

Scrotal Circumference EPD

The Canadian Simmental Association is pleased to announce the release of a new genetic selection tool to positively impact male fertility. The new Scrotal Circumference EPD (SC) uses scrotal circumference measurements from valid contemporary groups of bulls measured in herd test and test station situations and combines it with related growth information to assess genetic merit for scrotal size.

Scrotal size has been shown to have a strong influence on male fertility. The scrotal circumference EPD is a tool to assist breeders to optimize the number of bulls that meet fertility criteria. Since the scrotal circumference EPD reflects relative genetic merit without the influence of environment it is a better selection tool for use in comparing seedstock than a phenotypic measure of scrotal circumference. The scrotal circumference EPD can be readily compared across herds and environments. Selection for phenotypic extremes in scrotal size is not an effective method of affecting change in the trait, as it is subject to extreme environmental variation.

Breed Average Scrotal EPD			
	Average	Minimum	Maximum
Current Population	0.12	-1.72	2.58
Active Males	0.13	-1.43	2.54
Active Females	0.09	-1.07	1.64

The scrotal circumference EPD is similar to other EPD. The EPD is expressed as centimetres difference in scrotal size as measured in a herd test. For example, if we mate two sires with

scrotal EPD of 0.5 and -0.5 respectively to the same group of cows, we would expect their offspring, when measured at approximately 1 year of age to exhibit a 1cm difference in average scrotal circumference ($0.5 - -0.5 = 1.0$). This does not mean that offspring from the -0.5 sire will not meet the expectations of a semen evaluation, only that the offspring are expected, on average, to have slightly smaller testicle size than those of the 0.5 bull. It is important for breeders to realise that continual selection for increased scrotal circumference will not lead to continually increasing fertility. Scrotal circumference is just one key component in male fertility. As breeders become more familiar with the EPD and the resulting offspring, it will become possible to settle on an acceptable level for the scrotal EPD in any given herd.

The scrotal EPD is a Canadian developed EPD based strictly on Canadian Simmental Association data. Therefore it is not directly comparable to other scrotal circumference EPD produced by other breed associations or organisations.

Scrotal EPD do not replace a breeding soundness evaluation, and it is strongly recommended that all bulls to be used for breeding have a semen test conducted by a licensed veterinarian prior to breeding season!!!