



Biography:

Dr. Colin Palmer is an Associate Professor of Theriogenology (Animal Reproduction) at the Western College of Veterinary Medicine. Originally from Nova Scotia, Dr. Palmer worked in mixed practices in Ontario and British Columbia and has owned/operated a practice in Saskatchewan. Dr. Palmer along with his wife Kim and children Lauren, Emily and Carter run a herd of purebred Red Angus cattle under the KC Cattle Co. name.

Evaluating a Bull's Ability to Breed

Many cattle producers forget that a satisfactory semen check (Breeding Soundness Evaluation) doesn't guarantee that the bull is a breeder! In fact, most of you have probably realized by now that vets rarely, if ever, guarantee anything. It isn't that we have signed some secret pact, but rather that there are so many factors beyond our control which can affect the success of our treatments or recommendations that it would be foolish for us to guarantee anything. Just because a bull has big testicles and large numbers of normal, motile sperm does not mean that he will sire any calves. Semen checks really only reflect what the sperm producing capability looks like on the day of the test. The odds are generally excellent that the semen quality will remain the same, but that is only if the nutritional and health status are consistent.

Mental health is also an important component of the overall health status. That's right, the bull's mental health! Bulls that are stressed because of climate, fighting, pain and probably fear will have less than optimal semen quality. Late spring snow storms are known to cause a dramatic increase in the numbers of defective sperm which can show up within a day or two of the event necessitating a retest at some later date. Mental and physical status can also affect a bull's willingness, desire or ability to breed. I once watched an older bull demonstrate hind leg spasm as soon as he mounted a cow – he would just start quivering and slide right off, unable to complete the service. We suspected that the bull had severe lesions in his lower spine; however, X-raying the spine of an animal of that size is impossible, not to mention the fact that there is little that could be done to treat this bull.

On the Breeding Soundness Evaluation form there

is a category for sex drive and mating ability. Most bulls are sold as virgin yearlings or two-year olds so I just check off "Unknown". With older, privately-owned bulls I may ask if the bull sired calves the previous year and how well he performed. In other words, was the calving season relatively short and did the bull in question sire lots of calves. There is a written recommendation on the form stating that owners should observe their bulls to make sure he is breeding. Often I will take the extra step to remind owners to keep an eye on their bull to make sure everything is working right.

Our best estimates are that in multiple bull breeding situations, where no one has taken the time to really watch the bulls, as many as 1 in 10 bulls may not be a suitable breeder. In single sire mating situations usually an animal that is unable or unwilling to breed is noticed within 1 or 2 heat cycles when cows that were thought to be bred come back in heat. Don't forget, 1 or 2 heat cycles still represents a huge financial loss!

I recommend that breeding bulls be checked daily during at least the first 3 weeks after turnout and probably the first month or more. If this is not possible make it every 2 to 3 days tops. The first month is critical because 70 to 75% of the cows should get pregnant within the first 3 weeks of turnout. Things I like to check for are: 1) is he still alive ... if not a replacement is needed right away; 2) is he injured... if so how bad, can he breed, or will he recover this week, or this season etc.; 3) is he mounting and completing service; and 4) is he settling cows. With items 3 and 4 it can be tricky. Maybe there is another bull doing the work, maybe he is one of those "shy" bulls who only breeds at night. The best times to check are early morning

and early evening when they are more likely to be active rather than when they are resting comfortably under a tree. Injuries and death of a breeding bull are most likely in the first month of the breeding season. You would probably be surprised to hear how many times we see young bulls that have injured their penises and must be culled after breeding 5 cows or less.

Every year I receive phone calls about bulls that appear to lack libido or the ability to breed. Most of the calls are either from veterinarians or from the seed stock producers who raised and sold the bull. Usually the animal has been reported to be totally disinterested in breeding, or in some cases his desire to breed seems lacklustre in the new owner's eyes. Fortunately, we have an efficient way to check these cases out. It is called the serving capacity test, or in some circles the libido test, or service test. Done properly this test involves the haltering of a sturdy cow, preferably in heat but not necessary, in a short stocks. We usually sedate the cow so that she stands quietly and provide her with adequate lubrication. Proper restraint of the cow is important – bulls always chin-rest before attempting to mount and a big clue that they have a receptive partner is that she doesn't move. Simply, putting a bull in a pen with a cow or tying a cow to tree is not the way to do this test. I have seen cases where bulls have been falsely labelled as non-breeders because of a poorly done serving capacity test. Bulls are also sexually stimulated by watching other bulls so we usually put a known breeder in with the cow first and allow the bull in question to watch through a fence. My personal preference is to have an ugly little cuss as the teaser bull because I think the little guys work up the test bulls even more. I'm not kidding! There is merit in my thinking as more dominant bulls do more of the breeding in multiple bull breeding situations and dominance is determined mostly by size and age. Test bulls should not feel threatened by either humans or other animals so all handling must be quiet and deliberate; this is no place for a stock prod.

The test bull is given up to 20 minutes with the mount cow and if he completes at least a service or two he is a breeder. More services than that indicates a higher serving capacity/ libido and greater odds that he will breed more cows at pasture. Choosing the bulls that score moderate to high in serving capacity/ libido has been shown to have positive effect on conception rates in the cow herd. Having said that, I don't think there is anything more striking than finding a bull that has been kicking around an outfit for a few years that is physically unable to breed. Just think what it has cost to feed and house a bull like that.

The serving capacity test is pretty good for checking out breeding bulls greater than 2-years of age and has been shown to be predictive of breeding performance at pasture. Yearling bulls have a bit of a learning curve when they are first turned out and so serving capacity tests have not been shown to be predictive of their performance. All young bulls need a period of exposure to cycling females to develop their instincts as a breeder. It only takes a few cows, however, as we have utilized the serving capacity test to check out many 16 to 18 month old bulls that have been presented to us as substandard breeders and have proven that our testing method works.

Your bulls are one of your most important investments. Keep 'em healthy, treat 'em right and check them frequently. Most importantly, make sure he is doing his job!