

Future Farming Conversations

The future of animal care

We know you care about your animals, you provide for them each day to ensure they are healthy. Healthy animals are productive animals. As science and technology allows us further insight into what is an optimal healthy animal – physically and behaviourly – what does this mean for how we farm? We have spoken to experts in their field to understand what advancements are being made to help farmers optimise animal care.



These Future Farming Conversations are proudly brought to you by BallanceEx and hosted by dairy farmer Tangaroa Walker. What is BallanceEx? It's our "Ted-Ex"- inspired platform that brings together experts, scientists, and other big thinkers. They share their expertise and points of view, getting us ready for the future of farming and growing in New Zealand. For more from BallanceEx visit ballance.co.nz/ballanceex

Meet the Panel



Tangaroa Walker,
Host & farmer

When not running his 500-cow dairy farm in Southland, Tangaroa is using his own experience to teach others about the farming industry. His mission to redefine New Zealand farming led him to BallanceEx, where he's able to share his enthusiasm for innovation with like-minded farmers.

"There's nothing better than showing the world how it's done, from one of the most challenging parts of the world."



Paul Sharp

Paul Sharp founded Nutrition Services Ltd, a ruminant nutrition consultancy business. He then joined AgResearch in 2001 and is currently a Consultant Nutritionist for Seales Winslow. Having previously run his own farm in the Far North, today his focus is on developing industry expertise.

"I'm looking forward to the next decade. More automation, more technology, and less angst for the animals."



Cheryl O'Connor

Dr Cheryl O'Connor is the Animal Behaviour and Welfare Science Team Leader at AgResearch, Ruakura. She has been an animal behaviour scientist for 30 years, and previously assisted and advised the National Animal Welfare Advisory Committee.

"It's about the individual animal, so you can target your care and attention to the animal that needs it."

A closer look at animal wellbeing



Why is animal wellbeing important?

Besides the obvious, that we care about our animals and want them to thrive, animals are a vital part of a farming business. As we look for optimisation and efficiencies in all our farm systems, the same can be done in our animal management systems. There is no denying healthy animals are more productive animals and are good for the bottom line.

But animal wellbeing also plays a part in public perception and the wider New Zealand food story, and as such, consumers are increasingly looking for evidence of what they perceive to be well cared for animals. For example, some UK supermarket chains now require suppliers to meet animal wellbeing criteria before being allowed on the shelves.



What technologies are available?

Wearable tech and real-time monitoring are already here – sensors, tags, and collars that let us track a herd's movements, temperature, stress levels, and other biological activity. A practical example of this is a farmer who realises their herd clusters around the farm gate when they finish feeding. Using tracking technology and a map on their phone, the farmer can maximise efficiency based on their herd's behaviour.

Prediction technologies, such as reliable weather forecasting tools, help us know when to move animals to sheltered paddocks to beat a southerly gale, or stock up on feed ahead of an adverse weather event.

Beyond digital technology, advances in feed and medicine offer even more tools for a farmer. Stock feed provides essential nutrients and trace elements not available in pasture, which can help strengthen hoof integrity to prevent lameness or reduce the risk of mastitis, among many other ailments that affect an animal's wellbeing.

Developed in the 1950s, there are now several lab tests used to identify nutrition and metabolic disorders of stock. They are useful in helping identify unseen or difficult to diagnose nutritional problems, long before they're visible to a farmer.



What is best practise?

The Five Domains Model of Animal Wellbeing was developed in New Zealand and supersedes the more globally recognised Five Freedoms of Animal Welfare.

The new model has a greater focus on positive experiences and how the animal 'feels' - rather than avoidance of negative experiences. The Five Domains are:

- 1. Nutrition** – Providing enough feed and fresh water is essential. The right feed matters too – pasture may need to be supplemented with trace elements and minerals to address deficiencies.
- 2. Environment** – A clean, comfortable environment to live in, and shelter from the elements. This starts with the design of the farm itself but is also about how the farm is maintained and operated.
- 3. Health** – Animals need to be provided with medical care when sick or injured. Lately the focus has been on preventative sciences and technologies. Rather than treating illness, the right nutrients and data can prevent the illness in the first place.
- 4. Behaviour** – Animals should be able to express their normal behaviour, feel freedom of movement as well as social interaction with herd mates. For dairy cows, this may mean having well designed milking sheds as well as yards to minimise blind spots and stress.
- 5. Mental State** – This is the most difficult to monitor – animals can't tell us that they're scared or distressed. Technology can help, but your intuition as a farmer is also essential here.



How can farmers make use of these technologies?

New technologies, systems, and breeding techniques are here and becoming increasingly accessible and more widely used, which give us a better understanding of animal wellbeing.

But these are all just additional tools at our disposal. The farmer is still at the centre of ensuring animal wellbeing, and still needs to know what normal looks like for their animals in order to spot the abnormal. This can only be done by spending as much time as practical with their animals.

Animal wellbeing can't solely be managed from a computer or phone. But the data acquired through these exciting new technologies goes a long way to enhancing animal wellbeing, which ultimately enhances farming businesses.

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Helping you be productive and sustainable whilst caring for our unique natural resources. If the natural world is healthy, so too are the people.
Taiao ora, Tangata ora.

