

Heifer Selection and Development



Careful consideration in selecting replacement heifers is vital to the future of a beef herd. Each producer will have different priorities depending on herd goals. However, these selection tips will help you incorporate proven selection strategies into your process.

Selection of Replacement Heifers

While there may be different selection criteria priorities on your farm, consider removing these characteristics for improving the profitability and longevity of your cowherd.

- **Remove heifers born late in the calving season.** These heifers will be younger at breeding, calving, etc., less sexually mature, lighter in weight, and from cows starting to slip back in the breeding season
- **Remove heifers that are nervous or have an attitude problem.** There is no place for cattle that are a liability to the crew. Maternal instinct is valuable, but flighty cattle will always be a hassle and liability.
- **Remove heifers that are born to cows that have calving difficulty, poor udder quality, poor feet and hoof structure, or are preg-checked open.** Culling these problems from your herd will save you valuable time and money from future problems. It also builds more reputation and function into your herd.
- **Remove heifers that are poor doers or are exceptionally small.** These heifers will struggle to reach 65% of mature weight at breeding
- **Remove heifers that are inferior phenotypically or genetically.** Genomic testing may change your replacement pen. Identifying cattle that are genetically superior is easier now more than ever. Pulling cattle from the replacement pen that do not fit your market is wise.



Fig. 1. Replacement heifers at the Dixon Springs Agricultural Center

- **Remove heifers that are freemartins or have small pelvic scores.** Obviously, freemartin heifers are very unlikely to breed and are not fit for saving for replacement stock. Small pelvic area is directly correlated to dystocia and calving problems. Dystocia usually results in poor breed-back.
- **Other Considerations:** Selecting replacement heifers from older cows in the herd will result in selecting cattle that are best fit for your management. These heifers are more likely to offer more longevity in your herd. Some commercial cattlemen save all female progeny and allow a synched A.I. or a very short breeding season to do the culling. Remember, there are numerous criteria for selecting replacements, make sure you are selecting cattle that will offer the most value to your herd and best fit your market.

Development of Replacement Heifers

Proper heifer development hinges on achieving a desired weight before breeding. Yet, not over-developing heifers to the point they are not prepared to live on pasture and forage-based diets the remainder of their life.

Most literature shows **heifers should be developed to 65% of mature body weight**, although some have had success at slightly lower percentages. For example, consider the following scenario. Heifer Ranch maintains mature cows that weigh 1400 lbs., they calve on March 1st and their cows wean 45% of their body weight. This results in heifer calves that weight 630 lbs. at weaning. If they are bred to calve on March 1st at two years of age, then the replacement female needs to be fed at a programmed gain of 1.04 ADG to weigh 910 at breeding. These numbers are surprising to some, but heifers developed on a steady gain do not need high energy feeds. Develop a least-cost ration, account for environmental factors (mud, cold, etc.) and target 65% of mature weight.

It is important for **gain patterns to be steady**. Many times heifers are pushed early with creep feeds and subsequent grain until steer calves are sold. Then the heifers are forgotten. However, cattle that are losing weight have poor conception rates. It is important not to burn out heifers and then crash them ... all the while expecting them to breed because they are heavy enough. In fact, **heifers gaining weight during breeding are far more successful at conceiving**.

Some producers that are limit-feeding a heifer development ration should consider adding Monensin to the diet. This has shown to help heifers reach sexual maturity earlier and certainly can help them maintain adequate gains on a limit-fed ration.

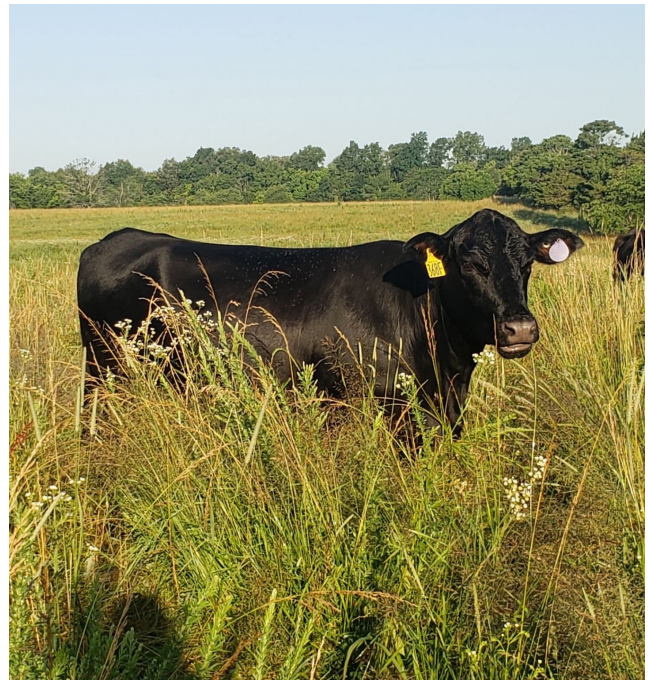


Fig 2. Developed female at Dixon Springs Agricultural Center

A Few Other Tips

- Do not under-develop heifers
- Do not over-develop heifers
- Don't buy implanted heifers for replacements.
- Don't implant heifers intended to be replacements.
- Manage heifers apart from bull calves, guard against heifers getting bred aside the cow
- Consult your vet on proper vaccination, be sure to administer pre-breeding vaccinations
- Give proper mineral supplementation at all times
- ID heifers with a tag or tattoo to allow accurate record keeping

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