

Pre-emptive action on antibiotics use could minimise resistance problems and reduce the impact of possible future regulations

# Take steps to 'reduce your use'

Taking steps to reduce your antibiotic use could help to pre-empt, if not prevent, any future legislation to limit their use in dairy herds. And you could also save money and enjoy the benefits of a healthier herd.

text Rachael Porter

Antibiotic use in agriculture is under review, spurred on by 'resistance' problems in The Netherlands and other countries, and there will be some new legislation on their use across Europe in the not-too-distant future. That's something that all our experts agree on.

And they also agree that producers shouldn't wait before they take steps to review antibiotic use in their herds – there are health and business benefits to be had now.

Using antibiotics with greater responsibility not only means that herds could be healthier, but it could also save money.

And, looking at the bigger picture, producers could also help to safeguard the efficacy of certain antibiotics and avoid 'resistance' problems while at the same time pre-empting, if not avoiding, future and possibly strict legislation that could include a ban on the preventative use of antibiotics in all farm animals.



John FitzGerald: "Reducing antibiotic use is not as straightforward as it seems and it's not just about dry cow therapy either"

The EU's veterinary medicines directive is under review and the European Parliament has indeed proposed a ban on prophylactic use of antibiotics in agriculture. "Antibiotics are used prophylactically, in both human and veterinary medicine, where groups live together and such a ban could be damaging to animal health and welfare," says the Responsible Use of Medicines in Agriculture Alliance's (RUMA) John FitzGerald.

"Legislation should not dictate when and where antimicrobials can and should be used. RUMA believes that such decisions should be taken by the vet responsible for the herd and we're working with our EU colleagues to ensure that the people making



Best practice: targeted use of dry cow therapy could help to reduce antibiotic use in some herds

	kilogrammes of active ingredient					
	2005	2006	2007	2008	2009	2010
dry cow products	1,750	2,002	1,880	2,317	1,873	1,882
lactating cow products	1,375	1,266	1,383	1,775	1,298	1,649
<b>total</b>	<b>3,125</b>	<b>3,268</b>	<b>3,263</b>	<b>4,092</b>	<b>3,171</b>	<b>3,531</b>

Table 1: Sales of intra-mammary products (2005 to 2010)

these decisions are well informed and understand the likely consequences of such a ban."

RUMA is also working hard to ensure that vets and producers have the information that they need to take steps to demonstrate a responsible approach in a bid to pre-empt any changes to legislation. These could be as soon as 2014 if proposals are made in 2013 and then agreed.

### Veterinary role

Guidelines put together by RUMA are designed to help producers to both use antibiotics in a responsible way and also to reduce the need for their use.

And it really is vital to talk to your vet, according to the National Office of Animal Health's (NOAH) technical executive Donal Murphy.

"Each herd and each unit has its own set of challenges and it is not possible to give blanket advice about when or when not to use antibiotics – prophylactically or otherwise. The decision about when to use any antimicrobial is one that needs to be made by the herd's vet. These medicines are only available on prescription from vets," he adds.

"NOAH's advice is to work closely with your vet to develop appropriate herd health plans, which should be under on-going review, and take their advice and guidance on this. They know your herd's disease history and risk factors better than anyone else."

"Ideally, yes, antibiotics should only be used to treat sick animals. But sometimes it's also necessary to treat animals that are at severe risk of infection. It's not as straightforward as it first seems and it's not just about dry cow therapy either," adds Mr FitzGerald.

"If some calves are sick, for example, do you treat all the others in the group as a precaution? And



Donal Murphy: "Work closely with your vet to develop on-going herd health plans and make sure that these are reviewed regularly"

## A Dutch precautionary tale...

There's been a huge media backlash against the Dutch agricultural industry's use of antibiotics and high profile vilification of the industry. And this is what the UK industry is working hard to avoid.

The Dutch population has livestock-associated MRSA, seen mainly in people working with pigs.

The country's pig and poultry industries have the highest levels of antimicrobial sales and off-label cephalosporin use in poultry farming, as a misting ingredient when vaccinating chicks, has been linked to superbugs in people.

The political response has been just as devastating for the industries, with a pledged reduction of 20% (in veterinary

antimicrobial use) between December 2010 and December 2011. By 2013 this reduction in use target is set at 50% of the 1999 figure.

And there's also a 'name and shame' policy for 'red zone' producers – in other words those not reducing use or using antibiotics responsibly.

what if some animals have sub-clinical symptoms? Again, do you treat or do you wait to see if they become clinical?

"It's about weighing up the risk to animal health and welfare and the best placed person to do that is the herd's vet. Producers and vets, ensuring good farm management practices to minimise the risk of disease and then using antimicrobials responsibly, will reinforce the argument that the right to assess risk and act accordingly remains with the vet and is not taken away by legislation and regulations. It's about getting the balance right."

Dry cow therapy (DCT) does account for a considerable amount of preventative antibiotic use in dairy herds. Sales of intra-mammary products

varied between 3,125 and 4,092kg of active ingredient between 2005 and 2010 (see Table 1). Sales of lactating cow products increased to 1,649kg in 2010 and sales of dry cow therapy products increased to 1,882kg.

So there may be scope for reducing these figures – but again it must be done with great care and on an individual herd and cow basis, according to Cambridge University's preventive veterinary medicine specialist Mark Holmes.

"Most producers use it on all their dry cows – they've been actively encouraged to do so for many years in

a bid to keep somatic cell counts and mastitis under control.

"DCT accounts for a lot of antibiotic use in dairy herds, with producers mainly administering third and fourth generation broad-spectrum cephalosporin tubes. But we'd like to see producers using these antibiotics more selectively – just on so-called 'high risk' cows," adds Dr Holmes.

### Accurate records

He says that such decisions must be made with accurate and up-to-date mastitis records. And certainly with advice from your vet.

"Record keeping is a must – and that takes a bit of effort. Only a small proportion of producers keep proper, ordered mastitis records. Yet, to control the disease effectively, these records are as important, if not more so, than the antibiotics used to treat and

prevent it." He adds that a change of dry cow practice will undoubtedly be daunting for some producers, who see DCT as their insurance policy for good udder health in the next lactation.

"The decision about the use of dry cow therapy should be made by the herd's vet, who should have access to the appropriate milk laboratory records (for example somatic cell counts) and who should have an intimate knowledge of the disease history of the individual cow and of the herd in question," adds Mr Murphy.

### Responsible use

He adds that the vast majority of vets prescribe antimicrobials in a responsible manner. "Vets and producers must continue to reduce the need to use antimicrobials by, for example, improving animal husbandry and management.

"However some animals will become ill, despite preventative measures being in place, and where this occurs vets need an appropriate range of antimicrobials to treat them," he adds.

Mr Murphy explains that the European equivalent of NOAH – IFAH-Europe – is calling for more transparency at the prescription and use phase. "It wants data to be gathered from vets and herds so that more information is available to establish if indeed vets and producers are using excessive volumes of antimicrobials, which NOAH does not believe is the case."

If data collection were to identify that some herds were using more antimicrobials than expected, without good reason for needing to do so, these 'over users' could be offered advice on how they could reduce their need to use antimicrobials for disease treatment.

NOAH says it would welcome such a system of monitoring responsible antibiotic use in the UK. "We also believe that such data would demonstrate that the vast majority of vets and producers are responsible in their use of antimicrobials," adds Mr Murphy.

Mr FitzGerald agrees and stresses that responsible use must continue. But if they are used responsibly then any risk of developing resistance is greatly reduced." |

➤ The RUMA guidelines for producers and vets can be viewed at [www.ruma.org.uk](http://www.ruma.org.uk)



Mark Holmes: "Accurate record keeping is a must. Decisions on which cows to treat with dry cow therapy can't be made without them, or input from your vet"