

An Individual cow approach to dry cow therapy

Dry cow therapy (DCT) became a main stay in mastitis control in the UK following its recommendation as part of 'The five point plan' in the 1960's by the National Institute for Research into Dairying (NIRD). In the UK DCT currently tends to be used as a 'blanket' therapy, where by all the cows in the herd receive antibiotic dry cow treatment at the end of their lactation. The main aim of this treatment is to treat any subclinical infections present in the udder and prevent a new establishment of infections throughout the dry period. The introduction of internal sealants in the dry off treatment schedule of dairy cows has also helped to prevent the introduction of a new infection during the dry period.

There has been recent pressure within the Dairy industry and by RUMA (Responsible Use of Medicines in Agriculture alliance) to reduce the level of antibiotics used in the dairy sector with a specific target on antibiotic dry cow therapy. The EU has set this target to ensure the efficacy of antibiotics in cattle for years to come. In April 2015 RUMA published their 'responsible use of antimicrobials in dry cow management.' Their aim is to produce a coordinated and integrated approach to best practice in animal medicine use and are responsible for communicating practical strategies to use antimicrobials responsibly. They state that 'antibiotics should be used as little as possible and as much as necessary'. Arla have also communicated that their new assurance scheme 'Arlagarden' will be introduced in October 2015, requiring an individual cow approach to dry cow therapy, it is expected that other milk companies are likely to follow suit.

Selective dry cow therapy:

Selective dry cow therapy is when an individual cow and herd is assessed to determine if antibiotic dry cow therapy is required for that individual. This decision making process ensures that antibiotics are not being used unnecessarily and an appropriate antibiotic is being selected if required. The benefits to this approach include reducing antibiotic usage on farm and meeting industry guidelines. It has also been identified that unnecessary use of antibiotics can increase the incidence of coliform mastitis (Bradley et al, 2010) as the antibiotic may remove the normal bacterial flora in the teat canal allowing introduction of E.coli bacteria.



We use various different tools for decision making in dry cow therapy treatments; these include individual somatic cell counts, clinical mastitis history of the cow and bacteriology. An individual cow's milk quality performance in her current lactation will dictate what treatment she receives at dry off. It is important that each farm develops its own dry cow strategy and decision making process in consultation with their vet

and that the risks and selective dry cow therapy performance is reviewed regularly.

To enable selective dry cow therapy to be of benefit to the health and welfare of UK dairy herds, we need to ensure that the dry off technique is of a meticulous standard. It is also important to control other risks which can influence the mastitis sourced from the dry period and as a fresh calver. The dry cow and calving environment is an important area to manage appropriately to help reduce the risks for mastitis e.g. housing hygiene, fly control and ventilation. Dry cow nutrition should be formulated to meet the nutritional and mineral requirements of a dry cow, this is important to ensure a cow's level of immunity is appropriate to resist infection.

It looks like selective dry cow therapy will become a requirement in dairy farm assurance in the future. Why not get the ball rolling and discuss the implementation of selective dry cow therapy in your herd with your vet today!

References:

Bradley, A.J., Breen, J.E., Payne, B., Williams, P. and Green, M.J. (2010) The use of Cephalonium-containing dry cow therapy and internal teat sealant, both alone and in combination. Journal of Dairy Science 93, 1566-1577.

RUMA <http://ruma.renaissancetest.co.uk/wp-content/uploads/2015/05/RUMA-dry-cow-strategies-long-2015.pdf>

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