

# Getting started with heifer genomics

## Heifer genomic testing is for you if...

### 1. The cost of rearing surplus heifers is impacting your bottom line.

- It costs between \$1,100–\$2,100 to rear a heifer to the point of calving in Australia.
- Some heifers will never return their rearing costs.
- Save money on rearing costs by not rearing heifers that are less likely to perform in your herd.
- Selling surplus heifers for breeding can offset the cost of genomic testing.

### 2. You want to know which heifers are the best ones to breed replacements from.

- Selecting the best heifers to keep and to breed from will improve herd performance and fast track genetic gain.
- Genomic testing using the Australian genetic evaluation system, produces a Balanced Performance Index (BPI) and Australian Breeding Values (ABVs) for each animal.
- It is common to have a spread of \$300 BPI between best and worst heifers in a group of heifers born in the same year on a farm.
- The ImProving Herds project found that on average, high BPI cows produced 88kg more milk solids and last as long or longer than their low BPI herd-mates.
- We also know that regardless of feeding system, the daughters of high BPI sires produce more milk solids than low BPI sires.

### 3. You want to be sure an animal's sire and dam are correct, so that the right animal is kept to breed the next generation of heifers.

- It is estimated that up to 20% of calves are misidentified.
- Selling the wrong heifer can make a difference to the performance of the group once they enter the milking shed and in the quality of any progeny you retain.
- Genomic testing checks the sire and dam (if genotyped) and discovers missing genotyped parents.
- Dr Jo Newton (Agriculture Victoria) analysed the frequency of parentage errors and the likely impact on the herd.
- The cost of mis-identification in terms of difference in genetic merit per 100 calves is estimated to be \$890–\$5,500.
- Correct pedigrees adds value to stock, improves culling and selective breeding decisions and helps manage inbreeding.

### 4. There is a logical time to sample your calves.

- Routine tasks such as dis-budding, vaccinating or even feeding time make sampling straightforward.
- Watch a video on how to collect genomic samples here [youtu.be/HaGBYSMPVXk](https://youtu.be/HaGBYSMPVXk).
- It usually takes less than a minute to load the tissue sample unit, collect the sample and record the animal details.



# Questions to ask your genomic service provider

## 1. Do you report Australian Breeding Values, including BPI and HWI?

- Genomic testing using the Australian genetic evaluation system, produces a Balanced Performance Index (BPI) and Australian Breeding Values (ABVs) for each animal.
- Some genomic service providers offer genomic testing using international evaluation systems (e.g. Total Performance Index or TPI in the USA and the Lifetime Profit Index or LPI in Canada) for both bulls and heifers. Only the Balanced Performance Index (BPI) and Australian Breeding Values (ABVs) have been validated to date on Australian dairy farms.

## 2. What support should I expect?

- Companies will offer varying levels of support to help you plan your sampling, gather animal information, and interpret results.

## 3. How will I access my results?

- The delivery of results varies between companies. Services range from simple spreadsheets to special programs, apps and dashboards.
- All genomic information can be viewed in DataGene's DataVat portal [datavat.com.au](https://datavat.com.au).

## 4. How quickly will I receive my results?

- The typical turn around is six weeks.

## 5. How much is the test, including sampling supplies?

- The typical cost is \$50/heifer plus up to \$4/tissue sample unit (plus GST). Companies offer a range of extra tests that can be useful to some businesses.

### FOR FURTHER INFORMATION

Visit the website [dairyaustralia.com.au/genomics](https://dairyaustralia.com.au/genomics)

Email [genomics@dairyaustralia.com.au](mailto:genomics@dairyaustralia.com.au)

Call your **regional services team**

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