

Getting it right: the selection, storage and use of medicines

By Ed Hewitt,
Armour Veterinary
Group



Medicines represent a significant cost for a sheep farm and should be looked after once they reach the holding. Different products have different storage requirements and these should be adhered to, thus ensuring the product remains effective.

Vaccines, for example, need to be stored in a fridge and should be transported from the place of purchase in a cool bag or similar with a cold pack inside. Farm fridges should have a maximum-minimum thermometer inside to monitor temperature and this information be recorded. Vaccines should not be stored in the fridge door, as this area has the greatest temperature fluctuation. Other products, like wormers and antibiotics, need to be stored at room temperature.

Many products will be rendered ineffective if subjected to frost or extreme temperatures. Expiry dates also need to be monitored so that stock is rotated properly

Keys to vaccine success

- Store and transport at the correct temperature.
- Ensure injection equipment is calibrated to the correct volume.
- Administer via the correct route.
- Use a guarded sterilising injection kit.
- Do not inject wet or dirty sheep, and ensure equipment is clean.
- Do not administer two different vaccines at the same time, unless they are licenced for use together; allow 14 days between different vaccines.
- Ensure time elapsed between the first and second injections is correct.
- Ensure the booster vaccine is the same vaccine given at the primary course.



Using a guarded and sterilising injection kit can help optimise vaccines and other injections.



Investing in products, including wormers, requires them to be selected, stored and administered correctly.

on farm and medicines that have expired are not used.

To use clostridial vaccines effectively, sheep require two doses initially. Both doses must be administered within the correct timeframe in order to be effective. This initial course can be boosted subsequently with a single injection of the same vaccine up to a year later. A number of vaccines are available covering from one to 10 different clostridial diseases, some with the addition of pasteurella. Which particular vaccine to use will be an individual choice based on previous disease history on the farm and should be discussed with your own veterinary surgeon. In order for the vaccine to be effective a number of points must be borne in mind – see panel left.

Abortion

Abortion vaccines are available for the control and prevention of toxoplasmosis and enzootic abortion. The primary course consists of a single injection. The timing of these vaccines is important. Most need to be given in advance of putting the ram out with the ewes. Data sheet recommendations should be adhered to. The principles for the effective use of these vaccines are similar to those for clostridial vaccines.

A worming programme for a sheep farm should be an integral part of the flock health plan and should be drawn up in conjunction with your own veterinary surgeon. Excellent independent information is available from SCOPS – see www.scops.org.uk.

The objective of worming sheep should be to maintain the required growth rates while using the products

effectively to prevent the development of wormer resistance on farm. Pasture management and rotational grazing should be maximised to limit the reliance on products.

Sheep develop an age-related immunity to gut worms that is generally life-long. The only exception is around lambing time, when the 'periparturient rise' occurs as a result of waning immunity due to the stress of pregnancy. Ewe nutrition is key and can help limit the periparturient effect. How this is dealt with will depend on the farming system that is in place and should be discussed with your own vet.

Worming

In general, as a result of their age related immunity, adult ewes do not need regular worming. The use of wormers on a regular basis in adult ewes is not only a waste of money and farm labour, but it may also help speed up wormer resistance on your farm. If there is any doubt about whether treatment is required, faeces samples should be collected and checked to see if worm eggs are present. Not every dirty tailed sheep has worms!

Lambs will likely require treatment for worms to help maintain growth rates before being sold store or for slaughter – see panel right. The use of different anthelmintic groups may be required during any one season and the dosing interval between products will depend on the product used and the pasture management on the individual farm.

Purchased sheep should be subject to quarantine dosing to minimise the chance of bringing resistant worms onto the farm. One of the new wormer categories should be used for this purpose - 4-AD (orange)

Essentials for correct worming of lambs

- Utilise faecal worm egg counts or targeted selective treatment based on weight gain.
- Remember the use of two or more broad spectrum products may be required during any one season.
- Utilise one of the new worming product groups – 4-AD (orange) or 5-SA (purple) in consultation with your vet.
- Calibrate dosing equipment.
- Dose for the heaviest animal.
- Use product at the correct interval.

All dosing guns, including new ones, should be calibrated before and during use.



or 5-SA (purple). A number of other treatments are likely to be needed for the incoming sheep and should be part of the flock health plan.

A number of products are available for the treatment of liver fluke, and choosing

the right product is one of the essential of using these products correctly – see panel. Different products will kill different stages of fluke and which product to choose will very much depend on the farm history and the time of year. NADIS and SAC Consulting provide a fluke forecast, which will give an indication of the expected fluke challenge for the year. This information should be used in conjunction with your vet to formulate the fluke programme in

Essentials for correct use of flukicides

- Use product appropriate for the time of year.
- Calibrate dosing equipment.
- Dose for the heaviest animal.
- Check product efficacy where resistance is suspected.

sample is then assessed for the presence of fluke eggs. However, caution needs to be employed as an animal may have a high immature fluke burden but not be shedding eggs. Eggs are most commonly shed 10-12 weeks after infection. Treatment decisions should take account of all the available information and be based on how the sheep are doing.

The use of antibiotics in farm animals is under increasing scrutiny, it's therefore essential that veterinary advice regarding their use is followed so they are used appropriately on farm - see page 37.

In summary, to get the most effective use of medicines they should be integrated into disease treatment and prevention plans as part of the overall flock health plan. A planned and integrated approach with your vet will allow you to maximise profitability and production and allow you to get the most out of purchased medicines.

the flock health plan.

Faeces sampling can be useful, and the use of bulked samples helps to keep sampling costs down. The faeces from 10 individual animals are submitted and then pooled at the lab. This composite