

SECTION VI-5 DRY PERIOD MANAGEMENT OF MASTITIS

5. DRY PERIOD MANAGEMENT OF MASTITIS

5.1 DRYING EWES OFF

The dry-off period for ewes should not be shorter than two months of duration to allow for the ewe's udder to rest and prepare for lambing (Section I.1.2.3 and 1.2.4). To dry a sheep off, milk production should be minimized, either by natural progression of the lactation or manually, by altering feeding management. Once milking has ceased, never evacuate the udder unless clinical mastitis has occurred. It is important to not disturb formation of the keratin plug, which naturally forms in the teat during the drying procedure (see Section I.2.4).

Dry ewes should be penned in a separate housing environment than the lactating flock. This will allow for different nutrition and will prevent accidental milking of treated animals.

5.2 DRY PERIOD TREATMENT OF EWES

It has been shown in both dairy and meat sheep that using a dry treatment product can decrease SCC, cure existing mastitis infections, prevent new infections acquired during the dry period and increase milk production in the following lactation.

5.2.1 CURING EXISTING AND PREVENTING NEW INFECTIONS IN THE DRY PERIOD

When ewes are treated with antibiotics at dry-off, there is a strong likelihood this treatment will rid the mammary gland of any existing infections. This is because the antibiotic will be in contact with the bacteria for weeks, rather than – as in the case of treating during lactation – only for a few hours. The antibiotic will also not be diluted with milk so will be more concentrated.

Dry treatment can also help to prevent new infections from occurring during the dry period. The biggest risk periods are a) the few days after milking stops – when the keratin plug in the teat is still forming, and b) as the udder fills just before lambing. Most infections picked up at this time are from the environment, e.g. dirty bedding, wet and muddy pastures – especially around watering troughs, standing water (e.g. ponds and puddles), fly bites etc.

Teat sealants can prevent bacteria from entering the teat during these high-risk times. External sealants coat the teat and act as a barrier to bacteria until the keratin plug is fully formed in the teat (See Table III.1). However, there is a chance that the sealant may rub off as the ewes lie down, lessening its barrier function. A more effective method is an internal teat sealant (OrbeSeal®, Zoetis Canada), which essentially acts as an artificial keratin plug until it is fully formed. Consult your flock veterinarian before using any of these products.

5.2.2 SELECTIVE VS BLANKET TREATMENT AT DRY-OFF

With **selective treatment**, only ewes that have been identified as having udder problems are treated with antibiotics at dry-off. This dry-off technique is beneficial in flocks with a very low prevalence of mastitis, a consistently low SCC and good environmental management of mastitis. Not only does this save on the cost of antimicrobials, but it also decreases unnecessary antimicrobial treatments.

Blanket treatment refers to the treatment of every ewe at dry-off. This type of dry-off practice is beneficial for flocks with more prevalent and chronic infections as well as increased SCC. Although this method is more expensive, there is a greater chance that these treated ewes will have improved udder health in their subsequent lactation.

5.2.3 SYSTEMIC TREATMENT DURING THE DRY PERIOD

Although intramammary antibiotics have traditionally been used during the dry period to control pathogens, it has been shown that use of an injectable antibiotic tilmicosin (Micotil®, Elanco Animal Health) has been beneficial. If injected subcutaneously one month prior to lambing, it has been shown that ewes have less udder abnormalities at the end of that lactation, and their lambs perform better than ewes that were not treated with systemic antibiotics. However, no work has been done to show it is of benefit in dairy ewes, nor has an appropriate milk withdrawal been established. Do not use unless under the advice of your flock veterinarian.

Please note: NEVER use this product in goats as it is very toxic to those animals. Only administer to dairy ewes on the advice and supervision of your flock veterinarian. As the drug is also dangerous to humans, read the directions for administration carefully before using.

5.3 ENVIRONMENT FOR DRY EWES

Although ewes do not have the exposure of pathogens due to milking during the dry period, there is still a great chance that animals can be exposed to multiple environmental pathogens during the dry period. It is important to maintain a clean and dry environment for ewes so they are not exposed to increased pathogen counts due to manure, urine and excess water. To decrease stress amongst these dry ewes, housing them in a separate pen than the lactating string will minimize disruptions in their daily routine, allowing them to rest in preparation for lambing.

Fig. 1. Dry ewe housing

