



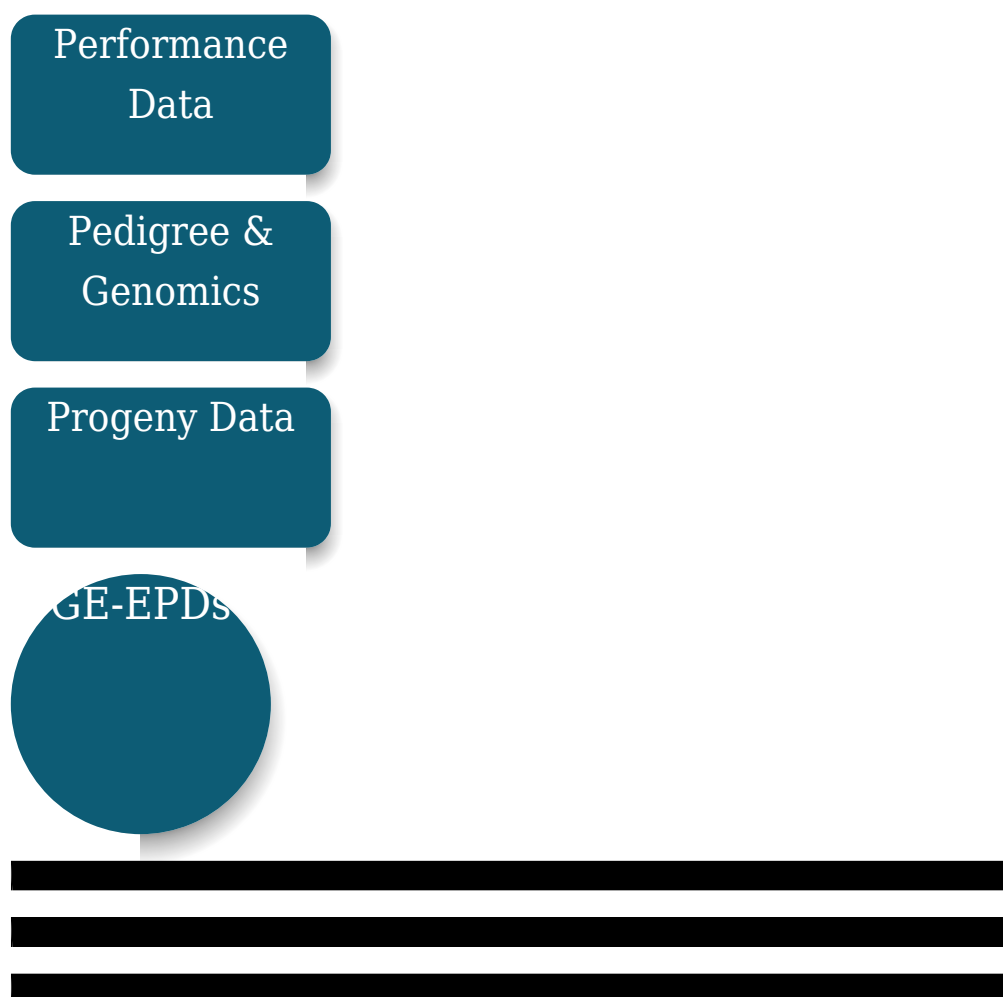
Beef-on-Dairy Query Tool Launching in 2025

- Genetics Tools
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Over the past few years, [on farm breeding strategies](#) have shifted to include the use of beef sire semen to breed lower genetic merit females and increase the sale value of calves. In response to this rising trend, A.I. companies have expanded their portfolio of beef sires specifically for use by dairy farmers. As Canada's provider of dairy genetic evaluations and supporting tools for those keen on querying animals, Lactanet is proud to collaborate with Angus Genetics Inc. (AGI) and the Canadian Angus Association on a new "Beef-on-Dairy Query" tool that will be available on the LactanetGen.ca website starting in 2025! With a high demand and varying purchase prices for beef calves, dairy farmers will be able to make their beef sire selection decisions with the same attention to detail to as they would with dairy sire selections!

From EBVs to EPDs – Angus Genetic Evaluations

Angus Genetics Inc. (AGI) is recognized globally as a provider of genetic evaluations for the Angus breed, which include data from Canada, the United States, and Australia. These genetic evaluations are published as Expected Progeny Differences (EPDs) or Genomic Enhanced EPDs (GE-EPDs) and predict how future offspring of a sire will perform relative to the offspring of other sires. As with dairy genetic evaluations, GE-EPDs include pedigree and genomic results, performance data, and progeny data.



Beef genetic evaluations are published for several key traits of interest to dairy farmers when breeding beef-on-dairy, including Calving Ease, growth traits like Weaning Weight and Yearling Weight as well as traits related to carcass quality like Carcass Weight, Marbling, Ribeye Area and

Fat Thickness. AGI also publishes two economic indexes designed specifically for use when mating Angus bulls to dairy cows, namely Angus-On-Holstein (\$AxH) and Angus-On-Jersey (\$AxJ). According to [Angus.org](https://www.angus.org), “the indexes are an estimate of how future beef-on-dairy progeny of each Angus sire are expected to perform, on average, compared to beef-on-dairy progeny of other Angus sires if the sires were randomly mated and calves were exposed to the same environment.” These economic indexes are expressed in dollars per head to help identify the most profitable sires for the beef-on-dairy market and include several genetic traits such as calving ease, growth from birth to finishing, feed intake, as well as carcass yield and quality. weightings of the traits are applied specifically for Angus matings to Holstein and Jersey cows. For example, \$AxH prioritizes marbling over growth and \$AxJ prioritizes growth over marbling. The “Beef-on-Dairy Query” tool on LactanetGen.ca will showcase both indexes as well as several other traits on Canadian and American Angus bulls, as defined by [Angus.org](https://www.angus.org) in Table 1.

Table 1. Expected Progeny Differences (EPDs) Calculated by AGI for Traits Included in Lactanet’s Beef-on-Dairy Query Tool

TRAIT	DEFINITION	ARE ↑ OR ↓ VALUES MORE DESIRABLE?
Calving Ease Direct (CED)	Expressed as a difference in the percentage of unassisted births. It predicts the average difference in ease with which calves will be born when the sire is bred to heifers prior to their first calving.	↑
Birth Weight (BW)	Expressed in pounds, is a predictor of a sire’s ability to transmit birth weight to their progeny compared to that of other sires.	↓
Weaning Weight (WW)	Expressed in pounds, is a predictor of a sire’s ability to transmit weaning growth to their progeny compared to that of other sires.	↑
Yearling Weight (YW)	Expressed in pounds, is a predictor of a sire’s ability to transmit yearling growth to their progeny compared to that of other sires.	↑
Yearling Height (YH)	A predictor of a sire’s ability to transmit yearling height, expressed in inches, compared to that of other sires.	↓

TRAIT	DEFINITION	ARE ↑ OR ↓ VALUES MORE DESIRABLE?
Residual Average Daily Gain (RADG)	Expressed in pounds per day, is a predictor of a sire's genetic ability for postweaning gain in future progeny compared to that of other sires, given a constant amount of feed consumed.	↑
Dry Matter Intake (DMI)	Expressed in pounds per day, is a predictor of the difference in transmitting ability for feed intake during the postweaning phase, compared to that of other sires.	↑
Carcass Weight (CW)	Expressed in pounds, is a predictor of the differences in hot carcass weight of a sire's progeny compared to progeny of other sires.	↑
Marbling Score (Marb)	Expressed as a fraction of the difference in USDA marbling score of a sire's progeny compared to progeny of other sires.	↑
Ribeye Area (RE)	Expressed in square inches, is a predictor of the difference in ribeye area of a sire's progeny compared to progeny of other sires.	↑
Fat Thickness (Fat)	Expressed in inches, is a predictor of the differences in external fat thickness at the 12th rib (as measured between the 12th and 13th ribs) of a sire's progeny compared to progeny of other sires.	↓

When it comes to selecting the right Angus sire, generally it is important to focus on those with high calving ease and low birth weights to avoid calving difficulties. EPDs for growth traits will reflect how well the calves develop and achieve the desired finishing weight. In addition, paying close attention to Residual Average Daily Gain will identify sires that are more efficient at converting feed into muscle mass. For carcass related traits, higher carcass weight, ribeye area, and marbling results in higher quality beef and more profitability.

Using the Beef-on-Dairy Query

The Beef-on-Dairy Query tool, available in 2025 on the LactanetGen.ca website, was developed to help dairy farmers gain confidence in their Angus sire selection decisions so they can maximize profitability. Angus bulls have consistently been the most utilized breed comprising over 80% of beef-on-dairy inseminations in 2024. Known for their shorter gestation length, smaller birth weights, good marbling, and high carcass weight,

Angus sires make an ideal choice for breeding to dairy cows.

Using the Beef-on-Dairy Query, you will be able to perform a search on Canadian and American Angus bulls by Name and narrow the search by those with semen actively marketed in Canada. Under the “Evaluation Units” option, you may display the 11 traits in terms of either “Estimated RBV” or “GE-EPD” values. The default display of Estimated RBV, will provide traits in a consistent pre-defined scale just like the dairy cattle genetic evaluations for functional traits that producers have grown to understand! As with functional traits, the Estimated RBV values for the 11 Angus traits will have an average of 100 and a standard deviation of 5. Values greater than 100 are always favourable. Using Estimated RBV allows dairy producers to compare values for multiple traits using the same scale and easily identify elite Angus sires that stand out for each trait! Alternatively, electing to display evaluations by GE-EPD will display each trait according to the original scale of expression published by AGI, as outlined in Table 1. Due to the economic nature of the \$AxH and \$AxJ indexes, they will remain expressed in dollars per head regardless of the evaluation unit selected. Like Lactanet’s Group Query tool for dairy animals, all columns are sortable, providing filtering options by the trait that matters most to you. Upon submitting a query, the default sort will be the \$AxH Index. Once you have identified a sire of interest, look at the corresponding NAAB Marketing Code to identify which A.I. company to contact.

Summary

To support dairy farmers in their beef-on-dairy breeding decisions, Lactanet is collaborating with existing beef service providers to grow our genetics expertise and knowledge transfer in the area of genetic evaluations for beef traits. Keep an eye out in 2025 for the new Beef-on-Dairy Query tool added to our suite of queries on the LactanetGen.ca website. Developed in collaboration with Angus Genetics Inc. (AGI) and

the Canadian Angus Association, this tool will provide Canadian dairy farmers with the opportunity to identify Angus sires that will result in desirable offspring for the beef market!

Partager



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