

Artificial paradise

This year New Zealand introduced radical new drug laws in an attempt to deal with the confusion over legal highs.

Mike Power on a brave experiment that hopes to marry business, science and politics.

The place New Zealanders call the 'dairy' occupies a space in the national psyche somewhere between the pub and a 1950s British corner shop. A place of convenience and conviviality, perhaps incorporating a post office in more isolated rural areas, the dairy acts as community hub, as much as a grocery store.

But the mayor of Timaru, on the eastern pacific coast of the south island, Janie Annear, told politicians this month: "Once upon a time the dairies used to be the family friend...now they're our drug dealers."

From around 2010 onwards, as well as selling Mrs Mac's Pies and Tip Top ice cream, many of these corner shops started selling exotic novel psychoactive substances (NPS). These included cannabinoid receptor agonists such as JWH-018 and AM-2201, blended with herbs and sold as legal marijuana, as well as so-called 'party pills' – various piperazine mixes that emulate ecstasy or amphetamines.

It is hard to think of a more illustrative example of the way the NPS market has infiltrated everyday life in many parts of the world. Far-flung New Zealand has been a market leader in the legal highs business thanks to its isolation, and to one of the world's most infamous legal high entrepreneurs.

In July this year, New Zealand introduced a new law that bans the sale of legal highs unless manufacturers can provide clinical evidence that they are safe. Its stated purpose is "to regulate the availability of psychoactive substances in New Zealand to protect the health of, and minimise harm to, individuals who use psychoactive substances." An

interim licence system has allowed a list of drugs, mainly cannabinoid receptor agonists, to remain on sale in licenced shops. Some chemicals have been granted licences, and may be sold under certain restrictions (<http://www.legislation.govt.nz/act/public/2013/0053/latest/DLM5042921.html?src=qs>).

Peter Dunne, who was the health minister with responsibility for writing the legislation, told *Drugscope*: "I am very proud of what we have done. It may well become – though I'm not advocating this – the blueprint for how we deal with illicit drugs – but I think that's a way off."

Some people saw the law as a clampdown, others saw in it a glimpse of a rational drug policy that would end the legal-highs merry-go-round, and others yet saw a business opportunity.

Matt Bowden, New Zealand's self-styled 'godfather of legal highs', is the biggest domestic player in the market. Known also by his stage name, Starboy, Bowden nowadays plays the European rock festival circuit leading a steampunk glam-rock group, with added circus tricks.

"I think what we need to do is look and see what is it that humans need that drugs deliver, and see if it can be replicated without the risk profile," he says.

Bowden was responsible for the first wave of legal highs to hit New Zealand in 1999 – in the form of BZP (benzylpiperazine) pills. He says he was motivated to do this after a cousin died from an ecstasy overdose and when he saw the effects hard drugs were having on his community. "The cocaine boat doesn't stop in New Zealand," he says across a Skype video chat. "And ecstasy

here, near the South Pole, costs 10 times what it does in the UK."

So self-reliant Kiwis, he says, went DIY. "They just made their own methamphetamine from pseudoephedrine from the pharmacy. So instead of a normal clubbing population going out and partying, you had people messed up for days, addicted," he says.

Bowden set up Stargate International, and started selling BZP in 1999. He says he chose BZP after spotting an article in the *European Journal of Pharmacology* from 1973, which said the drug had been trialed on amphetamine addicts. It was also the metabolite of an established antidepressant, and so it had been through clinical trials and had an established risk profile.

The drugs sold fast, around 5 million pills a year by 2007. He left the drug trade last year when one of his products, a marijuana substitute called Kronic, was banned. Now the law has changed, he's back with a brash, entrepreneurial chutzpah and is among the industry backers of a new organization, the Star Trust, an NGO that advocates for drug law reform.

Bowden rattles off rapidfire harm-reduction polycyspeak, but Peter Dunn says the new NZ policy was driven by political, not industrial pressure. "He was certainly consulted by my officials fairly frequently, but he was at arm's length from a lot of the policy decisions. He was more than on the fringes because he is the key market player here. He was supportive, but he was very much someone who was responding to initiatives we were proposing."

It's easy to imagine Bowden, in 2005, challenging the New Zealand

government over its decision to ban the products he was selling, citing constitutional violations of his human rights to consume and sell what he called 'social tonics'. Now, he reframes policy reform as a health and safety issue.

"If you put up signs saying 'no swimming', people are going to do it anyway. So what we do is draw a line and at the end where there are rocks we say 'stay off the rocks' and where there's a riptide, we say it's dangerous, and where it's safe we put up a flag and a monitor and we say: 'Swim here, this is the safe area'. We manage risk in other areas of society and governance. Why not this? We need to build a regulatory system."

But what about a drug like ketamine? Evidence of bladder damage did not emerge for years. The New Zealand system does not set out any requirement for any longitudinal, population-scale trials. What harms does Bowden aim to examine? "We looked at likelihood of lethality, neurotoxicity and organ damage and addictive potential. With medicines, they test for carcinogenicity, mutagenicity, organ damage and neurotoxicity. Those are the same tests that will need to be done on these products."

All drugs, it could be argued, have a toxic effect: that's the point. This is a key issue for the NZ legislation: set the harm threshold too low, and it's prohibition redux. Too high and dangerous substances can be sold legally.

Harry Sumnall, professor in substance use at the Centre for Public Health at Liverpool John Moore's University says he believes no standardised benchmarks have been defined. "It takes pharmaceutical companies hundreds of millions of pounds to create a new drug, a large proportion of which comprises rigorous safety and developmental phases, not to mention post-marketing monitoring. It seems that the safety threshold [in New Zealand] has been set much lower for NPS than traditional pharmaceuticals."

Professor Dave Nichols has worked in the development of psychedelic drugs at Purdue University, Indiana since the 1970s. He has seen much of his legitimate scientific research hoisted into production in China by the research chemical scene, with drugs such as 6-APB and the NBOME-series. He is dubious the NZ system, requiring firms to fund safety research will work.

"Who's going to do that? In the US, to do a test on humans you have to do a test on two animal species, and give them the drug chronically for 28 days.



Matt Bowden: self-styled 'godfather' of legal highs

Then you have to slice them and dice them and see what damage has been done. Only then do you get approval for phase 1 trials.

"I can't see anybody in the business of making research chemicals saying: 'Maybe we got a doozy here. Let's invest so we can make it legal in NZ'."

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"Testing will cost \$2m NZ per product," says Dunne. "Some people fear vendors will come back with all sorts of new products. They might, but we also have to look at the economics. If they're going to spend that much bringing it to market they have to A) be pretty certain that it will pass, and B) recoup that investment pretty quickly. In some cases that work; in others, the economics will work against them."

Ultimately, the real indicator of the success or failure of this trial lies in the hands of the customers. Will they buy in? Professor Sumnall believes drug users simply choose the very illegal drugs that the new, mild, legitimate

'social tonics' seek to replace. "I have yet to hear of an NPS which produces equivalent entactogenic properties to MDMA, prosocial effects to cocaine or reflective and hallucinogenic qualities to psilocybin. I acknowledge the difficulties governments face with regards to international drug conventions and treaties, but perhaps a truly innovative policy would also consider the licensing of illegal products such as these?"

And back at the Kiwi dairies, the new law banned the stores from selling any kind of drugs at all. They were given a day's grace before the July 10th deadline to bin their products. Meanwhile, sex shops and other licensed premises were allowed to sell compounds under interim licenses. The *Timaru Herald* reported in August that two local dairies had simply converted into licensed sex shops – where minors are not allowed.

Jackie Wang, owner of the R18 Store Lincoln Rd, previously the Lincoln Road Dairy, said his new drug-dealing venture had been open one week, and said the new business was "better than the dairy shop", because competition among dairies was stiff. He can now sell bags of herbs laced with AB-PINACA and AB-FUBINACA and (S)-N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(5-fluoropentyl-1H-indole-3-carboxamide), the latter under permanent licence, without any legal issues whatsoever.

■ **Mike Power** is a journalist specializing in drugs and author of *Drugs 2.0: The Web Revolution That's Changing How the World Gets High* (Portobello Books, 2013)