

Working together to dispel the myths of animal production

Recently, the British National Office of Animal Health (NOAH) told delegates at their fourth food chain conference 'Working Together to Dispel the Myths of Animal Production', that a recent consumer survey had found misconceptions about animal medicines in the food chain were still widespread.

David Evans from supermarket group Morrisons highlighted how his company's short supply chain services 11.5 million customers a week and enables his company to know what is happening with the farm derived products coming into their 500 or so stores. He highlighted how ethics has a low ranking as a consumer driver of product choice (see Table 1). He then went on to explain how public opinion is formed.

Forming public opinion

When an issue arises, this results in communication around the issue and, unfortunately, this has the potential to be misinterpreted. Out of this, public/consumer opinion is formed, which then influences purchase behaviour and, before we know it, a new purchasing behaviour has been set. To counter this we need to start by unpicking the myth that has been created.

Unfortunately, the advent of the internet has opened up many more channels of communication to key influencers and is playing a much

Table 1. The top 10 drivers of consumer product choice.

- Price
- Promotions
- Quality or performance
- Taste or smell
- Healthy option
- Familiarity
- Use by or sell by date
- Brand
- Ethical or eco-friendly
- Ease of use

greater role in the creation of public opinion.

The potential for misinterpretation is greatly increased by the complexity of the issue and its story potential and if both are present this factor is compounded. With many sources of information comes the dilemma of who is to be trusted!

David then went on to highlight a study into the myth surrounding intensively produced chicken, cages, in feed antibiotics and hormones. Consumers were given access to a chicken farm and were surveyed going in and coming out of the farm. Positive shifts were seen in:

- Perception of the amount of light in chicken barns.
- That a chicken's life is a happy one.
- Views on the overall welfare of chickens.
- The number of consumers willing to pay more if they knew that the chickens were well looked after.

David felt that reducing the use and reliance on drugs is the way forward and that improved technologies will be a key factor in feeding the world sustainably. However, to do this the livestock industry needs the public's trust and achieving this will be the real challenge! He considered that there are four focus areas:

- Managing disease (environment, behaviour, monitoring, biosecurity etc).
- Preventative pharmaceuticals like vaccines.
- The early detection of disease and using accurate records to improve husbandry practices.
- The responsible choice of medicines and treatments.

From this we need to have reduced costs and improved productivity, improved profitability, less use of medicines and a stronger, more positive public message.

In concluding, he highlighted that managing information and communications to the wider public will become more important and more challenging!

Jackie Atkinson from the British Veterinary Medicines Directorate (VMD) then gave a regulatory perspective. Authorisations for pharmaceuticals are based on EU and

national legislation and products need manufacturing and marketing authorisations which consider quality, safety and efficacy in relation to target species, users, the environment and consumers.

When it comes to pharmaceuticals like antibiotics the maximum concentration of the product or its metabolites allowed as a residue in food, for example in meat, milk and eggs, is important.

This can be achieved providing the recommended withdrawal period is adhered to and this necessitates record keeping by the farmer and his veterinarian.

All medicinal products have to go through safety testing (Table 2).

- Pharmacodynamics
- Pharmacokinetics (lab species)
- Chronic oral toxicity
- Mutagenicity
- Reproductive toxicity
- Carcinogenicity
- Specific effects e.g. on gut flora.

Table 2. Safety studies.

From these are calculated NO(A)EL (No Observed (Adverse) Effect Level) from which an AD (Acceptable Daily Intake) figure is calculated. Then Maximum Residue Limits (MRL) and withdrawal periods can be calculated.

Jackie then went on to detail how VMD inspects manufacturers, the suppliers (veterinarians) and users

(farmers) of veterinary products as well as illegal products and the various surveillance programmes that are undertaken.

In the UK's statutory residues programme some 32,000 samples are tested each year and in 2011 these yielded a 0.2% non-compliance figure, of which only a quarter (0.05%) related to veterinary medicines. The best records were for poultry and pigs.

John Fitzgerald from Responsible Use of Medicines in Agriculture Alliance (RUMA) then spoke on the importance of antimicrobial resistance (AMR) and getting the right message across.

AMR control will be a key driver for changes in EU medicines legislation and is a highly emotive and politicised subject. Antimicrobials are becoming less effective in man and animals so, unless steps are taken to minimise AMR our ability to treat human and animal bacterial infections will decline.

There is currently a clinical crisis in man but not in animals and the scientific consensus is that AMR in animals is primarily caused by the human use of antimicrobials.

We all need to work together to reduce AMR on the farm as this will give economic benefits to farmers, health benefits to man and animals and reduce the reasons for challenging the use of antibiotics on the farm. This centres around responsible use of antimicrobials on the farm (Table 3).

Table 3. The responsible use of antimicrobials on the farm.

- Use as little as possible.
- Reduce the risk of disease challenge.
- Farm management, good ventilation, access to fresh water, hygiene.
- Biosecurity.
- Farm health planning.
- Vaccination programmes.
- Medicines must not be used as a substitute for good farm management.
- Only use as much as is necessary.
- For antibiotics, diagnosis and prescription by a veterinarian.
- Purchased from authorised supplier.
- Follow label and veterinarian's instructions.
- Correct dose for full course.
- Respect the withdrawal period.