

Lifespan Index



Lifespan Predicted Transmitting Abilities (PTAs) present the opportunity to select animals for longer herd life. They are calculated from actual daughter survival, when that information is available. When it is not – as in the case of young bulls – information on type (feet, legs and udder), cell count and family is used to make the best possible predictions of lifespan. The choice of traits used in this prediction is based on extensive research using many years of cow records which have indicated which traits are most strongly related to survival. PTAs for Lifespan (LS) are expressed in terms of days and generally fall within the range of -250 to +250. LS PTAs predict reduced or increased survival, such that daughters of a +90 bull are predicted to survive, on average, three months longer than the daughters of a bull with a lifespan PTA of zero.

An important feature of LS PTAs is that they predict involuntary rather than voluntary culling. As there is such a strong relationship between milk production and survival (because low producers are generally culled earlier from the herd), LS PTAs are corrected for milk production. This correction ensures the PTA is more a measure of daughters' ability to survive than of their failure to produce milk (which of course would be apparent from their PTA for production).

LS PTAs are incorporated into the UK's economic indexes; Profitable Lifetime Index (£PLI), Spring Calving Index (£SCI) and Autumn Calving Index (£ACI).

Further information

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

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