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*Merry Christmas From the Sales Team*



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## A New Face @ EA

A brand new appointment to the sales team is Sandi Bowles.

Sandi's role is as business account manager, a role she previously filled for In Vitro Technologies.

Sandi is highly qualified technically and her main

role will be as an adjunct to our friendly sales team, working with corporate accounts.

Although new to the job Sandi has hit the ground running and we will do a more in depth intro in the February issue.



## We Are A Green Profession

A lot of effort in recent years has commendably been put in by the veterinary profession in New Zealand on environmental sustainability. However, recent data shows that the profession already contributes well and is in effect a very green profession.

**"Reducing livestock disease levels by 10 percentage points could decrease greenhouse gas (GHG) emissions by over 800 million tonnes,"**

A report was produced by Oxford Analytica, a leading research and analysis firm, which developed a unique regression model to measure different animal health indicators. The model is built on data covering 180 countries from 2005 to 2022 sourced from the World Organisation for Animal Health (WOAH) and UN Food and Agriculture Organisation (UNFAO).

The model used robust multiple regression analysis to identify statistically significant correlations or "associations" between variables such as vaccination, disease levels and productivity in livestock species.

The report examines the interconnections between animal health and its impacts on the economy, environment, and society.

### Animal Health and Economic Impact

- Livestock diseases significantly

reduce global productivity, with losses estimated at \$358.4 billion annually.

- A 60% global vaccination rate for beef cattle correlates with a 52.6% increase in production, potentially meeting the beef consumption needs of 3.1 billion people.

- In 2018, poultry disease reduced global production by 2.8 million tonnes, equating to a revenue loss of \$5.6 billion, nearly four times the UK's egg market.

Every 1% reduction in beef cattle disease could increase production enough to meet the needs of 317 million people and generate an additional \$3.2 billion in revenue.

### Environmental Sustainability

- Reducing livestock disease levels by 10 percentage points could decrease greenhouse gas (GHG) emissions by over 800 million tonnes, equivalent to the annual emissions of 117 million Europeans.

- Disease in livestock is linked to increased land use; for instance, a 20% disease prevalence in poultry necessitates 8.6% more land for production.

A 40% vaccination rate for cattle could reduce land requirements for livestock production by 5.2%.

### Social Sustainability

- Poultry disease contributed to a 5% increase in global hunger in

2019, affecting an additional 34 million people.

- Vaccinating cattle is associated with a decline in undernourishment; on average, every two cattle vaccinated may help one person avoid hunger. (In Nigeria, a 40% vaccination rate for cattle could reduce severe food insecurity by 8.1%, lifting approximately 2.4 million people out of this condition.)

### Conclusion

Controlling livestock disease offers significant benefits across economic, environmental, and social dimensions, aligning with the UN's Sustainable Development Goals for 2030.

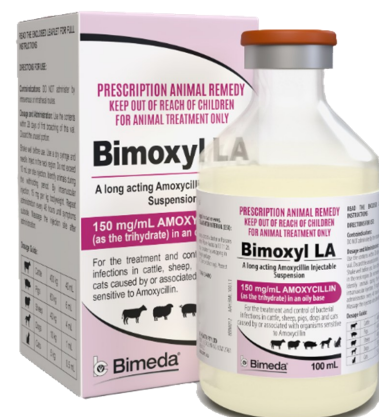
The findings underscore the importance of enhanced animal health measures to improve global well-being and sustainability.

This, of course, is the domain of the veterinary profession and so veterinarians can already claim the moral high ground in the world of environmental sustainability.

However, there is always more to do and the current drive for practices to align themselves more with environmental issues can only be encouraged.

In the meantime bask in the fact that the veterinary profession has a very positive effect on the planet.

For further reading see: <https://healthforanimals.org/reports/animal-health-and-sustainability/>



## Shopping

Nagy's wife asked him to go to the store.

"Please get a dozen eggs and if they have avocados get three."

So Nagy comes home with three dozen eggs.

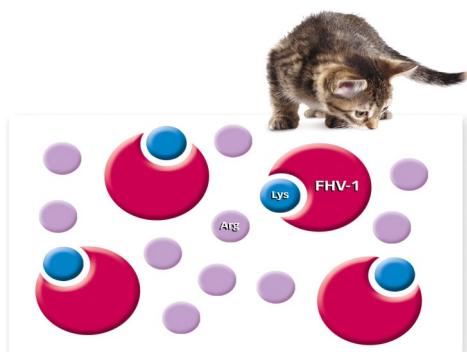
"How come you got three dozen eggs" his good wife asked.

"Because they had avocados" replied Nagy.

## The Role of Lysine

Feline Herpes Virus is dependent on arginine, an essential amino acid without which the virus cannot replicate. When administered as a supplement, L-lysine – also an amino acid – competes with arginine, antagonizing its growth-promoting effect and inhibiting FHV-1 replication.

Arginine restriction itself in cats is not recommended.<sup>1</sup> Arginine is an essential amino acid in cats and plays an active role in the urea cycle. Arginine is transformed to ornithine through the reduction of the enzyme arginase, giving off urea and thus disposing of ammonia. Reduction below the minimal requirement of 0.83% arginine in the diet of cats allows ammonia to increase to toxic concentrations.



Lysine is reported to be a potent arginase inducer, resulting in catabolic degeneration of arginine. In trial work<sup>1</sup> with orally administered lysine signs of arginine deficiency were not observed at any time. Although competition for arginine uptake into viral proteins may be oc-

curing at the cellular level suppression of arginine function in the urea cycle does not seem to be a concern in cats that received 1g of L-lysine daily.

### Purr

Purr is a premium L-lysine supplement specifically developed for cats and kittens. It is a highly palatable paste that is easily accepted by most cats and the convenient dial-a-dose syringe enables precise dosing and easy administration (which may help promote client compliance).

There is no known cure for FHV-1. L-lysine can, however, lessen the severity of the symptoms and help control the spread of the disease by reducing viral shedding.

For cats that are prone to recurrences of FHV-1 (i.e., cats who have had more than two episodes of reactivation), the long-term prophylactic use of L-lysine is recommended.

Developed specifically for veterinary use, highly palatable, easy-to-administer Purr also provides additional calories and nutritional support to cats and kittens that may be reluctant to eat.

L-lysine is an essential amino acid similar to arginine. Studies indicate that L-lysine competes with arginine and antagonizes its growth-promoting effect on FHV-1 (thereby inhibiting viral replication) without

altering the plasma concentration of essential amino acids or causing arginine deficiency in cats.<sup>2</sup>

### References:

1. Stiles J, Townsend WM, Rogers QR, Krohne SG. Effect of oral administration of L-lysine on conjunctivitis caused by feline herpesvirus in cats. American Journal of Veterinary Research, January 2002, vol. 63, no. 1.
2. Maggs DJ, Nasisse MP, Kass PH. Efficacy of oral supplementation with L-lysine in cats latently infected with feline herpesvirus. American Journal of Veterinary Research, January 2003, 64:37-42.

**"Arginine restriction itself in cats is not recommended"**

## Santa's Divorce

Santa and Mrs. Claus were having some marital problems in the frozen wastes of the North Pole.

Things were getting cold, and after years of working in the same business, they just couldn't see eye-to-eye on things anymore.

They decided to go their separate ways but realized it would be messy, as there weren't any divorce lawyers in the North Pole.

So they decided to use a semicolon, which is great for separating independent clauses!

**Purr**

FOR ANIMAL  
TREATMENT ONLY

**L-lysine HCl  
Nutritional  
Supplement**

Oral Paste for Cats

Highly Palatable Tuna  
Flavour

Made in  
New Zealand

**100ml**

## Veterinary Drug Access

An interesting piece appeared in the October 17 issue of 'The Country'. Entitled "Veterinary drug access in NZ: Why the system needs fixing," it was written by Dr Jacqueline Rowarth, an Adjunct Professor at Lincoln University, and focused on the Ministry for Regulation's review highlighting delays and costs that hinder timely access to innovative treatments in the veterinary field, particularly in companion animal medicine.

We are a pet owning society as identified by the figures quoted: Nearly two-thirds of New Zealand households (63%) own pets, a figure that has not changed significantly in the past decade. Research indicates that approximately three-quarters of New Zealand cat owners (74%) and dog (78%) owners regard their pets as family members.

The New Zealand Veterinary Association reported in November last year that antibiotics for use in companion and non-production animal products had increased by 5% (whereas use in most production animals had decreased).

However, companion animal vets face challenges accessing drugs, as production-animal vets; the drugs upon which they have relied for animal health are increasingly difficult to bring into the country due to complex regulations and New Zealand's small market, leading to dif-

ficulty with registering new products.

Although millions of dollars are spent testing safety and efficacy overseas, New Zealand's regulatory system requires that new products be rechecked here.

**"large pharmaceutical companies are often happy with very complex expensive registration processes as they disincentivise smaller generic companies."**

In February this year, the Ministry for Regulation confirmed that the current regulatory system is not enabling timely access to innovation. The ministry's review highlights the cost of uncertainty, delays and complex regulation.

Two regulatory systems are involved – the Agricultural Compounds and Veterinary Medicines Act 1997 and the Hazardous Substances and New Organisms Act 1996. (Note, this added complexity replaced the previous Animal Remedies Board, which oversaw both functions; the change was meant to streamline the process but has had the opposite effect in many cases.)

They are administered by the Ministry for Primary Industries (MPI) and the Ministry for the Environment and regulated by New Zealand Food Safety, an MPI business unit, and the Environmental Protection Authority, a Crown entity.

Companion-animal medicines are caught up in the tangle. Many of the drugs involved in companion-animal treatment, such as sedatives, anaesthetics and reversals, are similar to those used on production animals and humans.

The market in New Zealand for drugs for production animals is larger than that for companion animals (because of the number and weight), but agriculture is struggling. How much worse will it be for companion animals if the drug companies retract further?

The article started to lose its way around this stage looking at how, in the US, biopharmaceutical companies are focusing on streamlining regulatory submissions for new products in an effort to enhance research and development productivity and boost financial outcomes. There was talk of companies using AI (the modern panacea to all ills!) to help in the registration process.

In actual fact large pharmaceutical companies are often happy with very complex expensive registration processes as they disincentivise smaller generic companies from entering the market. However, be that as it may, pharmaceutical companies in this area of the world are currently very frustrated with the registration process overall.

*(Continued on page 5)*

## The Social Worker

A social worker from the city transferred to an isolated rural area. On the first tour of her new territory, she came upon the tiniest cabin she had ever seen in her life.

Intrigued, she went up and knocked on the door. "Anybody home?" she

asked. "Yep", came a kid's voice through the door".

"Is your father there?" asked the social worker. "Pa? Nope, he left afore Ma came in", said the kid.

Well, is your mother there?" persisted the social worker. "Ma? Nope,

she left just afore I got here", said the kid.

Thinking she had her first violation to report, she persisted, "But are you never together as a family?"

"Sure, but not here", said the kid through the door, "It's the toilet!"



## Veterinary Drug Access

(Continued from page 4)

The focus at ACVM in particular is on quality of manufacture, gone are the days of backyard manufacturers and the old registration on 'two pieces of paper.' While it can be argued that the veterinary profession did well in the 20<sup>th</sup> Century with a myriad of products manufactured in such a fashion, many of which have disappeared (to the overall detriment of the profession), arguing thus would be analogous to arguing against the anti-smacking laws of a few decades ago; it is an argument you cannot win.

Therefore, a high focus on manufacture quality is here to stay and that is not the real issue with registration complexity. While 'big pharma' companies are content with measures that keep the smaller players from the market, they still want to register their own products as simply and inexpensively as possible.

Probably the most pertinent comment above was, "Although millions of dollars are spent testing safety and efficacy overseas, New Zealand's regulatory system requires that new products be rechecked here." For decades now pharmaceutical companies have lobbied

**"arguing thus would be analogous to arguing against the anti-smacking laws of a few decades ago; it is an argument you cannot win."**

against this. If the data has been examined and accepted by quality overseas regulators such as the EU or the Australian AVPMA, then surely that should suffice. (More on this below).

Recently Liz Shackleton, veterinarian and CEO of APHANZ (Animal and Plant Health NZ, the body representing most of the pharmaceutical companies) spoke to Industry Branch veterinarians. APHANZ represents not only animal health companies, vending veterinary drugs, but also all other agricultural chemicals such as crop pesticides, weedkillers, fertilizers, etc.

In February 2025, the Ministry for Regulation's review of agricultural and horticultural product approvals confirmed what most in the primary sector have long known: the current regulatory system is not enabling timely access to innovation, including: Uncertainty and delays, lack of strategic direction, disproportionate, complex regulation, underused tools to ensure proportionality, gaps in regulator engagement and communication.

The message is that farmers and growers across the country are increasingly frustrated by ongoing delays in accessing new agricultural and horticultural products. They are urging action to access a broad toolkit of innovative products to manage pests and fight diseases.

In the business world R&D companies are reassessing their future. One of the world's leading R&D companies has voted with their

feet, they need outcomes, not promises to operate.

The recent decision by Bayer Crop Science to exit its New Zealand crop protection field research station in Hastings exemplifies this. Other world leading R&D companies are saying they've lost confidence in the regulatory approvals process and declines in trial applications and product applications point to this.

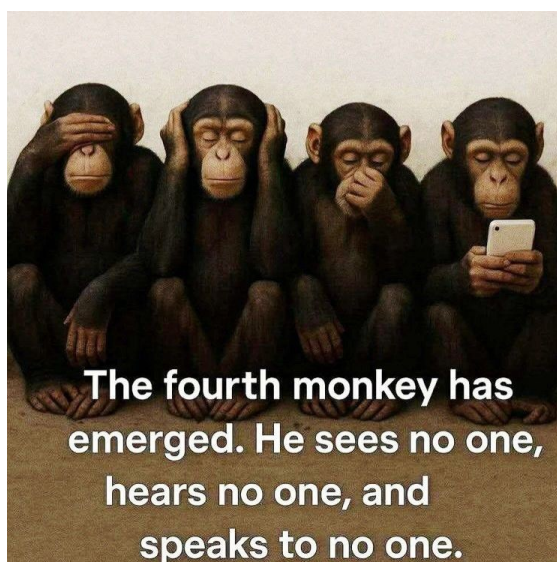
New Zealand was once viewed as a world first market for global R&D companies, but not anymore. Many multi-national R&D companies say they have lost confidence in the approvals process for new trials and new products in New Zealand. They are looking at their future for operations and investment in New Zealand.

Without decisive action, New Zealand risks falling further behind in agricultural innovation thus jeopardising environmental progress, export competitiveness, and the ability to meet sustainability goals.

There may be a little light at the end of the tunnel, thanks to intensive lobbying by APHANZ and a current government that likes to cut through unnecessary red tape; On Monday 24 November, New Zealand Food Safety, a part of the Ministry for Primary Industries (MPI), signed an updated Memorandum of Understanding (MoU) with the Australian Pesticides and Veterinary Medicines Authority (APVMA) in Wellington.

In theory this agreement will see the 2 countries sharing assessments of new products. The hope is that at a practical level, it will mean streamlining workflows, reducing duplication of effort, and delivering faster turnaround times.

Industry, vets and farmers await with bated breath!



## Farmer Perceptions of Hormones

An interesting article, co-authored by Richard Laven, Emma Cuttance and Greg Chambers, has appeared in the very latest NZVJ. Basically, the article looks at an intensive review of farmer perception of the use of hormone therapy to increase fertility on New Zealand dairy farms.

While the veterinary profession almost totally accepts the value of such therapy it seems that farmers themselves are not quite so convinced.

To quote from the conclusion, "Many farmers did not believe hormone use was cost-effective, despite strong evidence to the contrary. As other reasons for not using hormones were also cited, and as most farmers believed hormone use should decrease, it seems unlikely that further education on cost-effectiveness will change practice. Rather, it could increase the proportion who think veterinarians benefit financially more from hormone use."

In other words, farmer perception would be that veterinarians would push hormone therapy for their own financial gain, i.e. profiteering. This would be seen as a negative for the profession.

To quote further from the paper, "Veterinary focus on maximising synchronisation use and efficacy is bypassing a significant proportion of dairy farmers. There is an opportunity for veterinarians to focus on what their clients want and work with them to improve herd fertility without relying on hormones to fix management problems."

One issue is that waiting to treat non-cyclers will mean that the population of cows which are treated will have poorer fertility than the population of cows identified as non-cyclers before the start of mat-

ing, and thus giving a poorer response to synchronisation. Thus, similar to the situation with the now defunct induction schemes, it seems that "many farmers are using hormone treatment of non-cyclers too late to get a clear economic benefit, and anecdotally many farmers who are not using hormones have excellent reproductive performance."

**"(especially when one-quarter of farmers think veterinarians are already getting the most financial benefit from hormone use)."**

Treating non-cyclers before the breeding season results in treated cows being inseminated 10 days earlier than untreated non-cyclers, hence the message should be that, if hormone therapy is used, best use is very early in the season.

This of course, is a harder message to get across to farmers, especially as costs are concentrated at one point in time as opposed to other countries where the reproductive season is spread across many months of the year.

There was an analogy between selective hormone therapy and selective dry cow antimicrobial therapy where every cow that needs treatment for an underlying problem gets it, but the focus is on reducing the number that need treatment.

There was the comment: "The dry cow analogy is a good one, as both dry cow antibiotics and synchronisation programs require veterinary prescription, and therefore veterinarians should be taking the lead on the use of such programs."

The problem is that dry cow antibiotics are seen by many clinicians as a substitute for management deficiencies, with the profession actively attempting to reduce such use,

while at the same time promoting hormone therapy as a useful management tool for reproduction; to lay people this may seem like an oxymoron.

It also does not help that the two words 'antibiotic' and 'hormone' both have negative connotations in the minds of the public, for rather spurious reasons.

For antibiotics the negative perception arises from the push against AMR, whereas with hormones, thanks to hormone use on performance sports, there is the connotation that they are not natural, despite the fact that prostaglandins and GnRH are themselves very natural chemicals in the main.

The final quote from the paper, "The results of our farmer survey (particularly the large-scale scepticism towards hormone use expressed by over two-thirds of farmers) suggest that adding more hormones (increasing cost and complexity) is unlikely to persuade farmers that synchronisation is cost effective (especially when one-quarter of farmers think veterinarians are already getting the most financial benefit from hormone use)."

So, the challenge to clinicians who recognise the science behind the benefits of hormone therapy for reproduction is to convince sceptical clients without appearing to be a greedy merchant, not a simple task.

Reference: The paper is now available on SciQuest and is well worth a read by clinicians.

RA Laven, EL Cuttance and G Chambers, Use of hormones on New Zealand dairy farms: an analysis of the results from a survey of farmers and a survey of veterinarians, New Zealand Veterinary Journal 2026, Vol. 74, No. 1, 5-17

## Right Dorsal Colitis

Right dorsal colitis is an ulcerative disease of the large intestine often brought about by excessive use or prolonged administration of non-steroidal anti-inflammatory drugs (NSAIDs). While phenylbutazone, commonly called bute, is most often associated with right dorsal colitis, other drugs can cause this syndrome, including flunixin meglumine (Banamine) and meloxicam.\*

A recent study investigated the link between bicarbonate secretion in the colon and the effect of phenylbutazone on this secretion, potentially connecting right dorsal colitis to cystic fibrosis in humans.+ "Secretion of bicarbonate in the right dorsal colon could protect mucosa from injury caused by intense microbial production of short-chain fatty acids," according to the researchers involved in the study.

Production of short-chain fatty acids, also called volatile fatty acids, is completely normal in the hindgut, and volatile fatty acids serve as a key energy source for horses.

Researchers harvested tissue samples from the right dorsal colon and right ventral colon of 10 horses during surgery to measure bicarbonate secretion. The effect of phenylbutazone on bicarbonate secretion was studied in four of the 10 horses.

They found that the dorsal colon typically has more bicarbonate secretion than the ventral colon, and that phenylbutazone significantly reduced bicarbonate secretion, leaving the tissues vulnerable to damage.

"Secretion of bicarbonate was considerably greater in the right dorsal colon than the right ventral colon and involved different transport mechanisms," explained the researchers. "The primary transporter of bicarbonate in the right dorsal colon was consistent with cystic fibrosis transmembrane conductance regulator (CFTR), the failed transporter in human cystic fibrosis. In the right dorsal colon, bicarbonate secretion was decreased by phenylbutazone use, probably through inhibition of CFTR."

Cystic fibrosis in humans, a genetic condition that causes respiratory and digestive issues, is also associated with a bicarbonate deficiency. People with cystic fibrosis have intestinal lesions similar to those observed with right dorsal colitis in horses.

Supplementation of horses with EquiShure, a protected form of sodium bicarbonate, could discourage the conditions necessary for right dorsal colitis to develop, postulated Peter Huntington, B.V.Sc.,

M.A.C.V.Sc., director of nutrition at Kentucky Equine Research. This is especially important for those horses that require nonsteroidal anti-inflammatory therapy often, such as high-performance horses.

**"People with cystic fibrosis have intestinal lesions similar to those observed with right dorsal colitis in horses."**

"Normal bicarbonate will be inactivated in the stomach and small intestine, but EquiShure delivers sodium bicarbonate to the hindgut to help minimize pH fluctuations associated with modern feeding practices," Huntington said. "We know the EquiShure is incredibly effective at mitigating hindgut acidosis and microbiota dysbiosis, but it could have more far-reaching benefits for horses on phenylbutazone and other NSAIDs."

\*Davis, J.L. 2017. Nonsteroidal anti-inflammatory drug associated right dorsal colitis in the horse. *Equine Veterinary Education* 29(2):104-113.

+Bauck, A.G., and D.E. Freeman. 2022. Right dorsal colitis: Is this similar to cystic fibrosis in people? In: *Proc. American Association of Equine Practitioners* 68:241-242.

## Dangerous Food

A doctor was addressing a meeting about healthy eating.

"The material we put into our stomachs is enough to have killed most of us sitting here years ago.

Red meat is awful. Soft drinks corrode the stomach lining. Some Asian foods contain high levels of MSG, high fat diets are harmful, and long term damage is caused by the

germs in our drinking water.

But there is one thing that is the most dangerous, and most of us have, or will, eat it. Can anyone tell me what food it is that causes the most grief and suffering for years after eating it?"

After a short pause an elderly man in the front row put up his hand and softly said, "Wedding Cake".







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## The Flight Inspector

3 days before Christmas an inspector from the CAA arrives at Santa's house. 'You've a big day coming up and I need to check that your sleigh is air-worthy and check your flying capabilities'

So Santa loads up his sleigh with a ballast load and harnesses up 8 reindeer. Santa does his walk-around accompanied by the inspector

Santa then takes his place in the cock-pit, the inspector gets in beside him, in the seat normally filled by Santa's Helper Elf. The inspector gets out his clip board with his check list.

As Santa takes off the inspector gets out of his bag a sawn-off shot-

gun. Santa says 'There is no need for that, we never get any hi-jack problems on my flights'

'Oh' says the inspector 'this is for later. I'll need to see how you handle the sleigh with one power unit out'

