



Veterinarians for Animal Welfare Aotearoa

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Code of Ethical Conduct for Virtual Fencing Technology

1. The Code – what, who, why, how, what?
2. Environmental scan
3. Key points and concerns
4. Key recommendation
5. Good, bad and ugly

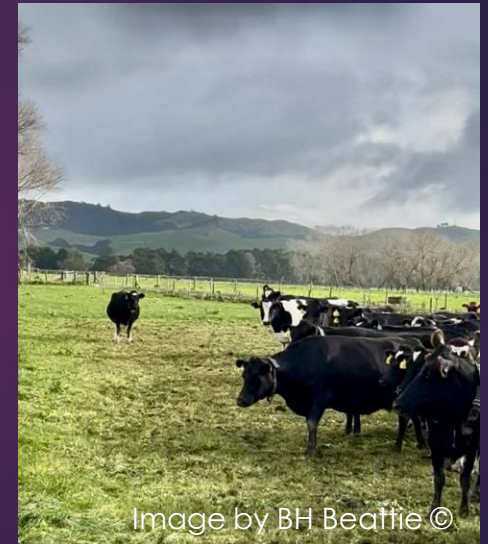


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Virtual Fencing (VF)

'...uses global positioning technologies (ie GPS) to send audible and electrical cues to livestock that create invisible boundaries to replace physical fencing.'

'Virtual fencing refers to both the containment of animals within a defined area, and the herding of animals from one location to another. Both containment and herding uses a combination of hardware, usually a collar fitted to each animal, and software, usually accessed by a farmer using their smartphone or computer to connect to a system and the collars.'



Who?

VAWA

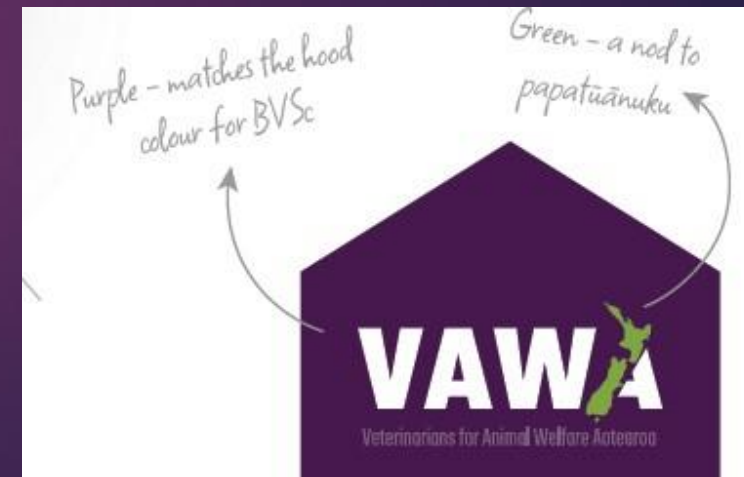
- Independent, animal welfare advocacy membership-based charity
- No vested interests
- One Health | One Welfare | Te Ao Māori lens

➤ Mandi McLeod: farmer, Nuffield Scholar, M. Phil candidate (low stress stock handling)

- Dairy cow animal welfare auditor and standards developer
- Dairy cattle welfare and behaviour consultant

➤ Helen Beattie: veterinarian; managing director, VAWA

- Special interest in animal welfare
- Third year law student
- Policy nerd



What?

1. Code with animal welfare safeguarding standards
2. Background information (dossier)
3. Aims include:
 - a) Setting out and/or addressing concerns raised by animal welfare experts and researchers, manufacturers, farmers and the public.
 - b) Developing a starting point for comprehensive regulation
 - i. More prescriptive and wider scope (!) than Australian guidance.
 - ii. Animal welfare focused; not electrical safety.
 - c) Basis for self-regulation (more later).



Why & how?

VAWA's position and concerns

- No specific regulation for use of VF nor use of electricity in devices
- Unsubstantiated claims – welfare and efficiencies
- Evidence that some manufacturers had not considered welfare at all, had no knowledge of welfare and no animal welfare advisors
- THIS WAS ALL QUITE ALARMING!



Environment Scan | Electrical Regulation of Devices

1. International Electrotechnical Commission (IEC)
2. National Standards
 - Member countries adopt and publish these safety standards including any national deviations for use in their country.
3. Regulatory Compliance Mark (RCM) & Risk Classification System
 - AS/NZS 4417 – plays crucial role in regulating electrical appliances
 - Specifies the requirements for the Regulatory Compliance Mark (RCM) and its placement on electrical and electronic equipment and establishes a framework for risk classification



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Environment Scan | Legality in Aus/NZ (February 2026)



Australia	
Western Australia	Legal
Northern Territories	Legal
New South Wales	Legal
Victoria	Legal – limits?
Tasmania	Legal
South Australia	Coming soon!
ACT	Illegal

Key points and concerns

1. Research and knowledge gaps

a) Animal welfare

- i. Social node disruption (i.e., not being able to hang out with your mates!).
- ii. Long term welfare including audio impacts.
- iii. Physical impacts (fitting and injuries).
- iv. Predictability & control – connectivity drop outs.

'The cows also reacted to herd mates receiving electric impulses showing that they are influenced by their herd mates.'

- Aasher et al (2022)

b) Farm systems

- i. Pasture efficiency
- ii. Improved production



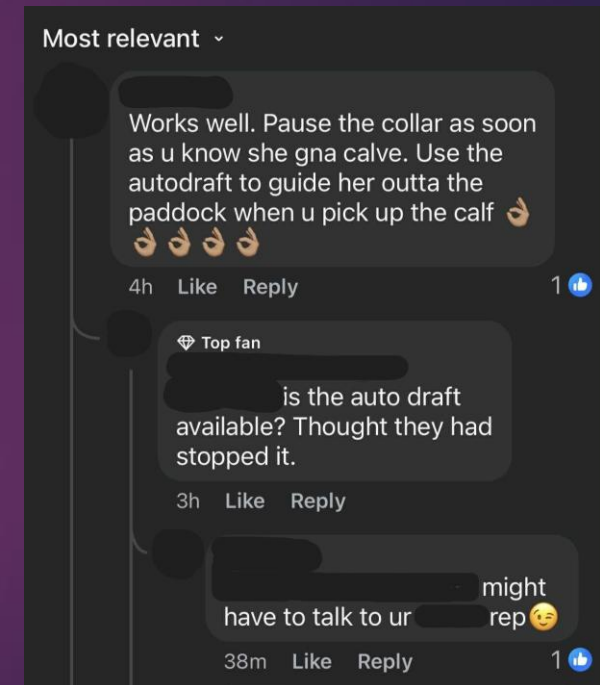
Key points and concerns

2. Extension beyond researched application

- a) Research vs reality
- b) Dairy to beef (and vice versa)
- c) *Bos taurus* v *Bos indicus*
- d) Other species
- e) Intensive – extensive – rangeland

3. No regulation, nor limits on audio cues, vibration, nor shocks

- a) Inappropriate use – drafting and change in ‘plans’
- b) Risks re newcomers to the market
- c) Imported device quality (think e-scooters)



Screenshot taken from Facebook (2025)

Key points and concerns

4. Unsubstantiated claims

a) Improved animal welfare

- i. Due to poor stockpersonship? Harried? Low skills?
- ii. Due to health data capture? Separate claim to VFT

Claims need to differentiate any VFT animal welfare benefits from health data capture and/or poor stockpersonship

b) Green house gases, carbon – locally or globally??

- i. Claims now used to support better loan rates and mortgages – can this be validated for international auditing? – where does this leave farmers?
- ii. One industry funded, non-peer reviewed opinion on this in the New Zealand context

Key points and concerns

5. Farmer to farmer training / quasi-consultancy
 - a) NSW and Victoria regulations
6. Use of non-disclosure agreements (NDAs) – general and specific
 - a) Prevent issues being identified, shared and resolved with least impact on cattle
 - b) Social licence to operate = trust and transparency – NDAs do not help with this

For example:

The Customer must not make any public statements including statement and comments via news media and social media, disparaging the services, ...

Key points and concerns

7. Other – the learning curve

- a) Use of artificial intelligence – covered earlier
- b) Connectivity – conflicting reports
- c) Cost – per Kellogg reports
- d) Injuries and entanglement – coming up



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Key points and concerns

Note on collar fit:

- Strip electrodes of chains
 - Growth, and/or weight gain
 - Slippage / loss
 - Faults / entrapment / entanglement
 - Injuries (ulcers; callouses; oedematous swellings)
 - Mismatching
- How does this work in extensive rangeland situations?

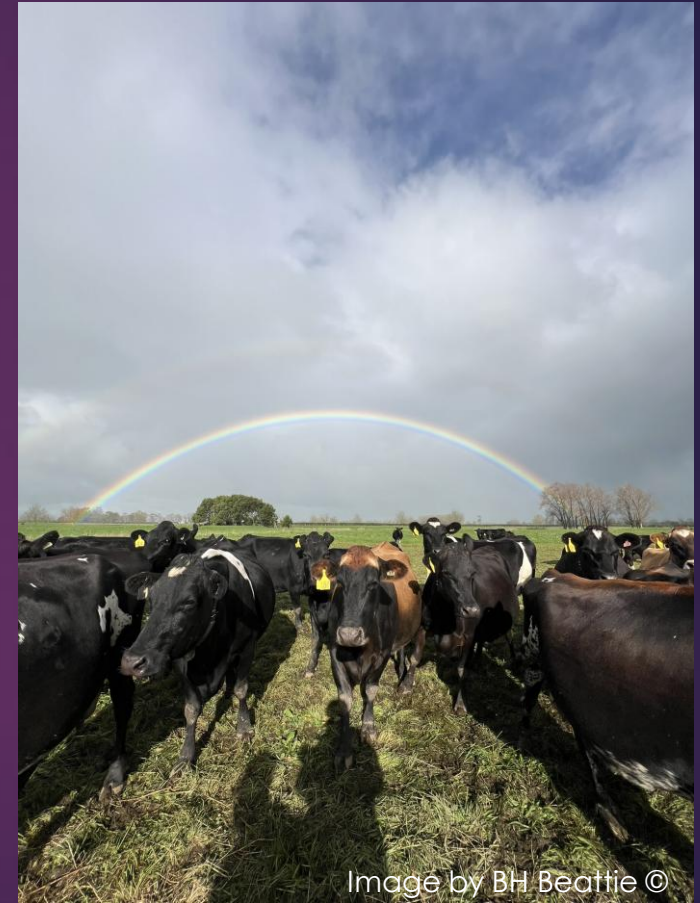


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Key points and concerns



A key safeguarding standard

Virtual Fencing Manufacturers' Association ('VFMA')

In the absence of animal welfare focused regulation for the use of VFT, establishing a Virtual Fencing Manufacturer's Association ('VFMA') is necessary to establish agreed, industry-wide safety parameters (i.e., self-regulation).

Good	Bad	Ugly
Support from industry partners and information and openness of farmers	Dismissive / not engaged manufacturers	Hostility or failure to engage entirely
Lots more research (including where there was none) and reports; questions being asked	Welfare washing (VF v data; 'good for welfare')	Dialling up the shock on demand
Animal welfare matters – at least everyone says it does!	Green washing (Life Cycle Analysis is needed)	Injuries, entanglement and entrapment
Australia's regulation	Lack of transparency <ul style="list-style-type: none"> • Electricity • AI • Contingency planning 	Extension without research; and/or on farm trialling without ethical oversight
Improvements over time in system design (anecdotal)		Poor body condition score in intensive winter grazing scenarios; use in intensive grazing situations
Benefits to local environment (protection of waterways and biodiversity)	Human novelty >> animal welfare (e.g., Christmas lights on collars with no (?) regard for animals welfare)	Herding in to obstructions and in-paddock drafting; in-paddock drafting
Less fence entanglement (including wildlife)	Reduced human animal interaction (assuming good interaction) and 'automation' of sentient animal farming	Bad perimeter choices and near misses/death
Better performance on farm?	Loss of critical husbandry skills and farming skills	Tech fails (power cuts, floods, hacks, connectivity drop outs)
Learning a lot		Losing to Australia

Resources (not exhaustive)

1. UK's Animal Welfare Committee's Opinion on VFT
2. NSW Select Committee Report
3. Cornish and Fisher literature review
4. Research – published and pending
5. Other reports (eg Cave, March)
6. Personal communications, interviews and discussions

A GOOD LIFE FOR ALL.



**CODE of ETHICAL CONDUCT
for
VIRTUAL FENCING TECHNOLOGY**

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