

# Dairy herd fertility

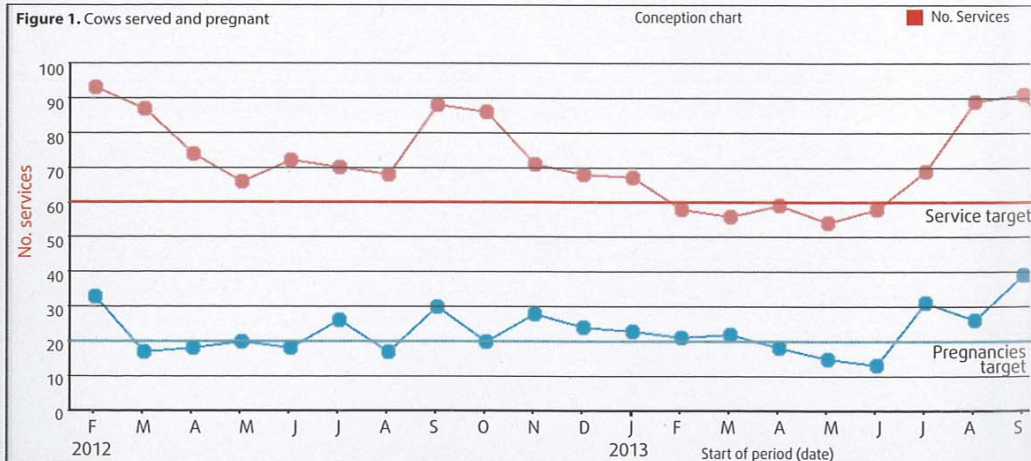
**DAIRY** herd fertility is challenging, given a background of declining conception rates and poor heat expression.

Fertility is even more challenging for high-yielding large dairy herds. Despite this, the author and Chris Watson have found ways to buck the trend and help farmers achieve high herd fertility performance. Their approach was demonstrated by a 1,000 cow herd farm client of Shepton Veterinary Group, where the author is a director, that won the Cream Awards High Fertility Award in 2013.

## Targets

Farmers do not work in percentages, but make decisions on individual cows. Identifying the numbers of cows served and diagnosed pregnant in any period is a good place to start, as it gives the farm a target to aim for. **Figure 1** shows the cows served (red line) and pregnant (blue line) each month for a 300-cow dairy herd calving all year round. The farm target is to establish 20 pregnancies each

**Figure 1.** Cows served and pregnant



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following part one (VT44.13) of this article, sets out key aspects of dairy herd fertility management

month, which will mean 240 cows to calve each year, plus 60 replacement heifers joining the herd. With a conception rate of 33 per cent, the farmer will need to serve at least 60 cows each month to generate the required pregnancies. The chart shows these targets were reached most of the time, but low numbers of pregnancies were achieved in April to June 2013 due to low numbers of serves.

## First service interval

Farms need a voluntary wait period of 40 days and then serve cows as quickly as possible after this time. **Figure 2** shows the distribution of time after calving for first serves. The majority of cows are served as soon as eligible at 40 to 70 days, with a calving-first service

interval of 71 days. Efforts are focused on the cows not served in this initial period using a combination of good heat detection, heat detection aids and appropriate treatment. With the modern dairy cow, this will not be enough as some will not display oestrus. The author's and Mr Watson's approach is to use selective, timed artificial insemination approaches on these cows, shortening the "tail" of delayed calving to first service.

## Pregnancy rate

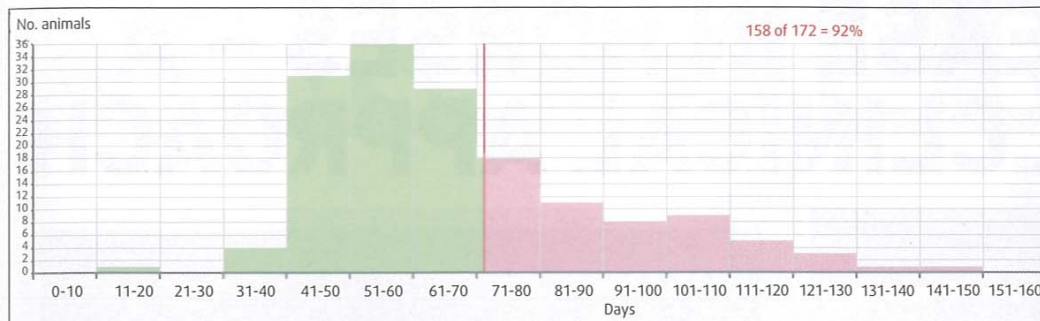
Once cows are served, there is a need to ensure efficient detection of returns and an adequate conception rate is achieved. This combination of heat detection and conception rate is expressed as the pregnancy rate (called % cows eli-

gible for service conceived in InterHerd+). Monitoring pregnancy rate indicates trends in the generation of pregnancies over time, with 18 per cent a reasonable target. The black line in **Figure 3** shows the farm is achieving an 18 per cent pregnancy rate over a rolling 12-month period. Achieving a high pregnancy rate will require a holistic approach involving cow management, nutrition, disease control and sound AI skills.

## 100 day in-calf rate

A structured approach to fertility management will deliver improvements in financial performance. In **Figure 4**, it can be seen the proportion of cows pregnant by 100 days has increased from 36 per cent to 46 per cent. There will be a shorter period for cows to calve down again, resulting in a lower average days in milk and increased milk yield.

Shepton Vet Group is holding a Managing Dairy Herd Fertility course on May 15 and 16. For details, email [paddy.gordon@sheptonvets.com](mailto:paddy.gordon@sheptonvets.com)



**Figure 2.** Calving – first service interval (d)



**Figure 3 (above).** Pregnancy rate. **Figure 4 (below).** 100 day in-calf rate.

