEAT PLACEMENT	-121.407	1.2615	
AYS	TEAT LENGTH	NLD	TEAT LENGTH	-78.043	0.7951	
AYS	REAR ATTACHMENT HEIGHT	NLD	REAR UDDER HEIGHT	-88.444	0.9292	
AYS	REAR TEAT PLACEMENT	NLD	REAR TEAT PLACEMENT	-114.072	1.1650	
AYS	ANGULARITY	NLD	ANGULARITY	-93.228	1.0152	

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Conversion Factors For Type. Source = INTERBULL MACE 1704
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NOR

c a n n b r e e d		c o u n t r y 2		f o r a b v a l u e		
AYS	CONFORMATION	NOR	OVERALL CONFORMATION	-40.012	0.3208	0.71
AYS	FEET AND LEGS	NOR	OVERALL FEET & LEG	-31.411	0.2456	
AYS	MAMMARY SYSTEM	NOR	OVERALL UDDER SCORE	-44.768	0.3715	
AYS	STATURE	NOR	STATURE	-45.480	0.3811	
AYS	BODY DEPTH	NOR	BODY DEPTH	-36.419	0.3198	
AYS	RUMP ANGLE	NOR	RUMP ANGLE	-40.652	0.4364	
AYS	FOOT ANGLE	NOR	FOOT ANGLE	-29.948	0.2887	
AYS	REAR LEGS SIDE VIEW	NOR	REAR LEG SET	-30.176	0.3445	
AYS	REAR LEG REAR VIEW	NOR	REAR LEG REAR VIEW	-36.456	0.3337	
AYS	UDDER DEPTH	NOR	UDDER DEPTH	-45.479	0.3941	
AYS	MEDIAN SUSPENSORY	NOR	MEDIAN SUSPENSORY	-33.497	0.2726	
AYS	FORE ATTACHMENT	NOR	FORE UDDER	-42.754	0.3726	
AYS	FRONT TEAT PLACEMENT	NOR	FRONT TEAT PLACEMENT	-39.411	0.3771	
AYS	TEAT LENGTH	NOR	TEAT LENGTH	-37.069	0.3582	
AYS	REAR ATTACHMENT HEIGHT	NOR	REAR UDDER HEIGHT	-45.634	0.3468	
AYS	REAR TEAT PLACEMENT	NOR	REAR TEAT PLACEMENT	-37.249	0.3518	

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 Conversion Factors For Type. Source = INTERBULL MACE 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NZL

c a n n b r e e d		c o u n t r y 2		f o r a b v a l u e		
AYS	CONFORMATION	NZL	OVERALL CONFORMATION	-8.838	12.7086	0.36
AYS	MAMMARY SYSTEM	NZL	OVERALL UDDER SCORE	-8.292	12.0858	
AYS	STATURE	NZL	STATURE	-11.587	10.4762	
AYS	CHEST WIDTH	NZL	CHEST WIDTH	0.913	13.3574	
AYS	BODY DEPTH	NZL	BODY DEPTH	-2.397	12.4386	
AYS	PIN WIDTH	NZL	RUMP WIDTH	-4.228	17.0274	
AYS	RUMP ANGLE	NZL	RUMP ANGLE	-5.380	18.8788	
AYS	REAR LEGS SIDE VIEW	NZL	REAR LEG SET	3.957	44.9799	
AYS	MEDIAN SUSPENSORY	NZL	MEDIAN SUSPENSORY	-4.236	12.3634	
AYS	FORE ATTACHMENT	NZL	FORE UDDER	-7.595	14.1074	
AYS	FRONT TEAT PLACEMENT	NZL	FRONT TEAT PLACEMENT	-4.096	17.2049	
AYS	REAR ATTACHMENT HEIGHT	NZL	REAR UDDER HEIGHT	-7.601	14.6476	
AYS	REAR TEAT PLACEMENT	NZL	REAR TEAT PLACEMENT	-5.718	16.8327	

Conversion Factors For Type. Source = INTERBULL MACE 1704
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=USA

		c	f			
		a	o	a	b	t
		n	u	v	v	c
		r	r	a	a	o
		e	r	l	l	r
		e	y	u	u	r
		d	2	e	e	2
AYS	CONFORMATION	USA	CONFORMATION	-3.068	5.5973	0.69
AYS	FEET AND LEGS	USA	OVERALL FEET & LEG	-2.713	3.7426	
AYS	MAMMARY SYSTEM	USA	OVERALL UDDER SCORE	-1.007	5.2027	
AYS	STATURE	USA	STATURE	-1.330	2.6372	
AYS	CHEST WIDTH	USA	CHEST WIDTH	-0.428	5.2532	
AYS	BODY DEPTH	USA	BODY DEPTH	-1.050	4.2203	
AYS	PIN WIDTH	USA	RUMP WIDTH	-0.498	4.5324	
AYS	RUMP ANGLE	USA	RUMP ANGLE	-0.996	5.3170	
AYS	FOOT ANGLE	USA	FOOT ANGLE	-0.692	5.9369	
AYS	REAR LEGS SIDE VIEW	USA	REAR LEG SET	0.665	7.8078	
AYS	REAR LEG REAR VIEW	USA	REAR LEG REAR VIEW	-4.189	6.3641	
AYS	UDDER DEPTH	USA	UDDER DEPTH	-0.373	4.7879	
AYS	MEDIAN SUSPENSORY	USA	MEDIAN SUSPENSORY	-2.255	4.5817	
AYS	FORE ATTACHMENT	USA	FORE UDDER	-1.101	4.6471	
AYS	TEAT PLACEMENT	USA	FRONT TEAT PLACEMENT	0.069	3.9982	
AYS	TEAT LENGTH	USA	TEAT LENGTH	-0.539	4.1105	
AYS	REAR ATTACHMENT HEIGHT	USA	REAR UDDER HEIGHT	-1.441	4.2935	
AYS	REAR TEAT PLACEMENT	USA	REAR TEAT PLACEMENT	-0.115	4.7512	
AYS	ANGULARITY	USA	ANGULARITY	-1.794	5.5652	

 CALCULATION OF FAT% AND PROTEIN% FOR APRIL 2017

BREED	BMILK	BFAT	BPRT
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AYS	7670	318	259
BSW	8317	350	293
CN	5598	245	200
GUE	6801	319	235
JER	6521	328	250
HOL	10087	390	324
MS	6855	266	226

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

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

EXAMPLE:

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

$$\begin{aligned} \text{EBVFAT\%} &= 200 * [(390+50*.5)/(10087+1000*.5)-(390/ 1E4)] \\ &= 200 * [(390+25)/(10087+500)-(0.03866)] \\ &= 200 * [0.03920 - 0.03866] \\ &= 200 * 0.00054 \\ &= 0.11 \end{aligned}$$

$$\begin{aligned} \text{EBVPRT\%} &= 200 * [(324+40*.5)/(10087+1000*.5)-(324/ 1E4)] \\ &= 200 * [(324+20)/(10087+500)-(0.03212)] \\ &= 200 * [0.03249 - 0.03212] \\ &= 200 * 0.00037 \\ &= 0.07 \end{aligned}$$