



660 Speedvale Avenue West, Suite 101
Guelph, Ontario, Canada. N1K 1E5

Phone: (519) 767-9660 Ext. 5101

Fax: (519) 767-6768

E-mail: bvandoormaal@lactanet.ca

www.lactanet.ca

Base Change Summary - April 2024

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 (2016, 2017 or 2018) that have test day records in the Canadian Test Day Model genetic evaluation analysis. The same base group is also used for Pro\$.
Holstein	Conformation	Proven bulls born in the most recent complete 10-year period (2009 to 2018).
Coloured	Conformation	Proven bulls born in the most recent complete 15-year period (2004 to 2018). 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 2024 compared to 2023 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 2024 Versus 2023

	AY	BS	CN	GU	HO	JE	MS
LPI ¹	0	0	0	0	0	0	0
Milk (kg)	90	66	48	55	105	74	24
Fat (kg)	4.3	2.9	0.6	1.1	5.6	3.5	1.8
Protein (kg)	3.8	3.1	0.7	1.8	4.7	2.9	1.0
Conformation ³	0.42	0.47	0.00	0.10	0.74	0.13	0.18
Mammary System ³	0.37	0.43	0.00	0.07	0.89	0.15	0.16
Feet & Legs ³	0.34	0.25	0.00	0.00	0.34	0.01	0.15
Dairy Strength ³	0.38	0.49	0.00	0.10	0.22	0.11	0.06
Rump ³	0.24	0.22	0.00	0.08	-0.03	-0.01	0.08
Herd Life ²	0.05	0.25	-0.02	0.12	0.52	0.06	0.11
Somatic Cell Score ²	0.02	0.25	0.09	0.39	0.61	0.23	0.21
Daughter Fertility ²	-0.18	-0.04	0.04	0.03	0.60	0.05	-0.03

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 – The base change for Conformation traits are based on genetic evaluations calculated using daughter classifications and not composite indexes as introduced in April 2021.