
 Conversion Factors For Production Traits. Source: INTERBULL 1408

Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = PCORR2*Foreign Reliability

| breed | country2 | amilk | bmilk | afat | bfat | aprot | bprot | pcorr2 |
|-------|----------|----------|--------|----------|-------|----------|-------|--------|
| BSW | CHE | -380.39 | 1.274 | -14.622 | 1.331 | -12.866 | 1.405 | 0.7569 |
| BSW | DEA | 3.25 | 1.266 | 4.097 | 1.457 | 4.196 | 1.467 | 0.7396 |
| BSW | FRA | 30.02 | 0.867 | 0.593 | 0.876 | 2.680 | 0.918 | 0.7569 |
| BSW | GBR | -116.87 | 2.180 | -4.127 | 2.472 | -3.226 | 2.687 | 0.7396 |
| BSW | ITA | -265.57 | 1.045 | -9.364 | 1.198 | -6.824 | 1.047 | 0.7744 |
| BSW | NLD | 1320.78 | 1.144 | 38.190 | 1.074 | 40.117 | 1.235 | 0.7921 |
| BSW | NZL | 279.09 | 1.489 | 37.131 | 1.489 | 14.674 | 1.740 | 0.5776 |
| BSW | SVN | -6636.62 | 58.306 | -304.319 | 2.690 | -266.270 | 2.359 | 0.7569 |
| BSW | USA | -33.98 | 0.912 | -2.994 | 0.983 | -3.341 | 1.068 | 0.7921 |

 Conversion Factors For SCS Traits. Source: INTERBULL 1408

Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = SCORR2*Foreign Reliability

| breed | country2 | a | b | scorr2 |
|-------|----------|--------|--------|--------|
| BSW | CHE | 5.195 | -0.022 | 0.8649 |
| BSW | DEA | 4.919 | -0.019 | 0.8464 |
| BSW | FRA | 3.019 | -0.230 | 0.8464 |
| BSW | GBR | 2.950 | 0.017 | 0.8464 |
| BSW | ITA | 4.819 | -0.017 | 0.8649 |
| BSW | NLD | -2.551 | 0.053 | 0.7921 |
| BSW | NZL | 3.111 | 0.510 | 0.5929 |
| BSW | SVN | 4.956 | -0.019 | 0.7569 |
| BSW | USA | -0.002 | 1.007 | 0.8100 |

 Conversion Factors For Type. Source = INTERBULL MACE 1408

Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=CHE

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| BSW CONFORMATION | CHE FINAL SCORE | | -0.608 | 9.3487 | 0.71 |
| BSW FEET AND LEGS | CHE OVERALL FEET & LEG | | -0.730 | 6.5223 | |
| BSW MAMMARY SYSTEM | CHE OVERALL UDDER SCORE | | 0.330 | 6.6542 | |
| BSW STATURE | CHE STATURE | | -3.310 | 6.6769 | |
| BSW CHEST WIDTH | CHE CHEST WIDTH | | 3.317 | 9.1464 | |
| BSW BODY DEPTH | CHE BODY DEPTH | | -1.431 | 7.2049 | |

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|----------------------------|--------------------------|--------|---------|
| BSW PIN WIDTH | CHE RUMP WIDTH | 3.677 | 6.7869 |
| BSW RUMP ANGLE | CHE RUMP ANGLE | 0.582 | 6.5407 |
| BSW FOOT ANGLE | CHE FOOT ANGLE | -1.121 | 2.6314 |
| BSW HEEL DEPTH | CHE HEEL DEPTH | 0.608 | 6.9783 |
| BSW REAR LEGS SIDE VIEW | CHE REAR LEG SET | 2.211 | 5.4609 |
| BSW UDDER DEPTH | CHE UDDER DEPTH | 0.215 | 6.3118 |
| BSW MEDIAN SUSPENSORY | CHE MEDIAN SUSPENSORY | -2.048 | 7.2208 |
| BSW FORE ATTACHMENT | CHE FORE UDDER | -1.152 | 1.5286 |
| BSW FRONT TEAT PLACEMENT | CHE FRONT TEAT PLACEMENT | -0.391 | 6.0010 |
| BSW TEAT LENGTH | CHE TEAT LENGTH | -3.195 | 3.7665 |
| BSW REAR ATTACHMENT HEIGHT | CHE REAR UDDER HEIGHT | -0.820 | 6.7915 |
| BSW REAR ATTACHMENT WIDTH | CHE REAR UDDER WIDTH | -0.376 | 7.9794 |
| BSW REAR TEAT PLACEMENT | CHE REAR TEAT PLACEMENT | -1.095 | 6.1948 |
| BSW ANGULARITY | CHE ANGULARITY | -5.682 | -5.0942 |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=DEA

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| BSW CONFORMATION | DEA CONFORMATION | -40.618 | 0.3666 | 0.46 |
| BSW FEET AND LEGS | DEA OVERALL FEET & LEG | -41.776 | 0.4088 | |
| BSW MAMMARY SYSTEM | DEA OVERALL UDDER SCORE | -63.954 | 0.6098 | |
| BSW STATURE | DEA STATURE | -63.905 | 0.5968 | |
| BSW CHEST WIDTH | DEA CHEST WIDTH | -60.681 | 0.6129 | |
| BSW BODY DEPTH | DEA BODY DEPTH | -60.434 | 0.5865 | |
| BSW PIN WIDTH | DEA RUMP WIDTH | -49.457 | 0.4901 | |
| BSW RUMP ANGLE | DEA RUMP ANGLE | -50.270 | 0.5127 | |
| BSW FOOT ANGLE | DEA FOOT ANGLE | -24.104 | 0.2246 | |
| BSW HEEL DEPTH | DEA HEEL DEPTH | -60.102 | 0.5931 | |
| BSW REAR LEGS SIDE VIEW | DEA REAR LEG SET | -51.771 | 0.5202 | |
| BSW UDDER DEPTH | DEA UDDER DEPTH | -51.758 | 0.4993 | |
| BSW MEDIAN SUSPENSORY | DEA MEDIAN SUSPENSORY | -64.454 | 0.6184 | |
| BSW FORE ATTACHMENT | DEA FORE UDDER | -47.277 | 0.4653 | |
| BSW FRONT TEAT PLACEMENT | DEA FRONT TEAT PLACEMENT | -64.469 | 0.6170 | |
| BSW TEAT LENGTH | DEA TEAT LENGTH | -39.419 | 0.3912 | |
| BSW REAR ATTACHMENT HEIGHT | DEA REAR UDDER HEIGHT | -46.967 | 0.4335 | |
| BSW REAR ATTACHMENT WIDTH | DEA REAR UDDER WIDTH | -57.036 | 0.5480 | |
| BSW REAR TEAT PLACEMENT | DEA REAR TEAT PLACEMENT | -69.388 | 0.6570 | |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=FRA

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| BSW CONFORMATION | FRA OVERALL SCORE | -2.568 | 6.6502 | 0.77 |
| BSW FEET AND LEGS | FRA OVERALL FEET & LEG | -1.363 | 2.0017 | |
| BSW MAMMARY SYSTEM | FRA OVERALL UDDER SCORE | -2.290 | 6.4722 | |
| BSW STATURE | FRA STATURE | -2.780 | 7.5738 | |
| BSW CHEST WIDTH | FRA CHEST DEPTH | 0.314 | 7.3309 | |
| BSW BODY DEPTH | FRA BODY DEPTH | -0.856 | 6.5298 | |
| BSW PIN WIDTH | FRA RUMP WIDTH | -0.441 | 5.5833 | |
| BSW RUMP ANGLE | FRA RUMP ANGLE | 1.269 | 6.6699 | |
| BSW FOOT ANGLE | FRA HEEL DEPTH | -1.154 | 5.6737 | |
| BSW HEEL DEPTH | FRA HEEL DEPTH | -0.199 | 7.0057 | |
| BSW REAR LEGS SIDE VIEW | FRA REAR LEG SET | 0.408 | 6.5778 | |
| BSW UDDER DEPTH | FRA UDDER DEPTH | -3.028 | 5.9750 | |
| BSW MEDIAN SUSPENSORY | FRA MEDIAN SUSPENSORY | -0.677 | 7.6665 | |
| BSW FORE ATTACHMENT | FRA FORE UDDER | -2.053 | 4.2456 | |
| BSW FRONT TEAT PLACEMENT | FRA FRONT TEAT PLACEMENT | -3.202 | 7.2996 | |
| BSW TEAT LENGTH | FRA TEAT LENGTH | 0.143 | 5.1138 | |
| BSW REAR ATTACHMENT HEIGHT | FRA REAR UDDER HEIGHT | -1.419 | 6.5091 | |
| BSW REAR ATTACHMENT WIDTH | FRA REAR UDDER WIDTH | -0.562 | 7.6324 | |
| BSW REAR TEAT PLACEMENT | FRA REAR TEAT PLACEMENT | -1.214 | 7.6432 | |
| BSW ANGULARITY | FRA ANGULARITY | -3.939 | 8.3591 | |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=GBR

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| BSW CONFORMATION | GBR CONFORMATION | 0.387 | 3.7205 | 0.71 |
| BSW FEET AND LEGS | GBR OVERALL FEET & LEG | 0.572 | 3.1663 | |
| BSW MAMMARY SYSTEM | GBR OVERALL UDDER SCORE | 0.695 | 4.5299 | |
| BSW STATURE | GBR STATURE | -2.949 | 7.9680 | |
| BSW CHEST WIDTH | GBR CHEST WIDTH | -0.211 | 5.7790 | |
| BSW BODY DEPTH | GBR BODY DEPTH | -0.621 | 4.3303 | |
| BSW PIN WIDTH | GBR RUMP WIDTH | 0.453 | 5.0974 | |
| BSW RUMP ANGLE | GBR RUMP ANGLE | 0.113 | 2.9322 | |
| BSW FOOT ANGLE | GBR FOOT ANGLE | 1.008 | 6.1136 | |
| BSW REAR LEGS SIDE VIEW | GBR REAR LEG SET | -2.965 | 4.9027 | |
| BSW UDDER DEPTH | GBR UDDER DEPTH | -0.015 | 3.2514 | |
| BSW MEDIAN SUSPENSORY | GBR MEDIAN SUSPENSORY | 0.630 | 2.5747 | |
| BSW FORE ATTACHMENT | GBR FORE UDDER | -1.706 | 4.2949 | |

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| BSW TEAT PLACEMENT | GBR FRONT TEAT PLACEMENT | 0.659 | 5.0523 |
| BSW TEAT LENGTH | GBR TEAT LENGTH | -0.422 | 3.8588 |
| BSW REAR ATTACHMENT HEIGHT | GBR REAR UDDER HEIGHT | 0.637 | 4.3213 |
| BSW ANGULARITY | GBR ANGULARITY | -2.150 | 8.9541 |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=ITA

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| BSW CONFORMATION | ITA FINAL SCORE | -67.307 | 0.5929 | 0.59 |
| BSW FEET AND LEGS | ITA OVERALL FEET & LEG | -32.275 | 0.2875 | |
| BSW MAMMARY SYSTEM | ITA OVERALL UDDER SCORE | -59.672 | 0.5333 | |
| BSW STATURE | ITA STATURE | -54.592 | 0.4899 | |
| BSW CHEST WIDTH | ITA STRENGTH | -41.997 | 0.4092 | |
| BSW BODY DEPTH | ITA BODY DEPTH | -41.539 | 0.3867 | |
| BSW RUMP ANGLE | ITA RUMP ANGLE | -37.486 | 0.3855 | |
| BSW FOOT ANGLE | ITA FOOT ANGLE | -22.792 | 0.1997 | |
| BSW HEEL DEPTH | ITA HEEL DEPTH | -45.984 | 0.4327 | |
| BSW REAR LEGS SIDE VIEW | ITA REAR LEG SET | -38.143 | 0.3883 | |
| BSW UDDER DEPTH | ITA UDDER DEPTH | -41.417 | 0.3863 | |
| BSW MEDIAN SUSPENSORY | ITA MEDIAN SUSPENSORY | -57.599 | 0.5317 | |
| BSW FORE ATTACHMENT | ITA FORE UDDER | -13.489 | 0.1143 | |
| BSW TEAT LENGTH | ITA TEAT LENGTH | -33.358 | 0.3361 | |
| BSW REAR ATTACHMENT HEIGHT | ITA REAR UDDER HEIGHT | -50.267 | 0.4482 | |
| BSW REAR ATTACHMENT WIDTH | ITA REAR UDDER WIDTH | -57.018 | 0.5191 | |
| BSW REAR TEAT PLACEMENT | ITA REAR TEAT PLACEMENT | -50.446 | 0.4672 | |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NLD

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| BSW CONFORMATION | NLD CONFORMATION | -148.742 | 1.4222 | 0.58 |
| BSW FEET AND LEGS | NLD OVERALL FEET & LEG | -31.169 | 0.2605 | |
| BSW MAMMARY SYSTEM | NLD OVERALL UDDER SCORE | -145.031 | 1.5015 | |

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| BSW STATURE | NLD STATURE | -137.335 | 1.3541 |
| BSW CHEST WIDTH | NLD CHEST WIDTH | -182.920 | 1.8037 |
| BSW BODY DEPTH | NLD BODY DEPTH | -146.884 | 1.5161 |
| BSW PIN WIDTH | NLD RUMP WIDTH | -156.237 | 1.7292 |
| BSW RUMP ANGLE | NLD RUMP ANGLE | -144.562 | 1.4270 |
| BSW FOOT ANGLE | NLD FOOT ANGLE | -64.695 | 0.5474 |
| BSW HEEL DEPTH | NLD HEEL DEPTH | -163.329 | 1.4095 |
| BSW REAR LEGS SIDE VIEW | NLD REAR LEG SET | -119.481 | 1.2821 |
| BSW UDDER DEPTH | NLD UDDER DEPTH | -153.782 | 1.5428 |
| BSW MEDIAN SUSPENSORY | NLD MEDIAN SUSPENSORY | -134.300 | 1.4099 |
| BSW FORE ATTACHMENT | NLD FORE UDDER | -150.809 | 1.5214 |
| BSW TEAT PLACEMENT | NLD FRONT TEAT PLACEMENT | -156.086 | 1.5238 |
| BSW TEAT LENGTH | NLD TEAT LENGTH | -96.157 | 0.9252 |
| BSW REAR ATTACHMENT HEIGHT | NLD REAR UDDER HEIGHT | -107.313 | 1.1679 |
| BSW REAR ATTACHMENT WIDTH | NLD REAR UDDER WIDTH | -94.815 | 1.0366 |
| BSW REAR TEAT PLACEMENT | NLD REAR TEAT PLACEMENT | -160.959 | 1.6371 |
| BSW ANGULARITY | NLD ANGULARITY | -160.157 | 1.6952 |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=SVN

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| BSW CONFORMATION | SVN CONFORMATION | -28.488 | 0.1865 | 0.38 | |
| BSW FEET AND LEGS | SVN OVERALL FEET & LEG | -16.744 | 0.1270 | | |
| BSW MAMMARY SYSTEM | SVN OVERALL UDDER SCORE | -33.080 | 0.2272 | | |
| BSW STATURE | SVN STATURE | -51.265 | 0.3889 | | |
| BSW CHEST WIDTH | SVN CHEST WIDTH | -29.131 | 0.3084 | | |
| BSW BODY DEPTH | SVN BODY DEPTH | -30.713 | 0.2549 | | |
| BSW RUMP ANGLE | SVN RUMP ANGLE | -26.842 | 0.2849 | | |
| BSW FOOT ANGLE | SVN FOOT ANGLE | -16.925 | 0.1250 | | |
| BSW HEEL DEPTH | SVN HEEL DEPTH | -25.162 | 0.2176 | | |
| BSW REAR LEGS SIDE VIEW | SVN REAR LEG SET | -23.355 | 0.2558 | | |
| BSW UDDER DEPTH | SVN UDDER DEPTH | -32.440 | 0.2737 | | |
| BSW MEDIAN SUSPENSORY | SVN MEDIAN SUSPENSORY | -36.583 | 0.2893 | | |
| BSW FORE ATTACHMENT | SVN FORE UDDER | -16.341 | 0.1106 | | |
| BSW TEAT PLACEMENT | SVN FRONT TEAT PLACEMENT | -40.460 | 0.3292 | | |
| BSW TEAT LENGTH | SVN TEAT LENGTH | -19.398 | 0.2094 | | |
| BSW REAR ATTACHMENT HEIGHT | SVN REAR UDDER HEIGHT | -36.127 | 0.2696 | | |
| BSW REAR ATTACHMENT WIDTH | SVN REAR UDDER WIDTH | -47.589 | 0.3769 | | |
| BSW REAR TEAT PLACEMENT | SVN REAR TEAT PLACEMENT | -43.398 | 0.3518 | | |

Conversion Factors For Type. Source = INTERBULL MACE 1408
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=USA

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| BSW CONFORMATION | USA PTA TYPE (FINAL SCORE) | 0.099 | 11.8680 | 0.76 |
| BSW FEET AND LEGS | USA OVERALL FEET & LEG | -0.001 | 2.3260 | |
| BSW MAMMARY SYSTEM | USA OVERALL UDDER SCORE | 0.159 | 6.3763 | |
| BSW STATURE | USA STATURE | -0.595 | 4.6495 | |
| BSW CHEST WIDTH | USA STRENGTH | 0.752 | 10.4662 | |
| BSW PIN WIDTH | USA RUMP WIDTH | 1.014 | 9.3131 | |
| BSW RUMP ANGLE | USA RUMP ANGLE | -0.873 | 5.7872 | |
| BSW FOOT ANGLE | USA FOOT ANGLE | -0.657 | 8.0904 | |
| BSW REAR LEGS SIDE VIEW | USA REAR LEG SET | 0.536 | 9.2838 | |
| BSW UDDER DEPTH | USA UDDER DEPTH | -0.476 | 5.1931 | |
| BSW MEDIAN SUSPENSORY | USA UDDER CLEFT | 0.973 | 6.7493 | |
| BSW FORE ATTACHMENT | USA FORE UDDER ATTACHMENT | 0.192 | 5.6938 | |
| BSW FRONT TEAT PLACEMENT | USA FRONT TEAT PLACEMENT | -0.799 | 5.8576 | |
| BSW TEAT LENGTH | USA TEAT LENGTH | 0.417 | 3.5738 | |
| BSW REAR ATTACHMENT HEIGHT | USA REAR UDDER HEIGHT | -0.363 | 5.9864 | |
| BSW REAR ATTACHMENT WIDTH | USA REAR UDDER WIDTH | 0.635 | 8.2499 | |
| BSW ANGULARITY | USA ANGULARITY | 0.331 | 6.1459 | |

CALCULATION OF FAT% AND PROTEIN% FOR AUGUST 2014

| BREED | BMILK | BFAT | BPRT |
|-------|-------|-------|-------|
| ----- | ----- | ----- | ----- |
| AYS | 7512 | 308 | 253 |
| BSW | 8007 | 334 | 283 |
| CN | 6157 | 264 | 215 |
| GUE | 6753 | 313 | 230 |
| JER | 6362 | 315 | 243 |
| HOL | 9858 | 375 | 316 |
| MS | 6878 | 250 | 226 |

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

EXAMPLE :

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

$$\begin{aligned} \text{EBVFAT\%} &= 200 * [(375 + 50 * .5) / (9858 + 1000 * .5) - (375 / 9858)] \\ &= 200 * [(375 + 25) / (9858 + 500) - (0.03804)] \\ &= 200 * [0.03862 - 0.03804] \\ &= 200 * 0.00058 \\ &= 0.12 \end{aligned}$$

$$\begin{aligned} \text{EBVPROT\%} &= 200 * [(316 + 40 * .5) / (9858 + 1000 * .5) - (316 / 9858)] \\ &= 200 * [(316 + 20) / (9858 + 500) - (0.03206)] \end{aligned}$$

$$\begin{aligned} &= 200 * [0.03244 - 0.03206] \\ &= 200 * 0.00038 \\ &= 0.08 \end{aligned}$$