Care and welfare of the neonatal lamb

The survival of the newborn lamb and the ensuring its continued health is one of the greatest management challenges facing the sheep producer. The average mortality rate of the neonatal lamb in the UK is estimated at 15%, but this can vary from 5-35% depending on management systems and health issues. This can have a major impact on the profitability and overall viability of the sheep farming enterprise. Adequate preparation is not only the key to improving survival of the lamb, but also to producing a healthier, more viable and therefore profitable lamb.

Ewe Nutrition

Nutrition of the pregnant ewe is one of the most important, if not the most obvious issue which will have an effect on lamb size, lamb vigour, colostrum quality and quantity, among others. In the first 70 days of the pregnancy placental growth takes place which will determine the nutrient supply to the foetus throughout pregnancy. Restricted or inadequate feeding in this period will lead to smaller lambs and even foetal losses.

In the mid third of pregnancy the foetal requirement is minimal and nutrition is for maintenance of the ewe. Body Condition Scoring (BCS) is extremely useful in determining whether ewes require extra feeding. The last third of pregnancy is the most important with the majority of foetal growth taking place. Scanning the ewes and separating according to number of lambs will allow better management of concentrate feeding in the last 6-8 weeks of pregnancy. Inadequate nutrition at this stage can lead to pregnancy toxaemia (twin lamb disease), foetal and neonatal deaths, and poor quality colostrum. Trace element and mineral supplementation should be given if required.

The most common deficiency is that of selenium and vitamin E. Supplementation of the ewe during pregnancy has been proven to produce healthier, more viable lambs. However, selenium does not cross the placental barrier, and the lamb receives it through the ewe’s milk. Deficiency in the lamb can lead to death through white muscle disease and in areas of low selenium, it is suggested to inject the lamb at birth with a vitamin E/selenium substitute to prevent possible mortalities and ill thrift.

Lambing

The lambing process is a period that requires patience, and is where mistakes are easily made. The ewe should always be allowed plenty of time before assistance is given, as a poor lambing technique can have a detrimental effect on future fertility, milk production and the mothering instinct.
Hygiene

Maintaining good hygiene is often seen as a futile process, but its importance cannot be underestimated. Lambing ewes with dirty hands can lead to uterine infections, stripping the udder can cause mastitis, and environmental contamination of the bedding and pens with bacteria like E. coli will increase as the season progresses. Wearing gloves and disinfecting the individual lambing pens between every ewe is of course the "gold" standard, however time constraints can limit even the best laid plans. A suggestion is to use a dry disinfectant powder on individual pens before bedding, this limits washing time and prevents wet bedding that can harbour bacteria. Try to keep hands as clean as possible, some people prefer not to use gloves, if so, having a packet of "wet-wipes" in your pocket can be useful to prevent the spread of infection between ewes.

Naval Dipping

The naval of the newborn lamb should be disinfected and trimmed if very long as soon after birth as possible. The most commonly used disinfectant is Iodine 10% spirit based, which can be used as a spray or as a dip. The naval is a high risk route of infection for the newborn lamb, and is the most common route for bacteria causing internal abscessation or joint ill. If the unit is having a problem with joint ill it is suggested to disinfect the naval many times in the first few hours of life. However, again due to time constraints, on many units where joint ill has been an issue prophylactic use of long acting injectable antibiotics is being used as a preventative measure.

Colostrum Management

The ewe should always be given time alone with the lamb to establish the maternal bond, however, the lamb should continually be monitored to ensure it receives colostrum. Colostrum is the "first milk" that is produced by the ewe after lambing, it contains a high level of antibodies against a variety of infectious agents. It is recommended the lamb receives at least 10% of its body weight in colostrum during the first 24 hours, ideally half of which in the first six hours, as the gut is unable to absorb the antibodies after this time. For example, a 3kg lamb should receive 300g (12 ounces) of colostrum in the first 24 hours. A 60ml syringe holds 2 ounces of colostrum.

If a lamb receives inadequate colostrum it increases the chance of health problems, including diarrhoea, pneumonia, and meningitis. The most common disease associated with inadequate colostrum intake is E. coli (watery mouth). E. coli is an environmental pathogen that proliferates in the lambs gut during the first 12 hours of life, quality colostrum prevents the disease becoming established.

On units where there is a high prevalence of E. coli, preventative treatment with oral antibiotics can be very successful in decreasing mortalities due to the disease. Drawing the ewe's teats to remove the keratin plugs will allow the lamb to suckle more easily, it will also allow assessment of the quality and quantity of the colostrum. If there is any doubt that the lamb has not received adequate colostrum, it should be stomach tubed with either the mother’s or another ewe's colostrum or manufactured dried colostrum. Colostrum management is the most effective tool in improving the mortality rate, it is also the cheapest. All lambs should routinely be checked on their intake, however on larger sheep enterprises this is not always feasible, therefore it is suggested to routinely stomach tube all lambs after birth.