

2. Dairy bulls offer superior genetic clout

The use of dairy sires as opposed to beef sires can have a long-term impact on the profitability of a dairy enterprise.

With a large number of Western Australian dairy managers motivated to breed for reproductive performance, using dairy bulls over well grown heifers and cows can increase the genetic merit of the herd. Combined with good management techniques and dairy managers have an opportunity to produce more quality replacement heifers and sell excess heifers to a lucrative export market.

Benefits of selecting a dairy sire

Sustained selection pressure on a herd is necessary to ensure an increase in the genetic merit of the herd. In an AI managed herd, choosing proven AI sires, will produce superior replacements from within the herd.

According to Leon Giglia, Farmwest General Manager, using AI sires in the mating program provides the best return from genetics investments.

“By going with an AI breeding program, genetic gain for the herd can be accelerated and selection pressure increased, allowing managers to cull at heavier rates,” he said.

Given a greater number of heifer replacements, herd managers have the advantage of being able to cull for non-discretionary reasons such as injury, failure to conceive and mastitis, as well as discretionary reasons like early cycling and in-calf early.

This can be demonstrated in a practical sense. With a herd of 100 cows, 25 to 30 heifer replacements are required annually. If AI dairy sires are used, calves bred from the early cycling cows can be selected as replacement heifers and used to offer greater synchrony, thereby tightening the calving pattern for future years. If more than 30 heifer calves are produced, additional selection for discretionary reasons can be employed, further increasing the overall benefit.

Surplus dairy heifers may be sold off for export, with WA heifers commanding a price premium due to the State’s ‘Johnie’s disease-free’ status. Market demand for young heifers from seven to nine months of age means that producers can spare themselves the cost of joining and handling these animals, as well as a portion of the

rearing costs - an expense which applies equally across dairy/beef cross and dairy calf production.

While the market for dairy heifers aged 15-24 months is also strong, the absolute price of rearing heifers to this age can compare unfavorably with selling at nine months.

Bull size can determine calf weight, however large variations in bull weight within dairy breeds provides dairy managers with a good choice; even small dairy calves can grow to a suitable size, given the correct growing conditions. Some AI sires are available with ratings for calving ease, but care must be taken to ensure that this information is relevant and applicable to Australian dairy herds.

Whilst all dairy breeds are characterised by specific traits, a Jersey bull will most often assure an easy calving. With a growing export market for Jersey/Friesian cross heifers, the choice of a Jersey bull can be especially advantageous.

Given the weak beef market, an investment in dairy bulls in comparison to beef bulls can have significant

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Success Story

Jindong farmer Colin Coates is pleased with his AI program using dairy bulls.

“I’m turning over about 25 percent of cows a year and bring 80 heifers a year into the herd. My excess and bottom-end heifers are going for export,” he said.



cost benefits. Dairy bulls can provide more profitable progeny than beef bulls whilst also ensuring selection pressure for non-discretionary and discretionary reasons in the herd is maintained.

Choosing the right dairy AI sire

Choice of a dairy sire should be made with consideration given to genetic merit. Australian Breeding Values (ABV) measure a bull's ability to pass on particular traits to his daughters. These characteristics include: protein yield; survival (longevity) to name a few. Farmers use 'Calving Ease' ABVs to identify bulls in the top 10 percent of the Holstein population for use over maiden heifers.

Capturing genetic gain from AI sires is more probable if sires are selected from the top group of bulls within the breed. In general, bulls found on the ADHIS top bull list will provide an adequate choice from which producers can select sires that fit their objectives.

ABVs are available to allow for sires to be selected for traits such as daughter fertility. An index called the Australian Profit Rankings (APR) can also be utilized if selection of a sire that improves reproductive performance is required. A higher APR ranking is indicative of a genetically superior sire, and therefore the likelihood of an increase in overall profit. The Top Bull List is available from ADHIS (www.adhis.com.au).

Choosing the right dairy herd sire

With correct recording, ABVs are also available for herd bulls, however the reliability will be lower than for proven AI bulls.

When selecting dairy herd bulls, Dairy Australia's 'InCalf' manual recommends using:

- ◆ *Bulls that are not older than 4 years and not younger than 15 months (older bulls are more likely to be harboring injuries and can be difficult to manage).*
- ◆ *Bulls of similar size and age, reducing the risk of fighting in the herd.*
- ◆ *Bulls of similar size to the cows or heifers to be mated with a preference for bulls that are smaller than the cows/heifers (eg. Jersey bulls with Holstein Friesian cows) to minimize the number*

Further information:

Local veterinarians and semen suppliers are a recommended source of information. The Australian Dairy Herd Improvement Scheme (ADHIS) is recommended for specific detail on high genetic merit sires and on the bull proofing systems – an understanding of which will assist in breeding decisions.

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of assisted calvings. Bulls that are heavier than the cows or heifers can cause injury to both.

- ◆ *Bulls that are vaccinated, especially for Vibrio.*

All of the above measures will facilitate the decision on which type of bull to use in the herd. However, if cows do not get in calf, the information is useless. It is important to examine the environment, its limitations and resources available before embarking on a program to genetically improve a herd.

Bull Power!

Irrespective of whether dairy or beef breeds are used, plenty of 'bull power' during the mating season will improve dairy herd fertility. Many dairy enterprises are not using enough bulls however, the cost of not having sufficient bull power in a herd will have negative long term effects on production.

Dairy Australia's 'InCalf' manual recommends with seasonal/split calving herds: a team of three bulls for every 100 cows at mating start date or four per hundred if synchrony is used; with year-round calving herds: a team of two bulls for every 100 milking cows – allowing enough bulls to rotate and spell.

Not making adjustments for synchrony or bull injury will ultimately affect the fertility of the herd. Should a bull become injured, another bull must be readily available and introduced as quickly as possible. The cost of having insufficient bull power in times such as these will negatively impact on the number of cows that conceive – and ultimately the profitability of the dairy enterprise.

In Conclusion

Using dairy sires as opposed to beef sires will have a positive impact on the long term profitability of a dairy enterprise, with good management also being a strong contributing factor.

When selecting AI sires, start with the ADHIS Top Bull lists and use ABVs to fine-tune selections to achieve the herd's breeding objective.

Given that domestic and overseas demand for registered and un-registered heifers is expected to be maintained over the longer term, effort directed towards improving herd genetics now will support Western Australia's valuable export markets and aid the future supply of quality heifers.



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