

THE CANNABIS CONUNDRUM

With New Zealand's cannabis referendum just around the corner, clients are already looking for ways to make the plant part of their pet wellness regimes. **Mirjam Guesgen** investigates the efficacy and legalities.

EVERY MORNING, CALIFORNIAN

Andrea Cullipher prepares a special breakfast for her 10-year-old Basset Hound, Axel. She carefully measures out a few drops of cannabidiol oil and drips it onto a piece of bread to feed to her companion. It's a routine she's followed for several years, ever since the medication prescribed to treat Axel's painful arthritis began to lose its effect. According to her story in a recent issue of the *Los Angeles Times* (Spillman, 2019), Axel can now go for longer walks and has "noticeably more energy".

However, Andrea didn't choose this treatment option based on advice from her veterinarian. Her hairdresser recommended it because, although cannabis is legal in California, it's illegal

federally and none of the 30-some states where it is legal has a provision for pets. This means veterinarians aren't allowed to prescribe or recommend cannabis to their clients. Even talking about anything cannabis related puts a veterinarian's licence at risk.

With the legalisation of cannabis for people potentially on the horizon for New Zealand, the issue of whether and how cannabis products could benefit pets is front of mind. But as examples from overseas demonstrate, the pet cannabis landscape is a minefield of legal issues and misinformation. Kiwi veterinarians need to be ready.

Pharmacologically, the cannabis plant has two key components: cannabidiol (CBD) and the psychoactive component

delta-9 tetrahydrocannabinol (THC). However, there may be more than 100 other compounds, including terpenes. The plant can be sold commercially in many forms: dried flowers or buds, oils derived from the flowers, hemp fibres from the stem, and hemp seeds or seed oils that contain only trace amounts of CBD and are instead high in essential fatty acids.

Pet products fall mainly into two camps: nutritional hemp seed or seed oil products; and medicinal products containing CBD. The nutritional products are a good source of fatty acids or protein, and are similar to products such as flax seeds (Leizer et al., 2000). Medicinal products – which can include bone-shaped biscuits, edible oils, pills and topical lotions – tout benefits such

as anxiety relief, anti-inflammatory properties, the ability to treat skin conditions, pain relief and seizure control.

But it's unclear whether CBD products live up to their claims in pets, says Mike Gieseg, an investigator for a New Zealand veterinary research company. "There just hasn't been enough work done," he explains. "We literally have no clue, even though they seem to be quite useful for a lot of conditions."

A 2018 blinded, crossover study investigated the effects of a high-CBD product on 16 dogs with osteoarthritis (Gamble et al., 2018). The dogs showed small but significant improvements in pain scores, as rated by veterinarians and owners, with no side effects observed, suggesting that CBD may make dogs with chronic pain more comfortable. Another study, from 2019, showed that

seizure frequency in dogs with intractable epilepsy decreased by an average of 33% after 12 weeks of using an oral CBD product compared to those treated with a placebo (McGrath et al., 2019). However, the number of dogs whose seizure activity decreased by more than 50% was similar in both the CBD and placebo groups, and dogs on the CBD product showed a significant increase in serum alkaline phosphatase activity. Another (uncontrolled) study of 122 dogs with canine atopic dermatitis noted that those treated with a cannabinoid analogue showed reduced pruritus and skin lesions and improved quality-of-life scores (Noli et al., 2015).

Mike, who recently compiled a cannabinoid review, says that although there has been a lot of research into the use of cannabinoids in laboratory

rodents, rabbits and monkeys, there isn't enough evidence from companion animal studies to justify the veterinary use of CBD products. However, he does state in his review that CBD products are unlikely to cause harm to these animals. The full review will be available to read in the September issue of *Companion Quarterly*.

"Unfortunately, the excitement around cannabis products still appears to be mostly hype," he says, "but that may change with time and it's perfectly possible that major uses will emerge in coming years. Compared to many herbal remedies, cannabis definitely contains pharmacologically active ingredients." He says legalisation may open the door for more studies.

Despite a seeming lack of evidence of the efficacy of CBD pet products, consumers worldwide are flocking to buy them. A quarter of pet owners in the US use CBD products for themselves, their pets or both, and, between 2018 and 2019, products marketed for pets made up \$14.6 million in sales for regulated cannabis retailers (Nielsen, 2020). A 2019 report stated that 94% of Canadian pet owners surveyed believe cannabis products work well as an adjunct therapy, and 78.5% prefer them to conventional medication (Kogan et al., 2019). In February 2020 pet store giant PetSmart added CBD-infused tinctures, balms and gels to its regular product stock. Even lifestyle maven Martha Stewart is



THE ENTHUSIASM ISN'T JUST OVERSEAS... NEW ZEALAND PET OWNERS ARE ALREADY USING CANNABIS PRODUCTS AS SUPPLEMENTS FOR THEIR ANIMALS.



jumping on the bandwagon and making a line of CBD pet products.

The enthusiasm isn't just overseas. According to one veterinarian (who was given anonymity for legal reasons), New Zealand pet owners are already using cannabis products as supplements for their animals. They say clients are admitting to using anything from locally made, questionable-dosage tinctures to local oils with sophisticated manufacturing processes and measured CBD amounts. They say several clients have even successfully imported high-end pet cannabis products from overseas. It is currently illegal to use cannabis products without Agricultural Compounds and Veterinary Medicines (ACVM) authorisation.

According to VCNZ Professional Advisor Seton Butler, while it's not a veterinarian's job to police the use of these products, they expect veterinarians to be clear with clients that it's not appropriate to be using unconsented treatments on their pets.

New Zealand company Heliuss Animal Health has openly announced that it plans to develop a line of medicinal CBD products for pets. Its website states that although the immediate focus is on off-the-shelf nutraceuticals, the company's ultimate goal is to make a product for osteoarthritis pain management in dogs.

Cannabinoid chews for anxiety and shampoos for skin conditions will follow. Heliuss plans to register its products under the ACVM.

To date no one has presented a veterinary product for registration, but any hemp or cannabis product intended for use in animals, including nutraceuticals, would have to follow the same regulatory process as any other veterinary medicine. A company would need to provide data and information on the product's chemistry and manufacturing, evidence of the product's efficacy and safety in the target species, and any other information to define and address the risks associated with the product's use. That information would then be reviewed by New Zealand Food Safety's ACVM team to determine whether the product could be registered.

It's questionable whether Heliuss or another company would have the resources to provide this kind of information. "The reality is, running these trials is really challenging and expensive," says Mike, who coordinates many clinical trials.

The legality of cannabis products isn't straightforward in New Zealand. Numerous pieces of legislation and regulations apply and the rules for products intended for human use

are different from those for products intended for animal use.

For example, hemp seed for people can be found on supermarket shelves around the country. According to the *Australia New Zealand Food Standards Code* (section 1.4 4–6), it is allowed as a human food as long as it comes from a low-THC cannabis plant and its THC and CBD levels are below a certain threshold. The code doesn't apply to animal feed, so the THC and CBD thresholds are set at zero. The compounds also can't show up in an animal's meat or milk, which is a possibility when cows, horses or other food-producing animals are fed hemp seed cakes or leftover cannabis stalks. The presence of even trace amounts of the compounds in meat and milk products puts our exports in jeopardy. This zero tolerance in animal legislation has been criticised by hemp growers, who are looking for sustainable ways to dispose of their by-products.

When it comes to medicinal use, people can be prescribed cannabis-derived products consented by the Ministry of Health. Veterinarians can authorise consented human drugs only for animals in their direct care (similar to the use of human anti-convulsive therapy when necessary) but can't advertise their use in animals. To date, the only drug consented in New Zealand is Sativex (which contains

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both THC and CBD), and it only has approval for use for cases of severe spasticity due to multiple sclerosis. In the absence of an appropriate consented human drug, veterinarians may also apply to New Zealand Food Safety to import other, non-consented, cannabis products from overseas if they can make a case for it to the ACVM team. Again, these products can only be used for patients in their care and can't be advertised for sale.

The anonymous veterinarian quoted above says the regulations are a frustrating, confusing double standard. They want to use cannabis products to help their patients suffering from chronic pain, seizures or cancer.

The NZVA has emphasised in its complementary medicines policy that any treatment advice should be based on sound, scientific efficacy data. "If such evidence is not available, those promoting such treatments should refrain from making unproven claims about their efficacy," the policy states.

Seton says that VCNZ takes a similar stance. "Where a client is making a choice between conventional treatment and alternative or complementary therapies, the veterinarian should present the client with information including which options are available and an assessment of the expected risks, side effects, benefits and

cost of each option. This allows clients to make an informed choice." When it comes to CBD products, the VCNZ says there's currently little evidence to support their use and "a lot of unknowns" when it comes to side effects.

It's difficult to say how the legalisation of recreational cannabis will change veterinarians' and clients' access to cannabis products for pets. Anything specifically intended for therapeutic use will still need to be registered under the ACVM Act as a veterinary medicine. It's unclear though how changes in the classification of the cannabis plant or the THC compound would change access to products with nutritional claims. If there are tight age or other restrictions on cannabis, there may be little change at all.

New Zealand Food Safety's ACVM team is currently in discussion with the Ministries of Health and Justice about what the future of hemp and cannabis regulation might look like. That's good news for veterinarians, because it means animals are being considered at the same time as humans.

That wasn't the case in Canada, when legalisation left veterinarians scrambling to understand how they could help their clients. "After two years of back and forth, we still don't have any products approved for animal use," says Sarah

Silcox, founding director and President of the Canadian Association of Veterinary Cannabinoid Medicine. The association is advocating for the right to authorise medical cannabis use for animals, but the best it can do right now is advise veterinarians to recommend particular low-THC, high-CBD human products.

Post-legalisation, Sarah encountered a significant issue: a rise in animal emergency visits for THC intoxication. "Legalisation was a double whammy because you had increased access to cannabis products and also a reduction in the stigma. So whereas before you had all your cannabis products tucked away in a cookie jar at the back of a cupboard, they're now out on the counter or left on the coffee table for Fido to clean up."

The association is now advocating that cannabis products be labelled "Keep out of reach of children and animals". It's also conducting education campaigns for veterinarians and clients on the signs of THC intoxication to look for: pets becoming wobbly or uncoordinated, hyperactivity, disorientation, vocalising, pupil dilation, excessive drooling or vomiting. Sarah stresses that although THC itself is fairly safe, intoxication can lead to vomiting, choking and dangerous falls.