

Welcome

Introduction

Welcome to the Summer newsletter! The longest day has now been and gone and the nights are already drawing in! After the challenges posed by a long, wet winter it seemed impossible that by June we'd be looking hopefully at the sky for a drop of rain, but here we are. Who knows what's next!

So what's in this issue? With a lot of discussion surrounding Johne's disease at the minute, it seemed like an appropriate time to include a short Johne's review article. Given some of the challenges we've had earli-

er this year there's also the first of a series of calf health articles to refresh memories.

There's also articles about the International Mastitis Conference in Milan, antibiotic usage and a bit about what else we've been busy with. As always, any questions or comments feel free to give us a shout.

So grab a cup of tea, sit back and dig in!

All the best

Dan



Antibiotics – resistance, responsible use and welfare

Recent years have seen huge changes in how we all see antibiotics in our day to day work. It's not so long since our principal considerations when considering antibiotic use was cure rate and cost. That was before the spectre of antimicrobial resistance in human health, and the potential role of agriculture in that fight, properly raised its head.

For some farms, particularly those farming organically or with retailer aligned contracts, the importance of certain classes of antibiotics has been on the agenda for some time. Most of us have probably heard of them, fluoroquinolones (eg Marbocyl) and certain Cephalosporins (eg Cefimam), and many have already taken action to address their use of these antibiotics.



Over the last couple of years we've seen much more significant industry emphasis placed on antibiotic use with the introduction of farm assurance criteria for their use to be reviewed annually and

moves by milk processors to audit on farm practices.

Now Red Tractor has taken a further step in restricting the use of these particularly sensitive medicines termed highest priority critically important antibiotics. As of this month these medicines can only be used in consultation with a vet where specific sensitivity has indicated that other antibiotics will not work. Practically that means they have become a last resort, only to be used where animal welfare is at stake and other medicines are ineffective. Fortunately, we'd like to think we are ahead of the game in this area and have been actively working with all our clients for some time on antibiotic use. We reviewed medicine use with most farms last year, adjusting treatment protocols to migrate away from these important antimicrobials whilst aiming to not impact cow welfare. As a result it is now 3 months since we last prescribed any of these medicines.

It can be easy to see these changes as yet another piece of red tape that we have to deal with but this

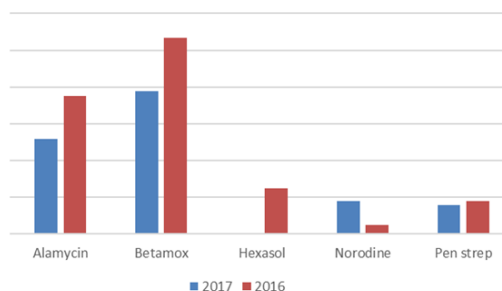


is a critically important challenge for human health and it is right that we should do whatever we can as an industry to help, however small that might be.

The challenge we will probably all have to turn our attention to is how we further minimise our reliance on antibiotics. The pig and poultry industries have already made huge strides in reducing antibiotic use and the dairy sector has set a target of a 20% reduction in total antibiotic use by 2020.

Few of us, however, start the week with the intention of using antibiotics, they are the by product of when things go wrong. So there is a win win here from focusing our attention on better disease control, resolving the conflict between antibiotic reduction, animal welfare and farm economics. In this spirit there have already been a number of industry campaigns, including "Colostrum is gold" and "Not on my farm". For our part we're reviewing the treatment protocol changes we made last

year to ensure they are delivering and will be actively working with you all to maximise herd performance and health.



Calf health – rewarding when it's good, soul destroying when it's not

We've probably all experienced the highs and lows of calf rearing. When it's going well it can be a joy to see them bouncing around but when things go wrong that can rapidly turn into a pit of despair for all concerned. So why does it go wrong and what can we do about it?



A bit like building a wall we need a solid foundation and good materials if we want the end result to be robust!

In this instance that solid foundation is colostrum management. Colostrum is critical because this is what will provide the calf with protection in the first few weeks of life. For anyone suffering with health problems in calves pre weaning, assessing colostrum uptakes is always the first step.

In theory it's a simple process. Calf is born, it drinks colostrum, absorbs antibodies and the job's done! Unfortunately life is never quite that simple and in the environment of the modern dairy farm relying on nature to take its course is rarely effective. That is born out by research, both nationally and within the practice where on average 50% of calves fail to gain adequate protection from

their colostrum. That average however belies the detail where some farms repeatedly deliver good protection to 90-100% of calves week after week, while others rarely achieve the right results in any calves. This spring has been no exception as the benchmarking has shown!

So what's the secret? Getting good results is all about 3 Q's and a C.

Quality colostrum delivered in sufficient **Quantity** given **Quickly** enough after birth. Practically that means testing the quality of every batch, ideally with a refractometer. Many people talk about the window of time to feed the colostrum as being within the first 6-12 hours. It's important to recognise that absorption is reducing as every minute passes so the sooner you feed the colostrum the better. It is far easier to get good results feeding straight away than a couple of hours later. The key message is don't delay, prioritise that first feed.

Another often debated point is how much and how often. The traditional message here is 10% of body weight, roughly 4 litres for most calves, split into two feeds but the problem with this is the practicalities. With the demands on time, the inevitable delays and the reducing antibody absorption this strategy often does not achieve the

results you'd hope. From practical experience feeding the whole amount in one dose often massively enhances results on farm.

The C is all about **Cleanliness** as bacterial contamination will reduce antibody absorption by up to 50%. So, making sure the calving box, teats, milking equipment, feeding tube etc are all clean is critical. If you intend to store the colostrum before use then pasteurisation, refrigeration and freezing are all relevant to keep bacterial numbers to a minimum.

Once the foundations are in place it's about good hygiene, minimising stress and keeping them well fed. We'll return to these building blocks in our next newsletter but in the meantime:

1. Calves need water right from the start
2. Introducing small amounts of hard feed and roughage within the first days of life is important
3. Keep them dry and out of draughts
4. Coats work and have been shown to boost feed conversion by up to 20%. If you're wearing one so should they be!



Johne's disease — Do you have it? Do you know? Is it important? Should you be doing more about it?

These are all questions that come up when discussing Johne's disease. There's no doubt that it can be a tricky disease to get a handle on when managing a herd day to day and, with its slow progression, to know whether it is impacting herd performance.

As many will know Johne's is a bacterial disease caused by a bug from the same family as TB. As a result, it shares many of the same frustrating properties that can make TB tricky to identify and manage – slow to develop, monotonous inevitability in its progression, no viable treatment options and challenges in detection at an early stage.

The good news however is that, unlike its cousin, controlling the disease at herd level can be quite straight forward provided you stick to a few key paradigms. Principally these include identifying the carriers, isolating them from calving cows and keeping their milk away from calves. Alt-

hough there can be some practical considerations, even highly infected herds can make strong forward progress by closely adhering to these principles.

Is it really worth the effort though?

In short yes! Whilst you may not see it, Johne's in the herd insidiously costs you money year after year. Depending on the system you run and your approach to culling those losses may be more or less apparent. At the most simplistic level there are the clinical Johne's cases which must be culled. Sometimes these are old animals, sometimes heifers but either way they are the tip of the iceberg. Below this lies the greater proportion of the loss, the sub-clinical costs.

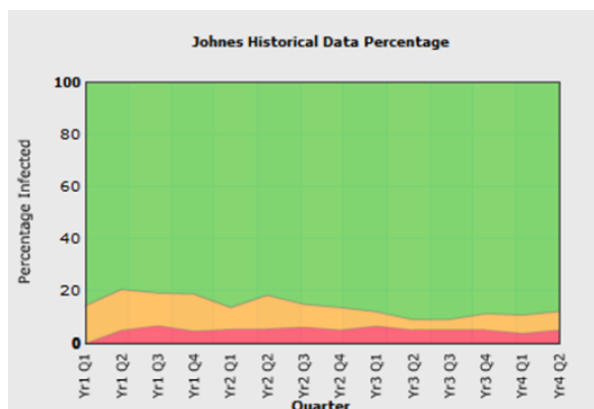


Essentially these cows simply fail to extract as much nutrition from their diet as an uninfected animal. As a result we see the same things we would



if we underfed them. Yields are generally suppressed by up to 25% and milk quality, both constituents and SCC, are adversely affected. They are more likely to be afflicted by lameness and ill health, including conditions like LDAs. Fertility is often poor, with both submission and conception rates reduced, leading to lower in calf rates.

High performing herds may rarely see the clinical cases because they have been culled for other reasons before that point but this still represents a big cost to the business. Current industry estimates place the cost of Johne's in herds with a high incidence at 1-2ppl.



What should I do?

The first step, if you aren't currently doing, is to begin testing your herd. Milk testing is the simplest and most cost effective



as with any plan, to re-view and adjust but this is a disease that ever herd can manage with some small adjustments.

I'm still not convinced!

The ostrich approach is always appealing to some but the impacts of Johne's are well documented. Within the practice over 75% herds now routinely screen through regular milk testing with some herds nationally finding as many as 20% of their herd infected.

Research findings on the economic and welfare impacts are consistent across the globe. Many dairy industry figures, including milk buyers, see this disease as important to the future of the industry. Over 80% of UK milk

processors have signed up to support Action Johnes, the national control strategy, and have pledged to have supplying farms enrolled in the National Johnes management plan by October this year.

With the UK industries target is to have 95% of all milk produced in the UK from farms actively engaged in Johnes control by the end of 2019. It might just be time to give this some thought if you haven't already!

way. Once you've screened the herd it's then simply a case of putting together a plan that works for your farm to limit the spread. It takes time to change a herd's status and it is important,



The National Johnes's Management Plan

Know your Johnes's Disease risks

Carry out a structured risk assessment with your BCVA Accredited Johnes's Veterinary Advisor

Know your Johnes's Disease status

Discuss with your herd vet, the best option for your farm: 30 cow screen, whole herd screen, clinical history or cull screen

Create a written Johnes's Disease management plan

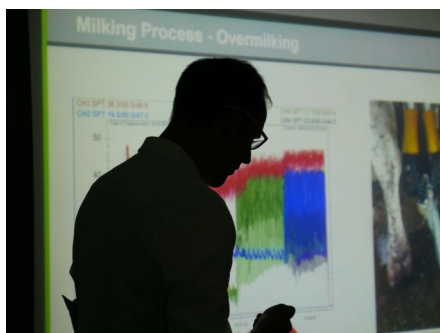
Create a bespoke management plan based on one of the NJMP six strategies

By **31st October 2018** all farmers supplying purchaser members of the NJMP will need to have undertaken to assess their risks and herd status and, put a written Johnes's disease management plan in place and co-signed a declaration of compliance with their BCVA Accredited Johnes's Veterinary Advisor



International Mastitis Congress, Milan 2018

In early June, dairy vets and milk quality managers from around the world gathered en masse in Milan to discuss all things udder health. Dan was there delivering some workshops about new technologies in milk quality management, and taking plenty of notes from three days of lectures! But what were the take-home messages?



it comes to market, and feel free to ask either Dave or Dan for more information in the meantime.

2. Do biphasic milkings reduce milk yield?

The preliminary results from an American study suggest that biphasic milkings as a result of improper teat stimulation significantly reduces milk yield, but does not change unit-on time. This is very interesting, as it might well be a different pattern here in the UK. Why would that be? ACR settings. In the study in the US, the ACR take-off thresholds ranged from 1.0-1.3Kg/min which is much higher than we commonly see in the UK, and eliminates any time the cow is in low milk flow, which if cows are improperly stimulated will reduce yield. In the UK, we would commonly see similar yields but a much longer unit on time with a long 'tail' to the milking. However, whether in the US or the UK the messages are still very much the same—biphasic milkings will greatly reduce your milking efficiency!

3. Liners

It's fair to say this isn't new as the original studies were done by Hillerton et al in 2003, but it's still worth repeating. After about 2500 milkings with rubber liners you get decreased

milk yields, decreased milking speed and increased teat congestion resulting in poorer teat health. Make sure you know when your liners are due for a change! There's also been a few developments in the liner world recently which we're currently researching a bit more but certainly have potential!

4. Antimicrobial use...

As you'd expect, reducing the use of antimicrobials was a common theme of all the presentations at the conference. It was interesting to see how this was being approached globally, with studies from various parts of the world. Overall, the UK is well on the road to success compared to many other countries. What's more important is that the current evidence suggests that the measures in place are starting to have an effect and reducing antimicrobial resistance. Whether or not this will impact human health remains to be seen, as antimicrobial use (especially critically important antimicrobials (CIAs)) is still on the rise in human medicine. It's a topic that won't be going away any time soon!

1. A new vaccine!

The conference saw the launch of a brand new vaccine against Strep. Uberis, called Ubac®. This is the first S.Uberis vaccine, and the initial trial data looks very good with herds reducing clinical mastitis cases by over 50% in herds with a predominant S.Uberis challenge. There were also significant increases in milk yield, too as a result of decreased severity of infections, both clinical mastitis and high SCC. It's a product we'll be watching closely as



AktivPuls—the new kid in town?

Doing Dairy Differently - Caring for clients, caring for the environment

As some of you may have noticed we have never tried to follow the herd since we set the practice up. There was a reason for the, "Doing dairy differently," strap line beyond the fact that it sounds good!

Since we first decided to establish the practice we strived to challenge the way a veterinary practice operates whilst continuing to prioritise those things that do deliver value to dairy farmers. Drawing on lean management principles we have sought to eliminate unnecessary cost wherever it can be found.

Some examples of this are obvious but you may not have appreciated, although they have always been on our radar, have been our efforts to eliminate unnecessary waste from our operations. Not only do these represent a cost, both in delivery and disposal, but they also have an environmental impact, something that is important to us as a business



One such example, and a particularly topical one at present, is plastic waste. Many traditional practices package medicines for delivery in specially branded carrier bags. From a marketing perspective this is

seen as a great idea, representing a convenient way to package medicine orders whilst constantly exposing farmers to your brand (logo). It does however carry a cost, adding a few pennies here and there onto the cost of medicines, and with most ending up in the bin is just pure waste.

Many big companies however have already taken a lead in this area, seeking to utilise recyclable packaging (Amazon) or reusable solutions (supermarket deliveries). As a result we chose, wherever possible, to minimise "bags" and not to follow this traditional route, instead utilising tote boxes that keep orders secure in transit and should last for years. As we near the end of our first year these boxes have already almost paid for themselves in cost saving and hundreds of plastic bags have not ended up going to landfill.

Paperless operations are always a little contentious as so often we all like something tangible in our hand. Modern communications have, however, improved our ability to handle things electronically without the cost of producing, sending and then storing paper copies. Whilst far from "paper free" it is another area where we have tried to reduce waste through electronic invoicing and email.

These may seem like small beer but as the saying goes "look after the pennies and the pounds will look after themselves".

Although doing things differently can sometimes create challenges we hope that you all appreciate it is these steps that allow us to deliver a top quality service whilst reducing medicine costs to clients and trying where we can to be environmentally friendly. We are however always keen to talk to clients if they have specific needs. Being a small business, we will always try to help and can usually be supple to individual circumstances.

What else have we been up to this month?

The last few months have seen quite a diverse range of jobs which have kept us busy!

As mentioned in the last newsletter, Dave has delivered some more workshops for AHDB Dairy, which must have been reasonably successful as they've booked him for more sessions in the coming months! There's also been some ongoing trial work that we'll be able to tell you more about soon!

As well as delivering some seminars in Milan, Dan's been doing a lot of work with Advance Milking, both on farm milking time testing/mastitis visits and training courses. We've also been doing some research into key performance indicators for milking performance in the

UK— Tom Greenham will be revealing the findings from stage one of the study at Total Dairy very soon. Perhaps we'll see you there?



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Medicines update -

Well, as far as we know currently there aren't any more pressing supply issues other than the ones mentioned in previous newsletters. That's not to say things will always go to plan but at least for the meantime it is! As always we will endeavor to keep you informed of any issues as soon as we become aware.

It isn't a long time until Horizon celebrates it's first birthday, which will also be the ideal time to review medicine usage over the past year and make sure your current plans and protocols are delivering what we want them to. Something to look forward to, no doubt!

