



Celebrating 10 Years of Pro\$: Canada's Profit Index

- August 13, 2025

The August 2025 genetic evaluation release marks a significant milestone for Canadian dairy genetics, 10 years of Pro\$! Introduced in 2015 for the Holstein and Jersey breeds and later for the Ayrshire breed, Pro\$ was designed to help producers maximize lifetime profitability by selecting animals with the greatest economic potential. Over the past decade, it has become a cornerstone of genetic decision-making on Canadian dairy farms, evolving alongside industry needs. This anniversary offers a moment to reflect on the impact of Pro\$ and how it continues to shape the future of genetic improvement in Canada.

A Measure of Lifetime Profitability

Pro\$ reflects real-world profitability by using yearly updated economic values based on your cows and current market conditions. It accounts for

changes in the pricing of milk and its components that affect each cow’s revenue as well as feed, maintenance, and rearing costs that affect expenses for dry cows, lactating cows and heifers (Table 1). To reflect a measure of lifetime profitability, the Pro\$ calculations consider each cow’s revenue and expenses up to 6 years of age or disposal if removed from the herd earlier. This gives every animal the opportunity to demonstrate its ability to remain productive across multiple lactations.

Table 1: Economic Values Used in Cow Profitability Calculations

Revenue	Expenses
• Fat (kg) • Protein (kg) • Deduction for fluids (kg milk)	• Heifer rearing cost (days) • Overhead cost (days in milk & days dry) • Maintenance feed cost (days in milk & days dry) • Marginal feed cost (/kg fat & /kg protein) • Quota opportunity cost (/kg fat)

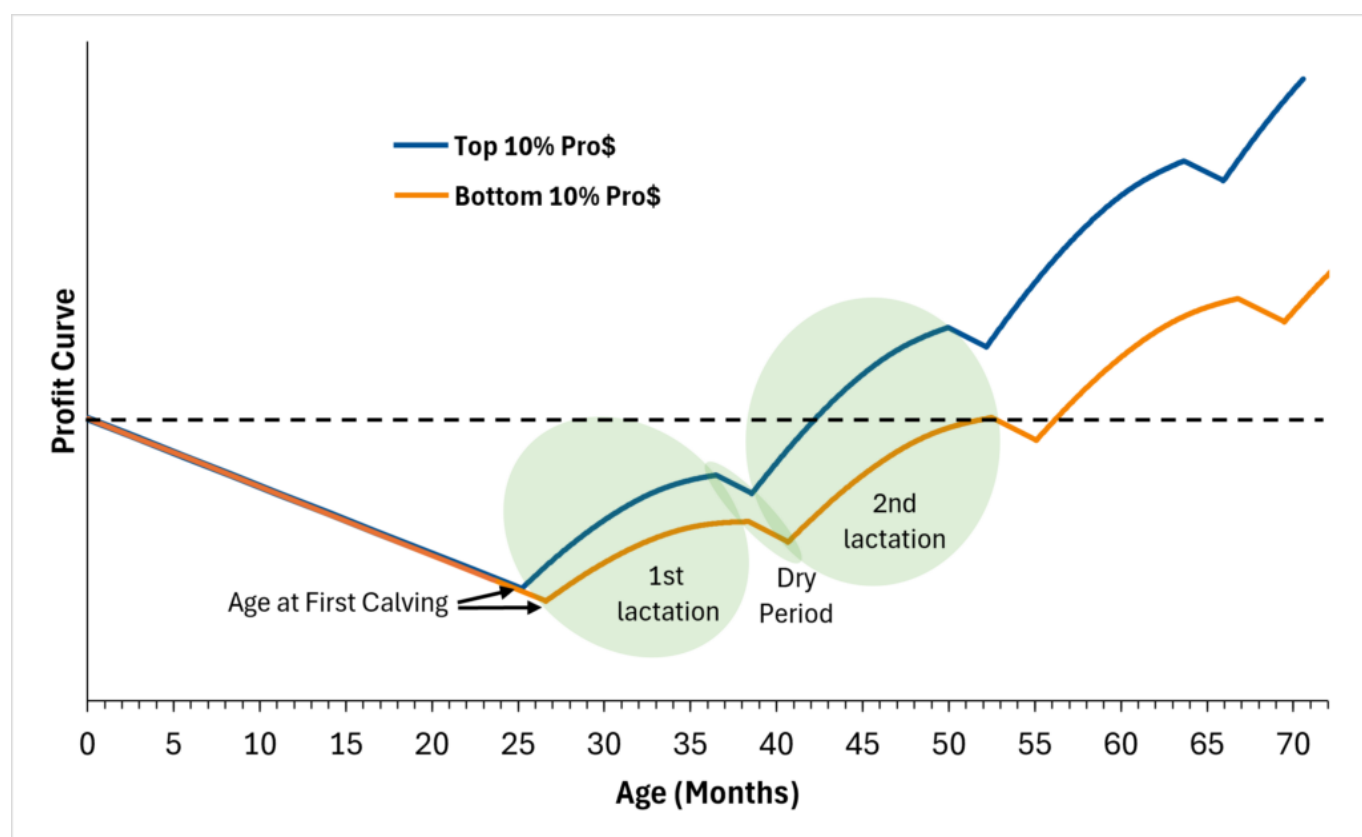
Profit Curve Insights

As a reminder, Pro\$ is expressed in dollars as a deviation from breed average, meaning a sire with a Pro\$ of 0 is expected to produce daughters that have an average accumulated profit to 6 years. Selecting for higher Pro\$ sires will produce more profitable daughters. To illustrate this, Lactanet analyzed the daughters of 1,387 Holstein sires with actual profit data who survived until six years of age (72 months). The daughters were born between 2012 and 2018 to give them the opportunity to reach six years of age. Figure 1 shows the average profit curves for the daughters of these sires ranked by the top and bottom 10% for Pro\$. The average Pro\$ for these top and bottom groups in the analysis was +\$1,505 and -\$1,534, respectively. The initial difference between the two sire groups lies in the age at first calving, with daughters of the top Pro\$ sires calving at 25 months of age, while those from the bottom 10%

calving closer to 27 months. This delay results in higher heifer rearing costs and postpones the onset of revenue generation from the first lactation.

During each dry period, revenue halts while expenses continue, impacting overall profitability. It's not until the second lactation, at 42 months of age on average, that daughters of the top sires recover their costs incurred from birth (as shown by the dotted line). In contrast, daughters of bottom sires do not reach this break-even point until 52 months of age on average, which is at the end of their second lactation. In both cases, profit increases as the animal moves through additional lactations but is higher for daughters of the top Pro\$ sires.

Figure 1: Lifetime Profit Curve for Daughters of Top 10% and Bottom 10% Pro\$ Holstein Sires with Daughter Profit Data



Sire Selection Pays Off

To further demonstrate the profitability differences between daughters of the top and bottom Pro\$ sires, we analyzed key performance indicators contributing to their lifetime profit curve. Specifically, we compared daughters of sires with profit data in the top and bottom 10% for Pro\$ against those of sires in the middle 10% (Table 2). As one might expect, longevity is a key component for lifetime profitability, with more daughters of the top Pro\$ sires remaining in the herd until six years of age, while fewer daughters of the bottom Pro\$ sires reached this milestone compared to the middle group.

Table 2: Performance Statistics for Daughters of Top 10% and Bottom 10% of Sires for Pro\$ Relative to Daughters of the Middle 10%

 Top 10%	% Survived to 6 Years of Age	Daughters that stayed to 6 years of age					Profit to 6 Years (All daughters)	
		AFC	DIM	Days Dry	Milk	Fat		Protein
	+0.6%	-26 days	+23 days	-2 days	+4585 kg	+227 kg	+175 kg	+\$1,728
 Bottom 10%	-6.4%	23 days	-31 days	+6 days	-2498 kg	-123 kg	-98 kg	-\$1,215

Among those that did stay to six years, daughters of the top sires had a younger average age at first calving (AFC), spent more days in milk (DIM), had shorter dry periods, and produced more kilograms of milk, fat and protein compared to their average counterparts. These performance advances translated into an average of \$1,728 more profit to 6 years, based on all daughters, compared to daughters of the middle 10%.

Conversely, daughters of the bottom group that stayed to six years of age had longer rearing periods, fewer days in milk, longer dry periods, and produced less milk, fat and protein compared to daughters of average Pro\$ sires. As a result, they generated an average of \$1,215 less profit. These findings highlight the substantial economic impact of sire selection on long-term profitability, reinforcing the value of using Pro\$ as a tool for

identifying sires that contribute to productivity and longevity.

Summary

As Pro\$ reaches its 10-year anniversary, analysis results clearly show its value in guiding profitable breeding decisions. Daughters of top-ranking Pro\$ sires consistently outperform those from lower-ranking Pro\$ sires in both productivity and longevity, leading to higher lifetime profits. By reflecting real-world economics, Pro\$ continues to be a trusted tool for selecting sires in the Canadian marketplace.

Partager



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