

# Controlling herd improvement and AI costs

## Fact Sheet 1: August 2018

### What to do

- Keep using AI. Herd bulls are not a cheaper option.
- Use Good Bulls. The top 100 bulls range in price from about \$15 to \$150 so there are Good Bulls for every budget.
- Keep herd recording. It's the tool to help you make better herd decisions.
- Use enough semen. About 6 straws of conventional semen for every replacement needed in 3 years.
- Don't waste semen using poor technique or joining cows that aren't suitable.

In the face difficult seasonal conditions, dairy farmers are taking a close look at all areas of the budget, including herd costs such as AI and herd recording.

### Genetics contributes to performance

AI and herd testing accounts for about 2.2% of total farm costs (Dairy Farm Monitor Project 2016/17). But it builds one of the largest assets in the business, the herd.

Genetic improvement is permanent in that no matter what the season brings, the genetic value of an animal stays constant. Investment in genetics compounds from generation to generation as traits are passed on from dam to daughter.

Balanced Performance Index (BPI) is an index that can be used to rank cows according to their genetic merit for important traits.

As a group, the higher BPI animals within your herd contribute the most income over feed and herd costs.

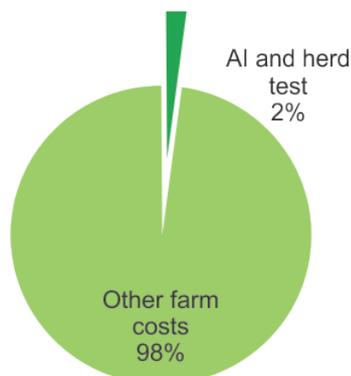


Figure 1: Percentage of total farm costs. Only 2.2% - no bull. Dark green: AI and herd test, Light green: other farm costs, Dairy Farm Monitor 2016/17.

### AI doesn't cost more than herd bulls

For a 400-cow herd, 700 doses of semen for three rounds of AI could be purchased from the Good Bulls Guide 2016 for \$11,200<sup>1</sup>.

For a 400-cow seasonal/split calving herd, 12 paddock bulls are required. Over a 100-day period, bulls are estimated to cost \$1100 per bull, or \$13,200<sup>2</sup>.

But the daughters of AI sires produce more and last longer in the herd, making them more profitable. AI-bred cows produced 51kg combined fat and protein more per lactation than those bred from paddock bulls (DataGene 2017).

The ImProving Herds project found that on average, the top 25% of cows in a herd (based on Balanced Performance Index - BPI), produce a margin over feed and herd costs of \$300 more than the bottom 25%. The findings hold across dairying regions and feeding systems. The message is clear: The daughters of high BPI bulls perform better under Australian conditions.

*“Daughters of bulls with a higher Balanced Performance Index (BPI) perform better under Australian conditions.”*

### Good Bulls don't cost more

Good Bulls are those that meet minimum criteria for BPI, availability and reliability. There are Good Bulls to fit every budget.



In 2018, DataGene summarised the relationship between BPI and recommended retail price of straws for more than 500 Holstein bulls with easily accessible recommended retail price information.

#### Footnotes:

1. 50% conception rate, 3 rounds AI, at a blend price of \$16 per dose.
2. \$1100 is an estimate \$400 'change-over costs' which are lease costs or the difference between purchasing a breeding bull and selling it at end of season. Remaining \$700 is feeding for 100 days, transport, vet, vaccinations.

While the elite BPI bulls (more than 300 BPI) are more expensive, the average price is very similar for remaining bulls grouped by genetic merit.

Higher BPI bulls don't always cost more. The top 100 BPI bulls ranged from \$14 to \$150 per straw.

Speak to your adviser about packages from the Good Bulls Guide.

**Recommended retail price of Holstein bulls grouped by Balanced Performance Index (BPI)**

Group	Average retail price (\$/straw)	Retail price range (\$/straw)
1. Elite bulls (BPI > 300)	31	18 -150
2. BPI 250-300	27	14 – 50
3. BPI 200-250	26	12 – 100
4. BPI 170-200	27	12 – 90
5. BPI -100-170 (BPI below Good Bulls criteria)	27	12 – 80
<b>Average all bulls</b>	28	12 - 150

**Herd testing pays**

Especially in difficult seasons, it is vital to know what cows are contributing to profitability – and what cows aren't. Herd testing gives you this information. Speak to your herd test centre about different herd testing options.

Josh Balcombe who dairies at Worion, Western Victoria relies heavily on bought-in feed, so he uses herd testing to monitor each individual cow's performance and make sure she is paying her way in terms of milk response to supplementary feed. During the 2016 drought and milk price drop he culled cows mid- season.

This season:

- Can you afford to keep high cell count or poor performing cows this season?
- Do you know which cows are pregnant and which ones are ready to dry off?
- Do you want the flexibility of selling surplus heifers that are compliant with export protocols?

Herd testing provides vital information to make the accurate decisions required of a farm manager.

*“Without herd recording data, we would have just been guessing which cows to cull. A cow may look like a superstar but only be doing 10 or 15 Litres a day,” Josh Balcombe.*



When the milk priced dropped, ImProving Herds focus farmer Josh Balcombe culled cows mid-season based on herd recording data.

**Use enough semen**

It takes about six straws of conventional semen this season to produce every replacement needed in the herd in three years' time. This is based on an average conception rate of 50% and normal losses through pregnancy, birth, rearing and first calving. Less semen is required if sexed semen is used with a good quality program. Plan to use enough semen this season so your herd is ready when conditions improve.

**Don't waste it**

Once you've bought the semen, don't waste it by using poor AI technique or by joining unsuitable cows. Dairy Australia provides sound resources that can help improve reproductive performance.

**For more information**

Go to [www.datagene.com.au](http://www.datagene.com.au) to download the Good Bulls App so you can check the genetic merit of bulls.

Go to [www.dairyaustralia.com.au](http://www.dairyaustralia.com.au) to look at how you can improve your herd's fertility

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**References**

DataGene, 2017. Australian Dairy Herd Imp. Report 16/17.

Morton, J., 2016. Feeding the Genes research commissioned by ADHIS.

Victorian Government and Dairy Australia, 2017. Dairy Farm Monitor 16/17.



**Good Bulls are available to meet every budget.**