Appendix A – Traits/EBVs -- Terminology and abbreviations

Recommended age ranges – the ages in the table below are the recommended age ranges within which data should be submitted for various age brackets. However, ages outside these ranges are accepted by the program and are listed further in the chapter by each trait.

General Age Ranges

Age Bracket	Recommended Range	Age Bracket	Recommended Range		Age Bracket	Recommended Range
Weaning	40-120 days	Early Postweaning	80-240 days		Postweaning	160-340 days
Yearling	290-430 days	Hogget	410-550 days		2 yr	530-1000 days
3 yr	890-1300 days	4 yr	1260-1660 days		5 yr	1600-2030 days

Fertility Traits

Trait	Abbreviation	When to record data	Explanation
Number of Lambs Born	NLB	Birth	Number of lambs a ewe gives birth to. Input as Bt with a 1 for single, 2 for twin, etc. EBV figures are in terms of number of lambs born per 100 ewes lambing. For example, if an animal has an EBV of .20, its genetics have the ability to give birth to .20 more lambs per lambing. In the case of rams, this value is halved for his daughters' production.
Number of Lambs Weaned	NLW	Weaning	Number of lambs a ewe gives birth to. Input as Bt with a 1 for single, 2 for twin, etc. EBV figures are in terms of number of lambs weaned per 100 ewes lambing. For example, if an animal has an EBV of .20, its genetics have the ability to wean .20 more lambs per lambing. In the case of rams, this value is halved for his daughters' production.
Scrotal Circumference	Scrotal for input, Pwsc, Ysc, Hsc and Asc for postweaning, yearling, hogget and adult EBVs	Age Input range Early postweaning 64-264 days Postweaning 128-374 days Yearling 232-473 days Hogget 320-660 days 2 yr. 421-1107 days	Circumference of the scrotum, measured in centimeters. Rams with great circumference tend to have greater servicing ability and their daughters tend to be more fertile. Input values must be between 9 and 40 cm for early postweaning, and between 11 and 49 cm for all other ages.

Worm Load

Trait	Abbreviation	When to record data	Explanation
Weaning Fecal Egg Count	WEC for input, Wfec for EBV	At weaning, between 32 and 132 days of age	Estimates the genetic difference in worm load/burden at weaning time.
Post-weaning Fecal Egg Count	WEC for input, EPfec of Pfec for EBV	For early postweaning, between 64 and 264 days of age. For later postweaning, from 128 and 374 days of age.	Estimates the genetic difference in worm load/burden at time of postweaning.
Yearling Fecal Egg Count	WEC for input, Yfec for EBV	Between 232 and 473 days of age.	Estimates the genetic difference in worm load/burden at around one year of age.
Hogget Fecal Egg Count	WEC for input, Hfec for EBV	Between 320 and 660 days of age	Estimates the genetic difference in worm load/burden at around one and a half years of age.
Adult Fecal Egg Count	WEC for input, Afec for EBV	Between 421 and 1107 days of age	Estimates the genetic difference in worm load/burden as an adult animal.

Weight Traits

Trait	Abbreviation	When to record data	Explanation
Birth weight	BW	Within 24 hrs of birth	The genetic differences between animals for birth weight. Must be at least 1.8 pounds and less than 21.0 pounds.
Weaning Weight	WWT	At weaning, between 32 and 132 days of age	The genetic differences between animals for their ability to grow to weaning. Weight must be between 17.6 pounds and 143.0 pounds.
Maternal Weaning Weight	MWWT	There is no data to record for this trait. It is calculated from the other data.	MWWT estimates the genetic differences between females for milk production and the ability to provide a better maternal environment to produce heavier weaning weights.
Early Postweaning Weight	EP Weaning for input, PWWT for EBV	At weaning, between 64 and 264 days of age	Both this and the later possible weaning weight input (below) result in EBVs labeled as PWWT. However, they have different acceptable data input ranges. This trait must be between 35.2 and 220.0 pounds. This is most applicable to farm flocks.
Postweaning Weight	P Weaning for input, PWWT for EBV	At weaning, between 128 and 374 days of age.	As noted above, both this and Early Postweaning Weight result in EBVs labeled as PWWT. This trait, however,

			must be between 52.8 and 242.0 pounds. This is more applicable to some range flocks.
Yearling Weight	YWT	Between 232 and 473 days of age.	EBV for yearling weight. The input value must be between 44 and 286 pounds.
Hogget Weight	HWT	Age must be input between 320 – 660 days of age.	EBV for weight at around a year and a half of age. Weight input must be between 44 and 308 pounds.
Adult Weight	Adult 2y, Adult 3y, Adult 4y or Adult 5y for input, AWT for EBV	Age Input range 2 yrs. 421-1107 d 3 yrs. 655-1549 d 4 yrs. 918-1990 d 5 yrs. 1181-2553d	Shows estimated genetic differences for adult weight. Weight input must be between 52.8 pounds and 330 pounds.

Wool Traits : EBVs for wool traits will not be generated unless the data is taken at an age of 300 days or greater.

Trait	Abbreviation	When to record data	Explanation
Fiber Diameter	FD for data input, Pwfd for postweaning, Yfd for yearling, Hfd for hogget, Afd for adult	Age Input range Postweaning 64-374 d Yearling 232-473 d Hogget 320-660 d 2-yr 421-1107 d 3 yr 655-1549 d 4-yr 918-1990 d 5-yr 1181-2553 d	This estimates the genetic differences between animals for fiber diameter, in microns. Animals with negative EBVs should produce finer wool. Input values must be between 11.0 and 49.0 microns.
Fleece Weight	For data input, Gfw for grease fleece weight and Cfw for clean fleece weight. EBVs are Pwgfw, Ygfw, Hgfw and Agfw for grease weights, and Pwcfw, Ycfw, Hcfw and Acfw for clean weights.	Same as for Fiber Diameter (above)	This estimates the genetic differences between animals for fleece weight – either clean or grease basis may be used. For data input, postweaning grease values must be between 1.1 and 17.6 pounds, while values for other weights must be between 2.2 pounds and 30.8 pounds. For clean weight input, values must be between 2.2 and 13.2 pounds for postweaning, and between 2.2 and 26.4 for all other ages.
Yield	Yld for data input. EBVs are Pwyld, Yyld, Hyld and Ayld	Same as for Fiber Diameter (above)	Yield is the clean fleece weight as a percentage of the grease fleece weight. EBVs estimate

	for postweaning, yearling, hogget and adult yields, respectively.		the genetic differences between animals for this percentage. Input values must range between 40.0 and 99.0.
Fleece Comfort Factor	Fcf for data input, Pwfcf, Yfcf, Hfcf and Afcf for EBVs.	Same as for Fiber Diameter (above)	This is the percentage of fibers less than 30 microns. Values should be input between 0 and 100. Estimates the differences between animals for this percentage. A higher value indicates more comfortable fibers.
Fiber Diameter Coefficient of Variation	FDcv for data input. EBVs are Pwfdcv for postweaning, Yfdcv, for yearling, Hfdcv for hogget and Afdcv for adult.	Same as for Fiber Diameter (above)	Coefficient of variation for fiber diameter. Input values should be between 10.0 to 35.0. EBV estimates the genetic differences between animals for this trait.
Fiber Diameter Standard Deviation	FDsd for data input. EBVs are Pwfdsd, Yfdsd, Hfdsd and Afdsd for postweaning, yearling, hogget and adult, respectively.	Same as for Fiber Diameter (above)	Estimates the genetic differences between animals for the variability of fiber diameter. Input values should be a positive number. A lower number indicates less variability.
Curve	Data input is Curve. EBV for postweaning is Pwcurv, for yearling is Ycurv, for hogget is Hcurv and Acurv for adult.	Same as for Fiber Diameter (above)	Estimates the genetic differences between animals for curvature in the fiber.
Staple Length	Sl is the term for data input. EBVs are Pwsl for postweaning, Ysl for yearling, Hsl for hogget and Asl for adult values.	Same as for Fiber Diameter (above)	Estimates the genetic differences between animals for staple length, in mm. Greater EBVs indicate longer staple length. Input values must be between 10.0 and 120.0
Staple Strength	Ss is the term for data input. EBVs are Pwss for postweaning, Yss for yearling, Hss for	Same as for Fiber Diameter (above)	Estimates the genetic differences between animals for strength of a fiber. Greater EBVs indicate stronger fibers. Input values must be between

	hogget and Ass for adult values.		0.1 and 150.0

Carcass Values

Note: Lambs must be weigh at least 66 pounds for scan data to be accepted.

Trait	Abbreviation	When to record data	Explanation
Fat Depth	cFat for input, EBVs are Wfat for weaning, Pfat for postweaning, Yfat for yearling, Hfat for hogget and Afat for adult values.	<u>Age</u> <u>Input range</u> Weaning 32–132 days Early postweaning 64–264 days Postweaning 128–374 days Yearling 232–473 days Hogget 320-660 days 2 yrs. 421-1107 days 3 yrs. 655-1549 days 4 yrs. 918-1990 days 5 yrs. 1181-2553 days	Depth of fat from ultrasonic scan measurements, in mm. EBVs estimate the genetic differences between animals for depth of fat with smaller values indicate leaner animals. Input values at weaning must be between 0.5 and 9.0 mm, at postweaning must be between 0.5 and 15.0, and for all others, between 0.5 and 20.0.
Eye Muscle Depth	Emd for input, EBVs are Wemd for weaning, Pemd for postweaning, Yemd for yearling, Hemd for hogget and Aemd for adult ages.	Same as for fat depth (above)	Estimates the genetic differences between animals for eye muscle depth. A greater value indicates more depth of muscle. The input weaning value must be between 6 and 40 and inputs for the other ages must be between 11 and 59 mm.