New Zealand Fertility Focus

The second part of my trip to New Zealand was to gain experience with the block calving herd approach to ensuring the herd calves down within the same 3 month period each year. Fertility is the single biggest focus in New Zealand dairy herds, and whilst our high yielding Holstein cows can still be profitable with a slightly longer calving interval, it is still one of the greatest economic drivers for any farming system. The estimated cost per cow over 100 DIM, not in calf, is between £2.50 and £6 per day.

I arrived back into Auckland, to start my second position in a similar sized practice to Willows in the North Island. The Waikato region is a mix of undulating hills with surrounding flat areas. There is little irrigation, and average herd size is 350 animals. Calving was starting to tail off, and people were getting cows ready for breeding.

There was a spectrum of approaches to herd fertility, but all saw the importance of investing heavily in this area, in order to hit their closely watched targets. A plan of action for the individual farm was established during a ‘Repro Ready’ visit. This was a short call to put some dates in the diary for planned ‘clean check’ visits, non-buller synchronisation and other visits that were deemed appropriate by the vet; for example, bull fertility testing. It was a dynamic approach, and we used both calving disease data and previous years’ performance to indicate what level of involvement was advisable.

This very structured approach proved extremely valuable for providing a foolproof mating plan to ensure nothing was forgotten at this busy time of year. Planning is extremely important in these systems, and often time is needed for changes to take effect. Therefore, it is often too late, and extremely costly, when certain aspects of management are accidentally neglected. This planning is equally important in all year round systems typically shorter, more frequent visits, targeting the appropriate cows sooner, and is most cost-effective.

On completion of the Repro Ready visits, we started into many a ‘clean check’, ensuring we treated those cows with metritis with enough time for cure.

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Are twins just double the trouble?

Despite the obvious benefit of getting two calves from one cow, twins in dairy cows can result in significant losses to the herd. A large number of twins are expected early this year as a result of the period of heat stress through the summer of 2014. As part of the normal oestrous cycle the cow’s ovaries typically go through 2-3 waves of follicular development. One of these follicles is selected to become ‘dominant’ and produces oestrone which suppresses the development of the other follicles. This dominant follicle continues to develop and it is this increasing oestrogen level which is in part responsible for the expression of oestrus prior to ovulation. During periods of heat stress follicular quality is reduced, compromising oestrone production (which helps explain the reduction in oestrogen expression described above) and as the heat wanes, multiple (poor quality) follicles are allowed to develop and ovulate – increasing the incidence of twins. This is further exacerbated by the increase in dry matter intakes which occurs as the heat recedes resulting in an ovarian ‘flash’. The typical UK incidence of twins is believed to be roughly 2-5% in cows compared to 1% in heifers, however there is a large inter-herd variation with incidences of 1-15% in some herds. The average heritability of twinning among Holstein sires has increased over time. Individual bulls have a Predicted Transmitting Ability (PTA) which can range from 1.6% to 8% with a higher incidence of twinning being reported for certain cow families. The potential problems with twins begin very early on with fusing of the placental blood vessels resulting in freemartins. As the pregnancy develops, total foetal mass becomes the critical issue as a cow with twins is attempting to support 60% more foetal mass. When foetuses, placentas, and fluids are transferred into the uterus, the dead twin compete for nutrients, reducing the impact of twins in your herd.

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- Monitor body condition more closely during late lactation and the dry period
- Dry off 10-14 days early
- Use Keoxtone to reduce the risk of ketosis
- Monitor cows calving twins more closely around calving if these cows are part of a dry cow strategy.

Speak to your vet if you want more detailed information on reducing the impact of twins in your herd.