



A SIL Web Note

Genetic Vision – a SIL flock attribute

Mark Young, SIL
15 March 2010

Flock “Genetic Vision”

SIL is introducing a new flock variable, “Genetic Vision”. This can be thought of as the philosophy or approach to genetic improvement for that flock. We need this because the way SIL records “breed” for an animal is not closely related to the way some sheep genotypes are marketed. Genetic Vision is related to what the breeder is selecting for or how they conduct their flock breeding programme. As such the breed make up of individual animals within that flock may not reflect the direction of breeding objectives.

Why is this necessary? Many breeders select their animals in a way closely aligned to that of a pure breed but are open to using the odd ram of a different breed to inject something different. The low percentage of genetics from the outside breed in their flock means that their “Genetic Vision” is most likely to be the same as that of the dominant breed. Conversely, a range of new “genotypes” have been developed in recent years through crossing different breeds and are marketed under distinctive names or brands.

SIL does not want to lose the breed information we have in animal pedigrees. This would occur if we decided that after a certain time, animals born were given a single new breed name despite having significant proportions of different parent breeds in their pedigree.

We have coined the term “Genetic Vision” to help. Genetic Vision will give breeders a way of signaling the genetic direction or distinctiveness of their flock(s). It will allow SIL information to be better aligned with flock “branding”. It is an alternative search criterion to “Breed” in “**eSearch** for SIL-ACE: **FlockFinder**” the on-line tool scheduled for release in winter 2010.

How will this work? SIL will generate the Genetic Vision now, just once, for all existing active flocks. Flock owners can instruct their SIL bureau to have this changed if they want.

How does SIL know what the “Genetic Vision” is for a flock? For every active flock on SIL we look at the average breed percentage of animals born in the last few years. If they are a high percentage of just one breed, we will say the Genetic Vision is that breed. If it is below this threshold SIL will designate the Genetic Vision as “Composite”. Flock owners can contact their Bureau to find out what SIL has set as the Genetic Vision for their flock(s). This can be changed provided that it does not violate any trademark or copyright legal issues SIL has been appropriately informed of.

Examples. Flock X is a Romney flock that used a Perendale ram in 2008 and a Coopworth ram in 2009. The average breed mix is 96% Romney for animals born in the last 2 years. SIL will say the Genetic Vision is “Romney”. Flock Y, was originally Coopworth, then it used Texel-Finn cross rams and interbred their progeny. Over the last 2 years animals born averaged 64% Coopworth (the highest % of the three breeds). SIL will say the initial Genetic Vision is “Composite” but the owner changes this to “YoungSTAR”.

Remember, Genetic Vision is an attribute of the flock, not of animals born or used in the flock. But for individual animals SIL can report Genetic Vision of their birth flock.

Need more information?

If you have any queries about the ideas or terms in this document, please send them by email to silhelp@sheepimprovement.co.nz or telephone 0800-silhelp (0800-745-435)

About Sheep Improvement Ltd (SIL)

Sheep Improvement Ltd (SIL) is the national performance recording and genetic evaluation system, and is part of Meat & Wool New Zealand. It is funded by fees from breeder's using the system and from levy money.