

Understanding Carcase and Eating Quality Traits

Sheep Genetics report ASBVs for a number of carcase traits, including eating quality traits that can be estimated through using genomic information (DNA samples). As eating quality becomes increasingly important to consumers, it is important that we balance both carcase traits and eating quality traits in our breeding programs.

Dressing Percentage		Intramuscular Fat		Eye Muscle Depth		Fat Dep	Fat Depth - C Site	
Rams with more positive		Intramuscular fat (IMF) is		Eye Muscle Depth		Carcas	Carcase C site fat	
dressing percentage		a measure of the		(EMD) ASBVs estimate			(CCFAT) ASBVs	
(DRESS) ASBVs produce		chemical fat percentage		the genetic difference			estimate the genetic	
lambs that have a higher		in the loin muscle of a			between animals in eye		difference between	
dressing percentage at		lamb and is often		muscle depth at the C			animals in fat depth at	
slaughter. A ram with an		referred to as marbling.		site. Rams with more			the C site, as measured	
ASBV of 2.0 will produce		IMF has been shown to		positive ASBVs for EMD			on the carcase.	
progeny that dress out		have a significant impact		will produce progeny			ASBVs for CCFAT are	
1.0 percent higher than		on the flavour, juiciness,		that have more muscle,			calculated through	
progeny of a ram with an		tenderness and overall		independent of weight,		-	genomic information.	
ASBV of 0.		likeability of lamb. Rams		and a higher lean meat			A ram with an ASBV	
		with more positive		yield. EMD is reported as			of -1.2 will produce	
		Intramuscular Fat (IMF)		Weaning (WEMD),			progeny 0.6 mm leaner	
		ASBVs produce progeny		Post Weaning (PEMD),		than progeny of a ram with an ASBV of 0.		
		with higher levels of		Yearling (YEMD) and		with an	with an ASBV OF U.	
		intramuscular fat.		Hogget (HEMD) ages.				
↓ ↓		·					V	
Trait	Dress %	LMY %	IMF %	SF5 kg	EMD mm	FAT mm	CCFAT mm	

-0.1

50

Lean Meat Yield

2.0

52

ASBV

Acc

Rams with more positive Lean Meat Yield (LMY) ASBVs produce lambs that have a higher Lean Meat Yield percentage at slaughter. Lean meat yield is expressed as a percentage of the initial Hot Standard Carcase Weight. All bone and salvage fat is removed. A ram with an ASBV of 2.4 will produce progeny that are 1.2 percent higher than progeny of a ram with an ASBV of 0.

Shear Force (5 days)

-0.5

45

2.2

70

Shear force is a measure of the force or energy required to cut through the loin muscle of lamb after 5 days of ageing, the ASBV is reported in deviations of kilograms of force. Rams with more negative SF5 ASBVs produce lambs with more tender meat.

Fat Depth - GR Site

-1.0

68

A

-1.2

57

Rams with more negative FAT ASBVs produce progeny that are leaner. FAT ASBVs estimate the genetic difference between animals in GR fat depth. FAT is reported as Post Weaning (PFAT), Yearling (YFAT), Hogget (HFAT) ages and Carcase (CFAT).

For more information contact Sheep Genetics Ph: 02 8055 1818 Fax: 02 8055 1850 info@sheepgenetics.org.au www.sheepgenetics.org.au

2.4

62

ł



Sheep Genetics is a program of Meat & Livestock Australia Limited ABN 39 081 678 364