

# Genetic Progress Report

## Frequently Asked Questions

### What is the Genetic Progress Report?

DataGene's Genetic Progress Report helps you quantify and see the effectiveness of your breeding choices. The Report is a within-breed analysis of a herd over a ten year period and illustrates genetic gain for profit, production, type, longevity, fertility and mastitis resistance. It is independent, backed by strong science and available to dairy farmers who herd test and record sufficient data.

### How do I get a Genetic Progress Report?

For most farmers, the Report will be easily accessible through herd test centres.

### What extra work do I need to do to get a report?

None - there are no extra jobs and no extra forms required to access a Genetic Progress Report. Your herd information which is collected through regular herd recording is routinely used to produce the cow ABVs upon which this Report is based.

### Where does the information come from?

Your regular herd recording data is routinely used to produce cow ABVs upon which this Report is based. Cow ABVs are evaluated using herd test data, mating and health information, calving ease records and workability reports alongside a cow's pedigree information.

### What is the report telling me?

A Genetic Progress Report illustrates the impact of bull choices 'on your farm' over time. It may be validating the breeding objectives and bull choices you have made or identifying 'weak spots' where you may like to increase focus. More than likely you will see a combination of both, allowing you to tweak your future bull choices to maximise genetic improvement.

### I have different breeds within my herd. What breeds will get reported?

All breeds are assessed. To receive a report you need at least 50 cows of any one breed in your herd with recorded sires and spread out over a few years. Each breed in your herd will receive its own report. Where your herd contains sufficient numbers of a cross breed these breeds will be presented side by side in the same report. Each breed is colour coded and you can check the total number of cows included for each breed on the front page of your report.



### How do I make better breeding choices?

Backing up the Genetic Progress Report is the **Good Bulls Guide**. It provides lists of highly ranked bulls for the traits in the Report, so you can easily select bulls that perform well in your breeding objective area. For every graph on the Genetic Progress Report there is a corresponding list in the Good Bulls Guide.



### I genotype my herd. Is this data included in my Genetic Progress report?

Yes. ABVs using both genomic and traditional data are included in the Genetic Progress Report.

*The following pages give you some tips on interpreting your report.*

#### About DataGene

DataGene is an independent and industry-owned organisation responsible for driving genetic gain and herd improvement in the Australian dairy industry. It's major roles in the industry are: genetic evaluation; herd test centre software; and the creation of the Central Data Repository. DataGene receives most of its operating funds from Dairy Australia.

#### For more information

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## Reading the Report:

### What is the difference between current cows and total number of cows?

'Current' cows are cows that have a recorded sire, more than 4 tests, valid birth date and breed codes, and haven't been terminated when your herd test centre uploaded your data to DATAGENE. The purpose of this figure is to check that the report is representative of the herd, i.e. it doesn't report 500 cows when it's a 200 cow herd. At the bottom of page 1 of your report all cows are listed by the year that they were born. Cows that have been sold or culled are also included as they still represent the breeding choices made that year.

National herd ID: 2402/11A
<b>Cows currently in herd: 230</b>
Breed code for this report is: Holstein and Holstein X

#### Cows in this Report

Year of Birth	2001	2002	2003	2004	2005	2006	2007	2008	Total
Holstein	18	37	28	32	28	36	31	32	240
Holstein X	13	20	21	31	23	38	26	20	192

### Are purchased cows included?

Purchased cows are included in the report as long as they can get an ABV (same criteria as 'current' cows). Sometimes this is a problem if their histories haven't been supplied to your herd test centre.

### How do I get my young animals included in the report?

Many farmers don't put animals into the herd test system until they are 2 years of age and beginning their first lactation. However, for herds that record calves at birth, the younger animals are 'known' to DataGene and will be included in the report. If you want your younger animals in the report, provide your herd test centre with details on your calves and yearlings.

### What is 'Your Herd's Genetic Snapshot' showing me?

**Rank** This gives you a summary of your herd's performance. Where your report includes crossbred animals this information is incorporated.

Your herd is ranked based on your Balanced Performance Index against herds of the same breed. A low ranking is preferable eg 62 out of 2293 Holstein herds indicates that you are the 62nd best Holstein herd for Profit.

**BPI** This is your Balanced Performance Index. If you have a BPI of 62, it suggests that your herd is genetically \$62 per cow per year more profitable than the average herd. To improve your herd's genetic merit for profit, always use bulls that carry the Good Bulls icon.



- ↑ This symbol indicates your herd is improving for this trait. The average of the youngest year group is greater than the average of the oldest year group and the average of the youngest 5 years is greater than the oldest 5 years. In other words, the younger animals are genetically better than the older animals.
- ↓ This symbol indicates your herd is gradually declining for this trait. The younger animals are genetically poorer than the older animals. This is important if it is a trait of interest to you.
- ∅ This symbol indicates that there isn't a trend either upwards or downwards.

### Why is the average benchmark trend line shorter than the trend for my herd?

In reports where younger calves and heifers are included, the average benchmark line stops with the youngest group of cows. Averages are not available for younger animals that haven't commenced milking.

### Why does my Mastitis Resistance graph look different to my BMCC results from my dairy processor?

Mastitis Resistance is a genetic estimate (using cell count ABVs) of mastitis resistance whereas BMCC results are taken directly from a vat reading. Cell Count ABVs are evaluated using individual cell counts collected during herd test combined with pedigree information. Although mastitis control is mainly based on the management of cows and their environment there is also a small amount (approximately 10%) of mastitis resistance that is influenced by the cow's genetic makeup.

### Why does my Fertility graph look different to my herd's reproductive performance over the past few years?

This is a genetic estimate (using fertility ABVs) of your herd's reproductive performance. The management of cows and their environment influences 95% of a cow's fertility. But there is a small amount of fertility that is influenced by the cow's genetic makeup and this can have a significant impact over time.

### Why doesn't my herd get a rank?

Ranks are not available for predominantly cross bred herds.

### Are daughters of herd bulls included?

Most cows sired by a herd bull don't have a sire recorded, don't get an ABV and won't be included in the Genetic Progress Report. If you correctly record herd bulls with your herd test centre and record their progeny, then cow ABVs can be evaluated and used in the Genetic Progress Report. Check your cow ABV report (available at your herd test centre) to see if the daughters of herd bulls have ABVs in your herd.