

Natural Service Management.

Maximising the potential of stock bulls

Many herds have introduced a stock bull in an attempt to improve fertility by supplementing their AI programmes.

However, the use of natural service bulls still requires a high degree of management in order to achieve

success, particularly by ensuring in advance that bulls are fit and ready for the anticipated breeding work, and also by careful management during the time on farm, be they dairy or beef breeds.

Careful sire selection

Choosing natural service bulls with good ease of Calving PTA for dairy and good Estimated Breeding Values (EBVs) for calving ease in beef breeds, will minimise any undesirable consequences, in terms of fertility and difficult calvings.

Bulls intended for breeding replacement heifers should have good PLI for production and fitness PTAs to ensure longevity of the herd going forward.

Careful EBV selection will also result in improving returns from beef cross calves for performance traits linked to conformation and daily liveweight gain.

Also ensure that any bulls are not too big or too small for the size of animals, be they adult cows or heifers, which they are intended to serve.

Examining breeding soundness

It is recommended that an examination of breeding soundness of bulls should be carried out within eight - ten weeks of the anticipated start of the breeding season/being put to work. This could include:

- An examination of the testicles to check for any abnormalities or unevenness
- Measurement of the scrotal circumference for new bulls; the recommended minimum circumference is detailed in the table overleaf
- A collection of semen to check for sperm quality and motility.
- It is estimated that 10% of natural service bulls are sterile and a further 20% have some degree of infertility.

Important health issues

It is essential that bull health is an integral part of a herd health programme for optimum fertility and should include:

- Vaccination – for herd problems such as BVD and Leptospirosis
- Anti-parasitic treatments – for lungworm, stomach worms, fluke and external parasites
- Lameness – undertaking Mobility Scoring and examining the soundness of feet and legs a minimum of 8 weeks before the breeding season commences, and undertaking any prompt remedial treatment as required.

Bulls that are bought-in or hired-in pose a strong risk of bringing disease into the herd. It is vital that any bulls introduced into the herd, particularly any that have previously worked in other herds are of known health status prior to purchase. If this is not possible a blood test or sheath wash should be performed by a veterinary surgeon to detect the presence of disease.

Ask for a recognised examination certificate plus a completed DairyCo biosecurity checklist so you know the status of the bull's current herd.

Bull nutrition

To ensure bulls are in optimum condition, it is important to measure the Body Condition Score (BCS) of bulls at least eight weeks before they are required to work to allow time to adjust if necessary.

Importantly:

- The Body Condition Score of stock bulls should be maintained at 2.5 - 3. A higher or lower BCS is likely to result in reduced semen production and an impaired libido
- Beef stock bulls should start the beginning of the breeding season on a rising plane of nutrition

- Any loss of condition should be investigated. It may be due to less-visible health problems such as parasite burden, disease or teeth problems
- Bulls should be allowed to acclimatise to herd life before they are expected to work.
- Diet changes should ideally be introduced slowly over 3 - 4 weeks.

Milk production rations often contain more energy, protein and calcium than bulls require, thus making it difficult to avoid bulls putting on too much condition.

Breeding observation

Regular monitoring and condition scoring of stock bulls during the breeding season will ensure that they are maintained in optimum condition to maximise fertility.

It is essential that:

- Body Condition Score is maintained at 2.5 - 3 over the breeding season
- Bull mobility is monitored to detect lameness problems hindering mating, particularly infections which may increase body temperature leading to reduced semen production
- Mating is observed to monitor libido and to check for physical problems such as damage to the penis
- Matings are recorded to give an indication of potential calving dates or returns-to-service, and to provide information for pregnancy diagnosis

- Bulls are not expected to cover too many cows at any one time.

Age of bull	Advised cow numbers
<2yrs	15-20 cows
2yrs	20-30 cows
3yrs>	30-40 cows

(This is based on pasture mating, so assumes that the bull is loose with that number of cows and has to detect oestrus and serve)

- Young bulls need particularly careful management to avoid being over-worked, initially confining them to 15-20 cows
- Ideally, if beef bulls are running with the herd, change bulls weekly – giving each bull one week working followed by one week resting – to avoid the danger of impairing fertility by over-working.