## **BV** Definitions

Breeding values are relative numbers rather than absolute for example a higher or lower number or the difference between two BV rather than the absolute number indicates merit. Reminder - progeny receive half of their genetic merit from each parent = so half the sire merit passed to progeny the other half is contribute from the dam.

Trait	Abbreviation	Definition	Outcome	Comment
Reproduction	CD BV (days)	Conception Date	CDeBV: negative value indicates earlier conception and calving date and possibly higher conception rate especially in first calving hinds	Based on conception date information calculated from foetal age at scanning for naturally mated joined with males by 10 <sup>th</sup> March.
			CD BV: positive value= later conception and calving date compared to average and possibly	
Growth	WWT BV (kg)	Weaning Weight	WWTeBV: higher value indicates increased 100 day weaning weight	Based on a weight Feb/Mar (about 100 days of age. Ideally record a Mar weight even if post rut weaning
	AWT BV (kg)	Autumn Weight	AWT BV: a higher value indicates increased pre-winter R1 liveweight	Based in a liveweight recorded in May/Jun/Jul
	W12 BV (kg)	Weight at 12 months	W12 BV: a higher value indicates increased live weight at 12 months. As weight are strongly related, they will also be heavier at 9-11 months of age.	Based on a post winter liveweight – ideally before a major cull (Aug/Sep/Oct). Record a liveweight at 11-12 months - Nov/Dec. Record date and mob
	MWT BV (kg)	Mature weight	MWT BV: a higher value indicates heavier/larger size for female replacements	Based on adult hind liveweights pre-mating or more commonly at pregnancy scanning
			Using sires with higher or lower MWT BV than your breeding hind herd can increase or reduce herd average MWT for replacement hinds.	Generally, sires with higher W12 BVs will have higher MWT BVs and larger/heavier daughters but there is some variation in the daughter size, and this is reflected in different MWT BVs at similar W12 BVs

Meat	CWT (kg)	Carcass weight	CWT BV: a higher value indicated a heavier carcass at 12 months of age	This is a combination of live weight, ultrasound eye muscle area and CT information (when available) to make the best prediction of carcass weight at 12-months of age.
	LEANY (kg per kg carcass)	Lean Yield	LEANYBV: positive value indicates more kg of venison boned off a carcass at a standard weight	Informed by liveweight, ultra-sound (eye muscle area) and CT information if available.  Best BV for Meat is the LEANY BV as it uses
			This is an expression of the amount of lean muscle per kg of carcass, adjusted for an average 12-month carcass. Positive values yield more and negative less venison than average at a set carcass weight for age.	and balances all available meat information to indicate above or below average muscling/per kg carcass weight.
	EMAc BV (cm²)	Eye Muscle Area (c = corrected for carcass weight)	EMAc BV: A larger number indicates a larger eye muscle (loin) area at a standard carcass weight.	Eye muscle area is associated with overall muscling and there is also a positive correlation with venison tenderness.  Informed by ultra-sound and CT if available Best BV for meat yield is the LEANY BV
Health - Research BV	CARLA BV (units)	Carla antibody response to gastro- intestinal parasites (research BV)	CARLA BV: a higher value indicates a greater and generally earlier immune response to the ingestion of gastro-intestinal parasites at 10 months of age.	Carla antibodies are produced in the saliva – bind to the surface of the larvae and reduce/prevent establishment (still being confirmed in deer).
Velvet	VW2 BV (kg)	Velvet weight at 2 years of age	VW2 BV: a higher value indicates heavier velvet weight at 2 years of age.	Note- males and females can have VW2 BVs- for females it is estimated based on the records of all known male relatives.
	MVW BV (kg)	Mature velvet weight	MWV BV: a higher value indicates heavier velvet at mature weights	Based on velvet records for older animals when available. Note- males and females can have MVW BVs- for females it is estimated based on records of all known male relatives.