DOHNE



A practical guide





DOHNES WIN PRESTIGIOUS PRIZE

Great Southern Lamb Supplier of the Year

The maternal traits of the Dohne shone in the coveted JBS Swift Annual Great Southern Lamb Supplier of the Year award held in Melbourne during May 2015.

South Australian producers Wayne and Sally Hawkins, who trade as Circle H Farms at Frances, won the prestigious title with their Dohne/ White Suffolk Cross lambs; and the Koch family, Tallageira Pastoral Company, also from Frances, came fourth.

The Hawkins have been breeding Dohnes for over ten years. In 2014,

they delivered over 8,000 lambs to JBS Swift.

The Koch's Dohne flock commenced with a successful trial with Dohnes eight years ago, resulting in a large scale Dohne breeding program in 2009. The Koch's lambs were sired by both Border Leicesters and Poll Dorsets.

JBS Swift, Australia's largest meat processor, receives over 700,000 lambs annually from over 900 producers. The Great Southern Lamb Supplier of the Year is chosen from these.





FOREWORD

Sheep versatility and profitability at its best

Australian Dohnes are a well balanced and versatile breed producing a stylish white apparel wool and a fast growing prime lamb.

Red meat requirements are increasing globally due to the improved living standards in areas such as Asia and the Middle East. Red meat producers are under pressure to vertically integrate their production systems to meet the demand, without radical change to current sheep production enterprises.

Genetically, the **Australian Dohne** is the only breed that possesses the ability to achieve this genetic improvement, enhancing fertility and early growth rates, which leads to

rapid product turn off and better gross margins per hectare.

Modern objective breeding techniques coupled with stringent subjective classing to maintain breed standards have been the foundation of the **Dohne's** success.

Testament to this success is the fact that up to 22.1% of the Australian national sheep flock consists of **Dohne** genetics (June 2014 Meat & Livestock Australia (MLA) survey).

This handbook explains how the Dohne was developed, the Dohne advantages and the Dohne breeding system and philosophy.



HISTORY

1938 - 2014

1938

The Dohne was developed in South Africa with an initial one off cross between the Peppin-type Merino and the German Mutton Merino.

Progeny were interbred and selected for traits including:

- High fertility
- Rapid lamb growth
- Mothering abilities
- Quality apparel Merino wool

1966

The Dohne Merino Breed Society of South Africa was formed. The demand for dual-purpose breeds had been stimulated by both economic and environmental circumstances, with a greater emphasis on sheep meat production.

1967

First Assessors appointed for the visual (subjective) appraisal to maintain standards, wool quality, physical and carcass traits.

1970

Objective Measurement Commences. Compulsory recording of live weight at 100 days and 365 days, followed by fleece trait testing.

1998

The Dohne breed was first introduced to Australia with the importation of frozen embryos into Western Australia. Further importations into the Eastern states in 1999 gave the breed critical mass to establish a formal Breed Society.

2014

Body Weight changed from 365 days to between 210 & 300 days in line with commercial lamb turn-off.

According to the MLA June 2014 survey, up to 22.1% of the Australian national flock contains Dohne genetics.



DOHNE ADVANTAGES

Dohne: the best path to a self-replacing mules-free flock, with high performance of meat and wool productivity.

- Self replacing polled flock
- Early maturing prime lambs
- Quality apparel Merino wool
- High fertility
- Plain bodied / open faced
- Bare breech / mules free



- High weaning percentages and survival rates
- Adaptable to varied environments, including harsh conditions and pastures low in protein
- Non seasonal breeders / up to 70% will rejoin with lambs at foot
- Full pedigree and performance recording
- Longevity



Sheep are an integral part of our farming enterprise through all seasons and the introduction of Dohnes has been of considerable economic benefit.

They are a true dual-purpose meat and wool breed which produce the biggest possible lamb at the youngest age which can be sold as store, feeder or prime lamb.

Michael O'Brien, Carinda New South Wales. New South Wales Farmer of the Year, 2009



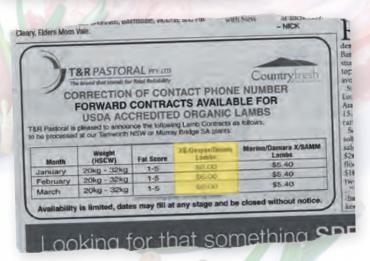
MEAT

- Lean and high yielding carcasses
- Even fat distribution
- Lambs with gains of up to 450 grams per day make the Dohne popular with grass finishers and lot feeders
- Market flexibility trade or export weight carcasses



Wellington New South Wales 2013 hoof & hook competition winners, Dohne cross lambs. Carcasses judged on saleable meat yield and intramuscular fat.

Photo courtesy of The Land (Rural Press)



The Dohne has given us the chance to maximize both our dollars per hectare and meat per hectare.

Michelle Carew-Reid WAMMCO producer of the month Oct 2014, Katanning Western Australia



WOOL

- Dohne wool is AWEX accredited and categorised as Merino wool
- The Dohne averages 5-6kgs of 18-21 micron quality apparel AAAM
- Dohne wool has exceptional coefficient variation and comfort factor
- Staple length 90-110mm with some Dohne producers shearing every 8 months



I am classing more and more Dohne and Dohne cross clips. Dohnes produce high quality wool...they are the "Titans" of the sheep world.

Charmaine Cacciola, Master Classer South Shear, Katanning Western Australia



FERTILITY & MOTHERING ABILITY

Exceptional mothering abilities of the Dohne make them capable of rearing multiple progeny under all production systems, with maiden ewes lambing in the autumn achieving up to 120%.

- Fecundity
- Excellent milk production
- Non seasonal breeders
- Lambing ease
- High libido



The Dohne breed has come into its own as a maternal ewe with the ability to also grow a good Merino style wool. It is a sheep with fast maturity, good conformation and high fertility.

Tom Bowen Landmark, Katanning Western Australia



DISTRIBUTION

The variation in Australian climates from the mild wetter regions of the southeast to the hot and dry outback interior provides the perfect platform to display the adaptability and durability of the Dohne breed.

- The Dohne has the ability to convert inferior vegetation into sustainable products
- The Dohne has the ability to perform well above the average of species under adverse conditions
- The Dohne has been used extensively over Merino and Corriedales in New Zealand, Uruguay, Chile, Argentina, Peru, Falkland Islands and Russia



Dohnes are excellent: tough, easy care, dual-purpose sheep for the pastoral industry with high weaning percentages and lambs are turned off early. Dohnes have a high yielding, soft handling, medium micron clip.

lan Jackson 'Tirlta Station', Broken Hill New South Wales



VERSATILITY

How the Dohne compliments other breeds...

DOHNE EWE

- + Dohne Sire
- Self replacing
- High fertility
- High fecundity
- Apparel Merino wool
- Prime lamb

DOHNE EWE

- + Terminal Sire
- Prime lamb dam
- High fertility
- High fecundity
- Apparel Merino wool
- Prime sucker lamb

MERINO EWE

- + Dohne Sire
- Self replacing
- Improved fertility
- Faster growth rates
- Apparel Merino wool
- Quality lamb carcass
- Progeny become prime lamb dams

COMPOSITE EWE

- + Dohne Sire
- Prime lamb dam
- Reduction in micron by 8-10
- High fertility
- High fecundity
- Prime sucker lamb
- Leaner carcass
- Self replacing



AUSTRALIAN SHEEP BREEDING VALUES (ASBVs)

The Dohne: Embracing modern up to date performance breeding strategies

- ASBVs are a projection of how the traits of an animal's progeny will perform
- The ASBVs are derived from recording the full pedigree and performance of an animal
- The national database allows Dohne sheep from large and small registered stud flocks to be directly compared



As a commercial breeder, how can I use a ram's ASBVs to improve my flock's performance?

- Define your breeding objectives for each trait for your flock
- Use the ASBVs to compliment the visual assessment of a sheep
- Select rams with ASBVs that enhance your breeding objectives



ASBVs - Continual genetic improvement

With the use of ASBVs and subjective (visual) classing the Dohne has continued to improve.

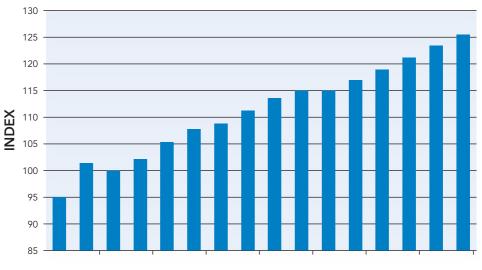
Registered Dohne Breeders are continuing to strive for increased profitability on a commercial basis.

Since coming to Australia, Dohne rams have improved 30% (New

South Wales DPI independent evaluation), refer to graph below.

Through compliance of all compulsory recordable traits, Registered Dohne Breeders will continue genetic improvement into the future.

Dohne Dual Purpose Index



1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

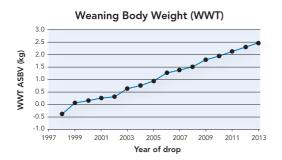
YEAR OF DROP



ASBVs - What does it all mean?

Weaning Weight (WWT): heritability: moderate 20%

- All lambs are weighed between 42 and 120 days of age (ideally 100 days)
- This weight reflects the mothers' milking ability and maternal characteristics
- A higher WWT will highlight the early maturing lambs and give a commercial breeder the opportunity to reach target weights earlier

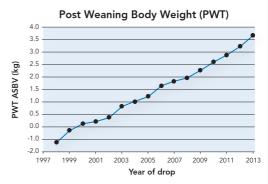


faster growth = increase in profit

Post Weaning Weight (PWT): heritability : moderate 30%

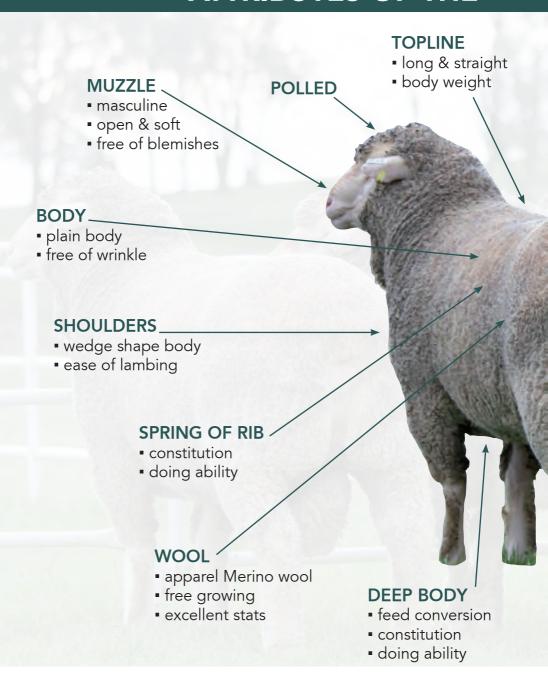
- Lambs are weighed between 210 and 300 days of age to achieve commercial objectives of turning lambs off earlier, indicating a better feed conversion ratio
- This weight is representative of the lamb's ability to grow without their mothers' influence
- Lambs that reach target slaughter weights as quickly as possible are more profitable

earlier maturity = greater profitability

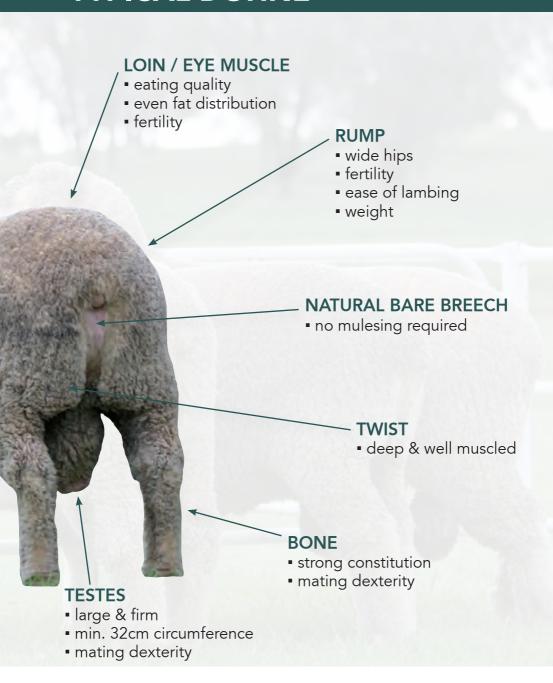




ATTRIBUTES OF THE



TYPICAL DOHNE





As a breeder and a meat manufacturer, we find the Dohne very suitable; from fertility, growth and easy care, to the high quality fleece.

As a processor they are lean and high yielding which makes them highly suitable in all aspects of our businesses.

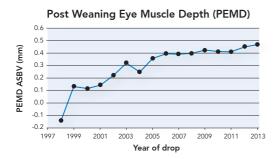
Bruce Peat Riverside Meats, Echuca Victoria



ASBVs - What does it all mean?

Eye Muscle Depth (PEMD): heritability : moderate 20%

- Lambs are scanned between 210 and 300 days of age
- High yielding carcasses
- High priced cuts
- High muscle to bone ratio

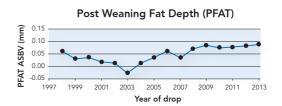


positive EMD = increased meat yield

Fat (PFAT): heritability: moderate 20%

- Measured at the same time as EMD
- Relates to better ewe fertility, higher lamb survivability and doing ability
- Improves meat eating qualities

intrinsic to fertility, survivability & meat quality







My experience of marketing Dohne wool is that at the point of sale it reaches its full potential of specifications and attracts solid competition from the wool trade.

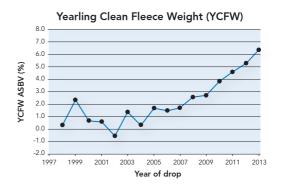
Derek Ramm, Wool Broker BlackRamm Enterprises, Katanning Western Australia



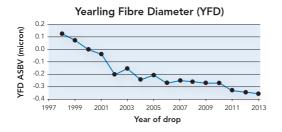
ASBVs - What does it all mean?

Clean Fleece Weight (YCFW): heritability : moderate 30%

- Fleece measurements are taken between 270 and 540 days of age, when the animal has a minimum of 150 days of wool growth
- Being a dual purpose breed we aim to maintain a meat to wool ratio that does not impede fertility.



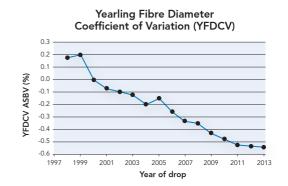
Fibre Diameter (YFD): heritability : high 55%



- Mid side samples are taken at the same time as Clean Fleece Weight
- The aim is to maintain Fibre Diameter between the medium to fine wool range

Fibre Diameter Coefficient of Variation (YFDCV): heritability : moderate 35%

- Mid side samples are taken at the same time as CFW
- Selecting for a lower CV will produce progeny that have less variation in FD
- Lower CV results in improved staple strength and better processing





DOHNE PRODUCTIVITY

Dohne productivity versus other breeds

Profit Driver	Dohne	Merino	Crossbred	Composite
Fertility	√	1	1	1
Fecundity	✓	x	1	1
Growth Rate	✓	x	1	✓
Quality Wool	✓	1	х	x
Prime Lamb Carcass	√	х	1	1



Clients using Dohne sheep in their sheep enterprises are achieving higher profits than traditional Merino sheep flocks with a 10% higher average sale price per head while maintaining a similar wool income.

Rob Sands, Agronomic Consultant Farmanco, Mundaring Western Australia



DOHNE PRODUCTIVITY

According to the MLA (Meat & Livestock Australia) June 2014 survey, up to 22.1% of the Australian National sheep flock contained Dohne genetics.



Dohnes make up 35% of sheep on my shearing run of 180,000 sheep.

Darren Burn South Shear, Katanning Western Australia



COMPLIANCE

The objective of the Dohne Breeding System is to optimize the performance of Dohne commercial flocks through improved breeding methods.

Compliance in measuring the traits in the table below is part and parcel of that process.

Minimum measurement requirements for Registered Dohne Ram Breeders

Compulsory Recording	Trait	Age
Birth	Pedigree	Birth
Weaner	Body Weight	42-120 days
Post Weaner	Body Weight	210-300 days
Yearling	ng Greasy Fleece Weight, Fibre Diameter, Coefficient of Variation Independent visual classing	

To become and remain a registered Dohne stud, breeders must maintain valid brucellosis accredited free status.



FURTHER READING

Comprehensive Ram Breeders Manual

The ADBA has compiled a comprehensive Ram Breeders Manual that breeders are required to adhere to, in relation to Breed standards and By-Laws. A copy of this manual can be obtained from the ADBA Secretary.

ABDA Mission Statement

The Australian Dohne Breeders Association's mission is to professionally develop a superior dual purpose sheep with a marketing edge, which is competitive in meeting the present and changing needs of the livestock markets, the consumer and the industry.

The Association seeks to achieve this mission by:

- **1.** Maintaining the integrity of the breed whilst developing its positive traits, to achieve premiums in the market place, both nationally and internationally.
- 2. Developing breeder's skills by providing high quality, accredited educational courses and practical workshops, which meet the diverse needs of the membership and the industry."



Dohne wool flies high with Qantas



The fat content of the Dohne breed allows the lamb to remain lean, but not so lean as to lose flavour or allow the meat to dry out – just the right balance.

It is no wonder the Dohne took out the Paddock to Plate prime lamb competition in the 175th Campbell Town Show in Tasmania this year for the second year running, with full marks from the judges across the board.

Hayden Quinn Extract taken from the 2013 Dohne Lift Out

As a lamb feedlot operator, it is essential to have lambs that reach the target market weight in the shortest amount of time. The Dohnes perform this task, have desired carcass shape and fat depth.

Nigel Bottrall, Jamestown South Australia -Supplier of Dohne lamb to Hayden Quinn, 2013



COMMERCIAL MEMBERSHIP





Australian Dohne Breeders Association

Dohne Commercial Member Benefits

- Email newsletters
- Access to advertise sheep for sale on Dohne website
- Direct links to the SG website and sale catalogues
- Info on Field Days
- Future plans for a Dohne QA lamb program
- Sheep updates

Become a Dohne commercial member

As an existing or potential breeder of Dohnes, commercial membership is a very inexpensive way of exposing yourself and your business to both historical and up to date information about this versatile and productive breed.

Since the introduction of the Dohne to Australia in 1998, from South Africa, the breed has seen constant growth. The recent MLA sheep breed survey showed that Dohnes have an influence in over 20% of the Australian sheep flock.

The Dohne Council and Stud Breeders work tirelessly for breed improvement. Council is working on promotion of the breed and implementing industry networks to obtain the best possible financial returns for the sheep and lamb products you work so hard to produce.



Becoming a member is easy and beneficial to your business

Simply complete the application form on page 26



Dohne Commercial Membership application



The Australian Dohne Breeders Association will not forward any of your details to a third party, and your details will be used for the sole purpose of sending you information that will form part of your Commercial Membership.

An Annual Subscription is \$55 and based on a financial year.

Applicant's Name: Given:	_ Surname:	
Company/Trading Name:		
Postal Address: (Road/RMB/PO Box)		
Town/City:	_ State:	Postcode:
Preferred Phone Number:		
Email Address:(Email is our preferred method to contact you)		
Location of Principal Property: (closest Town)		
Please return completed application to:		
The Secretary Australian Dohne Breeders Association PO Box 108 Goodwood SA 5034		

An invoice for \$55 (inc. GST) shall be forwarded to you on receipt of your application

For more information on Dohnes, please visit the website: www.dohne.com.au





CONTACT DETAILS

Australian Dohne Breeders Association: www.dohne.com.au



For the most current ASBVs go to Sheep Genetics: www.sheepgenetics.org.au



To find a registered Dohne breeder near you: www.dohne.com.au/australian-breeders/

For upcoming sales and events: www.dohne.com.au/events/upcoming/

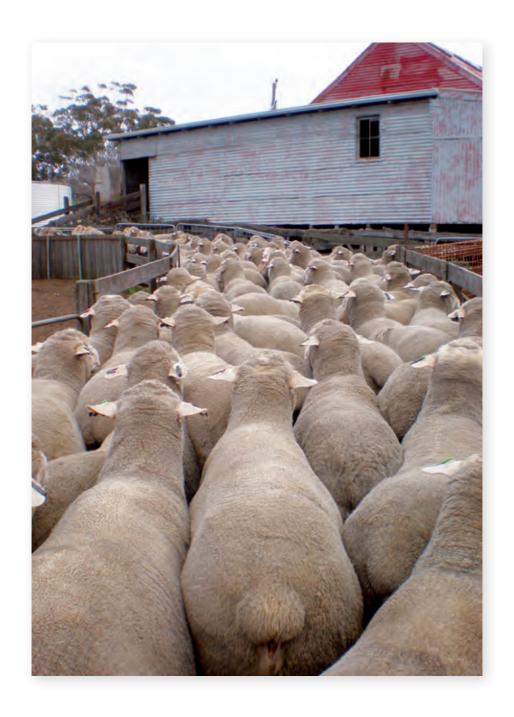


Be sure to purchase rams from studs displaying this logo:



a sign of Registration and Compliance





www.dohne.com.au