

LATE MATING MANAGEMENT

It may seem obvious but empty cows come from cows that are not mated, failed to conceive or have lost pregnancies. To minimise the number of empty cows in your herd the following steps should help:

Get your Vet to check all cows which have not cycled, or are repeat breeders. Identifying problems and getting these cows mated/pregnant is important in helping reduce the empty rate.

Bull Management

There is usually a great sigh of relief that day when you finish the drudgery of AI and finally let the bull(s) run loose. No more worrying about tailpaint, drafting cows, CIDRs and so on. It's a welcome break! Or is it? Bulls running with your herd (or heifers) do a remarkable job. They deliver up to 10 doses of semen per day to your cows. They generally deliver it to the right cows at the right time, often repeatedly. They keep their heat detection vigil around the clock, seven days a week and willingly lose up to 20% of their bodyweight for the cause.

Mother nature has also been extremely lavish with sperm supply. While it takes only 10-20 million sperm near the cervix to result in fertilisation, the first three ejaculates of the day contain on average 3 **billion** sperm. That's 100 fold surplus. But this has a negative effect later on in the day as the semen stores begin to empty. Ninety percent of the days' sperm has gone by the third ejaculate. The diluted semen subsequently produced may be insufficient. It has been estimated that the likelihood of fertilisation drops 5% per ejaculate beyond the third mating for the day.

Ensuring top bull performance in most herds starts by matching resources with required workload. A conservative estimate of 30-40 cycling cows per bull ensures that the bull's capacity is not outstripped on a big day, where 10% of the cows may come on at once. This also means there is a little bit of healthy male competition. The number of bulls required depends on the number of cycling, non-pregnant cows.

For example:

In a 400 cow herd, the number of cows requiring bull service	Open cows	No. Bulls
6 weeks AI, First round Sub Rate 90%, Con Rate 60%	85 cows	3
6 weeks AI, First round Sub Rate 80%, Con Rate 60%	125 cows	4
4 weeks AI, First round Sub Rate 90%, Con Rate 55%	117 cows	4
4 weeks AI, First round Sub Rate 80%, Con Rate 55%	191 cows	6-7
shorter AI, lower Sub and Con Rates	more cows!	?

All bulls must be tested BVD negative as well as vaccinated.

Be quick to spot disease and lameness. Treat promptly to minimise downtime and maximise sperm quality. Lameness can have a severe impact on bull performance as the bull is not keen to mount. Avoid bull hoof wear by excluding him from the yard or farm dairy. Rotate bulls frequently, to avoid lameness and speed recovery.

Last, but by no means least, don't give up on recording heats for at least a couple of rounds. Barring early preg testing, this is the only way to get a handle on how well your AI (and your bulls) worked. Without natural mating data, it is impossible to analyse herd reproductive performance for troubleshooting. Even remembering to record when you left the bull in until is important information for later on. If you get bull management right, it not only provides a strong finish to the mating season, it is a great safety net if AI did not go quite right.