Focus on calf management brings benefits to whole farm

A Cornish dairy business has tackled high mortality rates in calves by reviewing and completely revamping their calf rearing system. Mike Green reports.

Two years ago calves at Treveor Farm, Gorran Haven, St Austell, were reared in individual pens in an old parlour building. Pneumonia and scours were a problem and mortality rates were too high. So they purchased some automatic calf milk feeders and reared calves in an adapted shed shared with pre-calving cows. But still mortality was too high.

Since May last year heifer calves have been reared in individual hutches housed on a purpose built base—and only one calf has died during this period.

“One of the big problems we have is that we do not have enough space to rear the calves indoors and there was a continuous throughput of calves with no rest period for the pens,” says Neil Parkhouse who farms in partnership with his wife Joanne, father Derek and sister Anita Oatey. “Now the heifer calves are outside we have freed up shed space and there is time to clean and disinfect the hutches between calves.”

Mr Parkhouse has built his dairy herd up to 550 cows calving all year. Milk is sold to Dairy Crest.

“The move to machine feeding was an improvement but there was still overcrowding and no time for a rest,” he says. So Mr Parkhouse consulted his vet Phil Elkins from Westpoint Veterinary Group and looked at different calf rearing systems.

“I considered a purpose built calf shed with automatic feeders but it would not suit us—we are near the sea and get some muggy and misty days. So I decided to go down the hutches route with both individual and group hutches outside.”

A base consisting of clean 40mm stones between 10cm and 15cm deep was laid on top of a permeable membrane to provide a free draining bed.

Vet Philip Elkins points out: “A calf will produce over five litres of moisture a day so it is important to have a base that drains well.”

The new hutches at Treveor Farm have been placed on a carefully constructed base to ensure adequate drainage.

Continued on page 22.
After being weaned at six weeks of age the calves are moved into group hutches in groups of five.

Mr Parkhouse adds: “This system works very well and takes all the urine and moisture produced away. This has helped reduce the amount of straw used for bedding.”

Another improvement that has been made is in colostrum management. A purpose bought machine to thaw colostrum has been purchased. Colostrum is put in purpose-made bags of up to three litres and frozen. “These bags are slim and when we put them in the colostrum machine the milk thaws at a constant temperature.”

Calves are removed from the cow as soon as they calve and given three litres of colostrum within three hours of birth. Another three litres is given after six hours.

Calved cows are milked separately into buckets. No colostrum is taken from heifers. The colostrum is tested with a colostrometer for quality and if it is up to standard is frozen.

The calves get milk replacer twice a day in buckets and have an 18% protein concentrate—with deccox to control coccidiosis—available most of the time.

“Hutches make sense—we can monitor feed intake on a daily basis including barley straw and water intake,” says Mr Parkhouse.

“When they are weaned at six weeks some of the calves can be eating two kilogrammes of concentrate.”

When weaned the calves go into group hutches in groups of five. They are then moved to a neighbouring farm for rearing with the aim of calving at 24 months of age.

There are 54 individual hutches and 11 group hutches but more are being added.
Bull calves initially remained on the automatic milk feeders. “Although the stocking pressure was reduced in the bull calf groups the mortality rate was still too high,” he says. “So we are now starting to rear the bull calves outside in group pens which is freeing up more space in the building for the dairy herd.”

Biosecurity is an area that is taken very seriously at Treveor Farm and strict protocols are observed.

The calves are reared by Anita Oatey with the help of one worker. No one else is allowed in the calf rearing area. They wear clean work wear when attending to the calves and always disinfect their feet before entering the hutches pad. They then change these clothes before they work on other parts of the farm.

The hutches are cleaned and disinfected between each calf and can be moved four times before they need to be put back on their original pad. Every two months Mr Parkhouse cleans out the pad. The tele handler is washed and disinfected before going onto the pad to remove bedding. Mr Parkhouse also makes sure he has clean boots and overalls.

If there is a need for vet Phil Elkins to examine a calf he would wear clean overalls, disinfect his boots and make sure he visited the calf hutches first before attending to any other stock on the farm.

Mr Parkhouse has applied for planning permission for a nursery house and store next to the calf hutches. The plan is for supplies to go in at one end of the building and Anita Oatey and her helper will be the only ones that can access the calves from the other end of the building.

Vet Phil Elkins, together with his farm animal technician, routinely takes blood samples from a selection of calves at two to seven days old to check their antibody levels. This acts as a check on colostrum management. When they started a year ago 25% of the calves would be classed very good, 50% adequate and 25% poor/inadequate. Now 95% of calves are rated very good and 5% adequate.

Mr Elkins has also encouraged Mr Parkhouse to test for Johnes Disease with milk testing through NMR. They started two years ago and 35 cows were found to be infected (7% of the herd) and this is now down to around 25 cows (4.5%).

Affected cows have red tags and are calved separately. Their calves are removed immediately and colostrum thrown away. “We are trying to cull it out but do not want to disrupt herd numbers too much,” added Mr Parkhouse.

Mr Elkins added that he had recently done some calculations and it was cheaper to milk record and test the milk for Johnes than to blood test cows for the disease.