

Ovarian abnormalities in the Dairy Cow - By John Walsh



It is vitally important that dairy cows resume cycling and become pregnant in a timely manner after calving to maintain a tight calving interval. Any disease in cattle that prolongs this interval will contribute to an economic loss in that herd. Cystic ovarian disease represents a major cause

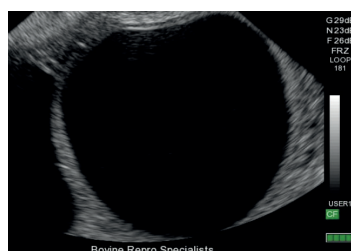
of reproductive failure in many dairy herds due to an increase in the number of days open and the delay in calving to first service interval. Below I will explain what constitutes cystic ovaries and how we can both prevent them and treat them based on the latest evidence.

Incidence in dairy cows

The incidence of cystic ovarian disease can be very variable depending on the farm and its management. Reported figures can vary from 3% to 30% of cows affected with the highest incidence between 15 and 50 days after calving.

Diagnosis

Cystic ovarian disease is usually diagnosed at routine fertility visits using ultrasound scanners. The cows either haven't been seen to be in heat by the



farmer or they have been in heat at irregular intervals. Ultrasonography allows us to visualise and measure the structures on the ovaries and make an accurate diagnosis. In the past manual palpation was used but has since been found to be unreliable in accurately diagnosing cysts.

There is some controversy about what constitutes a cystic ovary, but the consensus is that they are follicular structures with a cavity greater than 20mm in diameter, in the absence of a corpus luteum, that interferes with normal ovarian cyclicity. Some of you may have heard us talking about luteal cysts at routine visits. Luteal cysts can be defined by having a wall thicker than 3mm, but both interfere with normal ovarian cyclicity.

Hormonal causes

The exact hormonal causes of cystic ovarian disease are not currently fully understood. It is likely that alterations in normal hormonal levels and interactions with these hormones are altered both in the brain and in the ovary which cause the follicle not to ovulate. We do, however, know the risk factors that can contribute to higher incidence of cystic ovarian disease which means we can try eliminate or reduce these risk factors to help reduce the numbers of cystic cows we see.

Risk factors

Risk factors for cysts include higher milk yields, severe negative energy balance deficit, lower levels of circulating progesterone, heat stress, twinning, retained placenta, ketosis, metritis and higher levels of stress. Non-Esterified Fatty Acids (NEFAs) produced when large amounts of body fat are mobilised have been shown to alter normal ovarian function. These all tend to link back to dry and transition period management. The key to minimising these risk factors centres around maintaining a stress-free calving whilst trying to maximise high dry matter intakes in both dry and transition periods and produce a ration that gives a low milk fever risk.

My top tips for minimising stress and increasing dry matter intakes are

- Have good access to ensure fresh palatable feed 24/7; have a minimum of 70cm feed space for dry and fresh cows.
- Keep the feed passageways and troughs cleaned out daily to avoid mouldy feed reducing palatability of fresh feed if placed on top.
- If feeding a straw based dry cow ration, make sure it is precision chopped to avoid sorting and increase dry matter intakes. Chopped straw often increases intakes by 1-2kg.
- Make sure dry cow ration is formulated to minimise milk fever risk eg low DCAB.
- Minimise group changes in the last 3-4 weeks of pregnancy and in the transition period. Move cows in groups once a week, not daily, to avoid social interaction stress.

- Take measures to reduce heat stress
- Ensure fresh clean water is always easily accessible. Water troughs should be clean enough for you to drink from and try to have 10cm per cows available of trough space.
- If you can and have space, instate a heifer group to reduce stress on these younger more vulnerable animals.
- Control body condition in cows (target BCS 2.75 to 3.0) and target fat cows and those with twins with treatments such as Kexxtone to reduce risk of ketosis after calving.
- Make sure dry cows are not lame and you have good protocols in place to spot and treat lame cows sooner.
- Select bulls for replacement heifers with a high fertility index.
- Offer freshly calved cows a warm drink and give them a little TLC. People use fresh calving drinks such as Reviva, please ask at the practice for details.

Treatments

We often diagnose cystic ovarian disease at routine fertility visits. Treatments include the use of the hormone GnRH (Ovarelin/Receptal) alone or in combination with prostaglandin (Prellim). These can be used to bring on a natural heat or combined into an Ovsynch protocol enabling you us to use fixed time service. Sometimes we add in a progesterone releasing device (CIDR) to give use better treatment outcomes and higher chances of pregnancy.

DATES FOR YOUR DIARY:

AI Training Course

Wednesday 6th October 11:30am-4:30pm

Mastering Medicines

Wednesday 13th October - 11am-1pm

Next Generation Dairy Discussion Group

Wednesday 13th October - 7pm-9pm

DRUG UPDATES:

Treating for parasites at housing:

Please contact Izzie at the farm office to discuss prices for worm and flukicide treatments for your cattle at housing.



It is important to use the flukicide which matches the stage of development of fluke within your cattle, so please consult us before buying to ensure you get the cost effective treatment.

Withdrawal Note updates: Trymox LA injection withhold periods have recently extended to Milk = 108 hours (4.5 days) and Meat = 39 days.

UbroStar dry cow tubes, Milk withhold = if treated at least 35 days before calving, milk must not be used for 36 hours after calving.

STAFF NEWS:

Lucy Millard will sadly be leaving our farm office team at the end of October. She is leaving us to pursue her interests in reptile husbandry at Berkshire college. We wish her the best of luck!



FriarsMoor
Livestock Health
Calendar 2022
Competition
Winners

Congratulations to our competition winners, we were overwhelmed with some amazing entries. Thank you for all your support!