

Provincial genetic trends by birth year for Holstein cows
Lactanet Canada, August 2021

Prince Edward Island

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	2284	1828	-561	-29.1	-23.2	-0.06	-0.03	97.6	97.7	-3.9	-0.1	-2.8	-4.9	0.4	97.2	99.5	98.0
2009	2367	1871	-492	-25.0	-21.0	-0.05	-0.04	97.9	97.8	-3.6	-0.3	-2.7	-4.5	0.5	97.5	99.4	97.9
2010	2415	1927	-437	-20.5	-18.2	-0.03	-0.03	98.5	98.2	-2.9	0.3	-2.2	-3.9	0.6	97.6	99.1	97.7
2011	2182	2020	-337	-15.0	-14.9	-0.02	-0.03	98.1	98.3	-1.5	1.0	-1.0	-2.7	1.3	98.1	98.8	98.5
2012	2345	2071	-315	-12.1	-12.3	0.00	-0.01	98.2	98.3	-0.9	1.2	-0.6	-1.9	1.2	98.4	98.7	98.9
2013	2319	2156	-137	-7.8	-6.5	-0.02	-0.01	98.4	98.6	-0.1	1.4	-0.2	-1.0	1.3	98.8	98.9	99.1
2014	2338	2260	-28	-0.2	-1.5	0.01	-0.00	98.8	99.4	0.6	1.3	0.8	-0.4	1.6	99.5	99.3	99.4
2015	2368	2345	67	4.8	3.5	0.02	0.01	99.3	100.1	1.5	1.8	1.2	0.5	1.6	100.1	99.3	100.0
2016	2346	2456	226	12.8	9.7	0.04	0.02	99.2	100.5	2.3	1.9	1.9	1.4	1.7	100.8	99.8	100.8
2017	1960	2562	331	20.1	15.4	0.07	0.04	99.7	101.1	3.2	2.4	2.4	2.3	2.0	101.5	100.0	101.3
2018	1710	2643	502	26.4	21.2	0.07	0.04	99.9	101.2	3.8	2.6	2.7	3.0	2.4	101.7	100.2	101.6

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.

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Nova Scotia

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	3207	1842	-495	-25.5	-20.3	-0.05	-0.03	97.6	97.9	-4.7	-0.9	-3.2	-5.5	-0.2	97.4	99.9	98.2
2009	3048	1882	-446	-22.9	-19.0	-0.05	-0.03	97.2	97.8	-4.1	-0.6	-3.0	-4.8	0.1	97.5	99.8	98.1
2010	3171	1947	-329	-17.9	-15.2	-0.04	-0.03	97.9	98.2	-3.5	-0.1	-2.6	-4.3	0.5	97.7	99.9	98.3
2011	2962	2024	-292	-13.6	-12.7	-0.02	-0.02	98.0	98.4	-2.4	0.2	-1.6	-3.2	0.7	98.5	99.5	99.2
2012	2844	2129	-228	-7.7	-8.1	0.01	-0.00	98.0	98.6	-1.1	0.9	-0.6	-2.0	1.1	98.9	99.6	99.5
2013	2867	2219	-49	-1.9	-2.7	0.01	-0.01	98.2	99.1	-0.2	1.0	0.2	-1.2	1.3	99.3	99.6	99.8
2014	2951	2283	53	1.8	1.2	0.00	-0.00	99.0	99.7	0.2	0.9	0.5	-0.6	1.1	99.9	99.9	100.0
2015	3051	2381	136	8.3	6.1	0.03	0.02	99.1	100.2	1.2	1.5	1.2	0.3	1.5	100.5	100.0	100.5
2016	2790	2488	261	15.6	11.8	0.05	0.03	99.3	100.6	1.9	1.5	1.9	1.0	1.7	101.3	100.7	101.4
2017	2528	2585	387	21.5	16.5	0.06	0.03	99.7	101.3	3.1	2.0	2.4	2.3	2.4	101.9	100.6	101.6
2018	2078	2670	471	27.4	20.5	0.09	0.04	100.0	101.5	4.1	2.4	3.1	3.2	2.8	102.2	100.6	102.0

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.

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New Brunswick

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	2479	1816	-482	-26.7	-21.5	-0.07	-0.04	97.8	98.0	-4.9	-0.9	-3.3	-5.7	-0.3	97.3	99.8	98.4
2009	2442	1845	-403	-24.7	-19.2	-0.08	-0.05	97.8	97.9	-4.7	-1.2	-3.3	-5.3	-0.2	97.5	99.8	98.2
2010	2396	1910	-344	-19.1	-15.2	-0.05	-0.03	98.0	98.2	-3.9	-0.3	-2.7	-4.8	0.1	97.4	99.3	98.0
2011	2203	2001	-270	-13.8	-12.7	-0.03	-0.03	97.8	98.1	-2.6	0.4	-1.5	-3.6	0.8	98.0	99.1	98.9
2012	2144	2077	-256	-8.8	-9.9	0.01	-0.01	98.0	98.2	-1.4	0.9	-0.8	-2.4	0.9	98.3	98.8	99.1
2013	2082	2176	-81	-4.3	-3.9	-0.01	-0.01	98.2	98.8	-0.5	1.1	-0.1	-1.4	1.0	98.9	99.2	99.5
2014	1942	2270	-21	2.1	-0.2	0.03	0.01	98.6	99.4	0.1	0.8	0.7	-0.7	1.3	99.7	99.6	100.0
2015	2001	2354	105	6.8	4.9	0.03	0.01	99.0	100.0	1.2	1.4	1.2	0.3	1.4	100.2	99.5	100.0
2016	2030	2447	224	13.8	9.2	0.05	0.02	99.1	100.3	1.9	1.6	1.6	1.0	1.8	100.9	100.0	100.8
2017	1707	2551	309	20.5	13.8	0.08	0.03	99.6	101.1	2.8	2.0	2.2	2.0	2.0	101.7	100.3	101.2
2018	1055	2635	407	26.0	17.5	0.10	0.03	100.0	101.5	3.7	2.1	2.6	3.1	2.2	102.1	100.5	101.8

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.

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Quebec

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	67879	1836	-470	-25.1	-19.3	-0.06	-0.03	97.9	97.9	-5.0	-1.4	-3.3	-5.6	-0.3	97.3	99.9	98.2
2009	69343	1872	-379	-22.2	-17.1	-0.06	-0.03	97.6	97.9	-4.6	-1.2	-3.2	-5.1	-0.3	97.4	99.7	98.0
2010	67909	1945	-275	-16.7	-12.6	-0.05	-0.03	98.1	98.0	-3.8	-0.6	-2.5	-4.5	0.2	97.5	99.6	98.1
2011	66942	2025	-236	-12.9	-10.3	-0.03	-0.02	98.1	98.3	-2.7	-0.3	-1.7	-3.4	0.4	98.4	99.5	99.0
2012	67526	2117	-186	-7.1	-6.8	0.00	-0.00	98.5	98.6	-1.6	0.2	-0.8	-2.4	0.7	98.8	99.6	99.4
2013	62931	2212	-37	-2.3	-1.4	-0.00	0.00	98.3	99.3	-0.6	0.5	-0.1	-1.4	1.0	99.5	99.8	99.5
2014	60885	2301	41	2.7	2.5	0.02	0.01	99.0	100.0	0.1	0.6	0.6	-0.6	1.2	100.3	100.1	99.9
2015	59269	2387	150	7.9	6.5	0.02	0.01	99.1	100.4	1.2	1.2	1.3	0.4	1.4	100.8	100.1	100.4
2016	55352	2481	295	14.2	11.7	0.03	0.02	99.3	101.0	1.8	1.5	1.8	1.0	1.5	101.4	100.7	101.1
2017	51159	2570	448	18.2	16.6	0.02	0.02	99.8	101.6	3.0	1.8	2.5	2.2	2.2	102.0	100.5	101.4
2018	44431	2658	498	25.1	20.7	0.06	0.03	100.1	101.6	3.8	2.1	3.0	3.1	2.5	102.4	100.8	101.9

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.

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Ontario

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	55298	1811	-567	-26.9	-22.6	-0.04	-0.03	97.7	97.8	-4.9	-1.1	-3.3	-5.7	-0.3	97.3	99.7	98.2
2009	55794	1846	-474	-24.2	-20.4	-0.05	-0.04	97.6	97.8	-4.5	-1.0	-3.2	-5.2	-0.2	97.4	99.7	98.0
2010	56163	1906	-388	-19.3	-16.4	-0.04	-0.03	98.0	98.0	-3.8	-0.4	-2.6	-4.7	0.2	97.4	99.4	98.0
2011	55168	1990	-328	-13.9	-13.6	-0.01	-0.02	97.9	98.2	-2.8	0.0	-1.8	-3.7	0.7	98.0	99.2	98.9
2012	54394	2080	-258	-8.8	-9.8	0.01	-0.01	98.1	98.2	-1.6	0.6	-1.0	-2.5	0.9	98.4	99.2	99.3
2013	52824	2158	-110	-4.3	-4.8	0.00	-0.01	98.1	98.6	-0.8	0.7	-0.4	-1.7	0.9	98.8	99.2	99.5
2014	51801	2252	-21	1.0	-0.8	0.02	0.00	98.6	99.4	0.0	0.8	0.5	-0.9	1.2	99.6	99.5	99.7
2015	52809	2339	73	5.9	3.6	0.03	0.01	98.7	100.0	0.9	1.3	1.0	0.1	1.4	100.2	99.6	100.2
2016	50206	2430	224	12.2	8.8	0.04	0.01	99.0	100.3	1.6	1.5	1.5	0.8	1.5	100.8	99.9	100.9
2017	44841	2529	334	17.3	13.8	0.05	0.02	99.4	101.1	2.7	1.9	2.2	1.8	2.0	101.5	100.2	101.4
2018	38884	2615	430	23.1	18.2	0.06	0.03	99.6	101.3	3.5	2.1	2.7	2.7	2.3	101.9	100.6	101.9

Notes:

1. Based on all cows with both production and type indexes.
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Manitoba

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	6138	1772	-528	-29.7	-22.9	-0.08	-0.04	97.6	97.5	-5.7	-2.0	-3.6	-6.2	-0.9	97.1	99.9	98.3
2009	6035	1814	-465	-26.5	-21.6	-0.07	-0.05	97.6	97.6	-5.4	-2.1	-3.5	-5.7	-0.9	97.5	100.1	98.2
2010	5983	1889	-363	-22.3	-17.4	-0.07	-0.04	98.0	97.8	-4.5	-1.7	-3.0	-4.9	-0.4	97.8	100.3	98.4
2011	5919	1965	-275	-17.0	-13.7	-0.05	-0.04	97.9	98.0	-3.7	-1.2	-2.3	-4.2	0.0	98.3	100.1	99.1
2012	6186	2051	-205	-12.3	-9.8	-0.04	-0.02	98.1	98.2	-2.7	-0.9	-1.6	-3.2	0.3	98.7	100.2	99.6
2013	5461	2146	-31	-7.2	-3.8	-0.05	-0.02	98.3	98.8	-1.8	-0.7	-0.9	-2.3	0.4	99.3	100.4	99.8
2014	5464	2219	43	-3.1	-0.3	-0.04	-0.01	98.7	99.2	-1.1	-0.5	-0.4	-1.5	0.5	99.9	100.5	100.2
2015	5555	2308	129	2.3	3.6	-0.02	-0.00	98.9	99.9	-0.2	-0.1	0.2	-0.6	0.5	100.6	100.8	100.8
2016	5130	2404	250	8.9	8.8	0.00	0.01	99.4	100.0	0.7	0.1	0.8	0.3	0.9	101.1	101.0	101.2
2017	4523	2520	395	16.5	14.9	0.02	0.01	99.8	100.8	1.8	0.6	1.4	1.5	1.2	101.8	101.2	101.8
2018	3695	2607	463	24.1	19.6	0.06	0.03	100.0	101.0	2.7	1.2	2.1	2.2	1.6	102.0	101.1	102.2

Notes:

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Saskatchewan

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	4053	1763	-623	-33.9	-25.9	-0.09	-0.04	97.3	97.3	-5.2	-1.5	-3.6	-5.7	-0.7	97.1	100.1	98.1
2009	3930	1806	-554	-30.6	-24.1	-0.08	-0.04	97.4	97.5	-4.9	-1.4	-3.4	-5.4	-0.6	97.5	100.4	98.2
2010	3956	1865	-451	-26.3	-20.2	-0.08	-0.04	97.6	97.4	-4.2	-1.2	-2.9	-4.7	-0.2	97.5	100.2	98.2
2011	3678	1945	-352	-21.4	-16.0	-0.07	-0.03	97.7	97.7	-3.2	-0.6	-2.0	-3.9	0.2	98.0	99.9	98.8
2012	3925	2024	-287	-16.0	-12.7	-0.04	-0.02	97.7	97.9	-2.2	-0.2	-1.4	-2.9	0.6	98.4	99.7	99.3
2013	3589	2105	-213	-12.2	-9.3	-0.03	-0.02	97.8	98.5	-1.3	0.1	-0.6	-2.0	0.6	99.0	99.9	99.6
2014	3161	2209	-47	-5.6	-3.8	-0.03	-0.02	98.2	99.1	-0.4	0.4	0.2	-1.1	1.0	99.7	100.2	100.1
2015	3425	2286	21	-0.5	0.7	-0.00	0.00	98.7	99.7	0.3	0.6	0.6	-0.3	0.9	100.2	100.2	100.3
2016	3671	2388	137	6.5	6.6	0.02	0.02	98.9	100.3	1.0	0.6	1.1	0.5	0.7	101.0	100.5	101.0
2017	3529	2471	233	11.5	10.5	0.03	0.02	99.6	100.9	1.9	1.0	1.5	1.5	1.2	101.5	100.6	101.3
2018	3529	2560	320	17.6	14.1	0.05	0.03	99.7	101.0	2.9	1.4	2.2	2.5	1.6	101.9	101.0	101.8

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
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Alberta

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	13461	1779	-510	-30.4	-22.6	-0.09	-0.04	97.4	97.6	-5.6	-2.2	-3.6	-5.8	-1.1	97.3	100.2	98.3
2009	13740	1819	-449	-27.9	-20.6	-0.09	-0.04	97.3	97.6	-5.2	-2.0	-3.4	-5.4	-1.0	97.6	100.2	98.3
2010	13584	1885	-382	-23.7	-17.6	-0.08	-0.04	97.5	97.7	-4.3	-1.7	-2.9	-4.6	-0.5	97.8	100.1	98.4
2011	13052	1966	-278	-17.7	-13.3	-0.06	-0.03	97.6	97.9	-3.5	-1.1	-2.3	-3.9	-0.1	98.2	99.9	99.0
2012	13263	2046	-221	-13.1	-10.4	-0.04	-0.02	97.7	98.1	-2.5	-0.6	-1.5	-3.0	0.2	98.7	99.9	99.5
2013	12274	2121	-111	-9.3	-6.4	-0.04	-0.02	98.1	98.5	-1.7	-0.5	-0.9	-2.2	0.4	99.2	100.1	99.6
2014	11961	2211	-11	-3.9	-1.9	-0.02	-0.01	98.3	99.1	-0.8	-0.1	-0.2	-1.3	0.6	99.8	100.2	99.9
2015	12292	2280	54	-0.6	1.3	-0.02	-0.00	98.6	99.6	-0.1	-0.0	0.3	-0.5	0.7	100.4	100.4	100.3
2016	11353	2377	176	6.3	6.5	0.00	0.01	98.9	100.0	0.7	0.3	0.9	0.3	0.9	101.0	100.7	101.0
2017	10210	2482	269	12.6	12.2	0.03	0.03	99.3	100.9	1.7	0.7	1.4	1.4	1.0	101.6	100.9	101.4
2018	9087	2560	382	19.1	17.4	0.04	0.04	99.7	100.9	2.5	1.1	1.9	2.1	1.2	101.8	100.9	101.9

Notes:

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2. Production in kg EBV units and conformation in EBV points.
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British Columbia

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	11175	1788	-486	-30.5	-22.1	-0.10	-0.05	97.8	97.5	-5.2	-1.7	-3.6	-5.5	-0.7	97.1	99.8	98.2
2009	11712	1830	-416	-27.5	-20.2	-0.10	-0.05	97.5	97.4	-4.8	-1.6	-3.4	-5.1	-0.6	97.4	99.9	98.1
2010	11262	1891	-344	-23.1	-16.8	-0.08	-0.04	97.9	97.5	-4.1	-1.3	-2.9	-4.5	-0.2	97.5	99.7	98.1
2011	11454	1986	-246	-17.2	-12.7	-0.06	-0.03	97.9	97.9	-2.9	-0.4	-2.0	-3.5	0.3	98.2	99.6	99.1
2012	11877	2063	-221	-12.6	-10.3	-0.03	-0.02	98.0	98.2	-1.9	-0.1	-1.2	-2.5	0.5	98.6	99.6	99.5
2013	11994	2146	-84	-7.6	-5.5	-0.03	-0.02	98.2	98.9	-1.2	-0.0	-0.6	-1.8	0.6	99.2	99.7	99.6
2014	11710	2242	47	-2.2	-0.0	-0.03	-0.01	98.6	99.5	-0.4	0.1	0.2	-1.0	0.9	99.9	100.0	100.0
2015	11690	2331	133	2.7	4.1	-0.01	-0.00	98.9	100.0	0.5	0.6	0.8	-0.1	1.1	100.6	100.3	100.5
2016	10547	2438	275	11.1	10.0	0.01	0.01	99.2	100.4	1.4	0.9	1.3	0.8	1.3	101.2	100.6	101.2
2017	9532	2533	394	16.5	14.9	0.02	0.02	99.6	101.0	2.4	1.2	1.9	1.8	1.8	101.8	100.7	101.7
2018	7896	2616	486	23.3	20.4	0.05	0.03	99.8	101.2	3.0	1.5	2.3	2.5	1.7	102.1	101.0	102.2

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.

Provincial genetic trends by birth year for Holstein cows
Lactanet Canada, August 2021

Newfoundland

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2008	178	1715	-663	-34.7	-26.9	-0.08	-0.04	97.0	97.8	-6.3	-2.7	-3.9	-6.6	-0.8	97.4	100.5	97.9
2009	198	1783	-415	-28.7	-20.8	-0.11	-0.05	97.3	97.6	-5.6	-2.5	-3.3	-6.0	-0.6	97.4	100.1	97.9
2010	257	1823	-416	-25.8	-22.2	-0.08	-0.07	98.2	97.8	-4.4	-1.6	-3.2	-4.7	-0.4	97.5	99.6	97.8
2011	235	1933	-306	-19.9	-15.1	-0.07	-0.04	97.9	98.4	-3.9	-1.5	-2.5	-4.4	-0.2	98.6	100.1	99.3
2012	308	2053	-153	-12.1	-8.9	-0.05	-0.03	98.0	98.2	-2.2	-0.2	-1.0	-2.8	0.4	98.6	99.4	99.4
2013	300	2127	-118	-7.8	-6.1	-0.02	-0.02	98.1	98.7	-1.9	-0.9	-0.9	-2.0	-0.1	99.2	100.1	99.5
2014	361	2262	18	-0.7	1.2	-0.01	0.01	98.9	99.7	-0.6	-0.2	-0.2	-1.0	0.5	100.2	100.9	100.2
2015	363	2367	326	8.5	9.5	-0.03	-0.01	99.0	100.6	-0.1	0.1	0.5	-0.4	-0.1	100.8	100.6	100.7
2016	369	2495	491	19.5	17.3	0.01	0.01	99.9	101.0	0.6	-0.0	1.0	0.4	0.2	101.6	101.2	101.6
2017	346	2634	709	29.7	27.2	0.03	0.03	99.6	101.2	1.9	0.7	1.6	1.8	0.5	101.9	101.0	101.9
2018	312	2683	783	34.5	31.9	0.04	0.05	100.3	101.1	2.0	0.8	1.4	2.0	0.6	101.9	101.4	102.8

Notes:

1. Based on all cows with both production and type indexes.
2. Production in kg EBV units and conformation in EBV points.
3. Conformation indexes based on first lactation classifications of each cow.