



# Genetic Tools Tips & Tricks: The Group Query

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This is the second article [in a two-part series](#) for users to learn how to maximize benefits from the Animal Query genetic tools on the Lactanet website.



Many dairy producers are technologically savvy and seek out tools to help

them better manage their herds. On the genetic front, the Lactanet website is one such tool, highly utilized by those keen on monitoring and querying genetic data. There are two ways to query animals on the Lactanet website: individually and by group. This article will cover tips and tricks for using the Group Query, while the previous article described the best ways to use the Individual Animal Query.

## Group Query

There are two parts to the Group Query: the default Quick Search, seen below, and the Advanced Search. Quick Search is used to easily query top male and Canadian-owned females for each breed simply by selecting the breed from the drop-down list and then either Male or Female. If desired, you can also use the list of countries provided to select animals born in any specific country of interest. Specific groups of animals can also be selected based on their Evaluation Type whereby EBV refers to sires with a domestic progeny proof or cows with Canadian lactation and classification data included, MACE refers to foreign animals with a MACE evaluation provided through Interbull, and PA refers to animals with a Parent Average for production and/or type traits. The search can also be narrowed to include only genotyped animals and/or only animals considered to be active in Canada.

Use this search tool to query top male and female lists for each breed.

**Animal Type**

Breed:

Sex:

Country of Registration:

**Evaluation Type**

EBV  MACE  PA  Newly Proven

**Genomic Status**

All  Genotyped

**Active Status**

All  Active

Note: This query tool searches many records so please be patient!

The Advanced Search, on the other hand, includes the same options as the Quick Search but can be used to return more specific query results for top male and female lists for each breed. It can be used to limit the query to only return animals with certain recessive and/or haplotype carrier results, from certain A.I. Controllers (males), from specified parents and/or born within defined date ranges.

## Recessives and Haplotypes

Users of the Advanced Search can limit output results by the following recessive or haplotype carrier results:

- Coat Colour – for Holstein males and females
- Beta Casein – for all breeds and both sexes with a known Beta Casein (A2) test result submitted to Lactanet
- Kappa Casein – for all breeds and both sexes with a known Kappa Casein test result submitted to Lactanet

- Polled – for all breeds and both sexes
- Recessives – Brachyspina (BY), Complex Vertebral Malformation (CVM), Bovine Leukocyte Adhesion Deficiency (BLAD), Deficiency of Uridine Monophosphate Synthase (DUMPS), and Mule Foot (MF) in Holstein. Arthrogyposis Multiplex (AM) or Curly Calf Syndrome in Ayrshire
- Haplotypes – Haplotypes affecting fertility including Holstein (HH1, HH2, HH3, HH4, HH5, HH6), Jersey (JH1), Ayrshire (AH1 and AH2) and Brown Swiss (BH2) males, as well as the Haplotype affecting Cholesterol Deficiency (HCD) in Holstein and Jersey Neuropathy with Splayed Forelimbs (JNS) in Jersey

## A.I. Controllers

Using this filter, the query will return results including sires from only selected A.I. companies. There are nearly 20 A.I. companies listed that are customers of Lactanet, which includes both major international companies as well as organizations unique to Canada. One or multiple A.I. companies can be selected, while the default is to display sires from all companies.

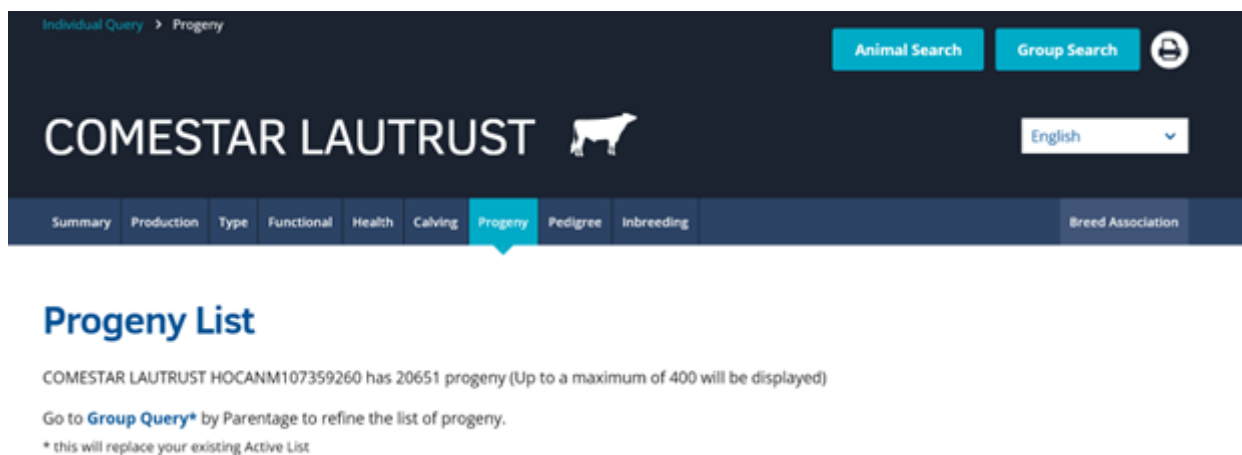
## Province

When querying females, results can be limited by province, which is usually determined based on the province associated with a DHI herd number. Females that are not part of a herd enrolled on DHI are included in the group identified as “Unknown – Canadian Owned”. Checking the “Non-Canadian” field will include foreign females in query results but, by default, the Lactanet queries only include Canadian-owned females.

## Parentage

Both females and males of a certain parentage can be targeted in the

Advanced Search. For example, perhaps the user would like to see if daughters of a certain sire have started to be born and registered, or search for sons of a certain dam x sire combination. Both example searches can be accomplished by using the parentage section of the Advanced Search. The appropriate fields for this selection are automatically filled in when you select “Group Query” at the top of the page when viewing the Progeny List of any given animal, as shown below using Comestar Lautrust as an example.



The screenshot shows the 'Progeny List' page for 'COMESTAR LAUTRUST'. The page header includes 'Individual Query > Progeny', 'Animal Search', 'Group Search', and a user profile icon. The main title 'COMESTAR LAUTRUST' is accompanied by a cow icon and a language dropdown set to 'English'. A navigation bar below the title contains tabs for 'Summary', 'Production', 'Type', 'Functional', 'Health', 'Calving', 'Progeny' (which is highlighted), 'Pedigree', 'Inbreeding', and 'Breed Association'. The main content area displays the title 'Progeny List' and a message: 'COMESTAR LAUTRUST HOCANM107359260 has 20651 progeny (Up to a maximum of 400 will be displayed)'. Below this, it says 'Go to **Group Query\*** by Parentage to refine the list of progeny.' and a footnote '\* this will replace your existing Active List'.

## Date of Birth

Use this final part of the Advanced Search tool when targeting males or females born after or within a certain date range. This feature can be used on its own or in conjunction with any of the other search features.

## Putting it all Together

The true power of the Advanced Query tool is revealed when refining a search for either males or females using various combinations of the options described above. Looking to query genomic young sires from a

particular A.I. company that are A2A2? Wanting to limit search results to only include red carrier sires free of HCD? Hoping to find out where your polled female out of a given sire ranks in the world? The Advanced Query can do all these things and more! Try it out and discover the hidden power of this popular feature of the Lactanet website.



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Group Query