

Description of traits

Trait	EBV Index	Description/measurement	Objective	General guidelines for Breeding Value Indices						
				80	90	100	110	120		
Calf growth (Direct)	Birth weight	Birth weight (Birth direct)	Easy calving	Heavy						Light
	Weaning weight	Weaning weight (Weaning weight direct)	Heavy weaner calves	Light						Heavy
Mothering ability (Maternal)	Birth mat.	Birth weight of cow's/daughters' calves (Birth maternal)	Easy calving	Heavy						Light
	Milk	Milk production of cow/daughters (Weaning weight maternal)	Heavy weaner calves	Low						High
Growth & efficiency	Post-wean weight	Combination of 12- and 18 month weights	Above average post-wean growth	Light						Heavy
	Mature weight	Combination of mature weights between 2 and 5 years old of cows at the weaning of their calves	Mature animals of average size	Light						Heavy
	ADG	Average daily gain as measured in growth tests	Good growth and adaptability	Low						High
	FCR	g feed consumed per 100g weight gain in growth tests	Good conversion of feed to meat	High (Poor)						Low (good)
Fertility	Scrotal circumference	Scrotal circumference of bulls in growth tests (bull fertility)	Fertile bulls	Small						Big
	AFC	Age at first calving, as well as how early in the breeding season the heifer calves (heifer fertility)	Fertile heifers	Late calving						Early calving
	ICP	Combination of the first 3 intercalving periods of cows (cow fertility)	Fertile cows	Long						Short
Frame	Height	Shoulder height of bulls in post-wean growth tests	Mature animals of average size	Low						High
	Length	Length between shoulder and hip of bulls in growth tests	Slightly longer for more meat	Short						Long
Carcass	Dressing %	Estimated from final weight and ultrasonic measurements of eye muscle area and skin thickness	Better meat to bone ratio	Low						High
	Meat yield	Estimated from final weight and ultrasonic measurements of eye muscle area and skin thickness	More meat on carcass	Low						High
	Marbling	Ultrasonic measurement of intermuscular fat at the end of post-wean growth tests	Juicy meat	Low						High
Selection values (Rand)	Growth value	Combination of intake, growth and weight traits	Profitable meat production	Loss						Profit
	Cow value	Combination of fertility, calving ease, growth, milk and cow weight	Profitable cows	Loss						Profit
	Production value	Combination of cow value (80%) and growth value (20%).	Profitable production	Loss						Profit

Notes:

- In general dark is desirable, medium is less desirable and white is undesirable.
- The ideal animal does not exist. Even if an animal has undesirable breeding values for certain traits, it might still have desirable breeding values for other traits. Each herd's circumstances are also unique. It is mainly determined by the environment and production system as well as the genetic level of the herd (especially the females).
- Although the general desirability of breeding values are indicated in the table, each breeder should consider his unique situation and decide which animals will be most suitable. Sometimes animals in the undesirable range should be considered, especially for corrective mating.
- The lowest breeding values are most desirable for the traits Birth Weights, Feed Conversion Ratio (FCR), Age at 1st calving and InterCalvingPeriod (ICP) when selecting on BREEDING VALUES (EBVs), but if selecting on EBV Indices, the highest values are most desirable.

