Dohne indexes

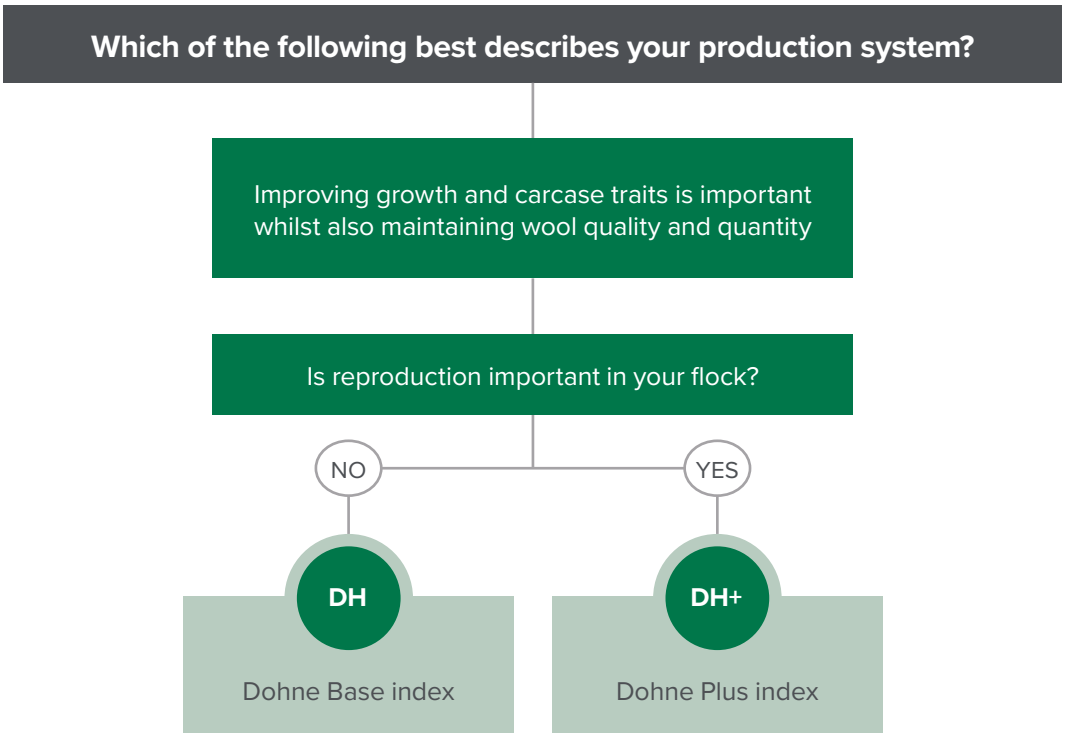
A ram buyer's guide

Indexes help producers select animals for use within a breeding program when there are a range of traits of economic or functional importance, so that genetic gain in one trait is not made in isolation from other traits.

Using indexes in your ram purchasing decisions allows you to make balanced genetic progress towards more profitable sheep for your production system. A ram with a higher index will produce progeny that are more profitable in that production system.

Choosing the right index

The following flowchart helps producers determine the best index for their Dohne production system:



How to use the chosen index to assist in purchasing decisions:

Before the sale:

1. Rank animals in the sale on the value of your chosen index.
2. Consider the individual ASBVs which are important to you to create a short list of rams to look at on sale day.

At the sale:

3. Look through your short list of rams to find the ones that meet your structural and type requirements.

To assist in benchmarking sale rams relative to the current year drop of animals in the Sheep Genetics database, use the percentile band tables, which are found on the Sheep Genetics website: www.sheepgenetics.org.au/Getting-started/ASBVs-and-Indexes. The animals in the top 10th percentile rank the highest on the index, and those in the 90th percentile rank the lowest.

A brief overview of each of the indexes is included below. If you would like further information on how these selection indexes are generated, please refer to the *DOHNE Indexes – ram breeder guide* at sheepgenetics.org.au/DOHNE-breeder.

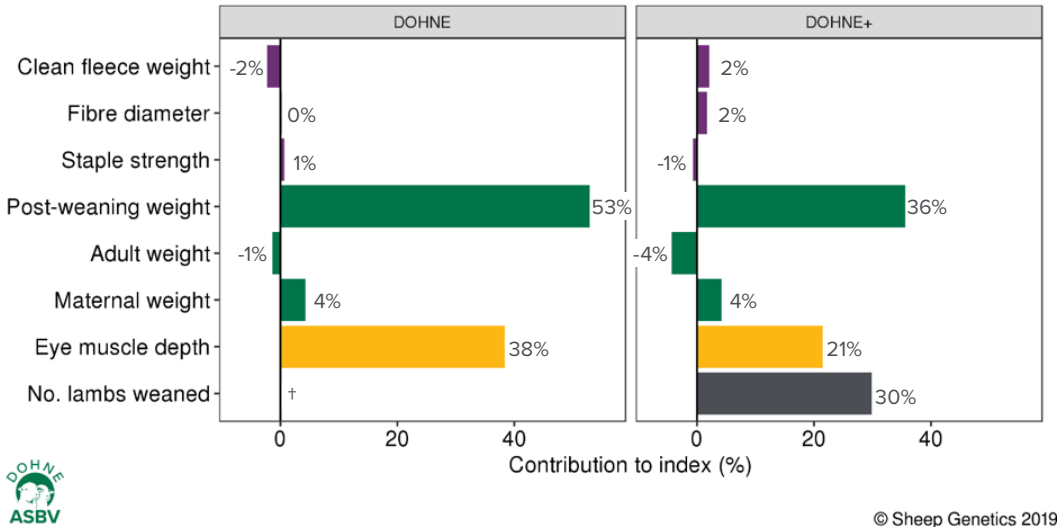
Dohne indexes

The Dohne indexes are based on a production system for a self-replacing Dohne commercial flock turning off lambs as early as possible with income from wool production from the breeding flock. There is a focus on increasing early growth and muscle, while maintaining wool quality and quantity, with additional emphasis on reproduction in the Dohne Plus index.

Typical trait changes with the Dohne Base index:	Typical trait changes with the Dohne Plus index:
• maintaining clean fleece weight*	• maintaining clean fleece weight
• maintaining fibre diameter	• maintaining fibre diameter
• maintaining staple strength	• maintaining staple strength*
• increasing post-weaning weight	• increasing post-weaning weight
• increasing adult weight**	• increasing adult weight**
• increasing eye muscle depth	• increasing eye muscle depth
	• increasing number of lambs weaned

Figure 1 illustrates which traits are in each index and how much they contribute to the overall balance of the index in the top 10% of current progeny. The longer the bar the greater the impact on the index, and the greater impact on the profitability of the production system.

Figure 1: The traits in the Dohne Base and Dohne Plus indexes and how they contribute to the overall balance of the indexes in the top 10% of current progeny



* *The breeding objective for the Dohne indexes aims to maximise the increase in growth while maintaining fleece traits. In some circumstances use of the indexes leads to small decreases in fleece performance as in the graphs above (fleece weight for the Dohne Base index, and staple strength for the Dohne Plus). If this issue is important in your flock, individual ASBVs for fleece traits should be considered in conjunction with these indexes.*

** *Adult weight makes a small negative contribution to the indexes when considered on its own because bigger ewes have higher feed costs. However, bigger ewes also produce more lambs which reach sale weight faster, so the indexes make a trade-off to achieve an optimal balance across all traits.*

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More information | 02 8055 1818 | info@sheepgenetics.org.au | www.sheepgenetics.org.au