To breed or buy replacement heifers

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One of the most important decisions managers of beef breeding enterprises make each year is how many replacement heifers are needed to maintain breeding herd numbers. While majority of breeding enterprises choose to select from their own home bred heifers and develop them on farm until such time they enter the breeding herd, sometimes there is the need to buy extra replacement heifers or buying heifers can appear an easier option. Both these strategies have advantages and disadvantages and in effect they both have a financial impact on the business. There is no way to generally suggest whether breeding or buying replacement heifers is the best option, as each producer has different resources, motivations and goals. Only by assessing the benefits and costs on an individual basis can a producer determine which replacement heifer strategy is the most economical for their business.

Key factors to consider when determining a herd replacement strategy

Business level
- Farm cash flow requirements
- Interest rates on savings or other use of capital
- Interest rates on finance
- Tax Implications
- Price difference between cull cows and weaner heifers
- Price and availability of quality PTIC heifers
- Supplementary feed costs (i.e. how much supplementary feed do weaner heifers require)

Farm management level
- Reproductive rate of breeding herd (how many are you selecting from)
- Age structure of herd
- Environmental restrictions on growth from weaning to joining
- Genetic improvement potential and/or maintain the current genetic potential
- Herd health status
- Feed use efficiency (how much land are replacements taking from the breeding herd)
- Labour requirements

These factors can all influence enterprise profitability in any year.

Advantages of breeding and keeping your own replacement heifers

Control over the herd health status – less likely to introduce a disease to the herd

Minimising the number of new cattle entering the herd significantly reduces the risk of introducing diseases such as Pestivirus or BJD to the herd. Also heifers born and raised on the property are less likely to suffer issues that introduced naïve heifers may such as, liver fluke, ticks, akabane, and 3-day sickness etc.
Keeping heifers costs less than buying them

Many producers feel that raising their own replacement heifers from weaning is far cheaper than buying them in. However, to determine this, producers need to know actual production costs (both cash and fixed) associated to keeping and raising the heifer.

More genetic control

Many enterprises have been selecting for desirable traits in the female herd e.g. calving ease, milk production, longevity etc, these may be difficult to replace via brought in heifers of which it can be difficult to obtain/determine their genetic potential or suitability to the farm environment.

Better understanding of the heifers background

Home bred heifers will often be more acclimatised to the property location, feed source and parasites. Also in growing replacement heifers out producers are better placed to assess growth rates, temperament and other phenotypic traits of importance. Heifers can also learn management practices that will make them easier to manage when they enter the breeding herd, for example being mustered with dogs.

More confidence around calving ability of the heifer and calf size

Growing out heifers well and by careful bull selection producers often feel more confident that their home bred heifers will calve with fewer problems than brought in heifers where there may be uncertainty around the type of bull they are joined to in terms of calving ease. This is often a big factor as to why many producers prefer not to purchase PTIC replacement heifers.

Advantages of buying replacement heifers

Free up farm resources for other uses

Replacement heifers still eat feed, drink water, require health treatments all while not producing a calf or any cash income until they wean a calf. More feed can be allocated to the breeding herd which may be better placed to use this feed productively i.e. produce cash income by more or heavier weaners. This helps spread fixed costs over
more productive animal units and reduces costs per breeding cow. In poor seasons not having replacement heifers on farm may mean that there is more chance to retain a higher number of breeders.

**Expand the breeding herd or change breeding program more quickly**

Majority of breeding enterprises on the north coast find it hard to join a heifer any younger than 27 months of age, meaning she doesn’t calve until she is 3 years old, this means it’s at least 3 years before they will see any decided changes on the ground. In buying replacement heifers a need to expand the herd or change in breeding direction can occur within 12 months if need be.

**Might be able to buy more superior genetics**

A very personal decision, but practically it is likely that through purchasing replacement heifers, producers can obtain a source of genetics more superior than what is in their current female herd in a far shorter time frame. The challenge is overcoming the perception of; when buying in heifers you’re buying other producers culls, whilst this may be true, consider are they culls when compared to the home bred heifers you have to select from.

**Don’t require as many bulls, and less emphasis on finding “heifer” bulls**

Buying PTIC heifers will often mean that producers don’t require as many bulls or that special “heifer” bull where majority of focus is placed on a bull with low birth weight and positive calving ease traits often at the expense of other carcass related traits.

**How to calculate the cost of breeding or buying in replacement heifers**

This requires a partial budget. A partial budget allows an analysis of proposed changes within an enterprise, in this case to breed or buy replacement heifers. Partial budgets contain two key categories, Total Financial Advantage and Total Costs. Total Financial Advantage includes items which increase income and items which reduce costs. Total Costs include items that reduce income and add costs. When Total Financial Advantage exceeds Total Costs the proposed change will increase net returns or makes the business money. Conversely when Total Costs exceeds Total Financial Advantage the proposed change will decrease net returns or costs the business money.

To assist producers a *Breed or Buy Replacement Heifers* partial budget calculator has been developed to assist in calculating the economics of their replacement heifer strategy.

The *To Breed & Raise Replacement Heifers* calculator looks at the returns and costs that change when heifers are selected from home bred weaners and grown out as part of the enterprise. Whereas the *To Buy Replacement Heifers* calculator looks at the returns and costs associated to buying in replacements rather than growing them out as part of the enterprise.

The financial impacts are calculated on a per head basis over the time from weaning through to the time a purchased heifer would arrive on farm. These calculators are suitable for producers who want to determine what their current heifer replacement strategy is costing their business, but also allows for producers to compare the impact of possibly changing their heifer replacement strategy should an opportunity arise.

As with any budgeting activity it does require a level of assumptions especially related to the future heifer grow out period. Some of these assumptions can be difficult to predict yet are very crucial to the overall analysis outcome, these include, sale price of weaner heifers, price of purchased heifers, feed costs and production of purchased heifers versus home grown heifers. The subsequent calculated net return needs to be considered in context to the level of accuracy applied to these assumptions, essentially the more accurate these assumptions are made the more accurate the net return figure will be.

**Summary**

It is a complex decision when deciding if the best option is to breed or buy replacement heifers, as each option has both advantages and disadvantages both of which impact on the financial health of the business. Given that all producers have different enterprise goals, and most importantly farms have different capabilities for production, each producer needs to make the decisions independently of other local beef enterprises. Discuss the proposed changes with advisors to gather further input or ideas specific to your enterprise.