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 Conversion Factors For Production Traits. Source: INTERBULL 2104
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = PCORR2*Foreign Reliability

breed	country2	amilk	bmilk	afat	bfat	aprot	bprot	pcorr2
AYS	AUS	156.50	1.1620	10.200	1.3010	8.400	1.3110	0.4489
AYS	CAM	-516.94	1.1670	-29.564	0.9042	-18.050	1.3877	0.7225
AYS	DEU	566.60	0.8160	37.700	0.8540	27.300	0.8410	0.8100
AYS	DFS	-4486.10	53.7350	-164.500	2.0860	-116.600	1.5950	0.7921
AYS	EST	631.70	1.0780	25.300	1.0900	26.500	1.0340	0.6889
AYS	GBR	-414.20	2.0880	-19.100	2.5750	-12.500	2.4870	0.6724
AYS	IRL	571.49	2.8104	19.140	2.5645	23.557	2.5132	0.5625
AYS	LTU	-690.50	1.6190	-16.900	1.3590	-16.300	1.7370	0.5776
AYS	LVA	394.20	1.7230	17.200	1.7360	18.100	1.8540	0.6084
AYS	NLD	1487.20	0.7227	57.843	0.7494	53.327	0.6156	0.7569
AYS	NOR	-3519.40	42.6950	-145.900	1.7460	-100.200	1.3400	0.7396
AYS	NZL	-287.80	1.4290	16.300	1.4630	5.700	1.4870	0.3136
AYS	USA	-256.40	0.8270	-16.600	0.8630	-9.600	0.8450	0.7921
AYS	ZAF	-117.99	0.8213	-6.698	0.9616	-2.734	0.8948	0.6400

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 Conversion Factors For SCS Traits. Source: INTERBULL 2104
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = SCORR2*Foreign Reliability

breed	country2	a	b	scorr2
AYS	AUS	96.400	-17.5340	0.7056
AYS	CAM	13.774	0.8225	0.8464
AYS	DEU	60.600	0.3780	0.8836
AYS	DFS	59.200	0.4100	0.8836
AYS	EST	72.400	0.2660	0.7921
AYS	GBR	98.900	-0.4750	0.8649
AYS	LTU	96.600	-12.2540	0.7569
AYS	LVA	95.500	-11.3230	0.7744
AYS	NLD	-23.689	1.2491	0.8281
AYS	NOR	63.800	0.3540	0.8100
AYS	NZL	93.700	-12.5040	0.6889
AYS	USA	170.700	-23.9500	0.8464
AYS	ZAF	99.522	-0.1959	0.7569

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 Conversion Factors For Type. Source = INTERBULL MACE 2104
 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	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	AUS	CONFORMATION	-6.710	2.8455	0.3
AYS	FEET AND LEGS	AUS	OVERALL FEET & LEG	-5.168	3.8285	
AYS	MAMMARY SYSTEM	AUS	OVERALL UDDER SCORE	-6.563	2.6488	
AYS	STATURE	AUS	STATURE	-4.498	8.6036	
AYS	CHEST WIDTH	AUS	CHEST WIDTH	1.313	13.3013	
AYS	BODY DEPTH	AUS	BODY DEPTH	-1.558	9.9968	
AYS	PIN WIDTH	AUS	RUMP WIDTH	-2.564	11.2172	
AYS	RUMP ANGLE	AUS	RUMP ANGLE	-2.058	13.1476	
AYS	FOOT ANGLE	AUS	FOOT ANGLE	-1.863	14.4320	
AYS	REAR LEGS SIDE VIEW	AUS	REAR LEG SET	3.751	19.6572	
AYS	REAR LEG REAR VIEW	AUS	REAR LEG REAR VIEW	-3.448	20.7069	
AYS	UDDER DEPTH	AUS	UDDER DEPTH	-5.300	9.3483	
AYS	MEDIAN SUSPENSORY	AUS	MEDIAN SUSPENSORY	-3.816	12.1661	
AYS	FORE ATTACHMENT	AUS	FORE UDDER	-4.625	11.1863	
AYS	TEAT PLACEMENT	AUS	FRONT TEAT PLACEMENT	-1.277	9.6218	
AYS	TEAT LENGTH	AUS	TEAT LENGTH	1.379	8.7285	
AYS	REAR ATTACHMENT HEIGHT	AUS	REAR UDDER HEIGHT	-8.175	9.6202	
AYS	REAR TEAT PLACEMENT	AUS	REAR TEAT PLACEMENT	-1.971	14.1980	
AYS	ANGULARITY	AUS	ANGULARITY	-7.566	9.4615	

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 Conversion Factors For Type. Source = INTERBULL MACE 2104
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=CAM

	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 d	i t	y 2	i t	u e	u e	r 2
AYS	CONFORMATION		CAM CONFORMATION	-9.451	0.7281	0.6
6						
AYS	FEET AND LEGS		CAM OVERALL FEET & LEG	-7.461	0.6192	
AYS	MAMMARY SYSTEM		CAM OVERALL UDDER SCORE	-9.811	0.7480	
AYS	STATURE		CAM STATURE	-4.849	0.9725	
AYS	CHEST WIDTH		CAM CHEST WIDTH	-1.591	0.8760	
AYS	BODY DEPTH		CAM BODY DEPTH	-3.693	1.0327	
AYS	PIN WIDTH		CAM RUMP WIDTH	-4.186	0.8412	
AYS	RUMP ANGLE		CAM RUMP ANGLE	-0.104	1.0024	
AYS	FOOT ANGLE		CAM FOOT ANGLE	-3.837	0.6409	
AYS	REAR LEGS SIDE VIEW		CAM REAR LEG SET	4.686	0.8539	
AYS	REAR LEG REAR VIEW		CAM REAR LEG REAR VIEW	-5.720	0.7203	
AYS	UDDER DEPTH		CAM UDDER DEPTH	-4.300	1.1770	
AYS	MEDIAN SUSPENSORY		CAM MEDIAN SUSPENSORY	-5.021	0.7133	
AYS	FORE ATTACHMENT		CAM FORE UDDER	-7.231	0.7104	
AYS	TEAT PLACEMENT		CAM FRONT TEAT PLACEMENT	-3.145	0.7590	
AYS	TEAT LENGTH		CAM TEAT LENGTH	2.591	0.6361	
AYS	REAR ATTACHMENT HEIGHT		CAM REAR UDDER HEIGHT	-8.446	0.7855	
AYS	REAR TEAT PLACEMENT		CAM REAR TEAT PLACEMENT	-2.601	0.9122	
AYS	ANGULARITY		CAM ANGULARITY	-9.308	0.7395	

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Conversion Factors For Type. Source = INTERBULL MACE 2104
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=DEU

b r e e d	c a n t r y 2	c o u n t r y 2	f o r e i g n c o u n t r y 2	a v e r a g e	b v e r a g e	t c o r r e c t i o n
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AYS	FEET AND LEGS	DEU	OVERALL FEET & LEG	-29.471	0.2916
AYS	MAMMARY SYSTEM	DEU	OVERALL UDDER SCORE	-30.596	0.2853
AYS	STATURE	DEU	STATURE	-42.785	0.4434
AYS	CHEST WIDTH	DEU	CHEST WIDTH	-51.975	0.5359
AYS	BODY DEPTH	DEU	BODY DEPTH	-53.175	0.5359
AYS	PIN WIDTH	DEU	RUMP WIDTH	-54.072	0.5667
AYS	RUMP ANGLE	DEU	RUMP ANGLE	-68.307	0.6435
AYS	FOOT ANGLE	DEU	FOOT ANGLE	-33.621	0.3673
AYS	REAR LEGS SIDE VIEW	DEU	REAR LEG SET	-64.275	0.6298
AYS	REAR LEG REAR VIEW	DEU	REAR LEG REAR VIEW	-51.903	0.5433
AYS	UDDER DEPTH	DEU	UDDER DEPTH	-43.547	0.4357
AYS	MEDIAN SUSPENSORY	DEU	MEDIAN SUSPENSORY	-42.738	0.4146
AYS	FORE ATTACHMENT	DEU	FORE UDDER	-44.411	0.4240
AYS	FRONT TEAT PLACEMENT	DEU	FRONT TEAT PLACEMENT	-42.299	0.4108
AYS	TEAT LENGTH	DEU	TEAT LENGTH	-35.305	0.3382
AYS	REAR ATTACHMENT HEIGHT	DEU	REAR UDDER HEIGHT	-37.734	0.3373
AYS	REAR TEAT PLACEMENT	DEU	REAR TEAT PLACEMENT	-44.627	0.4173
AYS	ANGULARITY	DEU	ANGULARITY	-43.123	0.4108

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 Conversion Factors For Type. Source = INTERBULL MACE 2104
 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	-42.261	0.3441	0.4
AYS	FEET AND LEGS	DFS	OVERALL FEET & LEG	-38.359	0.3539	
AYS	MAMMARY SYSTEM	DFS	OVERALL UDDER SCORE	-46.801	0.4357	

AYS	STATURE	DFS	STATURE	-70.881	0.6931
AYS	CHEST WIDTH	DFS	CHEST WIDTH	-43.325	0.4415
AYS	BODY DEPTH	DFS	BODY DEPTH	-48.392	0.4419
AYS	PIN WIDTH	DFS	RUMP WIDTH	-52.305	0.5188
AYS	RUMP ANGLE	DFS	RUMP ANGLE	-56.548	0.5729
AYS	FOOT ANGLE	DFS	FOOT ANGLE	-51.093	0.5068
AYS	REAR LEGS SIDE VIEW	DFS	REAR LEG SET	-62.288	0.6729
AYS	REAR LEG REAR VIEW	DFS	REAR LEG REAR VIEW	-52.272	0.5074
AYS	UDDER DEPTH	DFS	UDDER DEPTH	-50.100	0.5084
AYS	MEDIAN SUSPENSORY	DFS	MEDIAN SUSPENSORY	-36.205	0.3195
AYS	FORE ATTACHMENT	DFS	FORE UDDER	-41.905	0.3981
AYS	FRONT TEAT PLACEMENT	DFS	FRONT TEAT PLACEMENT	-44.953	0.4464
AYS	TEAT LENGTH	DFS	TEAT LENGTH	-43.253	0.4286
AYS	REAR ATTACHMENT HEIGHT	DFS	REAR UDDER HEIGHT	-52.515	0.4672
AYS	REAR TEAT PLACEMENT	DFS	REAR TEAT PLACEMENT	-47.989	0.4563
AYS	ANGULARITY	DFS	ANGULARITY	-67.822	0.6068

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Conversion Factors For Type. Source = INTERBULL MACE 2104
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	-2.617	3.2807	
AYS	MAMMARY SYSTEM	GBR	OVERALL UDDER SCORE	-1.451	3.0571	
AYS	STATURE	GBR	STATURE	-3.030	4.5704	
AYS	CHEST WIDTH	GBR	CHEST WIDTH	1.766	3.9056	

AYS	BODY DEPTH	GBR	BODY DEPTH	-0.002	3.3865
AYS	PIN WIDTH	GBR	RUMP WIDTH	-1.097	3.9503
AYS	RUMP ANGLE	GBR	RUMP ANGLE	-1.884	3.8364
AYS	FOOT ANGLE	GBR	FOOT ANGLE	-1.800	3.0311
AYS	REAR LEGS SIDE VIEW	GBR	REAR LEG SET	-0.134	3.3054
AYS	UDDER DEPTH	GBR	UDDER DEPTH	-0.366	3.0368
AYS	MEDIAN SUSPENSORY	GBR	MEDIAN SUSPENSORY	-1.708	2.7560
AYS	FORE ATTACHMENT	GBR	FORE UDDER	0.113	3.3145
AYS	TEAT PLACEMENT	GBR	FRONT TEAT PLACEMENT	1.898	3.4343
AYS	TEAT LENGTH	GBR	TEAT LENGTH	-0.777	3.3749
AYS	REAR ATTACHMENT HEIGHT	GBR	REAR UDDER HEIGHT	-2.514	3.6097
AYS	ANGULARITY	GBR	ANGULARITY	-5.877	5.0579

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Conversion Factors For Type. Source = INTERBULL MACE 2104
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	-127.434	1.3289	0.5
6						
AYS	FEET AND LEGS	NLD	OVERALL FEET & LEG	-60.756	0.6025	
AYS	MAMMARY SYSTEM	NLD	OVERALL UDDER SCORE	-111.817	1.1816	
AYS	STATURE	NLD	STATURE	-115.301	1.2865	
AYS	CHEST WIDTH	NLD	CHEST WIDTH	-138.744	1.5058	
AYS	BODY DEPTH	NLD	BODY DEPTH	-110.408	1.2357	
AYS	PIN WIDTH	NLD	RUMP WIDTH	-85.675	0.9265	
AYS	RUMP ANGLE	NLD	RUMP ANGLE	-100.126	0.9971	
AYS	FOOT ANGLE	NLD	FOOT ANGLE	-94.684	0.9874	

AYS	REAR LEGS SIDE VIEW	NLD	REAR LEG SET	-118.415	1.1499
AYS	REAR LEG REAR VIEW	NLD	REAR LEG REAR VIEW	-120.930	1.2359
AYS	UDDER DEPTH	NLD	UDDER DEPTH	-121.294	1.2801
AYS	MEDIAN SUSPENSORY	NLD	MEDIAN SUSPENSORY	-102.649	1.0443
AYS	FORE ATTACHMENT	NLD	FORE UDDER	-120.077	1.2394
AYS	TEAT PLACEMENT	NLD	FRONT TEAT PLACEMENT	-111.729	1.1748
AYS	TEAT LENGTH	NLD	TEAT LENGTH	-84.802	0.8671
AYS	REAR ATTACHMENT HEIGHT	NLD	REAR UDDER HEIGHT	-98.056	1.0387
AYS	REAR TEAT PLACEMENT	NLD	REAR TEAT PLACEMENT	-109.196	1.1290
AYS	ANGULARITY	NLD	ANGULARITY	-107.482	1.1825

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Conversion Factors For Type. Source = INTERBULL MACE 2104
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NOR

	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			2
AYS	CONFORMATION	NOR	OVERALL CONFORMATION	-44.319	0.3438	0.5
8						
AYS	FEET AND LEGS	NOR	OVERALL FEET & LEG	-32.844	0.2585	
AYS	MAMMARY SYSTEM	NOR	OVERALL UDDER SCORE	-48.560	0.3883	
AYS	STATURE	NOR	STATURE	-50.293	0.4334	
AYS	CHEST WIDTH	NOR	CHEST WIDTH	-32.736	0.3782	
AYS	BODY DEPTH	NOR	BODY DEPTH	-37.885	0.3374	
AYS	PIN WIDTH	NOR	RUMP WIDTH	-35.733	0.3727	
AYS	RUMP ANGLE	NOR	RUMP ANGLE	-44.657	0.4630	
AYS	FOOT ANGLE	NOR	FOOT ANGLE	-34.677	0.3258	
AYS	REAR LEGS SIDE VIEW	NOR	REAR LEG SET	-37.076	0.4220	

AYS	REAR LEG REAR VIEW	NOR	REAR LEG REAR VIEW	-36.193	0.3266
AYS	UDDER DEPTH	NOR	UDDER DEPTH	-49.166	0.4290
AYS	MEDIAN SUSPENSORY	NOR	MEDIAN SUSPENSORY	-38.242	0.3086
AYS	FORE ATTACHMENT	NOR	FORE UDDER	-42.176	0.3545
AYS	FRONT TEAT PLACEMENT	NOR	FRONT TEAT PLACEMENT	-46.446	0.4211
AYS	TEAT LENGTH	NOR	TEAT LENGTH	-36.738	0.3588
AYS	REAR ATTACHMENT HEIGHT	NOR	REAR UDDER HEIGHT	-47.884	0.3673
AYS	REAR TEAT PLACEMENT	NOR	REAR TEAT PLACEMENT	-39.286	0.3686
AYS	ANGULARITY	NOR	ANGULARITY	-53.123	0.3835

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Conversion Factors For Type. Source = INTERBULL MACE 2104
Converted Canadian Proof = A + (B* Foreign Proof)
Converted Proof Reliability = TCORR2*Foreign Reliability

country2=NZL

	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			2
AYS	CONFORMATION	NZL	OVERALL CONFORMATION	-9.342	9.1895	0.3
2						
AYS	MAMMARY SYSTEM	NZL	OVERALL UDDER SCORE	-10.282	12.1861	
AYS	STATURE	NZL	STATURE	-12.636	10.8338	
AYS	CHEST WIDTH	NZL	CHEST WIDTH	1.310	12.4667	
AYS	BODY DEPTH	NZL	BODY DEPTH	-1.087	10.9163	
AYS	PIN WIDTH	NZL	RUMP WIDTH	-4.934	15.7830	
AYS	RUMP ANGLE	NZL	RUMP ANGLE	-5.038	19.0360	
AYS	REAR LEGS SIDE VIEW	NZL	REAR LEG SET	5.486	33.8508	
AYS	MEDIAN SUSPENSORY	NZL	MEDIAN SUSPENSORY	-6.417	11.7014	
AYS	FORE ATTACHMENT	NZL	FORE UDDER	-8.093	11.8665	
AYS	FRONT TEAT PLACEMENT	NZL	FRONT TEAT PLACEMENT	-6.191	19.7938	
AYS	REAR ATTACHMENT HEIGHT	NZL	REAR UDDER HEIGHT	-8.716	13.5455	

AYS REAR TEAT PLACEMENT NZL REAR TEAT PLACEMENT -6.102 17.6286

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 Conversion Factors For Type. Source = INTERBULL MACE 2104
 Converted Canadian Proof = A + (B* Foreign Proof)
 Converted Proof Reliability = TCORR2*Foreign Reliability

country2=USA

	c	c	f			
	a	o	o		a	b
b	n	u	r		v	v
r	t	n	t		a	a
e	a	r	a		l	l
e	i	y	i		u	u
d	t	2	t		e	e
						2
AYS	CONFORMATION	USA	CONFORMATION	-2.793	7.4896	0.6
7						
AYS	FEET AND LEGS	USA	OVERALL FEET & LEG	-2.794	3.1210	
AYS	MAMMARY SYSTEM	USA	OVERALL UDDER SCORE	-1.388	4.8386	
AYS	STATURE	USA	STATURE	0.541	2.5741	
AYS	CHEST WIDTH	USA	CHEST WIDTH	1.260	4.8663	
AYS	BODY DEPTH	USA	BODY DEPTH	0.597	3.6079	
AYS	PIN WIDTH	USA	RUMP WIDTH	1.017	3.8207	
AYS	RUMP ANGLE	USA	RUMP ANGLE	-1.926	3.5118	
AYS	FOOT ANGLE	USA	FOOT ANGLE	-1.511	5.1380	
AYS	REAR LEGS SIDE VIEW	USA	REAR LEG SET	-0.121	6.6636	
AYS	REAR LEG REAR VIEW	USA	REAR LEG REAR VIEW	-1.750	-5.2583	
AYS	UDDER DEPTH	USA	UDDER DEPTH	0.124	4.0946	
AYS	MEDIAN SUSPENSORY	USA	MEDIAN SUSPENSORY	-2.579	3.7864	
AYS	FORE ATTACHMENT	USA	FORE UDDER	-0.589	3.4497	
AYS	TEAT PLACEMENT	USA	FRONT TEAT PLACEMENT	-0.449	3.5686	
AYS	TEAT LENGTH	USA	TEAT LENGTH	0.916	2.7966	
AYS	REAR ATTACHMENT HEIGHT	USA	REAR UDDER HEIGHT	-1.081	3.5381	
AYS	REAR TEAT PLACEMENT	USA	REAR TEAT PLACEMENT	0.050	3.9660	
AYS	ANGULARITY	USA	ANGULARITY	-1.201	4.8918	

CALCULATION OF FAT% AND PROTEIN% FOR APRIL 2021

BREED	BMILK	BFAT	BPRT
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AYS	7937	332	272
BSW	8455	361	303
CN	5698	249	206
GUE	7048	329	249
JER	6989	360	271
HOL	10718	424	350
MS	6898	276	229

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

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

EXAMPLE:

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

$$\begin{aligned} \text{EBVFAT\%} &= 200 * [(424 + 50 * 0.5) / (10718 + 1000 * 0.5) - (424 / 111E3)] \\ &= 200 * [(424 + 25) / (10718 + 500) - (0.03956)] \\ &= 200 * [0.04002 - 0.03956] \\ &= 200 * 0.00047 \\ &= 0.09 \end{aligned}$$

$$\begin{aligned} \text{EBVPROT\%} &= 200 * [(350 + 40 * 0.5) / (10718 + 1000 * 0.5) - (350 / 111E3)] \\ &= 200 * [(350 + 20) / (10718 + 500) - (0.03266)] \\ &= 200 * [0.03298 - 0.03266] \\ &= 200 * 0.00033 \\ &= 0.07 \end{aligned}$$