Base Change Summary - April 2018

Each year, the genetic base used to express genetic evaluations in Canada is updated in conjunction with the first official release. The definition of each genetic base used is therefore as follows:

Breed(s)	Traits	Genetic Base Definition Used
All	Production	Cows born during a 3-year period centred seven years ago (2010, 2011 or 2012) that have test day records in the Canadian Test Day Model genetic evaluation analysis.
Holstein	Conformation	Proven bulls born in the most recent complete 10-year period (2003 to 2012).
Coloured	Conformation	Proven bulls born in the most recent complete 15-year period (1998 to 2012). For Canadienne and Milking Shorthorn breeds, the base period starts with proven bulls born in 1984 and for the Guernsey breed it starts with proven bulls born in 1994.

The table below indicates the amount of base change realized in 2018 compared to 2017 for each trait and breed. For LPI, the following base adjustments reflect the change to the new scale with half the variance compared to previous years.

Base Changes for 2018 Versus 2017

	AY	BS	CN	GU	HO	JE	MS
LPI[1]	0	0	0	0	0	0	0
Milk (kg)	68	24	30	31	73	44	7
Fat (kg)	3.7	1.0	1.1	1.2	5.1	3.3	1.1
Protein (kg)	2.3	1.5	0.4	0.4	3.5	2.0	0.4
Conformation	0.52	0.58	0.17	0.25	1.04	0.36	0.05
Mammary System	0.53	0.65	0.19	0.23	1.08	0.37	0.02
Feet & Legs	0.38	0.05	0.04	0.15	0.83	0.17	0.06
Dairy Strength	0.32	0.34	-0.04	0.11	0.36	0.27	0.02
Rump	0.38	0.53	-0.09	-0.02	0.22	0.05	0.01
Herd Life[2]	0.27	0.04	-0.15	0.14	0.58	0.05	-0.07
Somatic Cell Score[3]	-0.03	0.00	-0.02	-0.06	-0.02	-0.01	-0.01
Daughter Fertility[2]	-0.14	0.16	-0.13	0.2	0.27	0.15	0.07

1 – Base change for LPI is set to zero since it is already reflected by the change in the "Constant" included in the LPI formula.
2 – Traits expressed on scale of Relative Breeding Values (RBV).
3 – For Somatic Cell Score only, negative base change values represent a desirable trend in genetic progress.