



MEAT EATING QUALITY



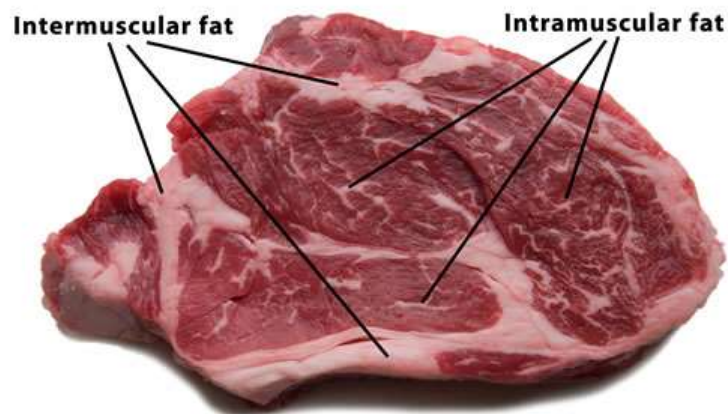
White Suffolk Branded Lamb



GENOMICS

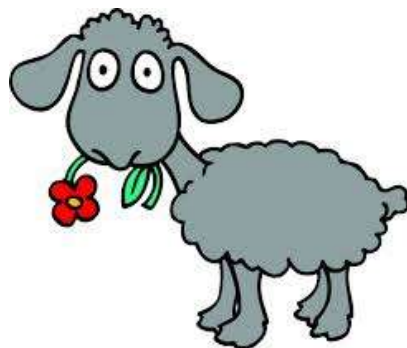


ABLE TO MEASURE MEQ



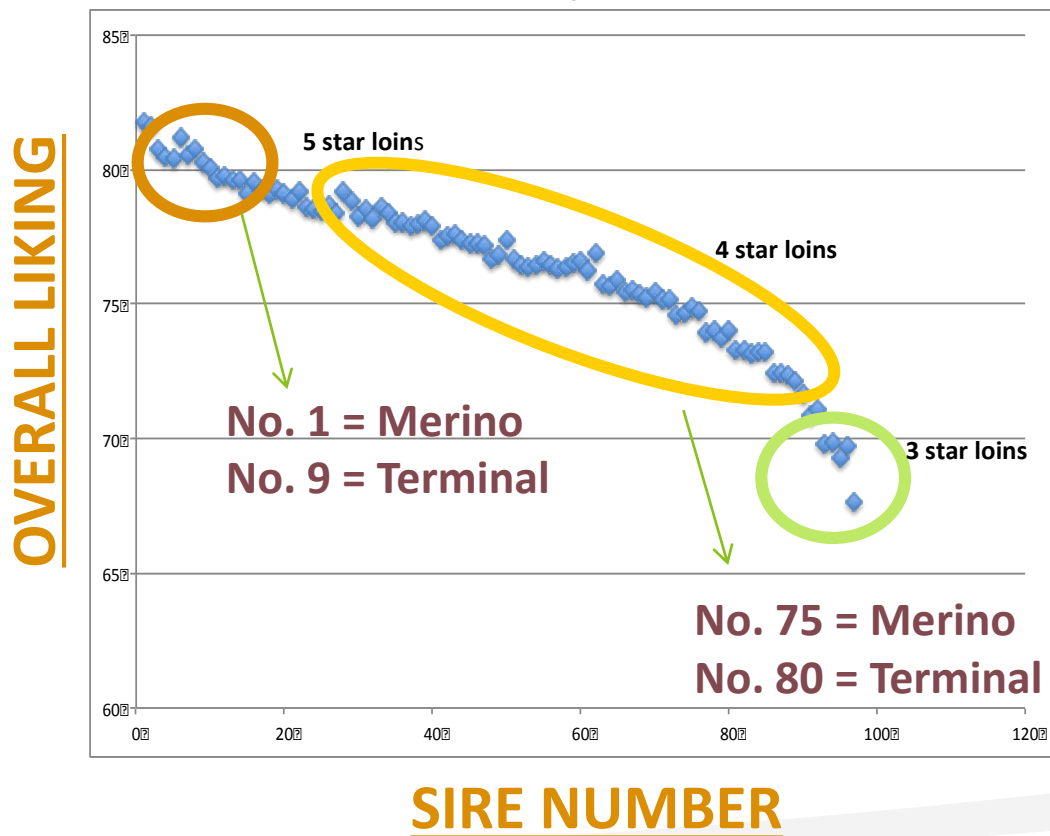
INTRA MUSCULAR FAT & TENDERNESS

VARIATION WITHIN & BETWEEN BREEDS





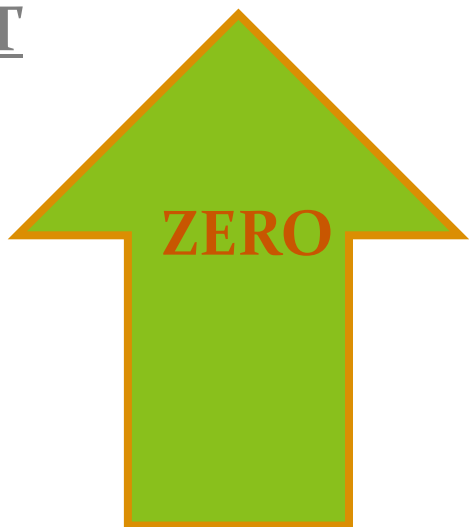
LOIN – EATING QUALITY (INF)



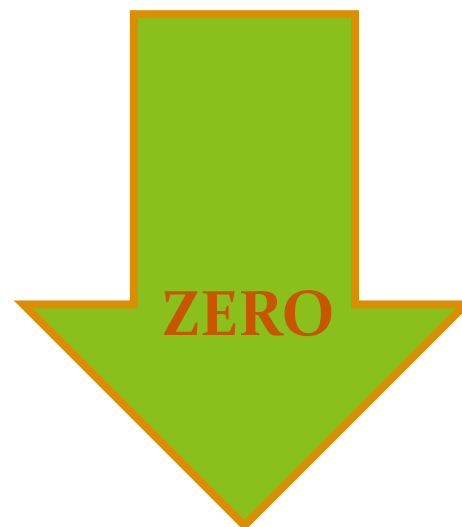


MINIMUM STANDARDS

INTRA MUSCULAR
FAT

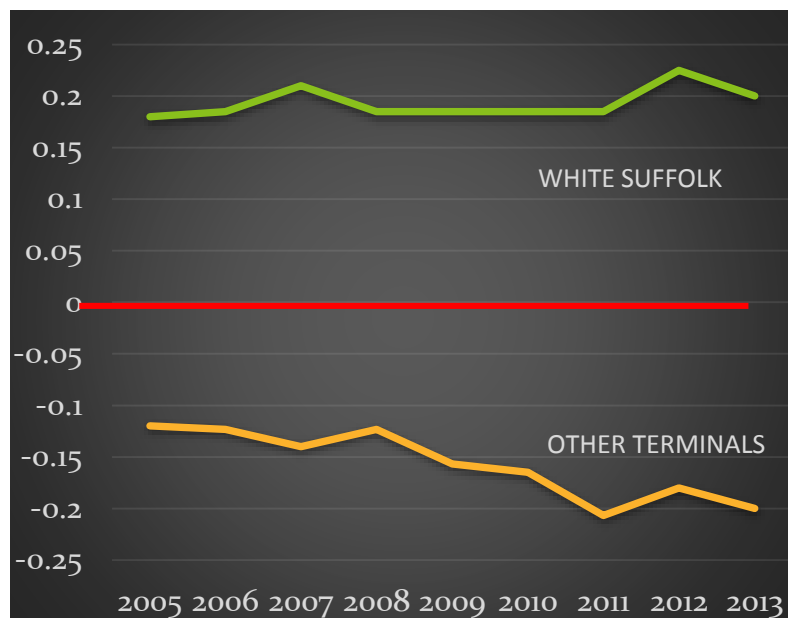


TENDERNESS

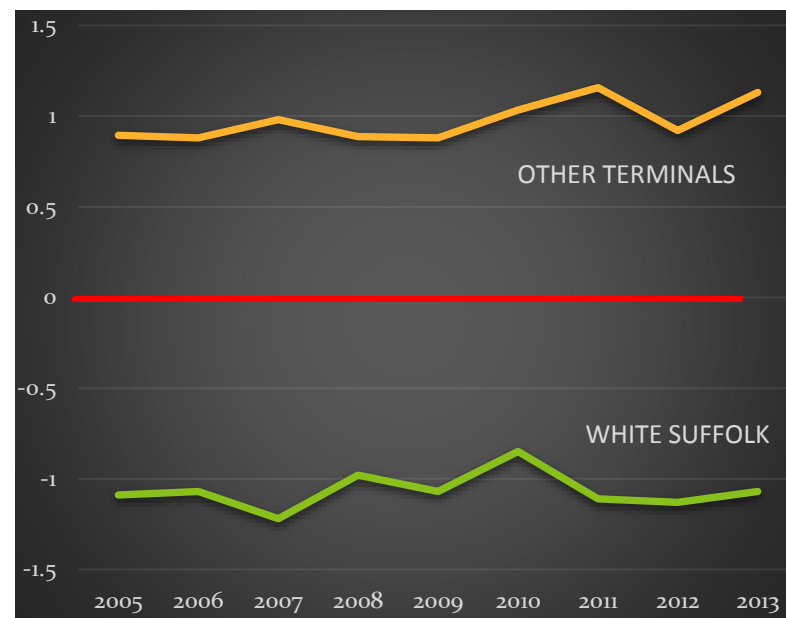




WHITE SUFFOLK GENETICS



INTRA MUSCULAR FAT



TENDERNESS



AWSA BRANDED PRODUCT



- INVESTIGATING BRANDED LAMB
- BOTH DOMESTIC AND EXPORT
- HIGH END PRODUCT
- SIGNIFICANT PEOPLE INVOLVED

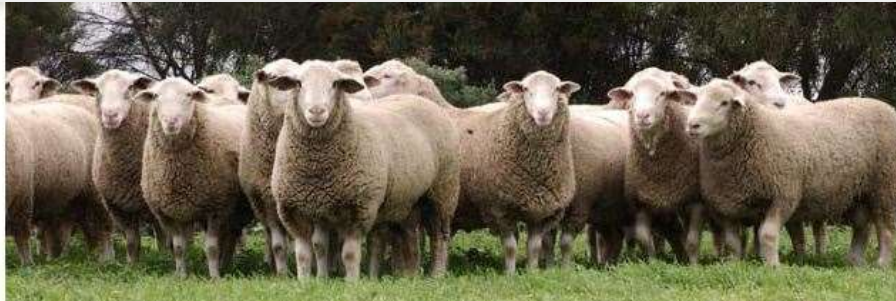
COMMERCIAL REGISTER



- AVAILABLE TO ALL LAMB PRODUCERS USING W/S RAMS
- MUST BE FROM REGISTERED WHITE SUFFOLK STUDS
- LAMBPLAN NOT ESSENTIAL
- HOWEVER..GENOMICS WILL BE CRITICAL CONSIDERATION



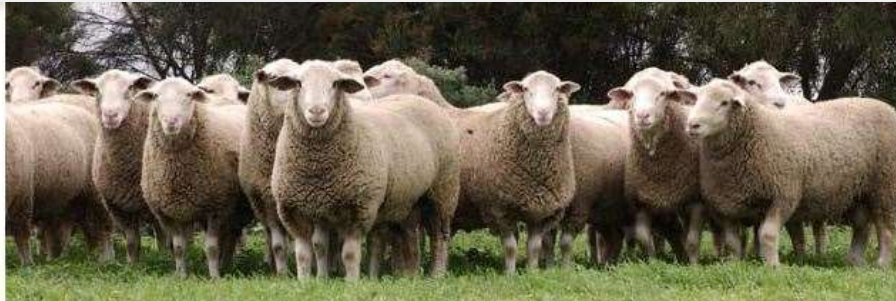
WHERE ARE WE CURRENTLY SITUATED?



- OVER HALF MILLION LAMBS ON COMMERCIAL REGISTER
- WORKING WITH PROCESSORS
- HOPEFULLY NATIONAL LAUNCH
- ENCOURAGING DISCUSSIONS IN USA AND MIDDLE EAST



HOW WILL IT WORK?



- WORK IN PROGRESS
- ALL YEAR ROUND LAMB SUPPLY CRITICAL
- COMMITMENT
- ENSURING “MEQ” A MUST – USE STUDS WITH TESTED “MEQ”



WHAT WILL IT MEAN TO PRODUCERS?



- LAMB PRICES???
- PART OF HIGH END BRAND
- MARKETING & TIMING
- COMMITMENT!
- PART OF AN INNOVATIVE ASSOCIATION



**“IF YOU ARE NOT ALREADY ON THE
COMMERCIAL REGISTER-
GO TO THE AWSA WEBSITE AND
REGISTER YOUR DETAILS”**



**THEN HANG ON
FOR THE RIDE!**



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Smoko

Selecting Using Genetic Info Trend

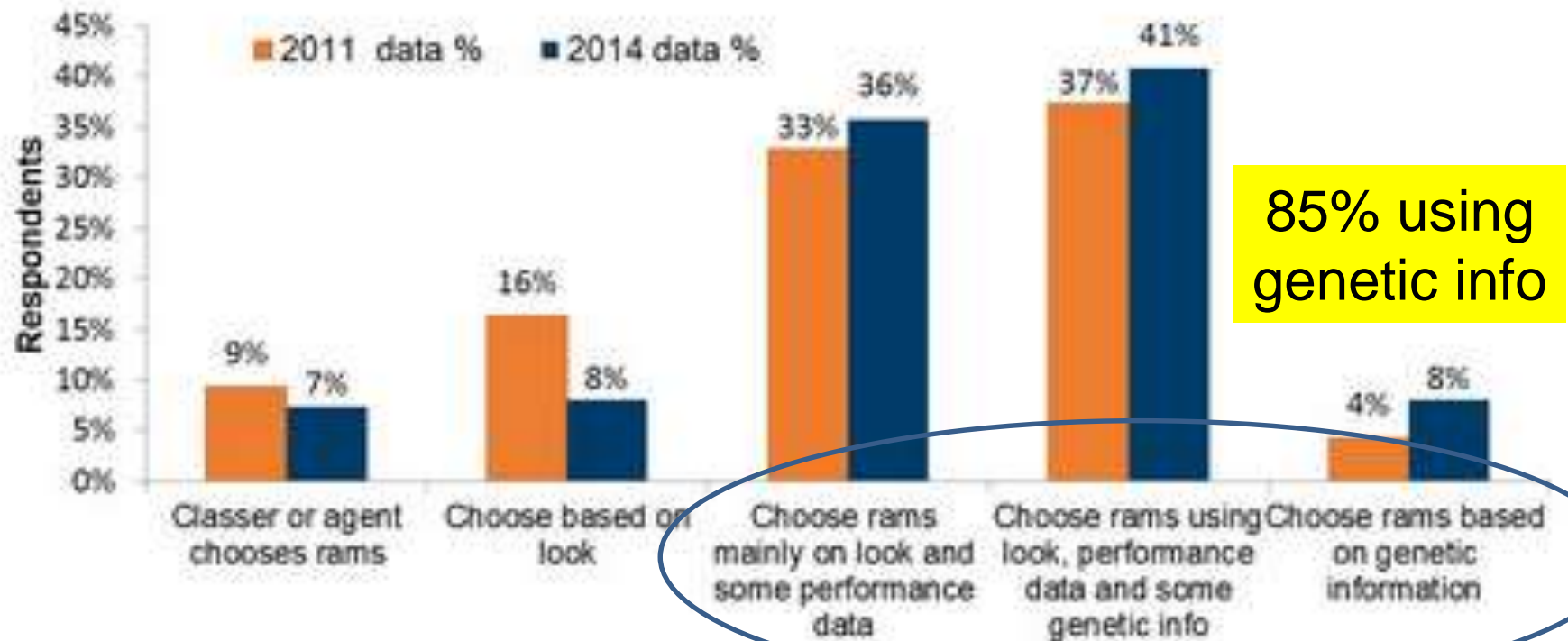


Figure 2 The change in proportion of producers that implement each ram selection strategy between 2011 and 2014



RamSelect



LambPlan and MerinoSelect programs provide:

- objectively tested,
- practical,
- across flock information

on a variety of traits within terminal,
maternal, dual purpose and Merino
enterprises nationally



RamSelect

Commonly measured traits

Growth Rate

Fat depth

Eye muscle depth

Number Lambs Weaned

Immunity to Worms

Fleece weight

Wool quality (micron, strength, length etc)

Breech wrinkle

Maternal weaning weight



RamSelect

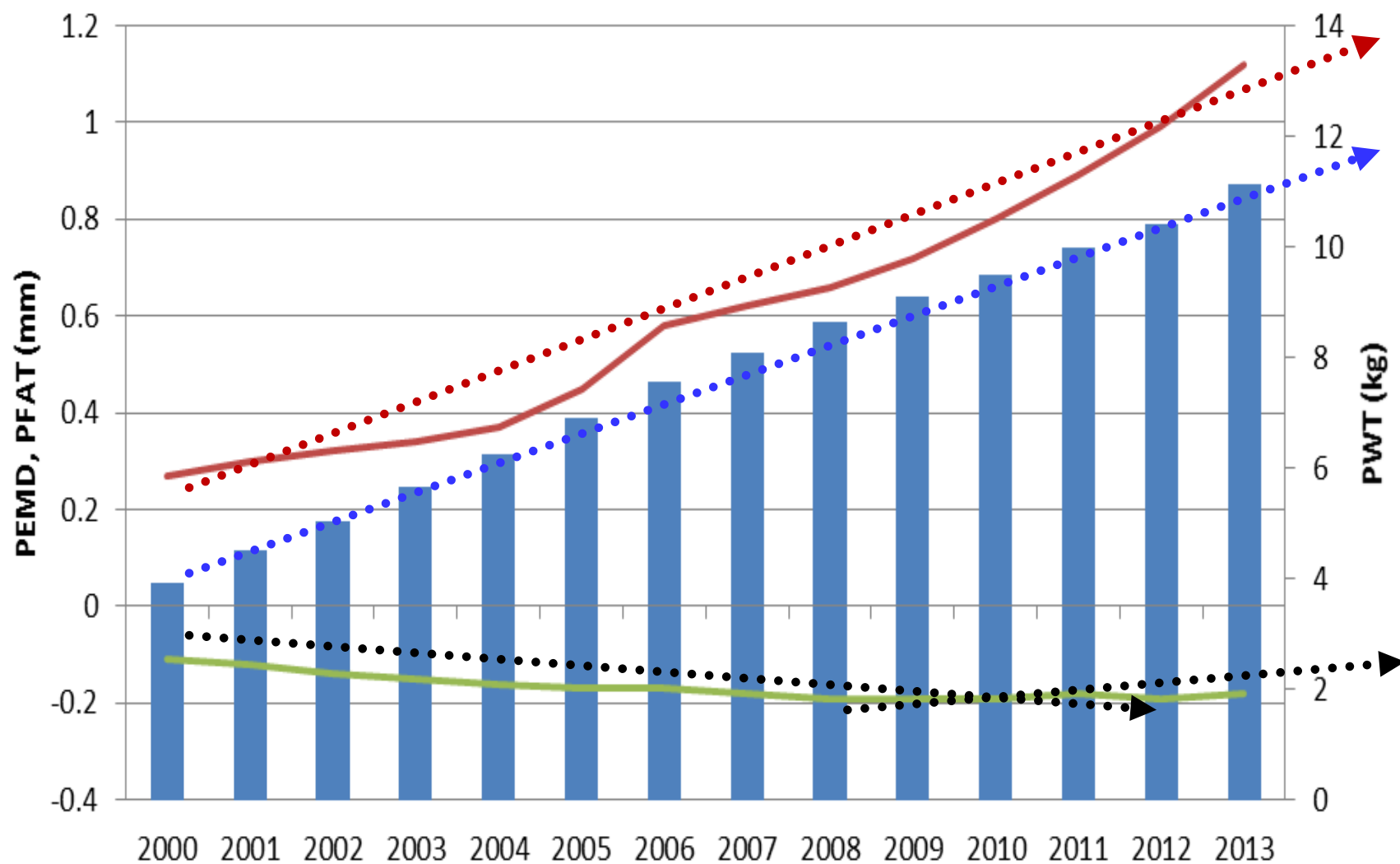


Currently:

- ~75% of all terminal sires sold have ASBV's
- ~30% of all Merino rams sold have ASBV's
- ~70% of all Merino semen sales comes from sires with ASBV's
- ~310 Merino studs involved nationally
- Only 15-20% of Dorper/White Dorper studs are involved

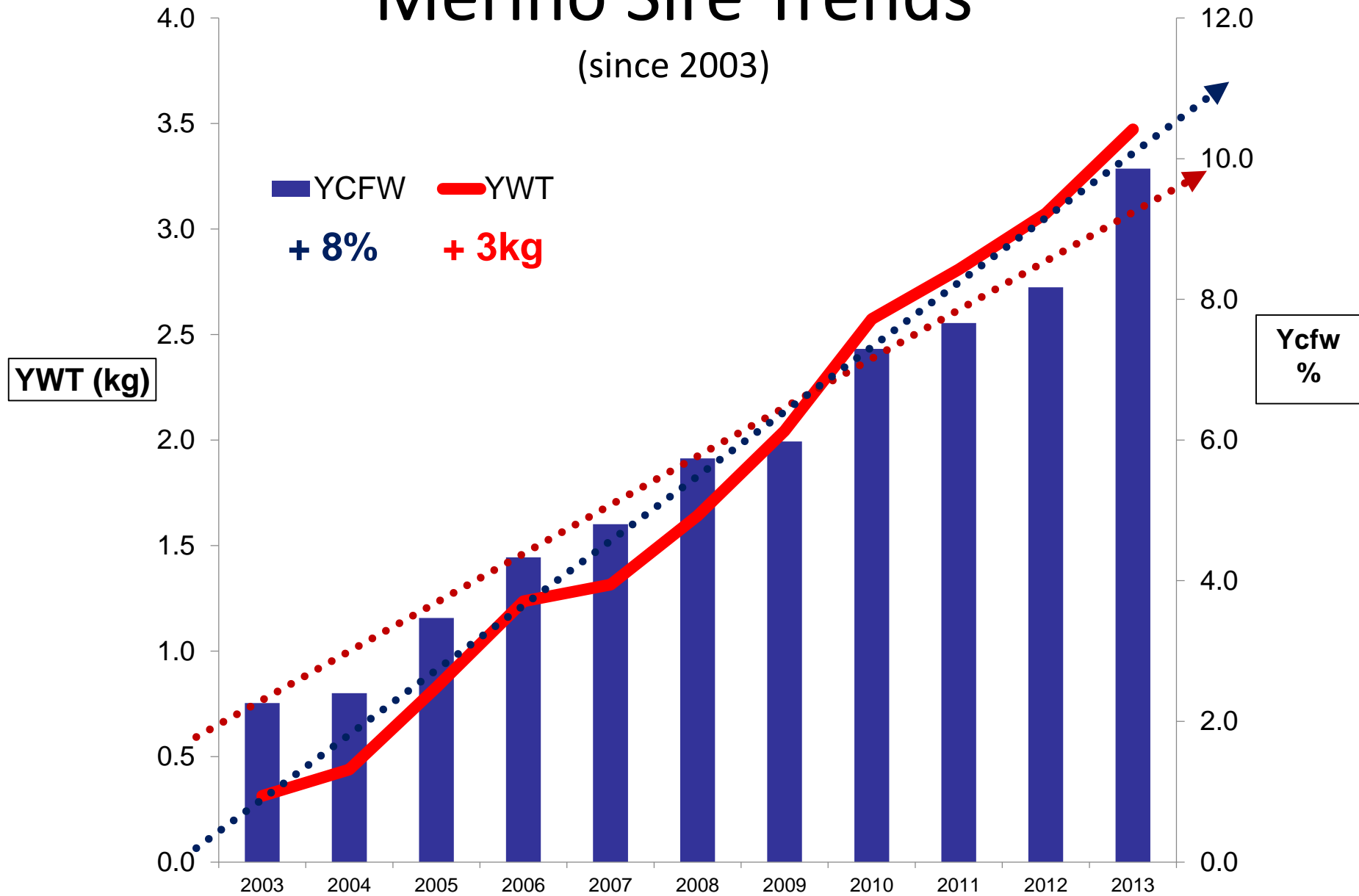
LAMBPLAN Terminal sire trends

■ PWT — PEMD — PFAT



Merino Sire Trends

(since 2003)

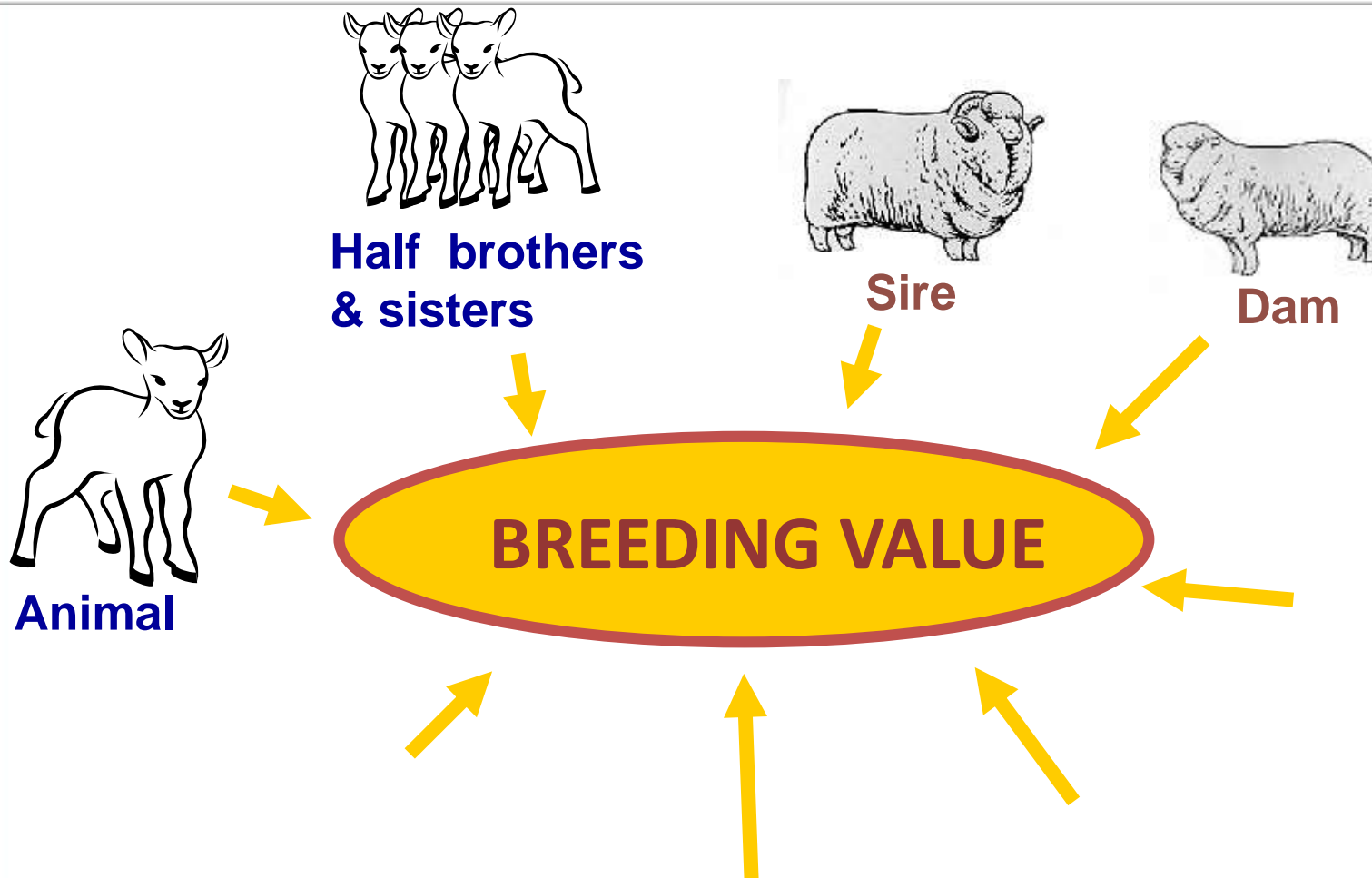


“EWE & RAM SELECTION”

It's about the \$\$\$

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IMMEDIATE DATA COLLECTION



DATE OF BIRTH

BIRTH WEIGHT

BIRTH TYPE

REARING TYPE

DAM/SIRE

DAM AGE

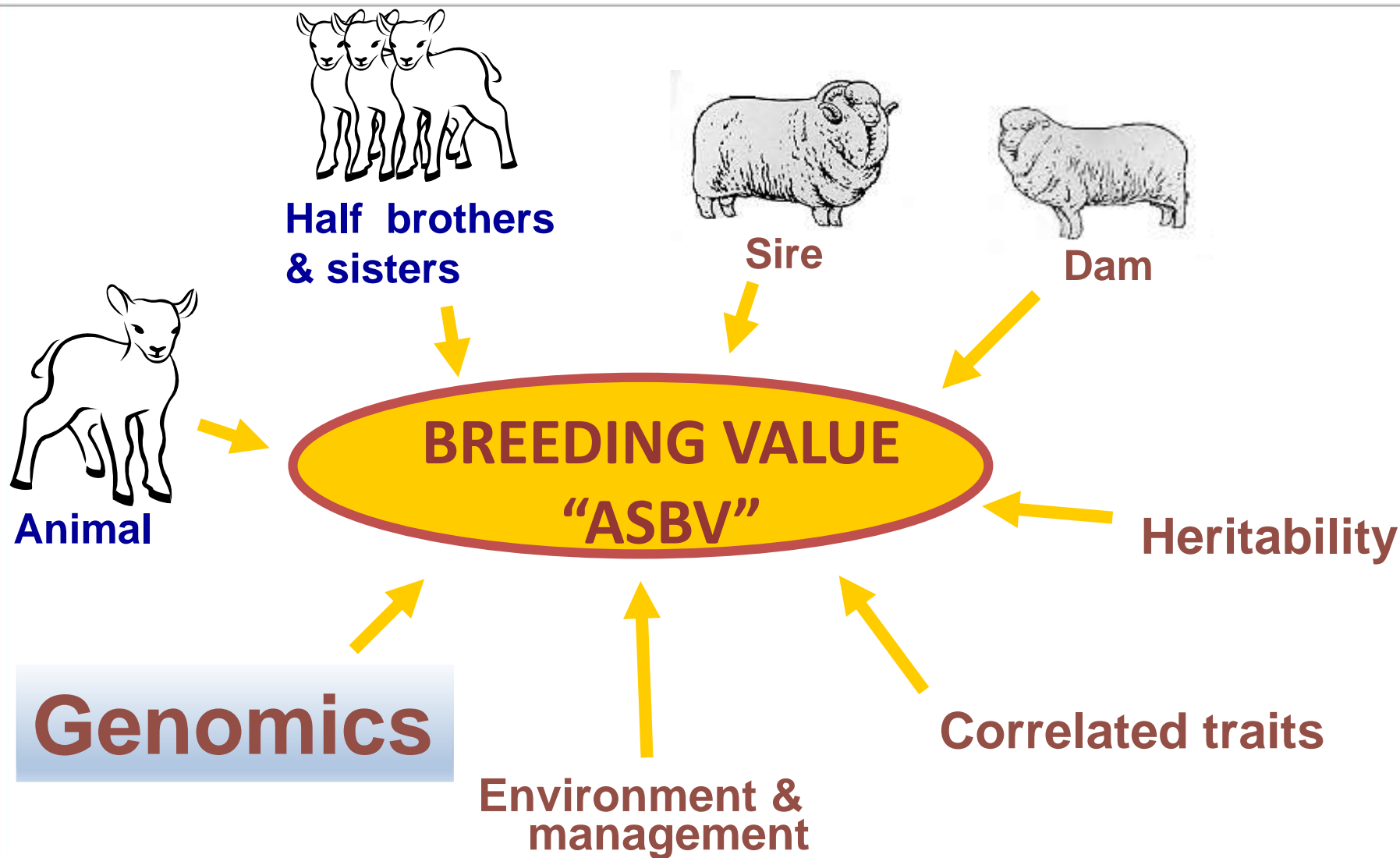
EWE TEMPERAMENT

GESTATION LENGTH

LAMBING EASE

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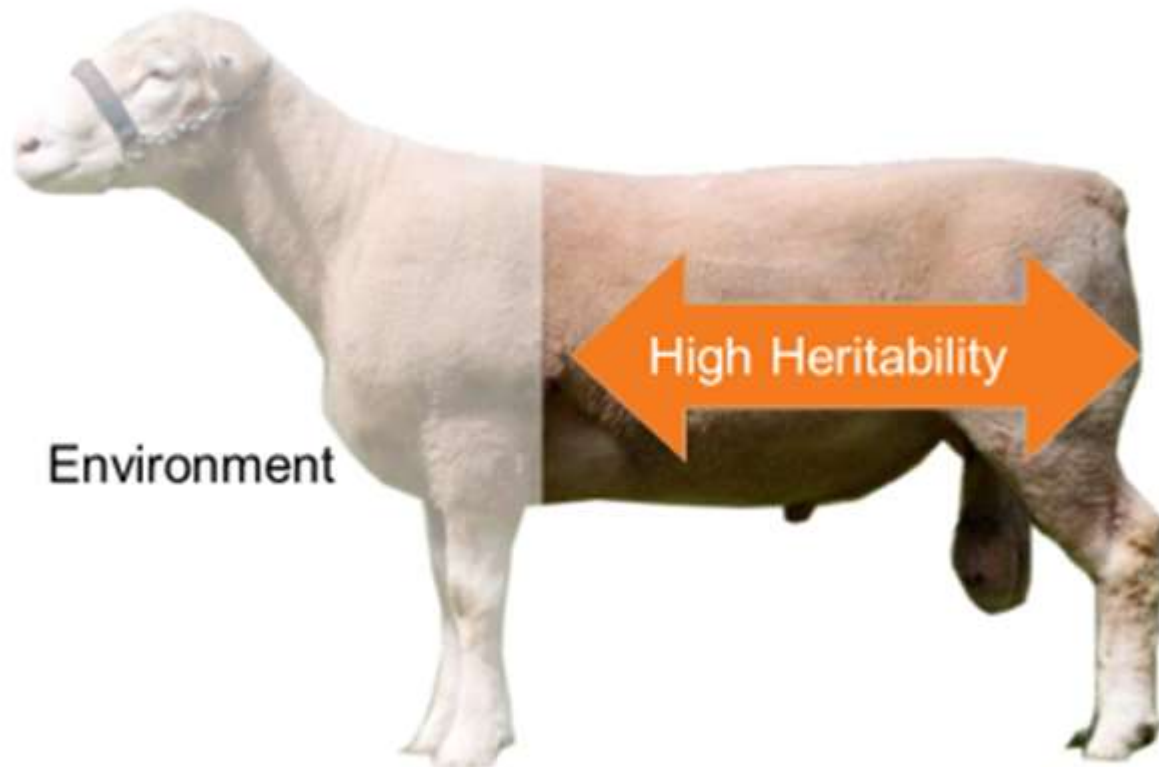
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HERITABILITY

DEGREE OF VARIABILITY BETWEEN ANIMALS DUE TO GENETICS

Example; **Fleece Traits**



Correlations

GROWTH



LEANNESS
REPRODUCTION
LEAN MEAT YIELD
FLEECE WT
REDUCED MEQ
FIBRE DIAMETER
BIRTH WEIGHT
ADULT WT

FAT



INTRAMUSCULAR FAT
FERTILITY
BIRTH WEIGHTS
No. LAMBS WEANED
FEED EFFICIENCY
INCREASE BODY FAT
LOW FLEECE WEIGHT

MUSCLE



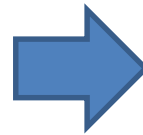
LEANNESS
REPRODUCTION
LEAN MEAT YIELD
FLEECE WT
REDUCED MEQ
FIBRE DIAMETER
BIRTH WEIGHT
MATURE ADULT WT

ENVIRONMENT

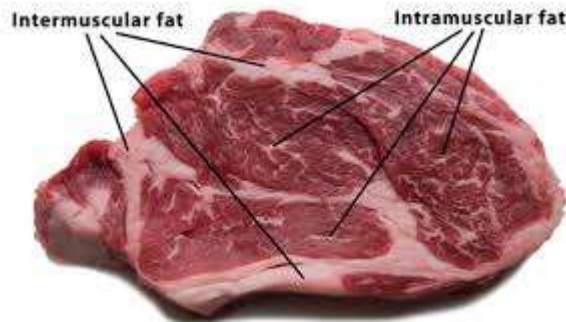


BOTH THE SAME GENETICAL POTENTIAL

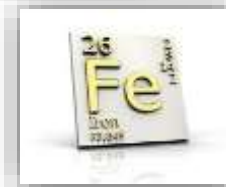
GENOMICS



Including Meat Eating Quality



Tenderness



COMPLETE GENETIC MAP



PENDARRA-043050

Id: 230324-2004-043050

Drop: 2004

Stud: [PENDARRA \(230324\)](#)

Breed: WHITE SUFFOLK

Sire: [ANDEN-020083](#)

Breeder: [MURRAY LONG](#)

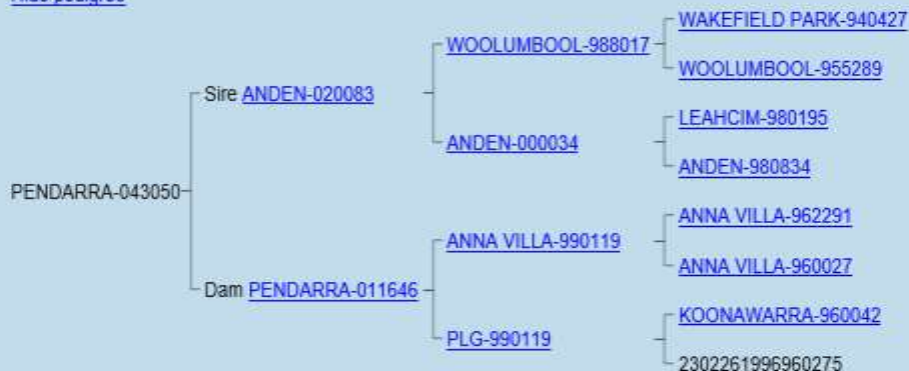
Sex: Male

Dam: [PENDARRA-011646](#)

Progeny/Flocks: 1475/44

[DNA tested](#)

[Hide pedigree](#)



TERMINAL ASBVs - 15/02/2015

View all traits	BWT	WWT	PWT	PFAT	PEMD	PWEC	LE DIR	LE DTR	GL DIR	GL DTR	INBREEDING	Carcase Plus	Trade\$	Lamb 2020	SRC	Export\$	BREED	LMY RBV	IMF RBV	SHEARF\$ RBV
PENDARRA-043050	0.29 98%	9.2 98%	15.0 98%	-0.4 98%	2.4 98%	3 93%	-2% 95%	-4% 96%	-1.8 98%	- 98%	2% 98%	203 98%	112.4 95%	113.7 95%	137.4 91%	109.0 95%	0.55 100%	-1.33 65%	0.72 68%	-1.8 64%
Averages View Percentiles	0.27	7.3	11.2	-0.6	1.1	-2	-1%	-1%	0.0	0.0	0%	171	107.4	109.4	128.2	104.8	0.76	0.00	0.00	0.0

Observed Traits	scan	birthwt	bodywt	sc	wec
Animal	✓	✓	✓	✗	✗
Progeny	1115	1110	1319	33	72

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DNA



50%

**70
LAMBS/YEAR**



50%

**1-2
LAMBS/YEAR**



Culling strategy on flock performance

CULL BY AGE



CULL OLDER ANIMALS

CULL BY PERFORMANCE

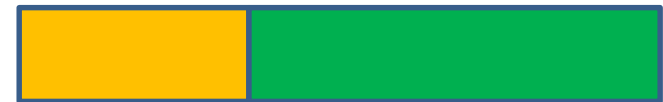
YEAR ONE



YEAR TWO



YEAR THREE



YEAR FOUR



YEAR FIVE



YEAR SIX



BEST ANIMALS KEPT LONGER

What drives your returns ??

Live lambs that grow fast

OBJECTIVE

To compare lambing difficulties from sires when using the same visual selection method but

- unknown birthweight ASBV's versus
- moderate birthweight ASBV's

Average ASBV's for each sire group (across flock)

Sire group	Birthwt	Growth (PWWT)	PFAT (post weaning fat)	PEMD (eye muscle depth)
Lambplan	0.36	14.2	-0.15	1.4
Non Lambplan	Unknown	Unknown	Unknown	Unknown

**2010 – Dennis & Geoff Hogan Glen
Innes NSW**

Average dystocia and marking rates expressed as a percentage of the mob

Sire group	Ewes assisted & survived	Ewe deaths at lambing	Marking %
Lambplan tested with Mod Bwt	0.7%	0.7%	149%
Non Lambplan	2.6%	2.7%	148%

- A difference of 2% in death rate represented 20 ewes/ 1,000 ewes joined.
- At 2011 prices (\$200/hd) this represented a loss of **\$4,000** per 1000 ewes joined
- What are replacement ewes worth to you??

A speed of growth example

2010 – Dennis & Geoff Hogan Glen Innes NSW

PRODUCER OBJECTIVE

*Investigate the difference in value of lambs
sired by rams with breeding values in the
top 10% PWWT (growth) versus industry
average PWWT*

Average EBV's for each sire group

Sire Group	Birthweight BWT	Growth PWWT	Post weaning fat Pfat	Muscle depth PEMD
HIGH PWWT	0.36	14.2	-0.15	1.4
AVE PWWT	0.22	7.7	-0.73	0.95

Top 10% versus industry average for growth

Average liveweight of lambs at 3 different growth points

Sire Group	Weaning 1st week of Jan '11	1 st week of Feb	Selling 2 nd week of March
HIGH PWWT	39.0	43.2	57.1
AVE PWWT	36.8	39.0	52.0

High PWWT sired lambs were 5.1 kg liveweight heavier at the time of selling

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- High PWWT sired lambs were 5.1kg liveweight heavier at the time of selling, at slaughter this equated to 2.5kg carcass weight (the lambs achieved 48% dressing percentage)
- The current NSW market price was \$6.20/kg, this was worth an extra \$15.50 per lamb, HOGAN's averaged 100 lambs per ram joined & returned an extra \$1,550 per ram in the first year
- If you only average 50 lambs per ram at the current lamb prices of \$5.80/kg you will still generate an extra \$725/ram in one year



- **HIGH PERFORMANCE** genetics doesn't do everything
- **FOX** hunting is still an important component of lamb enterprises