

Due to the adequate amounts of rainfall received this year, many producers have more hay and forage available for their cattle now than in the past few years. Many producers are taking advantage of this opportunity to increase their cow herd. If this is the case for you, it is important to have a good idea of how you would like to accomplish this. Often, producers increase their herd with young replacement females that have either been raised or purchased. This week we will discuss a handful of selection criteria to use to better improve the productivity of your operation.

The first, and most reproductively impactful long term trait to take note of is the age of your potential replacement heifer. Was she born in the first 21 days of the calving season? A study done by Funston et. al. revealed that females born in the first 21 days of the calving season were more likely to cycle by the beginning of the breeding season compared to females that were born in the second or third 21 days of calving season. Additionally, there was a higher percentage of first 21 day born heifers to get pregnant, calve in the first 21 days, and conceive with their second calf when compared to heifers born in the second or third 21 days of the calving season. In short, females born in the first 21 days of calving season are more likely to be more reproductively efficient over the course of their lifetime.

The second trait to keep in mind when selecting replacement heifers is her genetic history. Knowing the female's dam and sire allow you to evaluate their performance as individuals, and as parents if they have other progeny. By looking at the dam and sire, and other progeny, you can get a fair idea of the type of female that the heifer will mature into, and what type of progeny she might produce one day. As mentioned above, females born in the first 21 days of calving season were likely born to females who were born early in calving season themselves. Figure one below displays this cycle that may be expected.

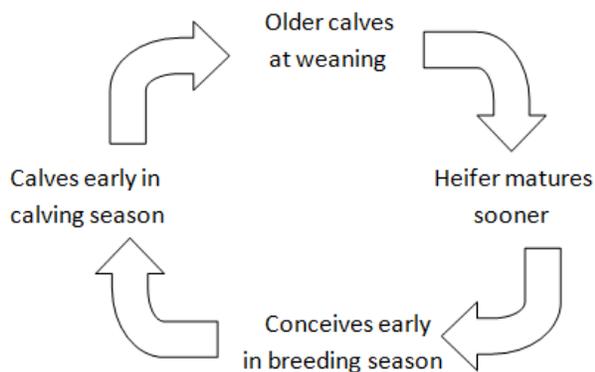


Figure 1.

The third trait to look for is the heifer's phenotype. Does the female fit the desired phenotype of your herd? More specifically, does her size, muscling, breed and other characteristics fit your goals for the herd? Last week we discussed the benefits of targeting your average cow size to 1100-1200 pounds in order to maximize profitability of your operation. That said, it is important to be very mindful of the size of replacement female you use- especially compared to her herd mates. If she is a noticeably larger or smaller calf compared to her same-aged herd mates, she likely will not be the desired size at maturity, which may take you away from your herd goals. It is also important that the female has the phenotype

and genotype that best suit her environment. Age, genetics, and phenotype are all beneficial, but if they are not working with the environment, the female will never be as productive as she can be.

If you have any questions about the above selection criteria, please contact us. We would also like to know what selection criteria you use in your operation. Feel free to call or email us and tell us which traits you look for when selecting replacement females for your herd.

Please refer to the link below to read Funston's research article:

[http://beef.unl.edu/c/document\\_library/get\\_file?uuid=7cea3bc1-cd0a-467b-b7d9-56c9912bae2d&groupId=4178167&pdf](http://beef.unl.edu/c/document_library/get_file?uuid=7cea3bc1-cd0a-467b-b7d9-56c9912bae2d&groupId=4178167&pdf)