

Selecting and Breeding Rams for the future

Hans Pörksen, who farms in the uplands of Northumberland, describes how breeding stock is selected. Suffolk, Texel, Bluefaced Leicester, Scottish Blackface and some cross-bred rams are produced at Gallowhill farm.

With well over 50 sheep breeds, the UK is one of the richest areas of sheep genetics in the world.

Breeds have evolved over the centuries as breeders selected for meat and wool production and their breeds ability to survive in very diverse climatic and geographic conditions.

Even in quite recent times breeders have been tempted to create new breeds by crossing different breeds and than stabilising the type. Although this is very tempting, I have not gone down this route as I have discovered that when the most up to date use of genetic evaluation is used one finds just about as much difference within a particular breed as one finds across totally different breeds.

With the aide of the stratified system within the UK sheep industry we are able to produce a very good product indeed.

Fashion within breeds have influenced breeders choices and have had detrimental effects on many sound commercial breeds. It has resulted in the breeder of the current fashion being very prosperous and usually being able to determine the future fashion. Rarely has the purchaser of these “breeders’ sheep” been able to benefit from the investment.

The aim at Gallowhill is that the purchaser of our rams receives animals independently verified as being in the top 5% of sheep genetics.

This should enable the purchaser to farm more profitably.

Genetic improvement is permanent, cumulative and extremely cost effective. In fact in many other braches of the livestock industry the value of using top genetics equals the cost of labour.

Aims: (Our long term intentions)

The aim is to produce prime lambs from 18 to 28 kg carcass weight classifying at E3L and U3L.

More and more processors realise that it is very inefficient to process 12 to 16 kg carcasses.

Ewe flocks should produce the number of lambs the ewes can rear in their environment.

This varies from 1.4 to 1.6 lambs in our Blackface flock and 1.8 to 1.9 lambs per ewe in the commercial and pedigree flocks.

The aim is also that virtually all females born on the farm are suitable for breeding and can be used as own flock replacements or sold at a premium above prime lamb values.

Objectives: (How we achieve our aims in practice)

All the criteria used in selecting our breeding stock are based on actual and not perceived values.

The sheep’s physical appearance is very important:

- a) The animal must be true to breed type. Commercial farmers who do not record must be very happy with the product.
- b) Locomotion must be sound and be seen on a bedding free level surface.
- c) Well balanced
- d) Sound legs, knees, hocks, pasterns, feet and cleats.
- e) Females have two medium sized teats and no supernumery teats.
- f) Males should have two even, firm and free moving testes, with a clearly defined eppidimis and a scrotal circumference of 35cm.
- g) The head should be small to medium to facilitate easy birth
- h) sound mouth and teeth
- i) Shoulders should be light and the birds-eye view of the sheep should be wedge shaped.
- j) The neck should be long enough for the sheep to graze comfortably without going down on its knees. Short necks can also aggravate breathing problems.
- k) The loin should be wide with long transverse processes.
- l) Back should be level.
- m) Hind quarters should we well shaped and sound conformation.
- n) Fleece should be true to breed type and in Terminal Sire breeds the tighter the better. Tight fleeces and good muscling appear to be genetically linked in terminal sire breeds.

Records:

I would not purchase an unrecorded sheep, for me it is like purchasing a pig in a pogue if I did not know what its potential is. The sheep must have the potential to be in the top 5% of the breed.

Signet which comes under EBLEX is responsible and the terminal sire breeds which record can be looked up on the recording website of: www.egenes.co.uk/bascosearchsheep/index

Just type the animals name or pedigree number into the box and all details appear instantly.

The following records are essential to consider

- a) Health schemes, MVA membership, vaccination details, Genotype for scrapie?
- b) Breed Performance standards. The breeds have their annual performance figures published by *Signet*. What are the ram's results you are interested in? Get a copy of the standards and learn what is average and what is good.
- c) Estimated Breeding Values (EBV's) for the recorded traits have now accuracy percentages. Below an accuracy of 60% the figures are meaningless and should be ignored.
60 to 70% are interesting, but can not be relied upon
80 to 90% are starting to mean something
95% and above are very reliable and breeding decisions can be made with confidence.
When one gets used to looking at these figures one finds that the most reliable EBV's are found in senior stock rams with a large number of progeny in a large number of flocks.
.Semen for AI should only be purchased from those types of rams, unless one is a gambler.

CT scanning is required to get a high accuracy for the muscularity EBV. We have found CT scanning really valuable and find that this has great potential in future to identify superior breeding stock. When the CT unit was started at SAC Bush Estate we had large numbers of lambs scanned. Interestingly one year 8 out of 50 lambs had an extra rib, therefore producing an extra two chops per carcass. Unfortunately these traits are not examined in the current analysis.

EBV's I pay a lot of attention to when purchasing a ram:

- a) Eight week weight. This is a good indicator of the ram's dam milking ability. When breeding lambs for sale early in the season, the higher the figure, the earlier one will be able to market the lambs potentially. As lambs are able to reach target weights quicker, higher valued lambs with less concentrate inputs could be produced.
- b) Scan weight. For most breeds this is the 20/21 week weight. This indicates how well the lamb has grown on and how much above or below average it is. High figures indicate a well thriving animal. This is important when producing lambs intended for sale straight off their mothers.
- c) Muscle depth. This refers to the depth of muscle in the loin. For most terminal sire breeds the actual depth is around 30mm. A sheep with a muscle EBV of 3.0 has therefore an extra 10% more muscle in the loin and one with 6.0 has 20% more muscle. A ram with a – figure will produce less lean meat(muscle)
- d) Fat depth. This is one of the most important EBV's and worthwhile to pay a lot of attention to. It is the most misunderstood EBV. It is frequently claimed that sheep meat is too fat and for that reason many people do not like it. For that reason a negative figure has been allocated a higher figure when the overall index is calculated. We discovered years ago that a ram with a high minus figure will sire rams which grow and grow and grow, even at 55kg live weight they will only classify as R2. These rams are only any use as sires of prime lambs of naturally very fat sheep like Cheviots and Welsh Mountain ewes. Here one gets an extra 2-3 kg of carcass weight. However when these rams are mated with mule types the result resemble overgrown donkeys. For farmers who struggle to get sufficient finish on their prime lambs a positive fat EBV is essential. I totally agree that over-fat sheep when sold as prime lamb are a real problem. This is sorted by good selection techniques before sale.

- e) CT EBV's. We select the best Texel and Suffolk ram lambs to be scanned at the Edinburgh CT unit. CT muscularity is only accurate when actually scanned and the shape and distribution of fat and muscle within a carcass is most interesting. The lambs we take are in the top 1% of the breed genetically. It is only worthwhile to consider these figures for sheep which were actually CT scanned, or had a lot of offspring which were scanned.

The EBV's for FEC, Maternal ability, Litter size and Mature size I pay no attention to until they are mature sheep with high accuracy % for those traits. Until then one might just as well ignore them.

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