

## GENUS ABS - PREGNANCIES DRIVE PROFIT



# Managing for better fertility



## No.1 A complex problem



The failure to get cows back in calf continues to be a major drain on dairy farm profits. According to NMR, the national average calving interval is around 420 days which is significantly above the ideal target of around 375 days.

From our own work with Genus ABS Reproductive Management System (RMS) we know that pregnancy rate on many farms is around 14%. If this falls below 13% a farm will fail to be able to retain herd size, as insufficient heifers will be born to balance out cows leaving the herd.

Infertility is also a major cause of cows leaving dairy herds. Statistics produced by DairyCo suggest that 24% of all culls are due to infertility, or the inability to get back in calf. Put another way, in a 250 cow herd 13 cows a year are culled probably earlier than is desirable because of the inability to achieve and maintain a pregnancy.

### Why is fertility such a problem?

This is a good question. Pregnancy rate is calculated by multiplying conception rate by heat detection rate. While some herds achieve good success rates and have better overall fertility management, other farms struggle. Our experience with RMS shows that it is possible to achieve pregnancy rates of over 20% with high levels of overall management and an aggressive approach to heat detection.

We do know that the modern dairy cow is working at very high physiological levels and this affects many aspects of behaviour. Take bulling as an example. We know high yielders are only in oestrus for around 6 hours, stand for fewer, shorter mounts and as many as 25% of cycling cows will fail to show heat - so called silent heats.

Condition	Description	Reduction in conception rate
Lameness	High mobility score at service	25 percentage points
Mastitis	Clinical case or cell count over 200,000 at service	20 percentage points
Nutritional stress	Acidosis, diet changes, inadequate diet mixing, turnout	10-33 percentage points
Metritis and post-calving infections	Any uterine infection	20 percentage points
Management stress	Changing groups, water shortage, parlour turn time, feeding frequency, stocking density	15 percentage points

Despite all these challenges, farmers have a good success at getting semen into the right cows at the right time. In fact, at eight days post insemination around 90% of cows will be pregnant but only 35% of them will calve down.

The truth is that getting a cow in calf is not simply a case of serving the cow at the right time. A significant range of factors can have an impact on a cow's propensity to get in calf.

Increasingly it is attention to detail on all aspects of management which determine how successful a farm is at getting cows in calf. And the biggest determining factor is the quality of the people. All manner of aids and records can potentially make a difference but in the end it is down to the ability of the people on the ground.

### What are the factors influencing fertility?

In short anything that affects a cow's physiological state can affect her willingness/ability to get in calf. The table above summarises the effect of different management factors on conception rates.

While the factors should not be a surprise to anyone, the potential impact may be. However it isn't really surprising. Take metritis as an example. Any infection of the uterus, no matter how mild will increase the risk of delayed onset of oestrus and reduce future conception rates.

The key question is what can be done to reduce the impact of these various management areas and that is the objective of this column. Over the next five months we will look at each area in turn, examine why it is a problem and suggest ways to reduce the impact.



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