Stepping up colostrum management

Simplifying and speeding up the job of thawing colostrum has resulted in improved consistency, reduced calf mortality and improved immunity on one Powys dairy farm.

Hassle factor can all too easily be used as an excuse not to do a job, so anything that simplifies an essential task such as colostrum feeding is only going to benefit staff and calves alike.

Powys dairy farmer, Fraser Jones has seen this first hand in his dairy business near Welshpool in Powys. Since introducing a new specialist colostrum thawing system to Wernllwyd Farm, he has witnessed marked improvements in calf mortality and immunity.

Wernllwyd Farm is a dedicated dry cow and youngstock facility, which takes stock from two of Calcourt Farms’ three dairy herds, which total 1,000 cows. The importance of feeding plenty of quality colostrum within two hours of birth has never been lost on the four strong team at Wernllwyd. However with a total of 950 animals on the unit, time is pressured.

Up until this year, all colostrum had been tested using a colostrumeter, pasteurised and then frozen in old, four litre milk cartons. As soon as a cow began to calve, the carton would then be placed in a couple of make-shift coffee urns to defrost. Each were heated to 40°C, but could only hold one bottle, which tended to float to the top so it was not fully submerged. This—coupled with the thickness of the bottle—meant it would often take six hours to fully defrost.

Mr Jones recalls: “It meant calves weren’t getting what they needed. We were trying to feed within one hour and we just couldn’t. It was a nightmare. Some calves would also be missed entirely.”

Mr Jones is all too aware of the need to provide plenty of good colostrum. For example, research shows that calves which have four litres of colostrum immediately after birth instead of two, will produce more milk as adults. Providing calves with more colostrum will also lead to better growth rates, while calves will also have fewer calf hood diseases thanks to absorption of immunoglobulins.

He notes: “Colostrum is 100% important. Without it calf health and performance will suffer. That’s why we test everything. If it’s not up to quality, we discard it and we keep the best we can so we know they’re getting the best.”

As a result, in January this year, he looked at various alternative thawing options and spoke to farmers for recommendations. Consequently he invested in a Store & Thaw system from Pyon Products.

The water bath system can be heated to varying temperatures, with 40C generally use for defrosting colostrum as it avoids damaging the immunoglobulins and is also the ideal temperature for feeding. The heater has a stirrer attached which agitates the water to help speed up thawing. The system can also be used for pasteurising, although the team at Wernllwyd use a dedicated...
A bag of frozen colostrum is placed in one of two metal baskets, which are fully submerged in the water bath. The system’s colostrum bags are flat when filled, which provides a large surface area to volume ratio meaning it takes less than half an hour to thaw. They are then decanted into a milk feeder bottle for feeding to calf.

Mr Jones says: “Store & Thaw does the job and it’s relatively cost effective. There are more glamorous, bells and whistles systems, but they’re five times the cost. It’s effective. There are more glamorous, bells and whistles systems, which is also a measure of immunoglobulins. We want this to be over 5.5 and now we have more samples that are a pass. The consistency with Store & Thaw means blood proteins are more consistent.”

Mr Jones believes this consistency is what is ultimately aiding calf survival. “The problem was poor consistency before. Some calves were being missed so she was likely the one that ended up dying or something else,” he says.

Both Mr Hodgkinson and Mr Jones believe calf mortality has dropped substantially—something which Mr Hodgkinson has noted at TB testing. “We’re starting to see more runs of calves without gaps when we’re putting the ear tag numbers into the system at TB recording. That’s a good indicator to me that things are good,” he comments.

The fact calves are healthier has also been partly to thank for a 32% reduction in total antibiotic use across the whole farm business over the last 12 months. A more in-depth BVD control strategy has also played a key part in improving calf health, together with the farm’s strict protocols. “The hope is that improved colostrum management, together with a continued drive to improve management will lead to better performing bulling heifers and performance in the milking herd. The team at Wernllwyd Farm are on hand 24 hours a day to care for calv-