EA NEWS

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VETERINARY MARKETING

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Inside this issue:

Special points of interest:

* Key article on energy and vitamin supplementation in both cattle and horses.
* Two new scientifically researched products in this field.

Covid Complacency

In the sporting world it is known as a choke, a fitting word in these times, when a team or an individual has a seemingly unassailable lead only to ultimately be run down.

It is almost like that with Covid complacency. There is no doubt the country has done a marvelous job, and the majority of the population are responsible. We do not seem to have as many fruit loops as other countries, probably because we have not needed such prolonged lockdowns.

However there is one situation to which we are not immune, something that cannot be solved by any vaccination, and that is Covid complacency.

Using the Covid app seems such a simple request but it is blithely ignored nationwide, especially in rural regions.

When the powers that be state that only one in three Kiwis regularly use the app they must surely only mean in greater Auckland.

While the general population are lazy on this issue it is staggering that businesses are not more proactive, after all they are the ones to suffer in a lockdown.

In one rural town the local medical centre has put a waiting room chair in front of the sign so that incoming patients have to ask people to move to sign in, and this is an example from medical professionals!!

On the other hand it is refreshing to see how proactive supermarkets are, even if it is only in higher levels such as two or three.

The gold star would have to go to Auckland Zoo who, even in level one, had staff members carrying signs at the entrance cheerfully encouraging visitors to sign in.

As vaccines roll out over the next twelve months there is a risk of greater complacency until the public realise that vaccines are not a silver bullet.

Normal rules of hygiene and contact tracing are imperative. Businesses, especially professionals such as veterinary clinics, will be looked at to lead the way.

REQUEST Guidelines

A European band of scientists has set up the REQUEST group to advise on antimicrobial usage. Request stands for REassessing fluoroQUinolones European Standards and so is vitally involved into when to use and when to not use fluoroquinolones.

The group is sponsored by Vetoquinol but conflict of interest is declared and the disclaimer is at the end of this article. An electronic pdf of the REQUEST Guidelines is available on request.

Naturally one of the key areas they look at is otitis externa in dogs. The following is their advice on fluoroquinolone usage in otitis externa.

Otitis externa in dogs is a very common disorder. The causative factors of otitis can be classified as predisposing, primary, secondary and perpetuating factors.

Predisposing factors are ear pinnae and external ear canal conformation, excess moisture, or trauma.

Primary causes are ectoparasites, foreign bodies, allergies, keratinization disorders, or neoplasia.

Secondary factors consist of bacterial and yeast infections

Perpetuating factors are progressive pathological changes in the ear canal (chronicity), tympanic membrane lesions, middle ear infection, neoplasia, etc.

Otitis must be considered as a symptom and not as a disease. Most chronic otitis cases exist because the underlying cause is not managed. The classic disease associated with recurrent otitis is canine atopic dermatitis.

When otitis persists for more than 6 months, further infection to the middle ear must be suspected. The presence of otitis media changes the way to manage the problem and modifies the prognosis (chronicity).

The most common bacteria involved in canine otitis are Staphylococcus, Streptococcus, Pseudomonas, Proteus, Corynebacterium, Enterobacter, E coli, Klebsiella…

Appropriate antibiotics must be used at therapeutic doses for extended periods. Empirical selection of antimicrobial agents is only acceptable for initial therapy of acute otitis.

According to literature reviews and key opinion leaders, Fluoroquinolones are considered to be appropriate in the following situations:

1. Recurrent purulent otitis externa (after control for bacterial susceptibility)

2. Unresponsive purulent otitis (after control for bacterial susceptibility)

3. Purulent otitis with high suspicion of middle ear infection

4. Cytology showing significant population of rods

5. Documented susceptibility of bacteria

Only a few publications assess the clinical efficacy of fluoroquinolones with the REQUEST grading the evidence and showing that the strongest evidence for fluoroquinolone usage in otitis externa is for topical treatment alone (after cleaning) until cured.

The bottom line is that, while fluoroquinolones should not be used in early acute cases of otitis externa, in recurrent or purulent cases a topical fluoroquinolone may well be the most appropriate treatment.

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Conflict of interest disclaimer: The REQUEST Group is a European initiative of antibiotics prescribers dedicated to elaborate good clinical practice regarding Fluoroquinolones usage among companion animals. VETOQUINOL provides the appropriate financial support to conduct this work independently. To ensure relevant outcomes, StratAdviserLtd has been granted the mission to organize the REQUEST Group and provide any scientific and methodological support required to achieve its goals. Therefore Vétoquinol had no involvement in the methodology, analysis and interpretation of data nor in the writing of the manuscript or in the decision to submit the manuscript for publication.

What is in Beef Flavouring?

It certainly was a reasonable question from the field, what is in the beef flavouring for Canidryl tablets? The client had a dog diagnosed as extremely allergic to beef of any kind and it had to be totally banned from its diet or any medications.

It is a fact that many medications for pets have flavours added to them to aid administration and help compliance. Often these are beef flavourings and, as we know, some pets do have beef allergies.

Thus a common, and justified question is how much beef is contained in the beef flavouring? The short answer is none.

Natural beef flavouring isn't necessarily from beef at all. The food industry looked at the price of beef and decided that extracting the flavour and throwing away the beef was too expensive a process. They needed to find a way to make the flavours that didn't start with meat products

The flavour in beef is created during the cooking process. Food scientists identified the amino acids found in beef, added some very common sugars, starch hydrolysate, put it in a pot, added some citric acid to drop the pH, controlled moisture content, and heated it to the same temperature as meat.

"extracting the flavour and throwing away the beef was too expensive a process."

As a result, "natural beef flavour" may actually be vegetarian. Once a flavour is broken down into its basic chemical components, scientists can reconstruct it and add one food's flavour to another, creating that umami-like, "meaty" taste without the beef.

Umami, which is also known as monosodium glutamate is one of the core five tastes including sweet, sour, bitter, and salty.

. While MSG has a negative connotation and umami has a largely positive one, they actually use the same molecule, the amino acid glutamate, to activate taste receptors

Umami means "essence of deliciousness" in Japanese, and its taste is often described as the meaty, savoury deliciousness that deepens flavour.

If it's only written "Artificial Flavour", it means no real meat was used and the powder mostly only has salt, some dried vegetables (such as onion as they push the flavour further) and some chemical proteins that were made out of oils such as palm oil, some nut oils and even yeast.

Beef a vegan could eat! And certainly not a problem for a hyperallergenic dog.

Buddy

An out of towner drove his car into a ditch in a desolate area. Luckily a local farmer came along to help with a big strong horse named Buddy.

He hitched Buddy up behind the car and yelled, "Pull Nellie, pull." Buddy didn't move.

Then the farmer hollered, "Pull Buster, pull." Buddy didn't respond.

Once more the farmer commanded, "Pull Coco, pull." Yet again nothing happened.

Then the farmer nonchalantly said, "Pull Buster, pull," and the horse easily pulled the car out of the ditch.

The motorist was most appreciative and very curious.

He asked the farmer why he called the horse the wrong name three times.

The farmer replied, "Oh, poor old Buddy is blind and if he thought he was the only one pulling, he would not even try."

Energy Differences Cattle & Horses

There is a myriad of liver stimulants out there, mainly because the liver is a large and mostly misunderstood organ that is rife for purveyors of alternative therapies.

Some herbal remedies such as milk thistle, or silymarin, have some scientific theory behind them but proof of actual efficacy is skimpy at best. Much like when we have people promoting a product boosts the immune system' yet they do not know the difference between t1 and t2 cells.

However the liver is not actually that mysterious, it is just that because it affects so many areas of the body. symptoms of liver dysfunction are very similar whatever the cause. This makes the major aim of restoration of liver function to be symptomatic treatment. This includes rest, restricting protein and providing energy and vitamins.

This is thus a holistic approach and, while it is desirable to identify and treat the primary cause, rest and the dietary amendments are crucial. Restricting protein in both cattle and horses is quite simple as neither have a high protein level in the adult diet. Therefore major focus is on providing energy and vitamins. It is not necessarily any vitamins but mainly focusing on the vitamins and amino acids that are more pertinent to liver function. This is nutrition 101!

The amino acids of particular importance are niacin (vitamin B3), methionine, choline and L-carnitine.

Niacin is almost the forgotten vitamin; it is certainly one of the most under-appreciated. In cattle niacin is an anti-lipolytic agent that may have potential for prevention of fatty liver and it limits the mobilisation of adipose tissue in the weeks around calving.

In horses niacin is important in the metabolic process to ensure healthy skin as well as proper function of the digestive tract, and has been known for its ability to increase blood flow to extremities and improve blood circulation.

Methionine is required for the synthesis of S-adenosylmethionine (SAM) the major methyl donor in biological systems and an essential precursor of polyamines. It provides cysteine for the synthesis of glutathione (GSH), protects cells from oxidative damage and plays a vital role in detoxification.

SAM and GSH stores are critical in the maintenance of mitochondrial function and hepatocellular survival and methionine is a metabolic precursor of choline,

28% of absorbed methionine goes to the synthesis of choline, and is a precursor in the formation of VLDL.

Methionine deficiency has been linked to hepatic lipid accumulation, overexpression of inflammatory cytokines, fibrosis, and oxidative liver injury due to the depletion of SAM and GSH in mitochondria.

Choline is a precursor of phospholipids that enhances synthesis of very low density lipoproteins and so enhances mobilisation and elimination of triglycerides from the liver.

> "Restricting protein in both cattle and horses is quite simple as neither have a high protein level in the adult diet."

In ruminants choline has been shown to increase milk production, lower the level of acetic and butyric acids and increase feed efficiency and carcass weight in beef cattle.

Last, but definitely not least, is L-carnitine, which is essential for the transformation of fats into energy. It is found particularly in organs and tissues (liver, muscle, heart) which show a marked capacity to use fats as an energy source.

L-carnitine is the only physiological carrier for transport of fatty acids inside the mitochondria, where they are burnt to produce energy and removes the acetyl groups, which are formed by lipid and amino-acid metabolism, from the mitochondria. L-carnitine corrects metabolic balance in all states of toxicosis, fatty liver, fatigue and stress so stimulates complete glucose oxidation and minimizes lactate production.

The reduced reliance on anaerobic glycolysis for energy production and the rise in ATP turnover from mitochondrial respiration reduce metabolic acidosis, delay muscle fatigue and improve the maintenance of contractile force.

Finally L-carnitine sustains cardiac activity. Heart muscle relies almost totally on fats as an energy source, so adequate supplies are essential.

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Energy Differences Cattle & Horses

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All the above mentioned amino acids are vital for continued health but it is clear that a major driving force is L-carnitine.

Two species on which nutritional needs have been intensely studied are cattle, in particular dairy cows, and sport horses. These amino acids are of huge nutritional benefit to both albeit sometimes for different reasons.

Obviously liver function is crucial to nutrition of dairy cows with their low ability to metabolise and expel triglycerides leading to fatty build up, often manifest in springtime by ketosis and/or spring eczema.

With the sport horse liver function is important but the main nutritional drain is from high performance with drains on energy and fatigue in heart and skeletal muscle.

Hence supplementation of these amino acids is hugely beneficial to both species, albeit in slightly different circumstances.

In cattle, as stated above good liver health is vital in times of extreme stress such as the transition period. One problem with cattle, and other ruminants, is the rumen itself. This is particularly relevant with the amino acids choline and methionine as they are rapidly mopped up and used by the rumen microorganisms themselves this being unavailable to the animal.

A little over a decade ago Liver X was extremely popular for this reason, supplying choline in a rumen protected form but the product was made unavailable overseas and so was lost to the profession in New Zealand. The silver lining from that cloud however is it portended the arrival of Hep Ora, a nutritional blend that has just so much more than the old Liver X. As well as containing the same amount per dose of rumen protected choline it also has niacin, methionine (also rumen protected), and L-carnitine.

Hep Ora supplies the nutritional building blocks for enhancing liver function in all ruminant species. Additionally it supplies energy in the form of maltodextrins as well as in the molasses, Molasses is ideal nutrition for dairy cows especially as it is high in energy but has virtually zero protein.

As we have seen the situation is slightly different in performance horses where the stress of competition puts huge nutritional demands on the animal. However the end result is the same nutritional regime: supply energy and the essential amino acids, niacin, methionine, choline and L-carnitine.

"Once again the piece de resistance is the L-carnitine which transports fatty acids into the mitochondria"

This is the basis of Happy Horse, a mixture of these vital amino acids with energy from maltodextrins and molasses with the latter making the mix ideal to provide via a bran mash or poured over hay.

Once again the piece de resistance is the L-carnitine which transports fatty acids into the mitochondria. The mitochondria are the power generators of the cells and are fundamental in energy utilisation by the cells and hence the whole body.

Pronunciation

Two tourists were driving through Hawkes Bay.

As they were approaching Taumatawhakatangihangakoauauotmateaturipukakapikimaunghoronukupokaiwhenuaakitanatahu they started arguing about its pronunciation.

They argued back and forth until they stopped for lunch.

As they waited at the counter one of them asked the young employee, "Before we order can you settle an argument for us? Would you pronounce where we are very slowly?"

The young employee leant forward and said, "B-u-r-g-er K-i-n-g!"

NZ Farming Studies

First of all we had the news that research commissioned by DairyNZ shows New Zealand has the lowest carbon footprint for milk in the world – and it is less than half the global average.

The carbon footprint is measured in total greenhouse (GHG) emissions per kg of product.

Commissioned by DairyNZ, the study was independently produced by AgResearch and peer-reviewed by an international specialist in Ireland. The research analysed 55 percent of global milk production, including major milk producing countries.

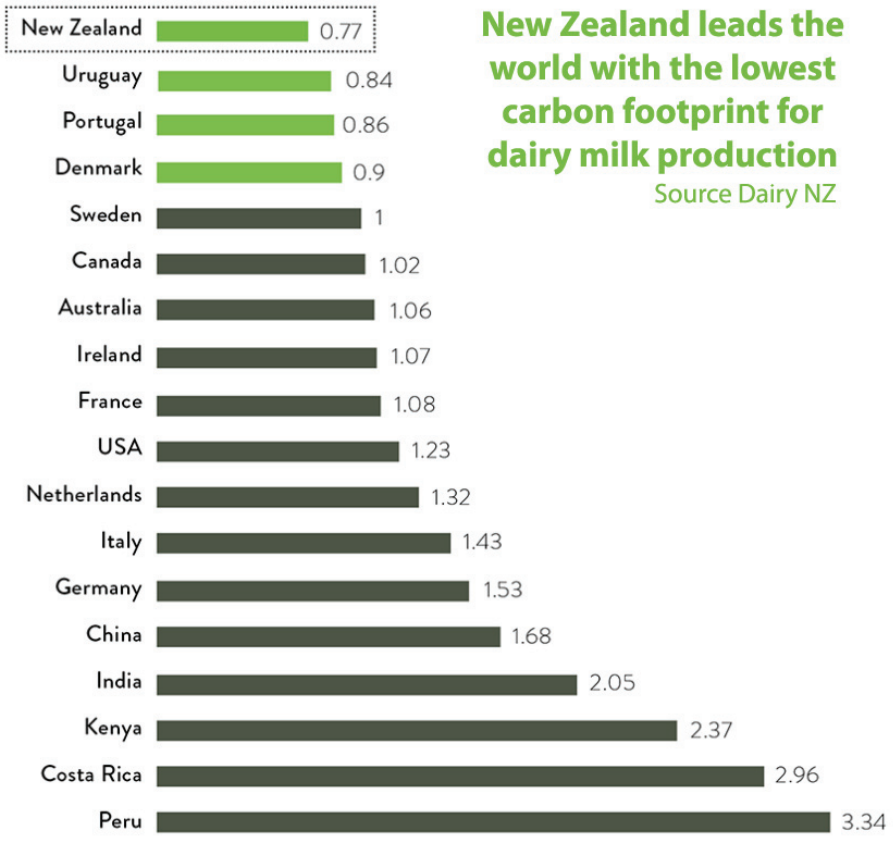
The research compares carbon dioxide equivalent (CO_2e) emissions per kilogram of milk (fat and protein corrected milk – the nutritional content recognised in the study as CO_2e per kg FPCM). This is an internationally recognised method.

The countries selected had published research that enabled a like-for-like comparison.

New Zealand is the most efficient producer at 0.77 kg CO_2e per kg FPCM (fat and protein corrected milk) – which is 48 percent less than the average of the countries studied. The average is 1.47 kg CO_2e per kg FPCM.

At 0.77 kg CO_2e per kg FPCM, New Zealand was followed by Uruguay at 0.84, Portugal at 0.86, Denmark at 0.9 and Sweden at 1. Peru clocks in as the highest emissions producer among the countries studied, at 3.34 kg CO_2e per kg FPCM. Peru is followed by Costa Rica at 2.96 and Kenya at 2.37.

This scientific study was roundly condemned in Trump like fashion by the Green Party as it contradicted their mantra that all farming is evil.



New Zealand leads the world with the lowest carbon footprint for dairy milk production
Source Dairy NZ

"This scientific study was roundly condemned in Trump like fashion by the Green Party"

They would be apoplectic with this latest press release put out by MPI at the beginning of February concerning sustainable farming.

This is quoted in its entirety:

[It's possible to produce a beef patty sustainably across the supply chain in New Zealand, a year-long trial has shown.

Key players in the red meat industry partnered with the Ministry for Primary Industries' (MPI's) Sustainable Food & Fibre Futures fund to develop a model for producing independently verified sustainable beef through the entire supply chain.

The project aimed to help meet the growing demand for ethically sourced and sustainable products.

"The project showed that New Zealand can do this, and the model can be scaled up – so this really is an encouraging milestone," says Steve Penno, MPI's director investment programmes. "It provides transparency to customers and the public in a way that hasn't been possible before."

The trial used the McDonald's supply chain as a test case. Six farms, processing companies ANZCO Foods, Greenlea, Silver Fern Farms (comprising 50% of New Zealand's beef industry), and Beef+Lamb New Zealand collaborated to work out how to meet sustainability requirements.

"It was awesome to see the wider industry working together for a common goal rather than compet-

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NZ Farming Studies

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ing with each other to see 'who can be the most sustainable'," says Mr Penno.

The pilot focused on the sustainable principles of economic, environmental, and social responsibility. It involved an independent audit and verification of the supply chain's sustainability, including on-farm, meat processing, and patty production. It also aimed to address the stakeholder expectations identified in the Red Meat Profit Partnership and New Zealand Roundtable for Sustainable Beef materiality studies, completed in 2019. These priorities included water quality and water use, animal welfare, and on-farm environmental management.

The trial showed that the New Zealand Farm Assurance Programme Plus (NZFAP+) developed under the Red Meat Profit Partnership is an important part of demonstrating New Zealand's ability to produce sustainable beef on-farm.

NZFAP+ complements and builds on the existing Farm Assurance Programme with three additional components: Farm Environment, People, and Biosecurity. It has been designed to protect and enhance all resources, create better and more sustainable farming businesses, and incorporate socially responsible and ethical practices. This programme is expected to be rolled out more widely in April.

McDonald's Restaurants NZ, which serves 1.6 million people in New Zealand every week, says it is proud to play a role in moving the industry further towards sustainable practices.

"More and more our customers are asking us how our beef is produced," says Dave Howse, managing director McDonald's Restaurants NZ.

"We need to change and evolve with the times and we also need to lead – and sustainability is one of those areas where we really feel we can work with industry to move things forward."

The New Zealand Roundtable for Sustainable Beef will look at building on the success of the pilot project by involving more farms and promoting the adoption of NZFAP+.

"Many of New Zealand farmers' practices are already sustainable and we hope that over time these practices will be adopted as the new norm," says Grant Bunting, New Zealand Roundtable for Sustainable Beef chairman.

"involved an independent audit and verification of the supply chain's sustainability"

"We have the opportunity to be world leaders and consciously create a complete food package that is better for the planet."]

In addition to these two studies we had the earlier information in the veterinary world that we are the third lowest users of antibiotics on a PCU basis, so that all these data show NZ farming to be in rude health when it comes to responsibility and sustainability.

Not only can we put a kilogram of butter into markets on the other side of the world cheaper than they can do it themselves, we can do it in a more sustainable fashion, despite having to transport it all around the planet.

Honesty

The boys were up for a game of golf and Nagy said to Tony, "Just to make it interesting I bet you a dollar I score less than you this round".

"Sounds good," said Tony and they were off. They matched scores for the first eight holes and things were going well when they teed off on the ninth. After their first drives they set off for the next stroke but Tony could not find his ball.

He asked Nagy for help and Nagy said "OK but don't forget a lost ball is four strokes."

Tony kept looking to no avail and finally, out of desperation he snuck a new ball out of his pocket and dropped it on the ground when Nagy was not looking.

"I've found it," he cried.

Nagy exploded, "You cheat! How dare you! I never thought any man I played for a friendly round would stoop to cheating for a mere dollar!"

"What do you mean cheat? I found that ball. I'll play it where it lies."

Nagy said, "I know that's not your golf ball - because I've been standing on it for the last five minutes."

The Sign

Four priests had a series of theological arguments and three were always in accord against the fourth.

One day the odd priest out, after the usual "3 to 1 majority rules" statement that signified that he had lost again decided to appeal to a higher authority.

"Oh God," he cried, "I know in my heart I am right and they are wrong. Please give me a sign to prove it to them."

It was a beautiful sunny day. As soon as the priest finished his prayer a storm cloud moved across the sky above the four. It rumbled once and dissolved. "A sign from God, see I knew it!"

But the other three disagreed pointing out that storm clouds form on hot days.

So the priest prayed again, "Oh God, I need a bigger sign to show that I am right and they are wrong. So please God, send a bigger sign."

This time four storm clouds appeared, rushed towards each other to form one large cloud and a bolt of lightening slammed into a tree on a nearby hill.

"I told you I was right," cried the priest but his friends insisted that nothing had happened that could not be explained by natural causes.

The priest was getting ready to ask for a very big sign but, just as he said, "oh God…" the sky turned jet black, the earth shook and a deep booming voice intoned, "HEEEEE'S RIIIIIIGHT." The priest put his hands on his hips, turned to the other three and said, "Well?"

"So," shrugged one of the others, "it's now three against two!"