



Breed Improvement Article

New Limousin Evaluations

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1. Calving Ease

The new North American calving ease evaluation see the introduction of two new EPD for Canadian Limousin breeders to use in selecting seedstock. The calving ease (CE) EPD describes the relative ease with which an animal’s progeny will be born to first calf heifers. The calving ease maternal (CEM) EPD describes the relative ease with which a sire’s daughters will calve once they enter production.

Heritability and Correlations			
	BW	CE	CEM
BW	.42	-.41	.14
CE		.18	.13
CEM			.19

The calving ease evaluation is conducted as a multi-trait evaluation using birth weight information from all calves and calving difficulty scores from first calf heifers. Scores from first calf heifers are used as they exhibit more variation in calving difficulty than mature cows. The heritability of each trait (part of the difference that is genetic) is shown on the diagonal in bold. The relationship or correlation between each trait in the evaluation is shown in the section above the diagonal.

Because the calving ease evaluation combines both weight and calving ease data, it is a better descriptor of genetic variation in calving ease (CE) and subsequent calving ability (CEM) than the birth weight EPD.

	CE	CEM
Bull A	5.0	2.5
Bull B	-5.0	-2.5
Difference	10	5

EPD for the calving ease traits are presented as the difference in percent unassisted births to first calf heifers. A larger value indicates easier calving, or a higher percentage of unassisted births. For example if we look at Bull A and Bull B we see that the difference between their CE EPD is 10. This means that if we randomly bred Bull A and B to a group of heifers of similar genetic merit, we would expect 10% more assisted births from Bull B than from Bull A.

Looking at the next column we can see that the difference in CEM EPD between the two sires is 5.0. This means that if we kept daughters from these two bulls, mated them the same and subsequently brought them into production, we would expect to assist 5% more of Bull B's daughters to calve than Bull A's daughters.

Average Calving Ease EPD for the Limousin breed are shown below.

Active Sires	CE	CEM
Average	5.3	2.4
Minimum	-11	-13
Maximum	29	17

Active Dams	CE	CEM
Average	5.9	2.6
Minimum	-13	-13
Maximum	26	15

Calves	CE	CEM
Average	5.8	2.5
Minimum	-13	-10
Maximum	26	13

2. Carcass Evaluation

In addition to the Calving Ease evaluation, work is also ongoing on a North American carcass evaluation. This evaluation combines both carcass data and ultrasound information to produce North American carcass EPD.

A draft evaluation was completed in July and is under review. Pending approval an official North American evaluation will occur for the Spring 2005 EPD evaluation (Release January 2005).

Remember – Genetic evaluation is driven by your data. Please submit your data in a complete and timely manner so that it can be included in the EPD evaluation.