

Buying a bull is easy – making sure he gets cows in calf in a compact breeding season for several years is more difficult. There are a number of key points that can help in making this happen.

Health

Bulls are often purchased with little or no thought given to health status. Many breed societies now have a mandatory requirement that herds must be participating in an accredited health scheme before animals can be sold at official sales. While this is a positive step forward and is to be commended, purchasers should pay special attention to the health status of the animal and think through the implications for their own herd.

For example, BVD is a widespread disease with massive potential to disrupt fertility and it is often ignored or poorly understood. If a bull comes from an accredited free herd, it will never have been exposed to the BVD virus. If the bull becomes infected in the purchasers herd, he will recover and become immune but he will be infertile for possibly 2-4 months, just when he was really needed. Ideally the purchaser should have his herd vaccinated before he brings in any animals at all and the new bull should also be vaccinated before he joins the herd. Make sure all booster injections are administered according to manufacturer's instructions and that vaccines are handled carefully.

In the case of Johne's disease, it is pointless testing a young bull under two years old. Even if a bull does have Johne's, he may test clear at this age, only for the disease to become apparent at a later stage. The best approach is to purchase from a Johne's Risk Level 1 herd.

Any foot trimming required should be completed at least 6-8 weeks before the start of the breeding season. Feet and legs do a lot of work in this period.

Scrotal circumference

Scrotal circumference is easily measured and is closely related to both volume of semen and percentage normal sperm cells. Furthermore, research has also found a strong genetic relationship between scrotal circumference in bulls and the fertility of their daughters as measured by age at puberty. The minimum industry requirement established for 12-14 month old bulls across all breeds is a scrotal circumference of 30 cm. Avoid bulls which do not meet the minimum standard.

When to buy a bull?

A bull is often bought a very short time before he is turned out with cows. Because many farmers only select breeding stock by eye, young bulls are often fed intensively to achieve the highest weight gain and fat cover possible. While these young bulls will look exceptionally well on sale day, the fat deposited around the neck of the scrotum will adversely affect sperm production for the rest of their lives, their feet may be permanently damaged and they may not be able to mate as many cows as they should.

Often these bulls are turned out to too many cows and too little feed so that they lose a lot of weight in a very short time which also adversely affects fertility. Clearly it is better to buy a bull before he gains excessive condition or else at least three months before he is needed to start serving cows to allow time to return to moderate body condition.

Post purchase management of young bull

- **Feeding**

Dietary changes should not be sudden and forage alone will not be sufficient to maintain the young bull which will be anything up to 1000 kg in weight. They should be fed to gain 0.8 kg/day. Prior to purchase a bull will have been on a high concentrate level fed frequently per day so they should be fed concentrates in at least two feeds per day for one month after purchase. A bull will have seen little grass since the suckling period. Ideally provide supplementary feed when the bull is turned out to grass for 4 – 6 weeks.

- **Housing**

Bulls will often have been in individual pens with a lot of human contact (walking/grooming) plus several feeds per day. After the sale, provide human contact and allow him to see his surroundings even though he is in isolation. Make sure pen divisions are high and strong – many accidents happen with bulls trying to jump out of pens shortly after arrival.

- **Training**

Young bulls are sexually inexperienced and ideally a mature cow should be taken to him, allowing him to serve her several times. Bulls should be penned where they can at least see cows, if not other bulls working. Young bulls are enthusiastic but have low semen reserves and hence they should not be run with too many cows. A guide is one cow per month of the bull's age, so 18 cows could be run with a bull of 18 months of age. Approximately 20 –40% of bulls could be temporarily infertile or permanently sub-fertile while others may appear to mount cows but fail to deposit semen correctly. It is important to carefully observe cows 3 weeks after the bull starts working and also to pregnancy diagnose (PD) cows 45 days after the bull is removed.

Annual bull MOT (for all bulls)

Many farmers assume that all bulls are 100% fertile all of the time. However, a small percentage of bulls (less than 5%) are completely infertile but a significant proportion (20-40%) are either sub-fertile all of the time or infertile some of the time or both. Many larger herds in Scotland currently carry out a bull MOT before the start of breeding season. Bulls that pass the test consistently get more cows in calf more quickly than the standard 'hope for the best' bull.

The MOT can cover two areas, namely:

1. Physical – body condition, feet, legs and locomotion, testes, sheath and internal sex glands.
2. Semen – a semen sample is obtained by electro-ejaculation and checked for normal shape and movement.

The final test is libido and mating ability. If a bull has no interest in cows, or can mount but not place semen in the vagina he isn't any use!

Some farmers swap bulls as an insurance measure in case one or more are sub fertile. However, this can increase calving index and reduce profitability, it also allows sub fertile bulls to remain undetected for years. In addition, if he is sub fertile due to underdeveloped testes, he may be passing his poor fertility on to his daughters as well. A sub-fertile bull is better identified sooner rather than later and disposed of before he does serious damage to herd fertility. If a bull has been infertile, there may be time to take some remedial action rather than lose a whole year's production.

Summary

- Have a bull in fit, not fat condition before turning him out with cows.
 - Buy a bull at least three months before he is to be used, and ideally as early as possible.
 - Ensure that a purchased bull comes from a herd with at least the same, if not higher, health status than your own and that all vaccinations and health treatments are completed well before breeding season.
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