Catalogue information

Identity: The sheep's identity detail indicates the Registered Flock (2 or 3 letter prefix), the year of drop (the first two characters), followed by the tag number (4 characters).

The sheep's sire and dam, birth date, and the number in the birth are listed after the sheep's identity. The sire and dam plus the birth details are taken into account when calculating each sheep's ASBVs and therefore Index.

Note: When a registered Dohne is purchased the seller, when requested, is required to give the buyer the sheep's Flock Book Certificate as proof of the Dohne QA and performance.

Final Grade: There are 4 Final Grades, R, C, UR and P. **A ram with an R grade is a high quality commercial flock or stud ram.** Sheep with a C (Cull), UR (Unregistered) or P (Pending) Grade cannot be sold for breeding.

Index: A sheep's Index is the combined value for measured traits in the Dohne Breeding Objective. An Index Value of 100 is the average performance of the year 2000 Drop Registered Dohne progeny. Numbers above 100 are higher performing on index. An index value of 140.5 for the Dohne Base Index or 143.9 for the Dohne Plus Index and above is at the higher end (top 50%) of the present drop (2017) – see the table on the following page.

Trait ASBVs: On the following page each individual ASBV trait is described. In general an ASBV describes the expected performance of a Dohne sheep's progeny. Each measured trait is reported as a Dohne ASBV (as a deviation from the average performance of all the sheep in the 2000 drop progeny. The average of the 2000 drop is described as 0.0 (zero).

As a commercial breeder how can I relate a ram's ASBV to my flock's performance?

1. Ask a local Dohne breeder how a Dohne flock will perform on your property.
2. Relative to this flock performance define your flock's breeding objective for each trait, e.g. increased post weaning bodyweight (PWT) relative to the general Dohne performance.
3. Select rams for the stated breeding objective, e.g., rams with an ASBV higher than average PWT, that is, ASBVs that have a positive value for PWT (greater than 0.0). The higher this value the higher the PWT or another way to consider this the greater the growth rate.

Your Benchmark – the current Dohne standard (Percentile Band Table)
A guide to the performance of a registered Dohne relative to the current Dohne breed standard (2017 drop – the most recent drop) is reported in the table of ASBVs/Index on the following page. The table is an extract from the Dohne analysis on the 21st June 2018;
https://dohne.com.au/wp-content/uploads/2018/06/Dohne_Percentiles_21Jun18.pdf

Band	MWWT (kg)	WWT (kg)	PWT (kg)	YWT (kg)	PEMD (mm)	PFat (mm)	YCFW (%)	YFD (µm)	YFDCV (%)	NLW (%)	Dohne Plus	Dohne Base
5	1.8	5.5	6.4	7.5	1.4	0.5	15	-1.1	-1.6	13	166.7	162.3
10	1.5	5.0	5.8	6.9	1.2	0.5	13	-0.9	-1.4	11	161.3	157.2
20	1.2	4.4	5.2	6.2	0.9	0.3	11	-0.7	-1.2	9	155.7	151.4
30	1.0	4.1	4.7	5.6	0.8	0.3	9	-0.5	-1.0	7	151.2	147.3
40	0.9	3.7	4.3	5.2	0.6	0.2	8	-0.4	-0.8	5	147.5	143.8
50	0.8	3.4	4.0	4.8	0.5	0.1	7	-0.3	-0.7	4	143.9	140.5
70	0.5	2.8	3.2	3.9	0.3	0.0	4	0.0	-0.3	2	135.6	133.2
90	0.1	1.8	2.1	2.6	-0.1	-0.2	1	0.4	0.3	-2	123.7	122.2

\# In the table above W before the trait abbreviation indicates the Weaning age (6 up to 16 weeks of age);
P is Post-weaning age (7 up to 10 months of age); Y is Yearling age (10 up to 13 months of age).

Trait name, abbreviation and description

WT: Rams with a positive ASBV for **bodyweight** (WT) will produce lambs that grow faster and reach their target weights sooner. A ram that has a WT of 4.4 will generally breed progeny that are genetically 2.2kg heavier than those of a ram with a WT ASBV of 0.0 (zero).

EMD: Rams with a higher ASBV for **eye muscle depth** (EMD) will produce lambs that have a higher lean meat yield. A ram that has a EMD of 0.8 mm will breed progeny that genetically have a 0.4 mm deeper eye muscle area than a ram with an EMD ASBV of 0.0 (zero).

FAT: Rams with a lower **fat depth** (FAT) ASBV will produce lambs that are leaner at the same weight. A ram with a negative Fat ASBV means that his progeny are leaner than those sired by a ram with a positive Fat ASBV.

CFW: Rams with a higher ASBV for **clean fleece weight** (CFW) will produce progeny that cut more wool. A ram that has a CFW of 2.6% will breed progeny that genetically cut 1.3% more wool than progeny of a ram with a CFW ASBV of 0.0 (zero).

FD: Rams with a lower **fibre diameter** (FD) ASBVs are finer. A ram with an ASBV of -2.4 will breed progeny that are genetically -1.2 microns finer than those of a ram with a FD of 0.0.

FDCV: Rams with a lower ASBV for **fibre diameter coefficient of variation** (FDCV) will produce progeny that have less variation in FD in their fleece. A ram with an ASBV of -1.2% will generally breed progeny that are genetically -0.6% lower FDCV than those of a ram with a DCV ASBV of 0.0 (zero). A lower FDCV% is associated with higher staple strength.

Dohne index value (high growth, maintain fleece, i.e. Dohne Base)**:** An index value is a summary of the sheep's performance for measured traits. A ram with a higher index value will breed progeny that have on average a large increase in meat production traits such as post weaning weight, muscle depth and reproduction, as well as a small increase in fat depth. In addition, fleece weight, fibre diameter and staple strength will be maintained.

Dohne Genetic Performance Information

The Dohne breeding system

Dohne ram breeders and commercial producers are obtaining a major improvement in the breeding progress and commercial returns from their flock by using the Dohne Genetic Performance system.

When Dohne Genetic Performance is combined with the Dohne Classers Grading system the breed has the most advanced across-flock sheep breed evaluation system.
Dohne Genetic Performance information is focused on maximizing $dollar returns for commercial sheep producers while the Dohne Classers Grading system ensures conformation, quality and type standards are maintained. No other breed offers its members and their commercial clients the quality assurance and ability to make across-flock assessments. The system has been developed to maximize the standard and genetic improvement of all breeders' flocks.

Breeding progress could be as much as 50% greater if genetic performance records are used efficiently. Even larger gains are possible when breeders use the benefit that comes from all Registered Dohne ram breeding flocks being linked together thus allowing more accurate selections from the best genetics available.

When commercial meat and wool producers buy Dohne rams they have a guaranteed and easy to use genetic improvement service. **Dohne ram breeders are required to use and provide to clients their sale rams Genetic Performance and Classers Grade in a standard format.**
Genetic Performance includes PWT, YCFW, YFD, and YFDCV.

Dohne genetic performance records – Australian Sheep Breeding Values (ASBV)

ASBV are calculated by "Sheep Genetics" and describe the expected performance of the progeny of a sheep, not just the performance of the sheep itself. An ASBV therefore describes the <u>breeding</u> value of the sheep – and as a breeder isn't that what you want to know?

Dohne ram breeders produce ASBVs for major measured performance traits, including the traits required to be recorded – weaning and post weaning weight, fleece weight, fibre diameter and CV of fibre diameter. Many breeders also record eye muscle, fat depth, reproduction and index.

Dohne ASBV performance is based on the measured evaluation made by the ram breeder. The measurement is then *value added* by accounting for factors that breeders recognize can improve the ability of measured information to describe a sheep's breeding value. Factors accounted for include the trait heritability, if the sheep was a twin or single, date of birth of the lamb, the sheep's pedigree (relative's) performance and difference in environment between groups.

Pedigree performance records allow all Dohne ASBVs to be reported across-years and across-flocks. The result is that the performance of all Dohnes from large and small, old and new, Registered Dohne ram breeding flocks can be directly compared.

Dohne ASBV describes the expected performance of the sheep's <u>progeny</u> for a trait relative to the performance of the sheep in all Registered Dohne ram breeding flocks.

A ram with a higher index value will breed progeny that have on average a large increase in meat production while at the same time maintaining fleece production.

There are now two Dohne indexes, "Dohne Plus" index (the same as the Dohne Index reported in previous years) and the "Dohne Base" index (the same as the Dohne Plus index except there is no emphasis in the index on NLW, i.e., Number of Lambs Weaned). The following is a brief description of the two Dohne Indexes. If you are reading Dohne information that makes reference to a Dohne index make sure you know which index is involved. For a detail description visit the ADBA website; *http://dohne.com.au/wp-content/uploads/2017/08/DOHNE_Selection_Indexes.pdf*.

The two Dohne Indexes include the commercially important traits, both wool and meat. Meat traits have a high emphasis to further increase the rate of early age weight gain (PWT), while at the same time a moderate emphasis to increasing muscle depth (EMD), as well as small emphasis to increase fat depth (FAT). Wool traits, fleece weight (YCFW), fibre diameter (YFD) and staple strength (YSS) have the required emphasis to maintain their current production levels. **The Plus index includes a moderate emphasis on reproductive (NLW) while the Base index has no emphasis on reproduction**.

Figure 1. The bar graphs below describe the relative economic emphasis on traits and the adjacent column describes a ram breeder's trait gain after 10 years use of the index at 65% of overall selection emphasis.
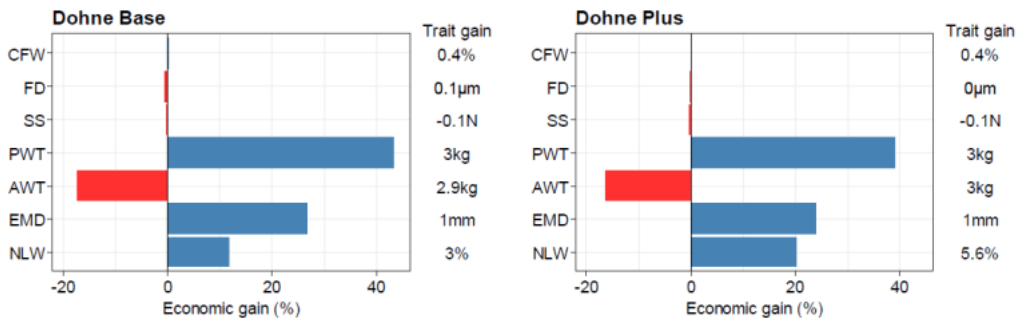
More Information

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Most up to date and accurate performance

It is the intention of this catalogue to present the most up to date and accurate performance ASBVs and index values to assist buyers in their choice of rams. To achieve this, the ASBVs and index values presented in this catalogue are taken from the most recent breed analysis that all sheep were included in. The ASBVs and index values presented may vary over time as a result of more performance information from the sheep and/or relatives being added into the Dohne analysis.

The Australian Dohne Breeders Association (who own and manage the database) and Sheep Genetics who conduct the analysis do not collect the information used in the analysis and therefore are not responsible for the ASBVs and index values reported.