

Brief Introduction of A New Maternal Evaluation from Signet.

Over the last 4 years, Signet has developed both the Terminal Sire and Hill sheep breeding evaluations into multi-breed analyses. These are now run monthly and make the introduction of new traits far easier.

A new evaluation is being produced for self-replacing maternal breeds (like the Lleyn) and crossing breeds, like the Bluefaced Leicester.

A number of important changes are taking place.

- The calculation of every breeding value has been updated
- The way muscle and fat depth are expressed has changed to a “weight adjusted” rather than an “age adjusted” basis. This makes it easier to find high yielding sheep and enables improvements in carcase attributes that don’t lead to greater mature size.
 - New breeding values will be launched for
 - o Birth weight
 - o Lambing ease
 - o Lamb survival
 - o Ewe longevity
 - o Ewe mature size (at mating)
 - o Ewe body condition score (at mating)

For those breeds where measures are available, new breeding values have been developed for carcase traits (using abattoir data) and traits indicating resistance to parasites.

A New Breeding Index for Bluefaced Leicester Sheep

With these changes in place a new breeding index is required. The emphasis placed on traits in the new Bluefaced Leicester index is shown below, with the new maternal index being produced for Lleyn sheep provided for contrast.

The main attributes of the Bluefaced Leicester index being:

- A high focus on early lamb growth rates
- Less focus on prolificacy than other maternal indexes; acknowledging the existing prolificacy already observed in the breed
- A small positive weighting is placed on fat depth (now that it is weight adjusted)
 - High focus is placed on maternal ability – as per the old index
- High focus is placed on muscling – as per the old index, to enhance the carcase value of the mule wether

In addition there will be:

- A small penalty for sheep with extreme breeding values for litter size, those consistently producing singles or quads (and higher).

- A small penalty on the heaviest ewes in the population – not to make the breed smaller, but to limit rapid increases in ewe mature size and to enhance the efficiency of the mule ewe.

The net impact is a breeding index that increases early lamb growth rates and maternal ability, with some reward for optimum prolificacy; which enables faster progress in enhancing carcass attributes, but with less rapid increases in ewe mature size compared to the old breeding index.