

Working towards net zero carbon emissions

Managing Bull Fertility

Practical Guide

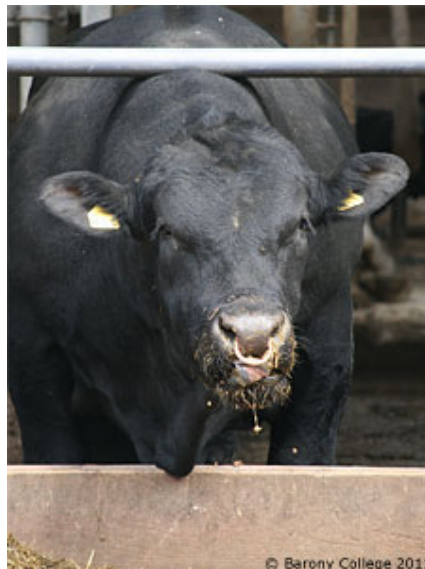
Improving performance within a beef herd relies on optimal fertility. Managing and improving suckler herd fertility strongly correlates with reduced production costs per kg of beef sold. To achieve industry performance targets for suckler herds, bulls need to get more than 95% of the females they are run with settled in calf within 9 weeks and at least 65% in the first 3 weeks of the breeding season to maintain a compact calving period. Bull infertility is costly, resulting in reduced calf output through having less calves to sell and lighter calves at weaning due to calves being born later. There is no guarantee that a stock bull will retain fertility from one breeding season to the next. Therefore, it is vital to know that bulls on farm are capable of doing their job.



This practical guide takes a closer look at stock bull fertility checks to ensure performance

Subfertility

To ensure suckler cow fertility is not comprised semen testing and a Pre-Breeding Examination (PBE) check for bulls is an essential part of maximising herd performance and calves reared. Commonly bulls that are ageing or are suspected of not settling cows in calf are tested. However, a 3-year trial run by SRUC Vet Iain McCormick, found that on average, 1 in 5 bulls fail a fertility test irrespective of age or breed, with young bulls failing as much as older stock bulls. Whilst the study highlighted that bulls often fail for more one reason – 80% were due to problems associated with sperm morphology and motility.



Subfertility may be a result of testicular size or sperm quality. Whatever the cause of the bull's subfertility the end results are the same – a reduced conception rate, therefore more empty cows and a prolonged calving period. For those herds who are rotating bulls, the severity of bull infertility could well be masked, with farmers not aware there is an issue and performance still being lost.



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See also:

[Working Towards Net Zero Carbon Emissions: Improving fertility in the beef herd](#)

[Working Towards Net Zero Carbon Emissions: Beef bull selection](#)



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Pre-breeding checks

The aim of a Pre-Breeding Examination is to identify bulls that are potentially unfit for use as breeding bulls that might otherwise go undetected until cows are PD'd. A Pre-Breeding Examination should include examination of the scrotum and contents. Measurement of Scrotal Circumference (SC) is a key component of PBE (Pre-Breeding Examination) as the SC measurement is highly associated with daily sperm production and semen quality. The BCVA Bull Pre-Breeding Examination Certification Guidelines for age and minimum scrotal size are shown in Table 1.

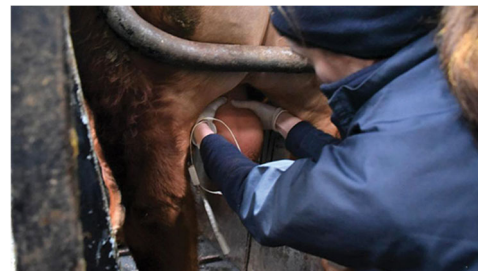


Table 1: BCVA Bull pre-breeding examination certification guidelines for age and minimum scrotal sizes

Age in months	12- 15	15- 18	18 -21	21 – 24	>24
Minimum SC (cm)	30	31	32	33	34

Bull examination timetable

It is important that bulls are assessed in advance of the breeding season to allow time for management decisions to be made before the breeding season starts.

Table 2: Pre-bulling bull checklist

Two to three months before mating	Check that bulls are physically sound and any feet that require attention are treated
One month before mating	Bull soundness examination carried out by your vet
First few days of breeding	Bulls observed carefully to ensure they are mating properly
21 days after bulls turned out with cows	Check cows for returns

Newly purchased stock bulls

Many young bulls sold at bull sales are now sold as semen tested. However, it is important to remember that tested bulls can underperform if for example they pick up an infection or have libido problems. Sudden changes in diet can also affect semen quality and production therefore it is crucial newly purchased stock bulls are given time to settle allowing time for a gradual diet transition. Semen testing bulls does not assess bull libido therefore it is crucial to observe bulls for the first two months in order to pick up on any issues including lack of libido or penis damage.

Bull utilisation

Often fertility testing bulls is regarded as a negative, where problems with fertility have arisen however as well as identifying infertile and or sub fertile bulls, fertility testing allows for bulls with high fertility to be identified. This is a useful management tool when considering the size of bulling groups and numbers of cows run with bulls. Bull power may be underutilised if bulls with exceptional potential are run with smaller batches of cows. This could potentially reduce the number of stock bulls required on farm.

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