

Genetic base change

April 2020

Genetic indexes are focused on the figures providing a comparison with an average animal. This average animal has a PTA (Predicted Transmitting Ability) of zero for every trait. But, as the national herd makes genetic progress, that average also goes up. It is for this reason that we have base changes – in effect an occasional recalculation of the average. If we didn't – because of genetic progress – almost every animal would eventually be better than the 'average' determined many years before. So, every five years, the national average for every trait is recalculated and reset to zero.

In April 2020 the genetic base was recalculated for all breeds. That is why PTA is occasionally referred to as PTA2020. However, for simplicity's sake, the suffix is generally dropped, even though every PTA calculated in the ensuing period will technically be a PTA2020. Whenever there is a base change, there will be a noticeable reduction in PTA values across the board, although the base change itself causes no change in ranking. The important point to remember is to compare like with like. A PTA2020 should never be compared with an earlier or later PTA and, equally, only PTAs from the same proof run should be compared. Be particularly cautious of published bull catalogues, which are generally out of date within four months of publication.

The genetic base for all breeds is reset to the average genetic merit of cows born in 2015, and the changes compared to the previous base are given in the table below.

Trait	Milk	Fat (kg)	Pro (kg)	Fat (%)	Pro (%)	£PLI	SCC	Lifespan	Fertility Index	Maint.	F&L	Udder	TM
Breed													
AYR	-180	-6.5	-4.2	0.00	0.01	-96	1	-24	-0.8	2	-0.2	-0.3	-0.3
BSW	-67	-1.9	-2.2	0.02	0.00	-31	1	10	-0.6	-5	-0.1	-0.1	-0.1
FRI	-102	-6.2	-3.8	-0.02	0.00	-115	0	-20	-1.5	4	-0.4	-0.6	-0.6
GUE	1	-0.1	0.2	0.00	0.00	-32	3	-17	-2.0	-2	-0.2	-0.5	-0.4
HOL	-155	-6.0	-5.0	0.01	0.00	-142	5	-47	-3.1	-4	-0.5	-0.8	-0.6
JER	-96	-4.7	-3.3	0.01	0.01	-66	0	-20	0.4	-4	-0.3	-0.5	-0.4
MON	-148	-4.3	-4.1	0.02	0.01	-63	2	-2	-0.7	0			
SHO	-110	-5.2	-4.3	0.00	-0.01	-78	1	1	-0.7	0	0.1	0.0	0.0

Further information

For more information on AHDB Dairy breeding and genetics, visit dairy.ahdb.org.uk/breeding or email breeding.evaluations@ahdb.org.uk

UK genetic evaluations are undertaken and published by AHDB Dairy three times a year: April, August and December.

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