

Anthelmintics – getting it right

Choosing the right product and getting the most from it are key factors not only in the fight against anthelmintic resistance but also in ensuring optimum sheep performance at least cost.

Use the knowledge and experience of your vet or SQP to help you make the right product choice so you get the best results.

Advisors can help you decide which is the most effective for the target parasite(s) and advise on using and interpreting Faecal Egg Counts (FECs).

They will also help you test the efficacy of any treatments given so you know which groups are fully effective on your farm and which are not.

SCOPS wants you to get the most out of every anthelmintic (wormers & flukicides) treatment you give. This leaflet gives you a list of all the product choices available, the parasites covered, withdrawal periods and routes of administration. The key points to remember are:

- Choose the right product. Targeting the parasite(s) correctly means better results and reduces the risk you will need to treat again.
- Use a narrow spectrum product where possible to reduce selection for resistance to the broad spectrum groups.
- Use combination products only when they are necessary.
- Administer anthelmintics effectively and handle and store them correctly.
- Check that the product has been effective by carrying out a simple drench test. Resistance sneaks up on you and this will give you early warning. It will also make sure you are using an effective product that gives good worm control.

www.scops.org.uk



Minimising the Environmental Impacts of Anthelmintics

ALL anthelmintics (wormers & flukicides) approved for use in livestock have undergone a rigorous Environmental Risk Assessment, reviewed by the Veterinary Medicines Directorate (VMD), before any license is granted.

SCOPS principles aim to reduce our reliance on anthelmintics and this in itself will help to minimise our environmental impact. However, some products can have a negative impact on soil and aquatic invertebrates when they are excreted in the dung and/or urine of treated animals or if they are allowed to contaminate water courses or soils.

For more information on any environmental impact identified regarding a product, check the Summary of Product Characteristics (SPC) available using the searchable link below: <https://www.vmd.defra.gov.uk/productinformationdatabase/Search.aspx>

Always:

- Make sure you read, understand and follow instructions given on the SPC for each product used.
- Take note of any specific warnings, for example those regarding the potential damage to aquatic and soil invertebrates.
- Remember that meat & milk withdrawal periods are not a measure of potential environmental impacts or when it might be 'safe' to graze sensitive conservation areas.
- Dispose of empty containers or residual unwanted product responsibly. These pose a huge risk to the environment if they are allowed to contaminate water courses or soil.

Do you drench and inject correctly?

1. Weigh – don't guess

Underestimating the weight of sheep is a common cause of under dosing. Select and weigh the biggest sheep in the group to determine the correct dose. If there is a wide range of weights, consider splitting the group, then weigh the heaviest in each section. Don't forget to check that the weighcrate is accurate before you start!



2. Calibrate and maintain equipment



Always check the gun is delivering the right amount before you drench. Calibrate using a graduated pot (shown) or remove the plunger from a 10ml syringe and cover the needle end with a gloved finger. Squirt several doses from the gun into

the top of the syringe to check the volume. Make sure there are no air bubbles. Adjust until correct. Clean dosing equipment with warm soapy water after use and check for kinks and worn seals or springs. Use clean, sterile needles for injecting and always follow manufacturer instructions carefully.

3. Drench and inject correctly

The drenching technique is a vital part of ensuring that the anthelmintic does its job effectively. Make sure the sheep are properly restrained and can't leap around when you are drenching, so they swallow the whole amount. Sheep can also suffer serious injury, or even death, if they are unrestrained and the gun penetrates the tissues at the back of the mouth. Place a hand under the head and tilt slightly to the side. Slot the nozzle in the gap between molar and incisor teeth and then



over the back of the tongue. Injections must be given according to manufacturer's instructions. Subcutaneous products should be given using a 1.6cm needle making sure it is under the skin of the neck 10-15cm below the ear. Intramuscular injections go into the mid neck with a 2.5-4cm needle aiming inwards and upwards towards the head. Moxidectin 2% LA is given at the base of the ear. Massage the site of any injection gently after administration.

Storage

Anthelmintics should be stored securely, away from direct sunlight at 4–25°C. Check the 'use by' date and once open, use within the time shown on the packaging. Shake the white (1-BZ) products well before use.

Sustainable Control of Parasites in Sheep

Know Your Anthelmintics Groups



Group 1 - 1-BZ White

| Product | Company | Chemical name | Parasites Covered | Use | Trace elements | Meat Withdrawal Period (days) |
|--------------------|-----------------|---------------|---|------|----------------|-------------------------------|
| Albacert | Downland | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 5 |
| Albenil SC 2.5% | Virbac | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 5 |
| Albex 10% | Chanelle Pharma | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | | 5 |
| Albex SC 2.5% | Chanelle Pharma | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 5 |
| Benzimole SC 2.5% | Mole Valley | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 5 |
| Bovex 2.265% | Chanelle Pharma | Oxfendazole | Roundworm, Lungworm, Tapeworm | Oral | | 24 |
| Endospec SC 10% | Bimeda | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 4 |
| Endospec SC 2.5% | Bimeda | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 4 |
| Ovidrench S&C 2.5% | United Farmers | Albendazole | Roundworm, Lungworm, Tapeworm, Liver fluke (adult only) | Oral | Co; Se | 4 |
| Panacur 10% | MSD AH | Fenbendazole | Roundworm, Lungworm, Tapeworm | Oral | | 15 |
| Rycoben SC | Elanco AH | Ricobendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 3 |
| Tramazole SC 2.5% | Tulivin Labs | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 4 |
| Tramazole SC 10% | Tulivin Labs | Albendazole | Roundworm, Lungworm, Tapeworm, Liver Fluke (adult only) | Oral | Co; Se | 4 |
| Zerofen 10% | Chanelle Pharma | Fenbendazole | Roundworm, Lungworm, Tapeworm | Oral | | 21 |
| Zerofen 2.5% | Chanelle Pharma | Fenbendazole | Roundworm, Lungworm, Tapeworm | Oral | | 21 |

Group 2 - 2-LV Yellow

| Product | Company | Chemical name | Parasites Covered | Use | Trace elements | Meat Withdrawal Period (days) |
|-------------------------|-----------------|---------------|---------------------|---------------|----------------|-------------------------------|
| Chanaverm 7.5% | Chanelle Pharma | Levamisole | Roundworm, Lungworm | Oral | | 20 |
| Levacide 7.5% injection | Norbrook labs | Levamisole | Roundworm, Lungworm | Injection S/C | | 15 |
| Levacide LV 7.5% oral | Norbrook labs | Levamisole | Roundworm, Lungworm | Oral | | 21 |
| Levacur SC 3% | MSD AH | Levamisole | Roundworm, Lungworm | Oral | Co; Se | 20 |
| Levamole | Mole Valley | Levamisole | Roundworm, Lungworm | Oral | | 20 |

The information in these tables was correct to the best of our knowledge at the time of printing (January 2023). Always check the data sheet before using any product.

You can check the most up to date information on the VMD website at: <https://www.vmd.defra.gov.uk/ProductInformationDatabase/>

Group 3 - 3-ML Clear

* Injections: I/M = intramuscular S/C = subcutaneous

| Product | Company | Chemical name | Parasites Covered | Use | Meat Withdrawal Period (days) |
|---|-------------------------|---------------|--|---------------------------------|-------------------------------|
| Animec | Chanelle Pharma | Ivermectin | Roundworm, Lungworm, Nasal bots | Oral drench | 10 |
| Bimectin | Bimeda | Ivermectin | Roundworm, Lungworm, Nasal bots | Injection S/C | 42 |
| Cydectin 0.1% Drench | Zoetis | Moxidectin | Roundworm, Lungworm | Oral drench | 14 |
| Cydectin 1% injection | Zoetis | Moxidectin | Roundworm, Lungworm, Sheep Scab, Nasal bots | Injection S/C | 70 |
| Cydectin 2% LA Injection (20mg/ml) | Zoetis | Moxidectin | Roundworm, Lungworm, Sheep Scab, Nasal bots | Injection S/C (base of the ear) | 104 |
| Dectomax | Elanco AH | Doramectin | Roundworm, Lungworm, Sheep Scab, Nasal bots | Injection I/M | 70 |
| Eprinex - Multi 5mg/ ml pour-on (POM-V) | Boehringer Ingelheim AH | Eprinomectin | Roundworms (adults only), Lungworm (adults only) | Pour-on | 2 |
| Ivomec Classic Injection | Boehringer Ingelheim AH | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 37 |
| Molemec Injection | Mole Valley | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 37 |
| Molemec Drench | Mole Valley | Ivermectin | Roundworm, Lungworm, Nasal bots | Oral drench | 6 |
| Moxodex Oral 0.1% | Chanelle Pharma | Moxidectin | Roundworm, Lungworm | Oral drench | 14 |
| Noromectin Drench | Norbrook labs | Ivermectin | Roundworm, Lungworm, Nasal bots | Oral drench | 14 |
| Noromectin injection | Norbrook labs | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 42 |
| Oramec Drench | Boehringer Ingelheim AH | Ivermectin | Roundworm, Lungworm, Nasal bots | Oral drench | 6 |
| Panomec injection | Boehringer Ingelheim AH | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 37 |
| Paramectin injection | Norbrook labs | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 42 |
| Paramectin Drench | Norbrook labs | Ivermectin | Roundworm, Lungworm, Nasal bots | Oral drench | 14 |
| Premadex Drench | Downland | Ivermectin | Roundworms, Lung worm, Nasal bots | Oral drench | 14 |
| Premadex 1% injection | Downland | Ivermectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 42 |
| Zermex 0.1% Drench | Downland | Moxidectin | Roundworm, Lungworm | Oral | 14 |
| Zermex 1% injection | Downland | Moxidectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C | 70 |
| Zermex 2% LA injection (20mg/ml) | Downland | Moxidectin | Roundworm, Lungworm, Sheep scab Nasal bots | Injection S/C (base of ear) | 104 |

Group 4 - 4-AD Orange

| Product | Company | Chemical name | Parasites Covered | Use | Meat Withdrawal Period (days) |
|---------|-----------|---------------|-------------------|------|-------------------------------|
| Zolvix | Elanco AH | Monepantel | Roundworms | Oral | 7 |

Group 5 - 5-SI Purple (Derquantel not available as a single active)

| Product | Company | Chemical name | Parasites Covered | Use | Meat Withdrawal Period (days) |
|----------------------|---------|--------------------------------|----------------------|------|-------------------------------|
| STARTECT Dual Active | Zoetis | Derquantel 5-SI Abamectin 3-ML | Roundworms, Lungworm | Oral | 14 |

Combinations

| Product | Company | Chemical name | Parasites Covered | Use | Meat Withdrawal Period (days) |
|-----------------------|------------------|------------------------------|--|---------------|-------------------------------|
| Closamectin | Norbrook Labs | Ivermectin + Closantel | Roundworm, Lungworm, Liver Fluke (including immature over 7 weeks of age) | Injection S/C | 28 |
| Cloiver | Downland | Ivermectin + Closantel | Roundworm, Lungworm, Liver Fluke (including immature over 7 weeks of age) | Injection S/C | 28 |
| Combinex Sheep | Elanco AH | Levamisole + Triclabendazole | Roundworm, Lungworm, Liver Fluke (including immature fluke over 2 days of age) | Oral | 56 |
| Cydectin TriclaMox | Zoetis | Moxidectin + Triclabendazole | Roundworm, Lungworm, Liver Fluke (including early immature fluke) | Oral | 31 |
| Downland Fluke + Worm | Downland | Levamisole + Oxytoclozanide | Roundworm, Lungworm, Liver Fluke (mature fluke only) | Oral | 5 |
| Fasimec Duo | Elanco AH | Ivermectin + Triclabendazole | Roundworm, Lungworm, Liver Fluke (down to less than 1 weeks of age) | Oral | 27 |
| Levafas Diamond | Norbrook Labs | Levamisole + Oxytoclozanide | Roundworm, Lungworm, Liver Fluke (mature fluke only) | Oral | 5 |
| Supaverm | Elanco AH | Mebendazole + Closantel | Roundworm, Lungworm, Tapeworm Liver Fluke (including immature fluke over 5 weeks of age) | Oral | 65 |
| Tribamec Duo | Chanelle Pharama | Ivermectin + Triclabendazole | Roundworm, Lungworm, Liver Fluke (down to less than 1 weeks of age) | Oral | 27 |

Always choose a narrow spectrum product for liver fluke control, rather than a combination, unless you are sure you need to de-worm as well as treat for liver fluke. Unnecessary use of combinations accelerates the development of resistance.

Narrow Spectrum Products

| Product | Company | Chemical name | Parasites Covered | Use | Meat Withdrawal Period (days) |
|---------------|-----------------|-----------------|--|------|-------------------------------|
| Endofluke | Bimeda | Triclabendazole | Liver Fluke (including early immature liver fluke) | Oral | 56 |
| Fasinex 5% | Elanco AH | Triclabendazole | Liver Fluke (including immature liver fluke from 2 days of age) | Oral | 56 |
| Flukiver | Elanco AH | Closantel | Liver Fluke (including immature liver fluke over 5 weeks of age) Haemonchus Contortus Nasal bots | Oral | 42 |
| Solantel | Norbrook Labs | Closantel | Liver Fluke (including immature liver fluke over 5 weeks of age) Haemonchus Contortus Nasal bots | Oral | 42 |
| Tribex 5% | Chanelle Pharma | Triclabendazole | Liver Fluke (including immature liver fluke) | Oral | 56 |
| Triclercet 5% | Downland | Triclabendazole | Liver Fluke (including immature liver fluke) | Oral | 56 |
| Zanil | MSD AH | Oxytoclozanide | Liver fluke (adults only) | Oral | 14 |