

The question for this month's article comes from a breeder in South Texas who asks:

***"When do heifers and bulls reach puberty? At what age can a heifer be bred and a bull sire a calf? I keep my weaned calves together in one pasture up until they're about a year old and was wondering if there was any chance of them breeding to each other"***.

**At what age does a heifer reach puberty?**

Heifers can reach puberty and start to ovulate at a very early age, sometimes as young as 4 months-old. The average age, is about 1 year-old, at which time she is capable of conceiving. In rare instances, a heifer can conceive naturally at a much earlier age, which is something producers don't plan or expect to happen. Recently, a C-Section was performed on a 14 ½ month-old heifer, which means that she was bred when she was around 5 to 5 ½ months-old. In this particular situation the heifer wasn't weaned yet and more than likely her sire or a yearling bull in the same pasture bred her. It's rare for heifers to calve this young, but unfortunately it does happen.

**What causes some heifers to mature sooner than others and enable them to breed at such an early age?**

There have been numerous studies done on this subject and it seems that the breed of the heifer is a major factor as to what age she reaches puberty. Dairy cattle, which usually weigh less, reach puberty earlier than heifers of the heavier beef breeds. There is also evidence that heifers born in autumn months reach puberty at a younger age than heifers born in spring. Factors such as environment, climate conditions and especially nutrition, determine the rate at which a heifer matures and at the age she will reach puberty.

**Are young heifers more likely to have complications while calving?**

Yes, there is a much greater chance of a young immature heifer experiencing dystocia or calving difficulty because she is still growing and her pelvic area is smaller and underdeveloped. If the sire of her calf is a large breed, the calf will be

heavier and may be too big to enter into the birth canal; often the calf is stillborn or the heifer requires assistance in delivering the calf. First calf heifers are always at risk of having dystocia since the birth canal has never been dilated or stretched. So, the younger the heifer is at calving, the more chance she has of a difficult delivery and the possibility of dying due to complications. The occurrence of dystocia decreases in older heifers because they are physically more mature and have a larger pelvic opening.

**When a heifer calves at a very early age, will she have difficulties breeding back or calving next time?**

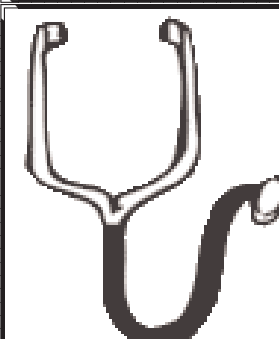
If a heifer doesn't have any complications while calving and there is no injury to her birth canal, she shouldn't have a problem breeding back or going through a normal pregnancy. Heifers that experience dystocia and require heavy assistance during birth [pulling the calf] are more likely to have some delay in cycling back and, depending on how much damage was done to her reproductive organs, she could fail to breed back altogether. Sadly, calves from a difficult birth often experience disease if they are born weak or die from injuries that occurred during birth.

**When do young bulls reach puberty and at what age can they sire calves?**

Bulls can reach puberty as young as 6 months of age and are capable of siring calves when they are 8 months-old. The age at which a bull reaches sexual maturity varies from breed to breed and the individual bull. A bull's rate of maturity is affected by nutrition, genetics, environmental situation and health. Studies have shown that there is a direct relation between scrotal circumference and semen production. The simplest way to determine whether a young bull has reached puberty is by measuring his scrotal circumference. When a bull achieves a scrotal circumference of 28 cm he should be capable of producing semen with high sperm concentrations.

**Is it a good idea for calves of both sexes to be kept together after they are weaned?**

Since heifers can be bred when they are younger than a year old and bull calves can be fertile as young as 8 months old, it's not a good idea unless, of course, you want your heifers bred very young. Not all yearling heifers and 8 month old bulls will breed at that young age, but it does happen. Separating the heifers from the bull calves after they are weaned assures that unplanned breeding doesn't occur.



et your questions submitted, simply type your question and send it to *Trails* Editor Brenda Cantrell at [Brenda@tlbaa.org](mailto:Brenda@tlbaa.org) or fax (817) 625-1388 or mail to: 2315 N. Main Street, Suite 402, Fort Worth, TX 76164. Your questions will be sent to Gail and she will be in hot pursuit to get you the answer.