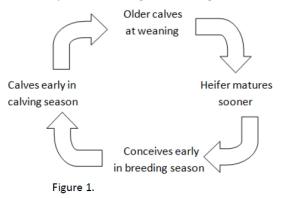
## **Replacement Females- Selection and Vaccination**

If you have already weaned your calves this fall, or are in the process of doing so, chances are that you have also begun to consider whether or not you will retain any of those females for replacements. Though current pasture conditions may indicate that you have adequate forage to retain a large amount of heifers, it is wise to sort through the females and select those with traits that are most desirable for your operation. Selection and care of replacement females plays a significant role in the future productivity of the herd and your operation as a whole. This week we will discuss some basic traits to select for in replacement heifers, and proper vaccinations that should be given once you have established which heifers will be kept as replacements.

We believe that three of the most important traits to focus on when selecting heifers are her age, genetic history, and her phenotype. Typically, females born in the first 21 days of calving season are more likely to be cycling by the beginning of breeding season compared to females born later in the calving season. These females were in turn more likely to get pregnant, calve in the first 21 days of calving season, and conceive with her second calf. That is, these females prove to be more reproductively efficient over the course of their lives. The genetic history of a female is also a great predictor of her expected performance. If the female's dam and sire are known, a producer may evaluate their performance as individuals and formulate a relatively accurate idea of the type of female that the heifer will mature into, and what type of progeny she might produce one day. Further, females born in the first 21 days of calving season were likely born to females who themselves were born early in the calving season. Figure 1, below, depicts the cycle that may be expected.



Phenotype is often the most selected for trait when producers choose replacement heifers. Do the heifer's size, muscling, breed, structural conformation, and other characteristics fit your goals for the herd? Equally important, does the female have a genotype and phenotype that best suit her environment? Age, genetics, and phenotype are all beneficial, but if they are not working <u>with</u> the environment the female will never reach her full potential.

Once you have selected the females you are going to keep for replacements you can then formulate a health management plan for them. Every female should receive a respiratory vaccine that protects against IBR, PI3, BVD, and Lepto. This is available in Modified Live Virus (MLV) vaccines, or killed virus vaccines. In order to best protect your herd, contact us before you decide on a MLV or a killed virus vaccine. The females should also receive a thorough internal and external parasite control. Weaning age cattle and yearlings are most susceptible to parasites, so proper prevention in these animals is extremely important. Although Brucellosis Calfhood Vaccination (BCV) is no longer required by the Texas Animal Health Commission, it is recommended, and may be given to females between the ages of 4 and 12 months.

Healthy cattle have proven to be more productive, and often pass this productivity on to their offspring. With cattle prices continuing to reach record highs, it is wise to invest some extra time and money to ensure that your replacement heifers are healthy. If you would like help developing a health management program specific for your herd, or if you have any questions about the selection criteria above, please contact us.

Thanks, Dr. Jesse Richardson, DVM

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