

**Provincial genetic trends by birth year for Holstein cows  
Lactanet Canada, August 2024**

**Prince Edward Island**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	2193	2038	-630	-30.0	-27.7	-0.05	-0.05	97.4	96.7	-3.6	1.0	-2.0	-5.7	1.3	95.4	97.2	96.3
2012	2355	2087	-612	-27.1	-25.1	-0.03	-0.03	97.4	96.7	-2.9	1.1	-1.6	-4.8	1.2	95.7	97.1	96.6
2013	2336	2168	-438	-23.0	-19.5	-0.05	-0.04	97.7	97.0	-2.1	1.3	-1.2	-3.8	1.3	96.2	97.3	96.8
2014	2358	2267	-339	-15.8	-14.8	-0.02	-0.02	98.2	97.8	-1.4	1.1	-0.3	-3.1	1.6	97.0	97.8	97.1
2015	2394	2349	-249	-11.0	-10.0	-0.01	-0.01	98.6	98.4	-0.5	1.5	0.2	-2.1	1.6	97.6	97.8	97.7
2016	2411	2452	-107	-3.4	-4.1	0.01	-0.00	98.5	98.7	0.2	1.4	0.7	-1.3	1.6	98.4	98.3	98.6
2017	2102	2549	-11	3.4	1.4	0.04	0.02	99.0	99.3	1.0	1.7	1.0	-0.3	1.7	99.1	98.5	99.2
2018	2090	2630	140	9.4	6.6	0.04	0.02	99.2	99.6	1.4	1.6	1.1	0.3	2.0	99.6	99.0	99.8
2019	1962	2714	135	16.2	9.5	0.10	0.04	99.2	100.4	2.0	1.7	1.7	0.9	2.2	100.4	99.3	100.3
2020	1832	2813	245	25.8	16.0	0.14	0.06	99.3	100.5	2.7	2.1	2.3	1.5	2.3	100.7	99.3	100.4
2021	1374	2907	271	33.3	20.4	0.19	0.09	99.6	101.1	3.6	2.5	3.0	2.2	2.6	101.4	99.4	100.9

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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**Nova Scotia**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	2971	2041	-583	-28.6	-25.4	-0.05	-0.04	97.3	96.8	-4.6	0.2	-2.6	-6.2	0.8	95.8	98.0	96.9
2012	2861	2143	-523	-22.9	-21.0	-0.02	-0.02	97.3	97.0	-3.2	0.8	-1.6	-4.9	1.1	96.2	98.1	97.3
2013	2885	2231	-351	-17.3	-15.7	-0.03	-0.03	97.5	97.4	-2.3	0.8	-0.8	-4.0	1.3	96.7	98.2	97.6
2014	2973	2290	-260	-13.9	-12.1	-0.03	-0.02	98.3	98.0	-1.9	0.7	-0.6	-3.4	1.1	97.4	98.4	97.7
2015	3102	2380	-189	-7.9	-7.6	0.00	-0.01	98.3	98.5	-0.9	1.1	0.1	-2.4	1.4	98.0	98.5	98.3
2016	2892	2481	-71	-1.1	-2.1	0.02	0.00	98.5	98.9	-0.2	1.0	0.6	-1.7	1.5	98.9	99.2	99.2
2017	2745	2571	48	4.0	2.1	0.02	0.01	99.0	99.5	0.9	1.3	1.1	-0.4	2.2	99.5	99.1	99.5
2018	2718	2638	104	9.0	5.7	0.05	0.02	99.2	99.8	1.6	1.3	1.4	0.4	2.4	99.9	99.2	100.1
2019	2574	2741	218	18.0	12.5	0.09	0.04	99.6	100.4	2.0	1.4	1.7	1.0	2.5	100.7	99.6	100.6
2020	2364	2830	367	26.3	18.4	0.11	0.05	99.6	100.5	2.9	2.2	2.3	1.6	2.8	100.8	99.4	100.9
2021	2126	2915	364	32.4	20.8	0.16	0.07	99.9	100.8	3.9	2.5	3.3	2.3	3.2	101.6	99.7	101.3

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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**Lactanet Canada, August 2024**

**New Brunswick**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	2227	2015	-558	-28.9	-25.4	-0.06	-0.05	97.1	96.5	-4.8	0.3	-2.5	-6.7	0.9	95.3	97.7	96.6
2012	2176	2090	-551	-24.1	-22.8	-0.02	-0.03	97.3	96.7	-3.5	0.7	-1.7	-5.4	0.9	95.6	97.3	96.8
2013	2131	2184	-379	-19.9	-17.1	-0.04	-0.03	97.5	97.2	-2.6	0.9	-1.1	-4.3	1.0	96.3	97.7	97.3
2014	2001	2274	-331	-13.9	-13.6	-0.01	-0.02	97.8	97.7	-2.0	0.6	-0.4	-3.5	1.3	97.1	98.1	97.8
2015	2090	2352	-214	-9.3	-8.8	-0.00	-0.01	98.3	98.4	-0.9	1.1	0.0	-2.5	1.3	97.6	98.0	97.8
2016	2114	2437	-118	-3.0	-5.0	0.02	-0.01	98.3	98.7	-0.3	1.1	0.4	-1.7	1.6	98.5	98.5	98.6
2017	1896	2525	-41	2.2	-0.9	0.04	0.01	98.7	99.3	0.5	1.3	0.8	-0.7	1.7	99.2	98.8	99.1
2018	1755	2613	30	8.3	2.9	0.06	0.02	99.0	99.6	1.5	1.3	1.3	0.3	2.1	99.8	99.0	99.9
2019	1612	2695	109	15.0	9.0	0.10	0.04	99.3	99.9	1.9	1.4	1.7	0.8	2.2	100.3	99.3	100.3
2020	1490	2778	241	21.8	13.0	0.11	0.04	99.2	100.2	2.7	2.0	2.2	1.6	2.4	100.6	99.3	100.7
2021	1371	2859	234	25.9	16.0	0.15	0.06	99.6	100.6	4.0	2.5	3.2	2.5	3.2	101.3	99.4	100.9

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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**Lactanet Canada, August 2024**

**Quebec**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	67173	2040	-528	-27.9	-23.1	-0.06	-0.04	97.4	96.7	-5.0	-0.4	-2.7	-6.4	0.5	95.7	98.0	96.7
2012	67820	2131	-483	-22.2	-19.7	-0.03	-0.02	97.7	97.0	-3.8	0.1	-1.8	-5.3	0.7	96.1	98.2	97.2
2013	63468	2222	-339	-17.8	-14.5	-0.04	-0.02	97.6	97.7	-2.7	0.3	-1.1	-4.2	1.0	96.9	98.3	97.2
2014	61762	2306	-271	-13.1	-10.8	-0.02	-0.01	98.3	98.3	-2.0	0.3	-0.5	-3.4	1.2	97.7	98.7	97.6
2015	60491	2386	-169	-8.1	-7.1	-0.01	-0.01	98.4	98.7	-0.9	0.9	0.2	-2.4	1.3	98.3	98.6	98.2
2016	57150	2474	-37	-2.5	-2.2	-0.00	-0.01	98.6	99.2	-0.3	1.0	0.6	-1.7	1.3	99.0	99.2	98.9
2017	54820	2553	100	1.0	2.3	-0.02	-0.01	99.0	99.8	0.8	1.1	1.1	-0.5	1.9	99.7	99.0	99.4
2018	53049	2645	148	7.9	6.6	0.02	0.01	99.3	99.8	1.6	1.1	1.5	0.5	2.3	100.3	99.4	100.0
2019	47878	2735	267	14.8	12.4	0.04	0.03	99.6	100.5	2.2	1.4	1.9	1.1	2.2	100.9	99.7	100.5
2020	45791	2821	352	23.5	17.2	0.09	0.04	99.5	100.7	2.8	1.9	2.4	1.7	2.3	101.1	99.7	101.0
2021	39548	2913	395	30.3	21.0	0.13	0.06	99.7	101.1	3.9	2.5	3.1	2.5	2.8	101.8	99.9	101.2

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.

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**Ontario**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	55341	2003	-617	-28.8	-26.3	-0.04	-0.04	97.2	96.6	-5.0	-0.0	-2.8	-6.7	0.7	95.3	97.7	96.6
2012	54659	2091	-552	-23.9	-22.7	-0.02	-0.03	97.3	96.6	-3.7	0.5	-2.0	-5.4	0.9	95.7	97.7	97.0
2013	53177	2167	-410	-19.6	-17.8	-0.03	-0.03	97.4	97.0	-2.9	0.6	-1.4	-4.5	0.9	96.2	97.7	97.3
2014	52400	2257	-328	-14.5	-13.9	-0.01	-0.02	97.8	97.8	-2.1	0.6	-0.6	-3.7	1.2	97.0	98.0	97.5
2015	53739	2339	-243	-9.9	-9.8	0.00	-0.01	98.0	98.3	-1.2	1.0	-0.1	-2.7	1.3	97.7	98.1	98.0
2016	51703	2423	-105	-4.3	-5.1	0.00	-0.01	98.2	98.5	-0.5	1.1	0.3	-1.9	1.4	98.3	98.5	98.7
2017	48495	2511	-13	-0.0	-0.6	0.01	0.00	98.6	99.3	0.5	1.2	0.9	-0.9	1.8	99.0	98.7	99.3
2018	46528	2595	72	5.4	3.6	0.03	0.01	98.8	99.4	1.3	1.2	1.3	0.1	2.0	99.6	99.2	99.9
2019	43577	2682	136	11.5	8.6	0.06	0.03	99.0	99.9	2.0	1.4	1.8	0.8	2.3	100.2	99.4	100.3
2020	39341	2777	270	20.2	14.2	0.09	0.04	99.1	100.2	2.8	2.1	2.4	1.4	2.6	100.6	99.4	100.6
2021	34625	2859	324	25.7	17.5	0.12	0.05	99.4	100.5	3.8	2.5	3.1	2.4	3.0	101.1	99.5	100.9

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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**Manitoba**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	5930	1979	-562	-31.8	-26.3	-0.08	-0.06	97.1	96.5	-6.0	-1.2	-3.4	-7.3	0.1	95.6	98.6	96.9
2012	6206	2063	-496	-27.3	-22.5	-0.07	-0.04	97.4	96.7	-4.9	-0.9	-2.6	-6.2	0.3	96.1	98.7	97.3
2013	5505	2155	-331	-22.4	-16.8	-0.08	-0.04	97.5	97.2	-4.0	-0.8	-1.9	-5.2	0.4	96.8	98.9	97.6
2014	5532	2223	-269	-18.6	-13.7	-0.07	-0.03	97.9	97.6	-3.3	-0.7	-1.4	-4.4	0.5	97.3	99.1	97.9
2015	5644	2309	-190	-13.5	-9.9	-0.05	-0.03	98.1	98.2	-2.4	-0.4	-0.9	-3.4	0.5	98.1	99.4	98.5
2016	5375	2399	-82	-7.9	-5.3	-0.04	-0.02	98.6	98.3	-1.4	-0.2	-0.2	-2.4	0.9	98.7	99.6	99.0
2017	4994	2503	44	-1.5	0.0	-0.02	-0.01	98.9	99.0	-0.4	0.0	0.1	-1.2	1.1	99.5	99.8	99.7
2018	4680	2582	105	5.2	4.4	0.01	0.01	99.1	99.1	0.4	0.3	0.8	-0.4	1.5	99.7	99.7	100.0
2019	4533	2670	211	11.2	9.8	0.03	0.02	99.4	99.6	1.0	0.5	1.2	0.2	1.6	100.4	100.1	100.5
2020	3864	2787	355	22.9	17.3	0.08	0.04	99.3	100.2	1.9	1.3	1.5	1.0	2.1	100.8	100.0	101.0
2021	3126	2868	384	27.3	19.9	0.11	0.05	99.7	100.4	3.0	1.9	2.3	1.9	2.4	101.4	100.4	101.5

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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**Saskatchewan**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	3706	1962	-634	-36.2	-28.5	-0.10	-0.05	96.9	96.2	-5.4	-0.6	-3.0	-7.0	0.3	95.3	98.4	96.5
2012	3960	2039	-577	-31.0	-25.4	-0.07	-0.04	97.0	96.4	-4.3	-0.2	-2.4	-5.8	0.6	95.8	98.2	97.0
2013	3632	2118	-505	-27.4	-22.2	-0.06	-0.04	97.0	96.9	-3.4	-0.0	-1.6	-4.9	0.7	96.4	98.5	97.4
2014	3249	2213	-357	-21.2	-17.0	-0.06	-0.04	97.4	97.5	-2.6	0.1	-0.9	-4.0	1.0	97.2	98.8	97.8
2015	3557	2284	-298	-16.2	-12.7	-0.03	-0.02	98.0	98.0	-1.8	0.3	-0.5	-3.1	0.9	97.7	98.6	98.1
2016	3857	2381	-194	-9.9	-7.4	-0.01	-0.00	98.2	98.6	-1.2	0.3	-0.1	-2.2	0.7	98.5	99.0	98.9
2017	3917	2450	-121	-6.1	-4.2	-0.01	0.00	98.8	99.0	-0.3	0.5	0.2	-1.2	1.1	99.0	99.1	99.2
2018	4102	2535	-34	-1.0	-0.8	0.01	0.01	98.7	99.1	0.7	0.6	0.9	-0.2	1.4	99.6	99.5	99.8
2019	3789	2622	22	5.5	4.4	0.05	0.03	98.9	99.6	1.2	0.7	1.2	0.6	1.5	100.2	99.8	100.4
2020	3568	2733	149	15.7	11.7	0.09	0.05	99.1	100.1	2.1	1.3	1.5	1.5	1.6	100.5	99.7	100.8
2021	3489	2822	187	22.1	15.0	0.13	0.07	99.5	100.5	3.1	1.8	2.3	2.3	2.1	101.2	100.1	101.1

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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**Alberta**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	13178	1983	-566	-32.5	-26.0	-0.09	-0.05	96.9	96.3	-5.8	-1.1	-3.3	-7.0	-0.0	95.5	98.5	96.7
2012	13432	2060	-516	-28.1	-23.2	-0.07	-0.04	97.0	96.6	-4.7	-0.7	-2.5	-6.0	0.3	96.1	98.5	97.3
2013	12462	2132	-412	-24.6	-19.4	-0.07	-0.04	97.3	96.9	-3.9	-0.6	-1.9	-5.1	0.4	96.6	98.7	97.4
2014	12212	2217	-322	-19.6	-15.3	-0.06	-0.03	97.5	97.5	-2.9	-0.3	-1.2	-4.1	0.6	97.2	98.8	97.7
2015	12672	2283	-262	-16.4	-12.2	-0.05	-0.02	97.9	98.0	-2.2	-0.2	-0.8	-3.3	0.7	97.9	99.0	98.1
2016	11905	2372	-156	-10.0	-7.5	-0.03	-0.01	98.2	98.3	-1.4	0.0	-0.3	-2.5	0.8	98.5	99.3	98.8
2017	11416	2462	-84	-4.8	-2.6	-0.01	0.00	98.6	99.1	-0.6	0.1	0.1	-1.4	0.9	99.2	99.5	99.3
2018	11127	2540	12	0.9	2.2	0.01	0.02	98.8	99.1	0.1	0.4	0.5	-0.6	1.0	99.6	99.6	99.9
2019	10548	2631	96	8.8	6.9	0.05	0.03	99.0	99.6	0.7	0.5	0.9	0.0	1.2	100.1	99.9	100.5
2020	10268	2734	206	18.6	13.8	0.09	0.06	98.9	100.0	1.4	1.1	1.3	0.6	1.3	100.5	99.9	100.8
2021	9365	2802	200	23.3	15.9	0.14	0.07	99.1	100.4	2.2	1.4	1.7	1.5	1.5	101.0	100.2	101.2

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.



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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
2011	11488	2004	-530	-31.9	-25.2	-0.09	-0.06	97.2	96.4	-5.1	-0.5	-3.0	-6.5	0.3	95.5	98.1	96.8
2012	11921	2078	-511	-27.5	-23.0	-0.06	-0.04	97.3	96.6	-4.1	-0.2	-2.2	-5.4	0.5	96.0	98.1	97.2
2013	12072	2159	-382	-22.7	-18.4	-0.06	-0.04	97.5	97.3	-3.3	-0.2	-1.6	-4.6	0.6	96.6	98.2	97.3
2014	11827	2251	-256	-17.7	-13.0	-0.06	-0.03	97.9	97.9	-2.5	-0.1	-0.8	-3.8	0.9	97.4	98.6	97.8
2015	11895	2335	-181	-13.0	-9.3	-0.05	-0.02	98.2	98.3	-1.6	0.3	-0.4	-2.8	1.0	98.1	98.9	98.3
2016	10805	2436	-57	-5.1	-3.8	-0.02	-0.01	98.5	98.7	-0.8	0.5	0.1	-1.9	1.2	98.8	99.1	99.0
2017	10210	2518	43	-0.8	0.5	-0.02	-0.01	98.8	99.2	0.1	0.6	0.6	-0.9	1.5	99.5	99.3	99.6
2018	9403	2606	132	6.0	6.1	0.01	0.02	99.0	99.4	0.7	0.7	0.9	-0.2	1.5	99.9	99.7	100.3
2019	8851	2719	196	16.7	12.3	0.08	0.05	99.0	99.9	1.4	0.9	1.3	0.6	1.7	100.5	100.1	100.9
2020	8016	2816	308	25.7	18.2	0.12	0.06	99.2	100.2	2.2	1.6	1.9	1.2	2.1	100.8	100.0	101.2
2021	6326	2907	330	32.0	21.9	0.17	0.09	99.2	100.7	3.2	2.0	2.4	2.2	2.2	101.6	100.3	101.7

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 2024**

**Newfoundland**

Year	Cows	LPI	Milk	Fat	Protein	Fat%	Protein%	Pers	SCS	Conf	DS	F&L	MS	Rump	HL	DF	DCA
2011	237	1949	-585	-34.4	-27.3	-0.10	-0.06	97.2	96.9	-6.1	-1.5	-3.4	-7.3	-0.1	95.8	98.6	97.0
2012	313	2067	-455	-27.1	-21.7	-0.08	-0.05	97.1	96.6	-4.3	-0.3	-2.0	-5.7	0.5	95.9	98.0	97.2
2013	312	2148	-416	-22.7	-19.0	-0.05	-0.04	97.3	97.2	-4.0	-1.0	-1.8	-4.9	0.0	96.7	98.7	97.3
2014	364	2275	-289	-16.5	-12.0	-0.04	-0.02	98.1	98.1	-2.7	-0.5	-1.2	-3.8	0.5	97.8	99.4	97.9
2015	378	2370	-26	-8.5	-5.0	-0.06	-0.03	98.1	99.0	-2.2	-0.2	-0.5	-3.1	-0.1	98.5	99.1	98.5
2016	399	2487	126	1.8	2.4	-0.02	-0.01	99.0	99.2	-1.6	-0.4	-0.2	-2.4	0.1	99.2	99.7	99.4
2017	396	2614	268	10.3	10.6	0.00	0.02	98.4	99.7	-0.3	0.1	0.3	-0.9	0.5	99.8	99.8	99.8
2018	434	2679	323	15.1	14.7	0.03	0.03	99.2	99.6	0.1	0.0	0.4	-0.2	0.8	100.0	100.2	100.8
2019	346	2774	470	21.7	19.8	0.03	0.03	98.9	100.1	1.2	0.7	1.3	0.5	1.4	100.7	100.2	101.1
2020	317	2874	603	34.6	27.2	0.10	0.05	99.2	100.6	1.8	2.2	1.6	0.4	2.2	100.6	99.9	101.4
2021	285	2955	603	36.3	31.2	0.11	0.08	99.8	101.2	3.1	2.2	1.8	2.4	2.3	101.2	100.1	101.7

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.