

Impact of management factors on herd fertility

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A high level of reproductive performance is essential to maximise profitability in a suckler cow enterprise. Cows taking longer than 12 months to produce a calf incur a higher cost per kilo of calf produced than cows which produce a calf every 12 months.

A recent study conducted by AFBI aimed to assess the impact of farm management on herd fertility. Five years of fertility data was collected on 150 farms in Northern Ireland. Each herd's average calving interval and the proportion of cows with an extended calving interval (>450 days) was calculated to establish herd fertility.

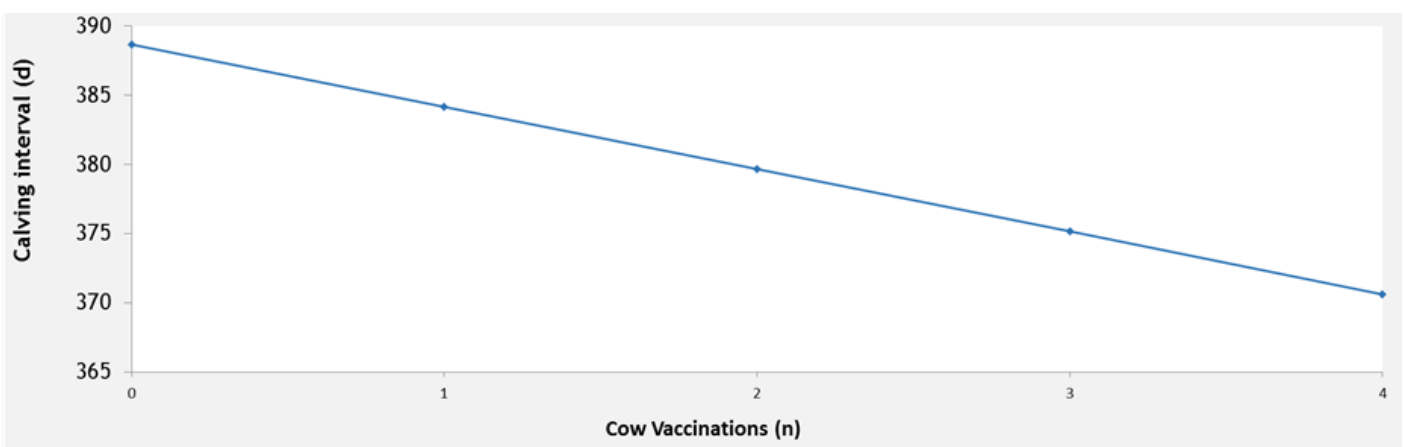
The management practices found to be significantly associated with herd fertility included:

- Vaccinations
- Sire selection
- Fertility management
- Record keeping

Vaccination

It was found that farmers who vaccinated cows had a 5% reduction in the proportion of cows with extended calving intervals and as the number of vaccines administered to a cow increased, the calving interval decreased (Figure 1). Vaccinations listed included those targeting leptospirosis and bovine viral diarrhoea (BVD), which are diseases known to cause abortions in cows. Herds which also vaccinated breeding bulls had a nine day shorter calving interval than those that did not.

Figure 1: Relationship between number of vaccinations a cow received and her calving interval



Sire selection

The study also found several interactions between sire selection and herd fertility. Most notable was producers who used visual selection rather than estimated breeding values (EBVs) to select bulls were found to have a 15 day longer calving interval and a 7% higher proportion of cows with extended calving intervals.

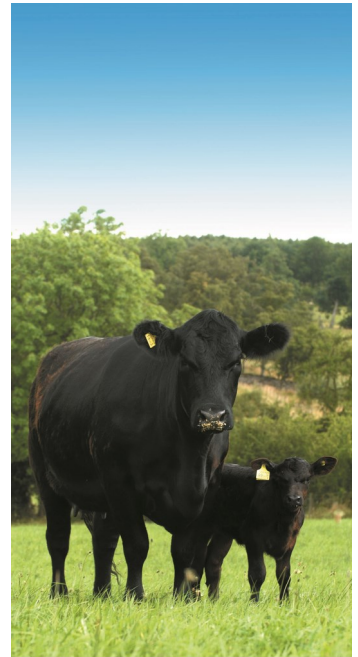
Record keeping

Record keeping is one of the most valuable sources of specialised information about the farm operation. Those producers who kept records of calving interval as a measure of fertility were found to have an 11 day shorter calving interval and 6% lower proportion of cows with extended calving intervals.

Other key performance indicators which can be used to measure and track fertility include:

- Per cent of cows and heifers calving in the first 3, 6 and 9 weeks of the calving period
- Spread of the calving period
- 200 day weaning weight per kg of cow or heifer bred
- Age at first calving

A recent study, funded by AHDB Beef & Lamb, found that calving at two years of age rather than 2.5, increased net margin per cow by £83.79. This highlights the importance of herd fertility on profitability and the value of collecting and analysing performance data to help make improvements.



Further information on improving fertility within the suckler herd can be found in the BRP manual [Optimising Suckler Herd fertility for Better Returns](#).