Ayrshire Production conversions

December 2023

When to use these formulas

These conversions should only be used for converting cow evaluations and bulls which do not have an Interbull evaluation. Please check with AHDB Dairy if in doubt.

The formulae provide a guide only to the expected evaluations of the relevant bull or cow in the UK.

How to convert a foreign proof using figures in the table below

Approximate UK PTA = a + (b * Foreign proof)

How to adjust the converted reliability

To take into account the loss of accuracy when converting a foreign proof into a UK equivalent, Interbull guidelines recommend that the foreign reliabilities should be adjusted by the squared correlations between the foreign and UK genetic evaluations.

When converting the foreign production proofs to UK equivalents, the foreign production reliability must therefore be multiplied by 0.8 (i.e. **UK reliability = 0.8 * Foreign reliability**)

				a		**b**		
RDC	milk	GBR	=	−70.46	+	0.475	*	AUS
RDC	fat	GBR	=	1.47	+	0.457	*	AUS
RDC	pro	GBR	=	−0.33	+	0.459	*	AUS
RDC	milk	GBR	=	−169.81	+	0.473	*	CAM
RDC	fat	GBR	=	−8.09	+	0.299	*	CAM
RDC	pro	GBR	=	−4.51	+	0.519	*	CAM
RDC	milk	GBR	=	194.2	+	0.312	*	CAN
RDC	fat	GBR	=	7.37	+	0.25	*	CAN
RDC	pro	GBR	=	4.9	+	0.256	*	CAN
RDC	milk	GBR	=	313.65	+	0.314	*	DEU
RDC	fat	GBR	=	15.61	+	0.27	*	DEU
RDC	pro	GBR	=	11.87	+	0.273	*	DEU
RDC	milk	GBR	=	−1514.33	+	18.728	*	DFS
RDC	fat	GBR	=	−45.61	+	0.623	*	DFS
RDC	pro	GBR	=	−30.8	+	0.468	*	DFS

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RDC   milk  GBR  =      316.48  +      0.372  *  EST
RDC   fat   GBR  =       10.91  +      0.323  *  EST
RDC   pro   GBR  =       10.97  +      0.301  *  EST

RDC   milk  GBR  =      217.18  +      1.139  *  IRL
RDC   fat   GBR  =        6.38  +      0.892  *  IRL
RDC   pro   GBR  =        7.73  +      0.963  *  IRL

RDC   milk  GBR  =     -108.92  +      0.499  *  LTU
RDC   fat   GBR  =        0.92  +      0.339  *  LTU
RDC   pro   GBR  =        0.33  +      0.422  *  LTU

RDC   milk  GBR  =      186.85  +      0.641  *  LVA
RDC   fat   GBR  =        6.64  +      0.524  *  LVA
RDC   pro   GBR  =        6.33  +      0.588  *  LVA

RDC   milk  GBR  =      644.41  +      0.274  *  NLD
RDC   fat   GBR  =       22.97  +      0.249  *  NLD
RDC   pro   GBR  =       21.12  +      0.215  *  NLD

RDC   milk  GBR  =    -1306.93  +     15.849  *  NOR
RDC   fat   GBR  =       -39.2  +      0.489  *  NOR
RDC   pro   GBR  =      -31.89  +      0.437  *  NOR

RDC   milk  GBR  =      -38.03  +      0.509  *  NZL
RDC   fat   GBR  =         8.8  +      0.392  *  NZL
RDC   pro   GBR  =        4.29  +      0.429  *  NZL

RDC   milk  GBR  =       43.97  +      0.333  *  USA
RDC   fat   GBR  =        0.65  +      0.314  *  USA
RDC   pro   GBR  =        0.36  +      0.311  *  USA

RDC   milk  GBR  =      -31.12  +      0.299  *  ZAF
RDC   fat   GBR  =       -0.63  +      0.272  *  ZAF
RDC   pro   GBR  =        0.26  +      0.261  *  ZAF
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Calculating percentage PTAs

Apply the following formula using the converted yield PTAs to obtain estimates for the percentage PTAs.

PTA Fat % = (PTA fat (kg) x 100) – (PTA milk (kg) x 4.14)

(PTA milk (kg) + 6128)

PTA Prot % = (PTA prot (kg) x 100) – (PTA milk (kg) x 3.32)

(PTA milk (kg) + 6128)