



REX

A calf's colostrum status and early nutrition can make a big difference in cow performance by avoiding permanent damage to the gut and respiratory system.

On-farm nasal test aims to bring young calf rearing up to scratch

By Debbie James

An on-farm nasal test has been launched to help farmers monitor the colostrum status of their newborn calves and maximise the natural protection against disease and infection.

Research shows a calf's colostrum status and early nutrition make a big difference in terms of longevity and calf health, says DairyCo extension officer Chris Coxon.

"It is essential to get calf rearing right – things are made and broken at the calf-rearing stage," he says.

The high cost of getting calf rearing wrong was also highlighted by Claire Wathes, professor of veterinary reproduction at the Royal Veterinary College in last week's *Farmers Weekly*.

Prof Wathes said cow fertility across the UK was being affected by farmers' failure to manage calf health and nutrition in the first weeks of life. This resulted in cows failing to calve by 24 months of age. Calving at this age allows a cow to fit in almost one extra lactation during its productive lifetime.

Blood sampling has for years been used to monitor whether animals have absorbed sufficient antibodies from cow colostrum, but a new farm-based nasal test is set to make it easier and quicker.

Linnodee Laboratory in Northern Ireland has developed the Colo-stick, which it says is as sensitive and accurate as blood sampling, but is non-invasive.

"Farmers can use it themselves or it can be used by a vet," says laboratory manager Tara Brownlow.

MONITORING TOOL

Testing establishes if calves have achieved adequate immunity levels, but Pembrokeshire vet Richard Davies believes it should be regarded as a monitoring tool with the objective of improving colostrum quality or management practices.

"If there is a problem with calves, testing is a good starting point," says Mr Davies, of the Fenton Veterinary Practice, Haverfordwest.

"It is better to test calves that are

assumed to have had everything done correctly. If the test detects adequate levels, the management is fine," he says.

"However, if the level is low, there is something wrong within the system. This might be poor-quality colostrum, getting too little into the calf or getting it in too late."

The next step after a low result is to test the colostrum. "If it has a low level of antibodies and that colostrum is all that is available, you can give more and earlier, or consider artificial colostrum replacers," says Mr Davies.

Poor colostrum intake will have a lifelong effect on health and productivity. This effect is mainly the result of animals picking up more infections because of diminished protection. "Infection becomes chronic with permanent tissue damage and this affects growth rates," says Mr Davies.

"Damage to the gut lining and especially the respiratory system can be permanent and have lifelong effects on bodyweights and production."

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ENSURE CALVES GET ENOUGH COLOSTRUM

* About half of dairy calves left to suckle will not receive enough colostrum to provide adequate immunity, says DairyCo's Chris Coxon. Dairy calves must be fed additional colostrum, using only the first milk from cows that have just calved.

Calves need a colostrum intake equivalent to 10% of their bodyweight. "A bigger heifer will need four litres – two litres within two hours and the same volume within eight hours," Mr Coxon advises.

And it is important the colostrum is fed as soon as possible after the calf is born, because antibody absorption levels rapidly deteriorate.

"At 24 hours, the calf's gut will have closed up and all colostrum will do is line the gut – it won't increase the antibody status of the calf," he says.

As long as colostrum is collected fresh, it can be frozen, but should not be kept for longer than a year, he adds. "It shouldn't be thawed above 50C or the antibodies will be destroyed."