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Merry Christmas to All Our Clients From the Team at EA







Whip Use in Racing

In this year's Caulfield Cup, part of the rich Australian Racing carnival, the Irish horse Without a Fight, in a dogged finish beat West Wind Blows by a head. However, that was just part of the story. After the race, winning jockey Mark Zahra was fined \$A50,000 and stood down for seven race meetings for overuse of the whip during the race. These rules were brought in, admittedly only in recent decades, as the sight of horses being whipped at the end of a race is at best, aesthetically disturbing and, at worst, evidence of cruelty.

The Mark Zahra case brings up two pertinent questions. The first being how adequate is such a sentence in achieving the aim of reducing whip use? For a country jockey the penalties are substantial but more like a slap on the wrist with a wet bus ticket at the lucrative Melbourne Carnival.

The stake for the Caulfield Cup is five million dollars, three million to the winner plus tremendous prestige. One would imagine the owners would happily pay the fine and, with the plethora of race meetings at the time seven meetings can be held in a week, meaning Mark Zahra can miss some minor meetings yet still ride in the prestigious Cox Plate and the following week on Derby Day, the first day of the massive Melbourne Cup carnival.

The CEO

The new CEO of a company comes into work determined to turn things around. Trying to prove himself to his new employees he looks around the office and sees a guy leaning against a wall doing nothing. He approaches the guy and asks him, "What do you think you're doing?" If Racing Australia is really serious about reducing whip usage in major races maybe relegation of the horse would be a much more effective deterrent than token fines or suspensions that maybe crippling to country jockeys but fob pocket change for those in the 'big smoke'.

The second question regards whip use itself, is it merely aesthetically disturbing or is it actual cruelty?

"is it merely aesthetically disturbing or is it actual cruelty?"

According to the Coalition for the Protection of Racehorses website "Whipping the horses over and over again inflicts physical and psychological pain and increases the likelihood of injury." Is this opinion verified or is it hysteria?

There is no doubt that in days gone by, whips were made longer, more flexible and with harder, leather ends. They could easily mark a horse and could be used without any limitation. Rightly, the old type of whip has been deemed unsuitable for modern racing, while



its use and purpose has been majorly reformed.

Today's whips are soft padded and designed not to inflict pain but to make a 'popping' sound on impact with the rump.

Apart from the rules which govern manufacturing, there are also strict rules around their use. With public perception in mind, reform is ongoing and regulations are getting stricter each year.

There is one style of whip permitted in horse racing, and they must adhere to a tight specification -, they must be padded with a minimum of 18cm of foam at the end, and that must be over 7mm thick, and 2.5cm wide. There are currently nine approved manufacturers, and whilst they are all made slightly differently, they look broadly the same.

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The man replies, "I'm just killing time, waiting to get paid."

The CEO is furious, "What do you make a week?"

The man tells him, "About \$500 a week." The CEO pulls out his wallet and hands the man \$1000 and says, "There's your two weeks no-

tice, now get out of here!" After the man leaves the CEO turns to his employees and asks, "What do you think about that?"

One of the employees stands up and says, "I think he just got the largest tip he's ever going to get on a single pizza."

Whip Use in Racing



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Apart from the rules which govern manufacturing, there are also strict rules around their use. In Australia, jockeys are allowed to use their whip on the horse's rump five times prior to the final 100 metres in a race, and never in consecutive strides. Within the final 100 metres the whip use is at the rider's discretion. There is no distinction in the rules between which way a jockey holds the whip in their hand.

The Australian rules are constantly being reviewed, with a possible adaption suggested by Racing Victoria that jockeys would only be allowed to use the whip on a maximum number of occasions – between five and eight – throughout the entire race and never in consecutive strides. Jockeys would be allowed to continue to carry the whip but they should only be used when necessary to protect the safety of horses and riders.

Encouragement aside, the most important reason a jockey carries a whip is safety. Horses are animals that can be spooked or distracted, even when travelling at top speed. This can endanger the horse itself, the jockey, and the other horses and jockeys around them.

A horse veering violently or suddenly off course can suffer and cause serious injury, so jockeys can use their whips by slapping the horse down the shoulder to bring their attention back to the jockey and keep control over the horse.

Again, this isn't done to inflict pain, but rather to create a sound and turn the horse's attention back to the rider. Since a jockey doesn't have the use of leg aids to apply pressure on a horse's side or girth, the whip can assist to change position if required in an emergency by waving it in the direction of the horse's vision.

More recent research has now brought up another question; do we really need whips at all? This is the question that Racing Victoria is grappling with in the wake of a study from the UK which showed that whip use provided no benefit to steering, avoiding interference between horses and, perhaps most importantly, to race finishing times.

Racing Victoria believes that whips don't threaten horse welfare, but the contentious issue is over public perception. It's impossible to educate every single person who watches racing on whips and whip rules, especially on Melbourne Cup Day when many people who don't normally watch racing will suddenly tune in.

The perception of jockeys hitting horses with whips, with so much prizemoney on the line, will inevitably lead to many drawing incorrect conclusions about how those in the racing industry treat their equine athletes.

Therefore, given that the benefits of using whips are questioned by the science, Racing Victoria has called for reform of the rules, with the aim of working towards whips being used only for safety purposes.



Putting Out a Fire

A physicist, a chemist, and a statistician are called into the dean's office at a university. But the dean is called out of the office leaving the three researchers by themselves.

Suddenly, a fire ignites in the wastepaper basket.

The physicist quickly says "I've got this. All we have to do is lower the temperature of the material until it is below the ignition temperature."

The Chemist says "No, I've got a better idea. Lets take away the fire's oxygen supply so it doesn't have one of its reactants."

As they are arguing the statistician starts running around the room setting everything on fire. The other men yell at him "What are you doing?!"

He replies "I'm just trying to get an adequate sample size."

Reduction in Antibiotic Use

An interesting breakdown in veterinary antibiotic use has recently been released by ACVM. The breakdown is from the yearly sales figures of antibiotics with the latest, the 2022 figures, showing promising results.

In essence total sales of veterinary and horticultural antibiotics in New Zealand have decreased for a fifth year in a row, dropping by 23% in 2022. This means that overall, the sale of antibiotics has dropped from 71,361kg in 2017 to 41,033kg in 2022. That's a massive drop of 42% since 2017 and certainly vindicates the dramatic statement by the NZVA Antimicrobial Resistance Committee (AMRC) made in 2015 that "By the year 2030 NZ Inc will not rely on antimicrobials for the maintenance of animal health."

This statement, as earth shattering as it was at the time, clearly is not the sole reason for these dramatic results but it certainly took the moral high ground and focused attention on the problem.

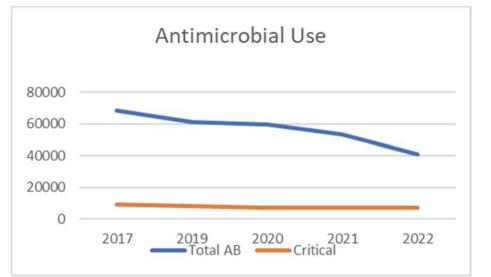
Of the 16 classes of antibiotics New Zealand Food Safety monitors, five

2019

2020

2021

2022



are critically important for human health, meaning they should be considered the last line of defence in animal infections. The total sales of antibiotics critical for human health decreased by 8% in 2022 to 6,285kg. This is the lowest they've been since 2017, when 8,952kg of antibiotics critically important to human health were sold.

While this drop is not as dramatic as the overall level, possibly leading to some lay people to query the commitment to critical antimicrobial use, it needs to be seen in light

6,982

6,941

6,848

6,285

of the fact that the use of crucially important antibiotics is already at a very low level. Therefore, any progress will likely be only glacial as there is not a lot of improvement to be made if these drugs are currently being used only when required.

The focus really needs to be on overall usage rather than the critically important drugs as cross selection for resistance genes makes the development of resistance to all antimicrobials more likely than from use of any antimicrobial, not necessarily a particular one.

Thus, the big news is the decrease in overall antibiotic use and this really is exciting. The big question is how did this come about? Right from the time of 2015 AMRC has had plans in place looking at various sectors of the industry and seeking habits to change in order to improve the situation. In 2016 AMRC published a paper in NZVJ indicating that on a population corrected unit (PCU) basis New Zealand was the third lowest user of antimicrobials in the developed world. This compared very favourably with the medical profession who showed up as the fifth highest user in a similar survey a year ear-

 Year
 Total
 Critical to human health

 2017
 71,361
 8,952

 2018
 68,664
 7,866

61.147

59,637

53,422

41,033

Combined veterinary and horticultural antibiotic sales in kg

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Reduction in Antibiotic Use

(Continued from page 4)

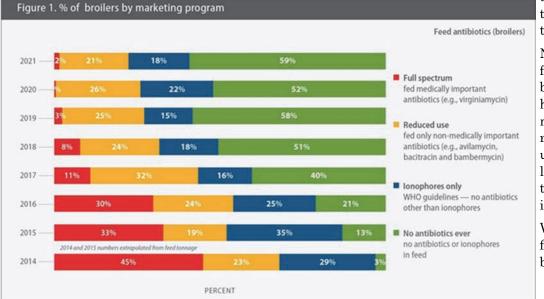
lier. This helped dispel the myth that antimicrobial resistance is the fault of the veterinary profession.

The biggest agricultural users by far back then were two smaller sectors, the poultry and pig industries with massive zinc bacitracin sales outstripping all other molecules. AMRC redid the NZVJ paper a couple of years later with no appreciable difference being noted. Rightly or wrongly some blame was directed towards the pig and poultry industries who were clearly not happy about this turn of events. However, to their credit they were already making giant strides to rid themselves of dependency upon zinc bacitracin for prophylaxis.

Kerry Mulqueen, chief veterinary officer for the Poultry Industry Association of New Zealand (PIANZ) announced at 2022 the NZVA conference in Hamilton that PIANZ had achieved a massive 16-fold decrease in the use of zinc bacitracin. Also, pharmacologist Stephen Page at Science Week the same year announced that the Australian poultry industry (which really controls the major NZ producers) is planning for a program similar to that of the US no antibiotics ever (NAE) plan.

In 2021 more than half of the broilers produced in the US were vaccinated as part of a total control regimen for coccidiosis. The increase in vaccine usage reflects the US poultry industry's shift to "no antibiotics ever" production. In 2021, nearly six in 10 broilers (59%) were produced without antibiotics, a figure that sat at 3% just 7 years earlier. Double vaccination is a strategy to improve coverage, and non-antibiotic anticoccidials are frequently used to manage coccidiosis in both conventional and NAE programs or to supplement vaccines. In addition, eubiotics, products such as botanicals and essential acids, which are thought to provide a healthy balance of the microflora in the gastrointestinal tract, have also been used to supplement vaccine and medication programs.

The previously maligned poultry industry, to its credit, has confronted the issue head on and



these claims have certainly been verified by this ACVM breakdown.

No longer are poultry farmers the whipping boys of the sector, they have helped NZ Inc to make rapid progress in reducing antimicrobial usage and we need to look elsewhere in order to improve, the question is where?

We do not have to look far looking at the ACVM breakdown which (Continued on page 6)

Anniversary Present

Bob was in trouble. He forgot his wedding anniversary. His wife was really upset.

She told him, "Tomorrow morning, I want to see a gift in the driveway that goes from 0 to 200 in 6 seconds AND IT BETTER BE THERE!" The next morning he got up early and left for work. When his wife woke up, she looked out the window and sure enough there was a box gift-wrapped in the middle of the driveway.

Confused, the wife put on her robe and ran out to the driveway, brought the box back inside the house and quickly opened it.

Inside she found a brand new set of bathroom scales.



Reduction in Antibiotic Use

(Continued from page 5)

showed 57% sold for use in dairy cattle, 16% in pigs, 9% in horses, 4% in beef cattle, 4% in meat poultry, 4% in sheep, 4% companion and non-production animals, 1% sold in layer poultry and <1% in deer.

The effect in a pie chart is dramatic and first glance would indicate dairy as the next area of concern, being 57% of overall use.

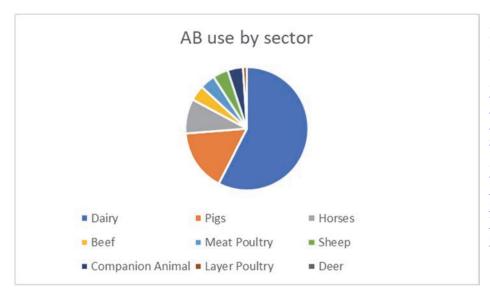
However, there is another issue at play. While dairy is a major user it is also the largest number of animals and a key contributor to the economy.

With 6.1 million dairy cows in 1922 using 23,388.81kg of antibiotics this equates to 0.04kg/cow, an approximate PCU level of 8.69 mg/kg biomass, very similar to the overall figure in 2016, that was the third lowest in the world at the time.

Pigs on the other hand, were at 16% of the total use 6,565.28kg of antibiotics but there were only 262,400 pigs in 2022 so this equates to 25.02kg/pig or an approximate PCU of 35.41 mg/kg biomass, skewing the overall result.

The other outlier is horses at 9% use or 3,692.97kg. We really do not know exact horse numbers but a rough estimate of 70,000 among the sport and leisure horses results in 0.05 kg/horse or a PCU of 10.86mg/kg biomass.

So, for NZ Inc to continue to improve these are the targets. With dairy, because numbers are so high, little gains are effective and,



hopefully, these are underway with the current push away from whole herd DCAT to selective.

The pig industry is intensive, hence higher overall use, but small. There has been a strong move away from critically classed antibiotics but has this resulted in higher overall use? Can the pig industry make the dramatic changes that the poultry industry made?

Finally with horses, while the numbers are debatable missing horses will be in the back blocks. It does seem that, at least for sport horses, this issue should be more to the forefront of the minds of clinicians, especially with the reported increase in use of third generation cephalosporins in that sector.

Sources:

Hillerton JE et al. Use of antimicrobials for animals in New Zealand, and in comparison with other countries, N Z Vet J. 2017;65(2):

https://poultryhealthtoday.com/ survey-shows-us-poultry-industrys -evolving-yet-flexible-approach-tococcidiosis-management

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Helicopter Lessons

Nagy was taking helicopter lessons and was finally ready to try it on his own. The instructor told him to call him by radio every 1000 feet to make sure everything was okay.

At 1000 feet Nagy called on the radio, "Everything is fine."

At 2000 feet Nagy called on the radio, "Everything is fine, just getting a little cold."

But before he reached 3000 feet the helicopter began to slowly come down. It crashed into the ground ruining the helicopter, but Nagy was fine. The instructor ran to his side to comfort him,

"What happened?"

Nagy replied, "I told you it was getting cold. So I shut off the giant fan."

Sustainability

More than ever before there is a drive for sustainability. Fonterra's latest move, albeit driven by market forces, to reach sustainability targets by 2030 and 2050, can only be applauded. The issue, in a burgeoning world population, will certainly become greater as we exhaust the planet's resources.

As an aside one has to wonder what other suppliers must do when New Zealand already has the lowest carbon footprint amongst all the world's major milk suppliers. (See the accompanying graph taken from: <u>MPI NZ 2021</u> Carbon footprint to litres of milk to fat and protein corrected milk). It is also, as we found with antimicrobial levels, much harder to improve a low initial level than a much higher one.

The question arises, how can veterinary practices contribute? NZVA has designated sustainability to be the major item at the NZVA Conference next June in Christchurch.

One obvious area is plastic waste with a simplistic move being to return empty vials to the product suppliers. However this is not as simple and cost effective as it may seem.

While many plastics are recyclable this does involve a certain amount of cost. Somebody has to pay that cost and it is a little naïve to expect a supplier operating on a very narrow margin, much lower than that of veterinary retailers, to be able to simply absorb that extra expense.

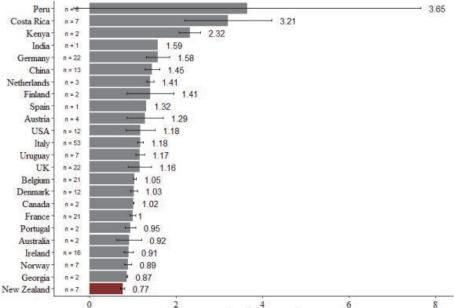
Graham Wallace's 1982 comment about the markup by the veterinarian for merely storing and injecting or dispensing is very relevant here.

While the action is laudable it must result in price increases which will have to be passed on.

One clear avenue for practices to ensure sustainability is in antimicrobial use itself. While climate change hogs the headlines, sustainability is not just about carbon footprints, as important as that may be, but also prudent antimicrobial use to ensure the tools we have at hand will be available to the profession in the future.

The 2015 aspiration NZ Inc will no longer rely on antibiotics is a largely successful ploy to keep stewardship in the hands of practitioners. However already the regulators such as VCNZ and ACVM are circling.

Sustainability in antimicrobial use means less pressure for new molecule development which, in itself, must result in a lower carbon footprint.



Carbon Footprint (kgCO2eq / kg FPCM)

Confession

A priest had three people at confession.

He went to the first guy and asked: "What sin did you commit?"

The guy responded: "I murdered someone."

The priest responded "Drink this holy water and your sin is forgiven." He did so and stood back.

The priest then asked the second guy: "What sin did you commit?"

The second guy responded: "I cheated on my wife."

The priest responded "Drink this holy water and your sin is forgiven." He did so and stood back as well.

Then it was the third person's turn. The priest asked him: "So, what sin did YOU commit?"

Nervously, guy number three responded: "Um...well, you see, Father...I peed in the holy water."





Animal welfare is our business



The Night Watchman

Once upon a time the government had a vast scrap yard in the middle of a desert. The Government said, "Someone may steal from it at night." So they created a night watchman position and hired a person for the job.

Then the Government said, "How does the watchman do his job without instruction?" So they created a planning department and hired two people, one person to write the instructions, and one person to do time studies.

Then the Government said, "How will we know the night watchman is doing his tasks correctly?" So they created the Quality Control Department and hired two people. One to do the studies and one to write the reports.

Then the Government said, "How are these people going to get paid?" So they created a time keeper and a payroll officer position. Thus they hired two more people.

Then the Government said, "Who will be accountable for all of these people?" So they created an administrative section and hired three

people: An Administrative Officer, Assistant Administrative Officer, and a Legal Secretary.

Then the Government said, "We have had this command in operation for one year and we are \$18,000 over budget, we must cutback overall cost."

So they laid off the night watchman.



