



**DAMP CLIMATE**

**DUAL PURPOSE**

**GRASS FED**

**OBJECTIVE BRED**

[stirlingdohne.com.au](http://stirlingdohne.com.au)

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### **FOOT FORWARD – LOOK BACK**

As a child before the advent of thibenzole sheep drench I remember both parents dagging sheep until well after 10PM completely enclosed by an 8 feet high edifice, stretching perhaps 20 feet to the horizon.

Before this time at about 4 or 5 years I recall standing in the backdoor of my grandparents woolshed, gazing in wonder at the small mountain of toenail trimmings, perhaps 12 feet high. With a few short years and a little experience I was able to exchange the word “wonder” with “horror.”

Years have passed since this “magic” cure for excess toenail growth has disappeared. Today's labour passion and cost governs the modern pathway.

#### **Table 1. Annual Climate Averages at Various Australian Locations. (page 2)**

The standout figure in this table is the number of cloudy days at Hamilton at 207 followed by Ballarat at 180 and Campbell Town at 133.

This micro-climate in the South-West is formed by 3 features, its proximity to the Bass Strait, protection from the hot interior continental conditions by the Grampian Ranges and the moisture-laden westerly from the South American continent.

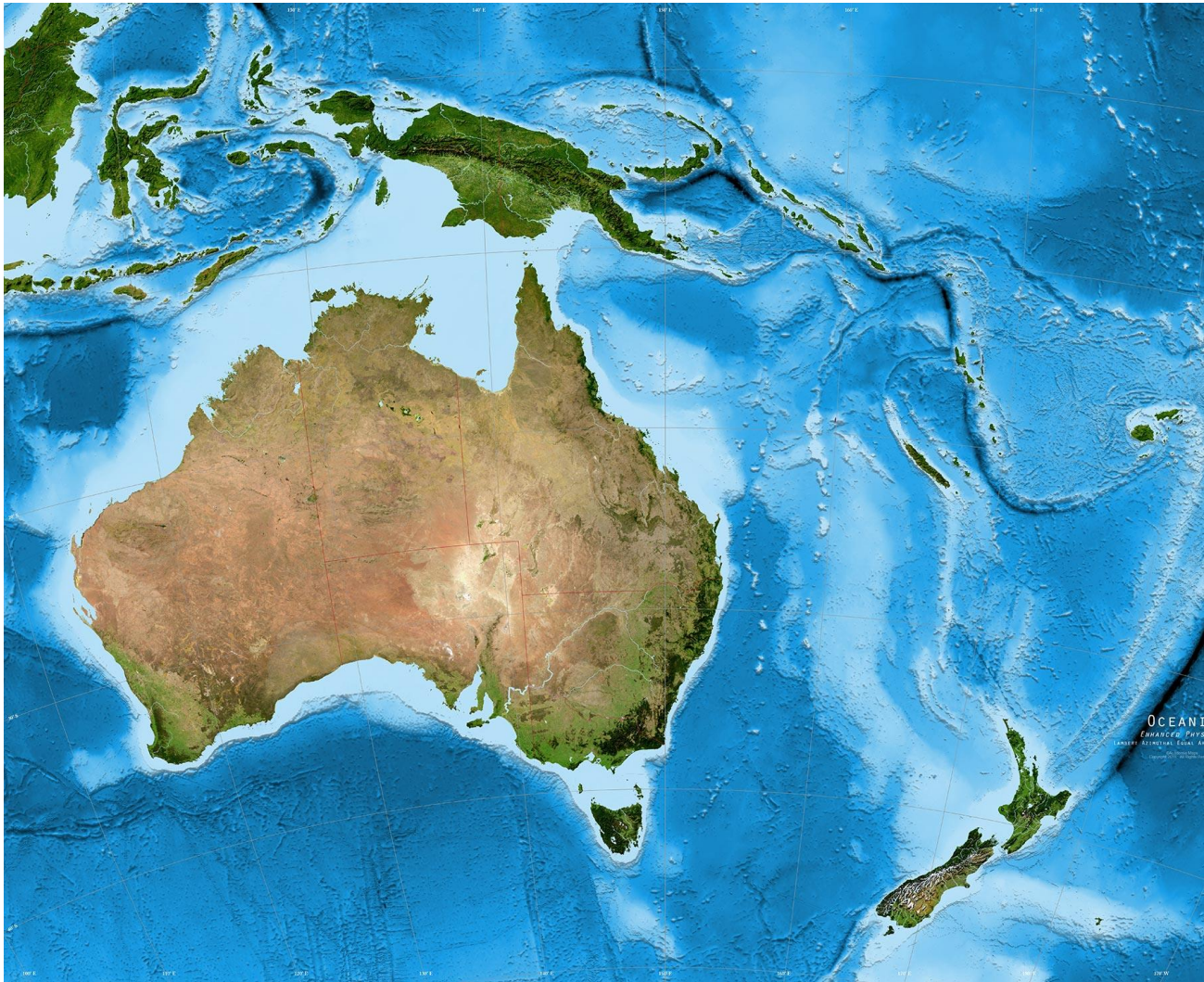
These conditions allow the heavy stocking rates which have earned it the sheep capital status but have also supplied the damp protein-rich pastures which have challenged the species feet.

**14th Annual Victorian Invitation Ram Sale, Ballarat VIC**  
**1<sup>st</sup> November - 12 Specially Selected Rams**



**Table 1.**  
**Annual Climate Averages at Various Australian**  
**Locations.**

	NSW	NSW	NSW	SA	SA	VIC	VIC	VIC	TAS	New Zealand
Location	Walgett	Coonabarabran	Corowa	Clare	Penola	Longnong	Ballarat	Hamilton	Campbell Town	Blenheim
Latitude	30	31	36	34	37	37	38	38	42	42
Rainfall	480	749	544	634	712	416	689	691	579	720
Rain Days $\geq 1$ mm	43	66	70	85	107	52	115	112	74	82
Cloudy Days	69	95	97	112	131	114	180	207	133	-
3PM Temp	26.1	22	21.3	20.3	18.6	20	16.1	17.7	16.2	-
3PM Humidity	38	43	47	46	-	49	59	56	55	-
3PM Windspeed	9.1	11.7	12	11.7	13.8	20.5	20.7	18.3	-	-



## LIFETIME OBSERVATIONS

The Aboriginal tribal name for the people occupying the Eastern Grampian fold down to Penshurst Caramut and Lake Bolac, was Djab wurrung or “soft-lipped” people.

Human nail growth increases rapidly under high humidity.

Large intermittent rain dumps or summer rainfall express faster growing grass with higher fibre content whilst showery cloudy weather or winter rainfall produces a protein tip and more legume which upon palatability accentuates scald infection.

Short straight pasterns assist in a thicker heal and more even wear whilst a little toe spread decreases sweating and lower bodyweight decreases the incidence of abscess.

Of the many Merino strains I have tried the 2 oldest measured. ‘Dohne’ and ‘Hazeldean’ have by far the highest toenail growth rate. Both originated at 33 to 36 Latitude, in high altitude 530mm to 600mm rainfall country, running on undulating rocky terrain under high fibre grass production.

In 2011 I used Lincoln University (NZ) footrot test and will revisit again this year but am still convinced with the Charles Darwin natural selection method. The measurement however may be valuable for ram consumer selection if accuracy includes both nail growth and infection immunity.

I have used blocks, medicated water reticulation, dry powered licks and copper, zinc and sulphate fertilizers variously over the last 40 years without diminishing the problem. New formulation Zinc Methionine is used at present with organic Iodide on the list.

Covered hay or straw in racks during high protein Autumn-Winter growth can assist in controlling scald and poly hay caps fitted tightly around the racks and strategically sprinkled with Zinc Sulphate is a good labour-saving device.



## THE CAUSE

The South-West Victorian micro-climate's damp conditions both increase the growth and decrease the wear of side-wall horn and toe horn and predispose conditions suitable for infection spread.

Increased side-wall horn length levers separation from the sole horn allowing dirt and germ entry which further levers the opening. ( Shelley hoof.)

Scald and other milder infections quickly develop and if left unchecked, benign and malignant footrot follow with appropriate strain availability.

## THE CURE

Challenge and select for slow horn growth and infection immunity.

Get foot structure right but be aware that it is not the primary cause.

Acclimatize the Dohne high-fibre origins to the new damp high protein-tip climate and only introduce new genetics from similar climates.

## THE CHALLENGE

- Mature stud sheep needing trimming are culled
- Mature stud sheep are foot-bathed only during emergencies
- Mature stud sheep are long grass run with cattle.
- A whole stud grain ban since 2009 forces sheep onto wet grass.

## THE SELECT

- Maintain cull rate with over 1000 Uardry ewe purchases up till and including the Uardry Dohne Stud dispersal.
- Maintain cull rate with over 1000 Embryo Transfers since inception.
- Feet is the primary selection criteria for the 100 yearly ET program.
- Outside climate introductions used for linkage only.



## THE SUCCESS

Within 2 years, for the first time, stud ewe numbers will be maintainable, without embryo transfers or outside purchases. A remarkable achievement for a new breed in a foreign climate.

The annual Stirling Dohne On-Property Ram Auction is the only such auction south of the divide and in Tasmania.

Bendigo 2016 Reserve Champion and 2017 2<sup>nd</sup> ST140079 remains feet untrimmed during maturity even during showing.

A blackfoot strain has developed from 2010 with slow progress. As yet they are not registerable and about 4 ewes are 100% in 8 claws. The real progress however is the genetic hardening of white feet in order to slow the growth rate.

The high numbers of embryo transfers and outside purchases has not diminished performance, with 19 2017 Dohne Ram Sale Catalogues averaging an N.L.W actual of 1.27 whilst the Stirling 2017 Catalogue figure was 1.57 and subjectively a Reserve Champion on the books.

### FOUR MAJOR TRAITS AT 1 PERCENTILE

Animal ID	WWT	PWT	YWT	PFAT	PEMD	YCFW	YFD	YFDCV	YWEC	NLW	MWWT	DOHNE
ST140079	5.8	6.7	8.2	-0.2	0	16.4	-0.1	-0.9	23	0%	-0.4	143.1
Accuracy	73	71	75	61	67	67	82	73	41	41	52	50
Percentiles	0.7	0.8	0.9	90	85	1.3	70	30	74	62	87	13

**ST140079**, a 0068 great grandson is possibly the best woolled Dohne ever bred at Stirling. He also processes exceptional breed figures.

His dam's Accrued Daily Wean Ratio at 8 years of age is 6/0.72 or 7 percentile on-property and her NLW is 10 percentile within breed. He is a weaned twin and his conformation is average to very good in all areas.



**STUD SIRE - ST140079**



**9th Annual On Property Ram Auction,  
Glenthompson VIC  
8th November - 50 Dohne Flock Rams**