



Food Animal Initiative

ENVIRONMENTS FIT FOR ANIMALS FIT FOR THEIR ENVIRONMENT

FAI Technical Datasheet G4 - Reducing Antibiotic use in Animals - Update August 2005

Disease occurs when animals are challenged by bacteria or other organisms (pathogens) which they do not have the ability to 'fight'. Traditionally we have concentrated on reducing the burden or effect of pathogens by cleanliness, treatment and vaccination. There is increasing concern regarding the resistance of many bacteria to antibiotics and consumers are wary of animal products which are produced using additives of any kind.

'the facts.....'

There are two categories of antibiotics i.e. therapeutic and what are generally termed 'growth promoting' or 'digestive enhancing' antibiotics.

Therapeutic antibiotics are used to treat disease under veterinary control (in EU Law). Growth promoting antibiotics are used at low levels to assist the growth of animals through effects on gut flora. Effects have been shown to be less significant when animals are kept under good management and free of disease.¹

Under EU law those antibiotics licensed for use as growth promoters are not similar to those antibiotics used in human medicine and are less risk than therapeutics regarding residues in food and resistant bacteria in the environment.

Animals suffer disease outbreaks needing specific treatment with antibiotics but many animals are given routine antibiotics in their feed for a considerable portion of their lives to prevent disease or improve growth (see table).²

When animals are stressed their immune systems are compromised and so they are more susceptible to disease. Animals which are susceptible to disease a risk to each other and humans as this is where bacteria multiply.

Best practice guidelines known as RUMA (The Responsible Use of Medicines in Agriculture) have been produced in the UK by collaboration between all interested parties including vets.³

The table shows levels of antimicrobial use per tonne live weight slaughtered are significantly higher in pigs/poultry than in cattle/sheep.²

'trends in therapeutic antimicrobial use in food animals the UK from 1998-2003'

Species	Cattle	Sheep	Pigs	Poultry
Total Lwt as food	1.5m tonnes constant	0.7m tonnes down to 0.6	1.4m tonnes down to 0.9	2.2m tonnes constant
Species only products used active ingredient	12 tonnes - fairly constant	Less then 1 tonne constant	90 tonnes average - variable	15 tonnes average - variable
Pig and poultry combined active ingredient			250 tonnes average - variable	
Multi species active ingredient	38 tonnes down to 21 tonnes			

'..... the FAI response!'

FAI has produced turkeys, broilers and pigs without the use of digestive enhancing antibiotics and very low or no therapeutic antibiotics. We have achieved this by reducing stress on our animals as well as keeping them in clean conditions. The following technical data sheets give further detail:

- G1 Integral environmental enrichment for animals
- G2 Maintaining animals in their peer groups
- G5 Disease reduction through improved immune competence
- G6 Easy weaning systems for farmed animals
- P5 The provision of high fibre diets for pigs
- C2 Total mixed ration feeding to ruminants

In addition keeping stocking densities low and colony or herd sizes small allows animals to be cared for more easily as individuals. A regularly reviewed veterinary health plan is vital to make sure vaccination/medication regimes etc are likely to combat those diseases which may not be prevented through natural immune development. This avoids unnecessary treatments which increases the risk of residues in the meat and the potential for creation of resistant bacteria in the food chain such as MRSA.

1. Antimicrobial therapy in veterinary medicine; Prescott and Baggot, Iowa State University Press, Chapter 31
2. VMD Sales of antimicrobial products authorised for use as veterinary medicines 2004 - available VMD website
3. RUMA Guidelines can be obtained from RUMA, 164 Shaftesbury Avenue, London, WC2H 8HL. Tel. 020 7331 7301. www.ruma.org.uk Search www.thepigsite.com



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