MEAT & LIVESTOCK AUSTRALIA

TIPS & TOOLS

NORTHERN CATTLE

What females should I sell?

Meat eating quality and steer sales are a major focus of most beef enterprises but it's the price received from the sale of females that has a massive impact on profitability.

Why is selling the right females so important?

- high performing breeders mean a high performing herd
- more feed and resources available for the productive females
- improved genetic progress and herd structure (i.e. quality not quantity).

If breeder mortality rates are low, female sales should represent half of the total turn-off and a significant component of the gross income. The challenge is to carefully plan how they're presented for sale in order to maximise the price received for each cow and heifer that exits the farm gate.

Culling breeders in **control-mated** and **segregated joining systems** should be straightforward. The key criteria are usually:

- inability to produce a calf
- early stage of pregnancy
- old age
- bad temperament
- poor udder function (e.g. no bottle teats).

However, in **continuously-joined systems**, breeders are usually run in mixed age groups and assessed once or twice a year when mustered. When a mob of breeders presents with a wide range of pregnancy statuses and body condition scores, culling becomes more problematic. Decisions need to be made as breeders pass up the race or through the drafting yard.

The main issues (other than fertility, age, temperament and conformation) to be considered in determining which breeders to sell include:

- high breeder cow mortality rate
- lack of market opportunities
- inability to meet market specifications
- high cost of replacing a maiden heifer
- low pregnancy rates of first-calf cows
- poor seasonal conditions.

Minimising cow mortality rate

In northern Australia, minimising breeder cow mortality rates is critical to achieving a successful business outcome. Profits are much more sensitive to changes in mortality rates than in reproductive efficiency.

The process of selecting which breeders to cull becomes a balance between retaining enough cows to produce sufficient weaners and ensuring stocking rates don't exceed carrying capacity. A 'cull nothing' approach results in overstocking and increased mortality rates; profitability is compromised when all breeders, or the wrong breeders, are retained. More importantly, when cows needing help to survive are not identified and subsequently perish, their potential sale value is never realised.

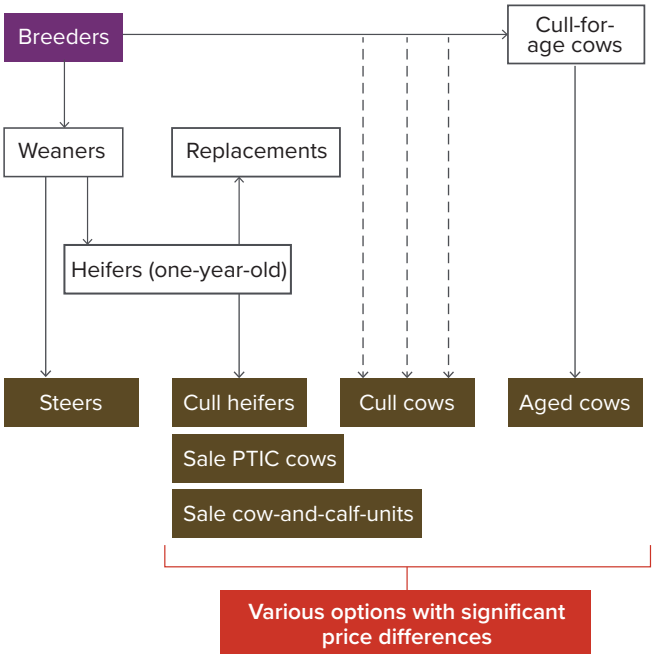
Market opportunities

The importance of increasing the average price of female sales was demonstrated by Niethe and Holmes (2007) in a report on how the practice of spaying surplus females improved profitability.

In many situations, the improved average price of all females sold more than compensated for the decline in animals weaned and subsequently available for sale. This study highlighted the value of considering all options and carefully managing the female turn-off to improve overall station profitability.

The significant price differentials between classes of animals represent both a challenge and an opportunity. The options for selling females include cull heifers, cull cows, sale PTIC (pregnancy tested in calf) cows, sale cow-and-calf units and cull-for-age cows.

Decision tree for continuously-mated herds with adequate number of replacement heifers



Market specifications

Before consigning cull females for processing, check the processor grids and ensure the animals are more than 180kg dressed weight. Stage of pregnancy influences females dressing percentage, which is always lower than males. A safe dressing percentage to apply (including late pregnancies) is about 48%. For example, the minimum fasted body weight is 375kg (180kg ÷ 0.48).

If cattle are weighed soon after yarding, an additional 7% should be incorporated into the calculations to account for shrinkage i.e. breeders should weigh more than 401kg when yarded to ensure they are above 180kg dressed weight at slaughter.

Maximising cull breeders' sale price can be the most difficult exercise in a breeding operation and forward planning is usually required e.g. booking processing space, having spare paddocks to hold cull cows, engaging a spay contractor and exploring feed opportunities to fatten light animals.

The cost of replacement heifers and pregnancy rates in first-calf cows

Having adequate pregnant replacement maiden heifers available to swap for unproductive breeders helps crush-side decision-making about what animals to cull.

A two-year-old replacement heifer will not produce a weaner for an additional 18 months after joining, so her running cost during this time almost doubles her value to the breeding herd. She is often lighter after raising a weaner and is 18 months older than she was at joining, but her real value as a sale animal can be considerably less than it was as a maiden, despite all the costs associated with running her.

On the other hand, there's no time lag for an adult breeder between conception and weaning if she conceives while rearing her calf. In other words, the business cost of a replacement heifer includes a breeding potential value, which is rarely recognised in the marketplace and is not present as a cull-for-age breeder. This is why heifers that fail to reconceive as a first lactation breeder can be given another chance prior to culling from the herd, as they're on an equal footing to a maiden heifer that is yet to enter the herd.

While this policy is not recommended when producing herd bulls, it's often necessary because of the frequent poor performance of first lactation breeders in northern Australia and the price differential between an unjoined maiden heifer and a first-calf cow which has failed to reconceive.

Seasonal conditions

Key factors driving culling decisions are seasonal conditions, pasture availability and expected time until the break in the season. For example, a first round muster in April after a failed wet season demands a different strategy to a similar muster after an average-to-good wet season, or a second-round muster just before the start of the wet season or green date.

General culling guidelines

- **Bad temperament:** Breeders with poor temperament are a potential workplace and safety issue and should be removed as soon as possible.
- **Deformities:** Females with deformities such as bottle teats, cancer eyes and ingrown horns should be removed to ensure animal health and welfare of the whole herd is maintained at a high standard.
- **Fat and non-lactating (dry) cows:** Many of these animals will be pregnant at the first muster so it's highly likely they will calve out of season and not reconceive the following year. Research shows that if a breeder lost their calf last season, there was a greater chance she would lose one again. Breeders more than eight months pregnant should not be trucked due to animal welfare concerns. For more information, see MLA's *Is it fit to load?* guide at mla.com.au/fittoload.
- **Aged cows:** Prior to commencing the muster, the decision should be made to cull animals with a broken mouth. Aged cows are generally in poor condition after lactation, so forward planning is needed to manage them. Animals that are losing teeth are extremely difficult to fatten and sell, and their weaner offspring are often lighter in body weight. To avoid having unsaleable animals, all properties should adopt a policy on culling aged cows.
- **Maiden heifers:** Maidens that are above their critical mating weight and have failed to conceive should be culled, as their future long-term productivity is usually less than average.
- **All breeders:** If the wet season has failed or a drought is highly probable, all breeders should be pregnancy tested and body condition score assessed. Those that are body condition score ≤3 and/or are more than five months pregnant will need special attention; a saved paddock, supplementation, agistment or sale.

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More information

You can download the full Tips & Tools suite at: www.mla.com.au/reproperf, including:

- What joining system should I use?
- How do I manage heifers pre-joining to improve reproductive performance?
- What's causing reproductive loss?

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