



Maternal Weaning Weight EBV

What It Does:

The Maternal Weaning Weight EBV (MWWT) provides an estimate of the genetic effects of the ewe's milk and mothering ability on the weaning weight of her lambs. This EBV primarily reflects genetic differences in ewe milk production, but other aspects of maternal behavior are also involved. A higher value generally indicates more milk production and/or higher quality milk. Selection for a higher MWWT EBV is expected to increase early lamb growth and is considered an important trait in maternal breeds.

How to Measure:

There are no specific measurements collected or recorded for this trait. The MWWT EBV is a calculated value estimated in kilograms. It is derived by comparing the actual growth of a ewe's lambs to the predicted growth her lambs. The predicted growth is based on the average of the parents' weaning weight EBV, as well as all relatives and ancestors in its pedigree. Ewes whose lambs grow more than predicted are assumed to produce more or higher quality milk. Whereas, ewes whose lambs grow less than predicted are assumed to produce less or lower quality milk.

How It Is Applied:

Without sufficient milk, a lamb's genetics for growth cannot be fully expressed, consequently positive selection for MWWT is recommended in most flocks. The MWWT EBV is reported as lamb growth in kilograms above (+) or below (-) the breed average. For example, a breeding ram with an MWWT EBV of 0.8 has the genetic potential for an additional 0.8 kg (1.8 lbs.) towards weaning weight. Because a lamb inherits half of its genetics from its sire, its offspring are expected to possess the genetics for 0.4 kg (0.9 lbs.) heavier weaning weights. The producer's management system will determine the degree of selection pressure applied to the MWWT EBV. Many shepherds believe that a higher MWWT EBV is more important in forage-only systems where a lamb relies solely on the mother's milk until its rumen is fully developed. However, selection for a high MWWT EBV may be less important when lambs are provided early access to creep feed because such supplementation often compensates for lower milk production from their dams.

Things to Consider:

Although often referred to as the Maternal Milk EBV, both sire and dam contribute genetics for milk production to their offspring. Unlike other traits which are actually measured on lambs (growth, FEC, and carcass), maternal traits like MWWT cannot be measured until a ram's daughters start producing lambs. Extremes in the MWWT EBV require thoughtful consideration by the producer. During lactation, ewes with a high MWWT EBV may have difficulty maintaining their body condition, and may experience increased susceptibility to parasites. Also, ewes with a high MWWT EBV in early weaning systems may be more difficult to dry off when weaning lambs and may have increased risk of mastitis. In contrast, ewes with a very low MWWT EBV could have difficulty raising lambs, especially triplets, without supplemental nutrition for the lambs. Thus, greater maintenance requirements should be taken into consideration in ewes with an extremely low or extremely high MWWT EBV. For any trait, matching EBVs to your management system and local environmental conditions will improve your ability to produce lambs and should increase revenue over time.