

# DN NEWSLETTER

## issue 31

**When we improve reproductive performance, we increase the volume of milk sold per year, as well as associated benefits. Three key benefits are: Improvements in transition health, which are driven by a lower number of extended lactations and less over-conditioned cows; lower replacement costs which are associated with cows remaining in the herd for longer; and improved feed efficiency.**

Our objectives for reproductive management are to get semen into healthy cows in a timeframe that is most profitable for the enterprise. For seasonal calving herds this last point is crucial for the success of the enterprise.

The first thing to consider is what are the important metrics. These will be different depending on the type of system, seasonal or all year round calving (AYR). Preg-rate is probably one of the most common metrics used in AYR systems where as calving to conception interval (CCI) is of more use in seasonal systems where a calving interval of 365 days is crucial. In both cases both have a direct effect on profitability. More recently pregnancy inventory has been recognised as more practical metric for AYR herds.

Pregnancy inventory is a measure of the number of calvings that are forecast per month or per week. The objective is to have a consistent number of calvings which will help to maintain a consistent number of average days in milk and first lactation animals entering the herd. This makes the whole system work more efficiently.

For seasonal calving systems the heifers should be bred to enter the herd at the beginning of the calving season this gives them the optimal time between calving and breeding. For AYR herds heifers need to be bred continuously throughout the year.

The voluntary waiting period or VWP is the interval between calving and the number of days post calving that animals are eligible for insemination. For AYR herds I recommend two VWP's, one for cows and a slightly extended one for first lactation animals and challenged cows. The VWP for seasonal system is set by the system and is usually a date in calendar that gives a consistent seasonal pattern and a calving interval of 365 days.



Getting cows inseminated is all about detecting heat or oestrous by the implementation of heat detection systems or through the use of synchronised breeding programs. Heat detection is more successful when more than one method is combined. For example, activity monitors combined with synchronisation of anoestrus cows, or cows not seen in heat. Remember challenged cows and high producing cows will exhibit less noticeable signs of heat and are at higher risk of being truly anoestrus. Synchronised breeding programs such as pre-synch ovsynch are essential for larger herds, although in future it is likely that heat detection systems will replace them. However, it is important to remember that automate heat detection systems work better and are more accurate in healthy herd than in challenge herds.



The next point to consider is with regards to insemination. Management of the semen (storage and thawing), detection of oestrous, timing of insemination and the skill of the inseminator/technician are all critical factors. Insemination is best carried out 4 and 16 hours after the onset of standing heat. Semen is viable up to 24-32h after insemination, which means that a routine of one insemination time point per day is effective.

After insemination the next critical point is identifying those cows which are still open or non-pregnant. Of course, accurate heat detection will help to identify those cows not pregnant and ultrasound at day 32 post insemination is the most accurate for the cows which have not returned to oestrus.



Finally, the health of the cow, energy status and weight loss will be one of the most significant factors effecting conception rate, so it is critical to manage the transition period effectively and minimise negative energy and weight loss in early lactation. Provision of a balanced supply of effective trace minerals during the dry and lactating period will also help to achieve good reproductive performance.

# TURBOPRO®

Turbopro Energy Booster is a unique blend of ingredients that improve feed utilisation, energy metabolism and milk production in high-yielding dairy cows. Feed to high yielding cows to maintain both production and fertility.

### On farm results:

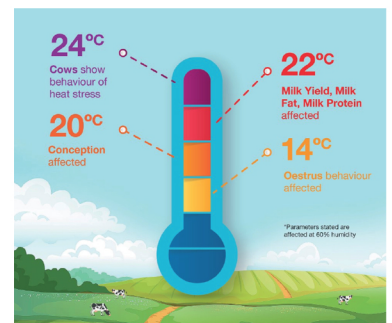
show increased herd fertility while maintaining high levels of milk yield

Per head per day	Control	Turbopro	
Milk yield (kg)	30.6	31.9	↑ 1.28L
ECM (kg)	32.6	34.0	↑ 1.37kg
Fat (%)	3.95	4.04	↑ 0.09%
Protein (%)	3.34	3.43	↑ 0.09%
Milk price (p/kg)	27.7	28.5	↑ 1.2p
<b>Total milk payout</b>	<b>£ 8.48</b>	<b>£ 9.05</b>	<b>↑ 57p</b>

Figure 2. Performance of *Turbopro* group versus control

\*\* Economics based on typical UK Milk Contract\*\*

## EQUALISER® CoolCow



Highly effective rumen buffering during periods of heat stress from the Equaliser® Rumen Buffer base for optimal rumen health. CoolCow pack includes ingredients that help the cow deal with the effects of higher temperatures and humidity in housed situations. Especially important with higher yielding housed cows even when the external temperature is as low as 14°C.

**Dugdale  
Nutrition**



**iFeed**   
INTELLIGENT FEEDING by Dugdale Nutrition