Responsible use of antimicrobials in Cattle production

*RUMA* guidelines for the responsible use of antimicrobials by cattle farmers have been designed to provide quick and easy-to-read guiding principles that can be used by those involved in managing cattle.

Antimicrobials have made a major contribution to the health and welfare of cattle. They are vital medicines for the treatment and control of bacterial infections in cattle.

The emergence of antimicrobial resistance as a serious problem in human medicine has prompted concerns that resistance or resistant bacteria could be transferred from livestock to the human population (and vice versa). The effectiveness of some human antimicrobial treatments might be compromised if this occurred.

The Responsible Use of Medicines in Agriculture Alliance (RUMA) is a coalition of organisations representing every stage of the "farm to fork" process. RUMA seeks to establish practical strategies to enable farmers to reduce the need to use antimicrobials in animal production, and provides guidance on the responsible use of antimicrobials where a veterinary surgeon has directed that they are needed to safeguard the health and welfare of the animals.

To communicate these strategies effectively to the industry RUMA has produced comprehensive guidelines for the responsible use of antimicrobials in Cattle and other livestock. *These Guidelines summarise the responsibilities of cattle farmers, give advice on strategies to reduce the need for usage and, where necessary, how to use antimicrobials responsibly to safeguard the health and welfare of their animals.*
THE GUIDELINES

All farmers have a responsibility for the health and welfare of the animals on their farm. This is a joint responsibility with their veterinary surgeon to ensure the correct and appropriate use of antimicrobials, including antibiotics. Farmers and stock-keepers can play a major role in ensuring the responsible use of antibiotics and other antimicrobials on farms by following the guidelines published here. Similar guidelines form part of most farm assurance schemes.

- All cattle farmers must be totally committed to producing safe food.
- Cattle farmers have a duty and responsibility to safeguard the health and welfare of animals on their farm.
- Cattle farmers should manage their farm to reduce the risk of disease challenge and, therefore, the need to use antibiotics and other medicines.
- Cattle farmers should draw up, implement and regularly review an appropriate herd health plan that outlines routine preventive treatments (e.g. biosecurity, vaccination and worming programmes etc.) and disease control policy, in association with the attending veterinary surgeon.
- Cattle farmers should follow the ‘Basic Guiding Principles on Disease Control’ in the table on page 6.
- Antimicrobial use should not prop up poor husbandry or failing management systems. Where required, antimicrobials should be viewed as an acceptable veterinary treatment complementing good management, good nutrition, vaccination, biosecurity and farm hygiene.
- Treatment with a medicine that requires a veterinary prescription should only be initiated with formal veterinary approval.

For Farmers*

The use of animal medicines carries with it responsibilities. Under UK legislation, all antimicrobials are licensed for specific species and uses.

A product will not be authorised unless very stringent requirements are met. The use of antimicrobials is under the direct responsibility of veterinary surgeons.

Farmers, however, have a very considerable role to play in ensuring that the directions of the veterinary surgeon are properly carried out and in developing and applying disease control measures which minimise the need for antimicrobial use.

**“Farmers” includes all those on farm involved in looking after the animals e.g. stock-keepers"
• Accurate information must be given to the attending veterinary surgeon to ensure that the correct diagnosis can be made, medication chosen and dosage calculated.

• Cattle farmers will receive clear instructions regarding diagnosis, medication, dosage and administration from their veterinary surgeon. Ensure this is available to all who are involved in the care of the animals concerned.

• The prescribing veterinary surgeon must be made aware of other medicines being administered to the animal(s) concerned so that adverse reactions can be avoided.

• Cattle farmers should work with their vet to take appropriate samples for testing to help choose the right antibiotic to treat your animals. Your veterinary surgeon will choose the appropriate antimicrobial based upon this laboratory testing alongside on farm experience.

• All farms should make a hospital pen available to isolate sick cattle, which should be kept in different groups if they do not have the same illness. This allows easy treatment of sick animals and prevents spread of disease.

• Do not borrow medicines or move products between farms. All prescribed antimicrobials are specific to the site and population for which they are prescribed.

• Do not use illegally obtained antibiotics.

• Medicines should not be mixed before injection without the approval of your veterinary surgeon. Mixing may result in damage to the active ingredient or result in unforeseen adverse reactions, which could have serious consequences for the animals and the consumer. Do not administer two or more antibiotics concurrently unless specifically advised by your veterinary surgeon.

• The full course of treatment at the correct dosage must always be calculated and administered in a careful manner having accurately determined the weight of the animal(s) to be treated.
• Make sure that the appropriate withdrawal period is complied with before the slaughter of treated animals or inclusion of milk from treated cows to the bulk milk tank. The withdrawal time required will be specified on the label of the medicine or in the medicated feed prescription and is the minimum required. The veterinary surgeon may extend this in certain circumstances.

• An animal medicines record book/on-line record, copies of relevant regulations and Codes of Practice must be kept safely on farm (e.g. the Veterinary Medicines Directorate (VMD) Code of Practice on the Responsible Use of Animal Medicines on the Farm available at www.vmd.defra.gov.uk).

• Accurate information recording the identity of the treated cattle and the nature of the condition being treated must be kept. Records should also include the batch number, amount and expiry date of the medicine used, plus treatment time and date information for each animal treated and the withdrawal period that must be observed. Medicine records required by legislation must be kept for at least five years (even if the cattle in question have been slaughtered).

• Appropriate information on all medicines used should be readily available to stock-keepers and kept on file e.g. product data sheets, package inserts or safety data (COSHH) sheets.

• Follow the manufacturers’ advice on the storage of medicines and the disposal of unused medicines (check the label or package insert). Safely dispose of unused or out-of-date medicines and containers and application equipment (including needles to a sharps container) when you finish the treatment for which they were intended. It may be possible to return unused medicines to the prescribing veterinary surgeon or supplier for disposal. Follow Veterinary Medicines Directorate (VMD) guidelines and veterinary advice on remixing or reworking of batches of medicated feed.
Any suspected adverse reaction to a medicine in either the treated animal(s) (including any unusual failure to respond to medication) or farm staff having contact with the medicine should be reported immediately to the VMD and the supplier. The adverse reaction can be reported directly to the VMD by the farmer or through the prescribing veterinary surgeon or the supplier. Adverse reaction forms can be found on the VMD’s website www.vmd.defra.gov.uk. A record of the adverse reaction should also be kept on the farm: either a copy of the VMD adverse reaction form or a note in the medicines record book.

All cattle farmers should co-operate with and observe the rules of farm assurance schemes that monitor medication and withdrawal period compliance.

All cattle farmers should work with their farm’s veterinary surgeon to regularly collate, record, review and discuss antimicrobial use and monitor the effectiveness of antimicrobials used.

All cattle farmers should regularly investigate, with their veterinary surgeon, the possibility of alternatives (particularly through changes to management techniques or vaccination) to see if they can offer the same level of protection of health and welfare and thus reduce the use of antimicrobials.

All cattle farmers and stockpeople should have the appropriate levels of husbandry skills and knowledge to provide appropriate standards of care for the cattle e.g. appropriate needle/syringe use, appropriate injection sites for the size of animal, route of administration and formulation of product. Good recording regimes monitoring the health of the cattle should be adopted throughout the farm system with regular management input from the farm veterinary surgeon. The overall aim should be to maximise animal health and welfare through good management protocols, resulting in antimicrobials being used as little as possible but as much as necessary.
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<thead>
<tr>
<th>Rule</th>
<th>Guiding Principle</th>
<th>Explanation</th>
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<tr>
<td>Rule 1</td>
<td>Review biosecurity of new cattle introduced into a herd</td>
<td>Disease spreads around and between farms by contact with other cattle. Screening and monitoring will help to limit the spread of disease. REMEMBER contact can also be INDIRECT by a needle, surgical instrument, manure or people.</td>
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<td>Rule 2</td>
<td>&quot;Stress&quot; is a killer.</td>
<td>Stressed animals are far more likely to become diseased. This includes not only obvious physical stress factors such as overcrowding or management procedures; but also exposure to micro-organisms which cause major stress to the immune system e.g. BVD. THINK - If a procedure causes the cattle to become stressed, ask &quot;can this be done in a less stressful manner?&quot; e.g. castration, introduction of heifers to the dairy herd.</td>
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<td>Rule 3</td>
<td>Good Management and Hygiene</td>
<td>There is no substitute for good management, hygiene and biosecurity measures. Cleaning buildings and equipment coupled with good hygiene will all make a difference. Don't spread disease by poor management and hygiene.</td>
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<td>Rule 4</td>
<td>Good Nutrition</td>
<td>Good intakes of colostrum provide essential antibodies to protect calves as their immune system is developing. Balanced diets with adequate levels of trace elements, vitamins and anti-oxidants are essential if the immune system of cattle is to work properly in tackling diseases.</td>
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The Responsible Use of Medicines in Agriculture Alliance (RUMA®) was established in November 1997 to promote the highest standards of food safety, animal health and animal welfare in British livestock farming.

A unique initiative involving organisations representing every stage of the "farm to fork" process, RUMA aims to promote a co-ordinated and integrated approach to best practice. RUMA membership spans the livestock industry and includes organisations representing interests in agriculture, veterinary practice, the pharmaceutical industry, retail, consumers and animal welfare interests.

RUMA® is a registered trademark of The Responsible Use of Medicines in Agriculture Alliance

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RUMA is made up of the following organisations:
Agricultural Industries Confederation (AIC)
AHDB – Dairy (formerly known as Dairy Co)
AHDB – Pigs (formerly known as BPEX) and AHDB – Beef and Lamb (formerly known as EBLEX)
Animal Health Distributors Association (AHDA)
Animal Medicines Training Regulatory Authority (AMTRA)
Assured Food Standards (AFS) better known as Red Tractor Assurance
British Egg Industry Council (BEIC)
British Poultry Council (BPC)
British Retail Consortium (BRC)
British Veterinary Association (BVA)
City and Guilds Land Based Services
Dairy UK
Game Farmers' Association (GFA)
Linking Environment & Farming (LEAF)
National Beef Association (NBA)
National Farmers' Union (NFU)
National Office of Animal Health (NOAH)
National Pig Association (NPA)
National Sheep Association (NSA)
NFU Scotland (NFUS)
Royal Association of British Dairy Farmers (RABDF)
Royal Pharmaceutical Society (RPS)
Royal Society for the Prevention of Cruelty to Animals (RSPCA)
Scottish Salmon Producers’ Organisation (SSPO)