

Wi-Fi on the Move

These questions use the article called Wi-Fi on the Move from Country Wide – Winter 2025.

Questions

1. How has improved connectivity changed the way Canterbury Ultrasound operates on a day-to-day basis?
2. What role does technology like CommsXtend play in enabling advanced livestock scanning techniques?
3. How does real-time data sharing benefit the farmers who work with Canterbury Ultrasound?
4. Why do you think rural connectivity has been a barrier for agritech adoption in places like South Canterbury?
5. How has improved connectivity affected work-life balance and personal wellbeing?
6. What safety improvements does staying connected bring to people working alone in remote areas?
7. “Connectivity isn’t a luxury – it’s now essential.” Do you agree?



WiFi on the *move*

Do you have a daily struggle with black spots (no cellphone coverage) slowing down your progress? Are you spending hours in the office at night and on the weekends you'd rather not?

A Canterbury ultrasound scanner showcases how Starlink Mini has transformed his life.

In the rugged heart of South Canterbury, where rolling paddocks stretch towards snow-tipped mountains, Carl Tairua's ute is more than just a farm vehicle – it's now a mobile command centre for his business. Canterbury Ultrasound is a specialised scanning business helping sheep and beef farmers across New Zealand's South Island make better, faster decisions about animal performance.

Whether it's pregnancy detection in ewes or assessing meat quality in stud rams and prime cattle, his work hinges on precision – and until recently, it was slowed by a stubborn rural challenge: poor connectivity.

"Before, I'd lose hours every night catching up on paperwork because I couldn't get a signal on the farm," Carl recalls. "I'd be out scanning all day, then spend my evenings trying to send reports or make calls I'd missed."

It was more than an inconvenience. The lack of reliable phone and internet service in remote areas meant delays in reporting results to farmers, challenges in accessing software updates for his ultrasound equipment, and a real risk if help was needed in an emergency.

"It was a constant battle," he says. "Some of the places we go – there's just no reception. That's the reality for a lot of rural New Zealand."

ENTER COMMSXTEND: A GAME CHANGER ON WHEELS

Everything changed when Tairua partnered with Connected Farms and installed CommsXtend, a portable connectivity solution designed for agricultural use. Mounted in his ute, the technology captures signals from all major New Zealand mobile providers – Spark, One NZ, and 2degrees – and dynamically selects the strongest one, converting it into reliable Wi-Fi coverage.

"For the first time, I could make a call or send an email from anywhere on the farm – even in blackout areas," says Carl. "It's been a massive shift in how I work."

LEFT Carl uses a CommsXtend unit by Connected Farms on the top of his truck to give him cellphone coverage anywhere. **RIGHT** Canterbury Ultrasound has been enhanced by having connectivity on the road to send data in real time to the lab.



And that shift is paying off. Reports are now sent in real time from the field. Advanced IMF (Intramuscular Fat) scanning software, used to assess marbling in beef cattle, can be accessed on the go. Farmers receive results instantly, enabling quicker decisions about breeding, feeding, and sending stock to market.

"We're lucky to be using one of only five pre-release versions of this IMF software in the country," Carl adds. "Now I can use it in the field, access the lab, and get data moving in real time. That's huge for our clients."

LIVESTOCK SCANNING MEETS THE DIGITAL AGE

Ultrasound scanning has long been essential to animal husbandry in New Zealand. For sheep and beef farmers, it provides a snapshot of their stock's reproductive status, muscle development, and fat distribution – information that feeds directly into breeding and productivity plans.

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CARL TAIRUA

CANTERBURY ULTRASOUND, SOUTH CANTERBURY

But as the technology has advanced, the tools have become more data-heavy and reliant on real-time connections with labs, databases,

and software providers. That's where connectivity has become both a bottleneck and a breakthrough.

"Pregnancy scanning is our bread and butter – we're scanning over a million animals a season," Carl says. "But these days, it's more than just a yes-or-no result. Farmers want detailed insights, and we want to provide them without delay."

Now, with CommsXtend, even eye muscle data can be entered on-site and uploaded directly to the cloud,

PRODUCTIVITY GAINS, SAFER WORKING CONDITIONS

The benefits aren't just technical. There's a very human upside to staying connected.

"Before, I'd be home at 8 or 9 pm, still doing admin. Now I finish scanning, send everything from the ute, and I'm done for the day. I get time back with my family," says Tairua.

He also emphasises the safety factor. Lone workers in remote paddocks can now make Wi-Fi calls or send a message if something goes wrong. "Being reachable anywhere gives peace of mind – not just for me, but for the people who care about me."

Canterbury Ultrasound's story shows how better rural connectivity doesn't just improve internet speeds – it transforms business models, safety practices, and service quality.

"We're proving that even the most remote farms can be part of the digital future," Tairua says. "Connectivity isn't a luxury. It's now essential for doing the job right." 

Answers

1. How has improved connectivity changed the way Canterbury Ultrasound operates on a day-to-day basis?
 - Shifted from a reactive, paperwork-heavy business to a real-time, data-driven service
 - Previously, reports and calls had to wait until evening due to poor rural signal
 - Now, reports can be sent directly from the field using CommsXtend
 - Reduces administrative workload and saves time
 - Improves communication with farmers and clients
 - Enables faster, more informed decision-making on the farm
 - Streamlines workflow and boosts operational efficiency
 - Allows the business to operate more professionally and responsively.
2. What role does technology like CommsXtend play in enabling advanced livestock scanning techniques?
 - Provides reliable internet and mobile connectivity in areas with poor coverage
 - Creates stable Wi-Fi from mobile signals
 - Enables access to cloud-based scanning software, such as the pre-release IMF (Intramuscular Fat) tool
 - Allows advanced agritech tools to be used in the field, in real time
 - Makes it possible to operate cutting-edge agricultural technology on remote farms
 - Bridges the gap between rural work environments and modern digital tools
3. How does real-time data sharing benefit the farmers who work with Canterbury Ultrasound?
 - Farmers receive scanning results immediately
 - Enables faster decisions around breeding, feeding, and selling livestock
 - Example: non-pregnant ewes or rams with poor muscle can be identified and managed instantly
 - Supports better animal management and increases potential profitability
 - Reduces costly delays in livestock operations
 - Helps farmers plan more effectively and respond quickly to seasonal demands
4. Why do you think rural connectivity has been a barrier for agritech adoption in places like South Canterbury?
 - Remote geography and low population density make infrastructure investment less appealing to providers
 - Results in inconsistent or poor mobile and internet coverage in areas like South Canterbury

- Limits access to cloud-based tools, real-time communication, and data-driven software
 - Leads to delays, more manual work, and missed opportunities for improved efficiency and animal welfare
 - Makes even effective agritech tools seem impractical or frustrating to use
 - Prevents full adoption of modern, digital farming solutions
5. How has improved connectivity affected work-life balance and personal wellbeing?
- Allows Carl to complete admin tasks on the go, rather than after hours
 - Reduces the need for late-night paperwork caused by earlier lack of signal
 - Helps him finish the workday earlier and spend more time with family
 - Decreases stress linked to running a mobile business in remote areas
 - Supports a more sustainable and balanced work routine
6. What safety improvements does staying connected bring to people working alone in remote areas?
- Improves safety for workers who operate alone in isolated areas
 - With CommsXtend, workers can make calls or send messages even in signal "blackout" zones
 - Enables quick access to help in emergencies, accidents, or equipment failures
 - Provides peace of mind for both the worker and their family
 - Ensures constant communication, reducing the risks of working in remote conditions
 - In physically demanding jobs, this level of connectivity can be lifesaving
7. "Connectivity isn't a luxury, it's now essential." Do you agree?
- Enables businesses like Canterbury Ultrasound to operate more efficiently and safely
 - Allows real-time communication with clients and instant report sharing
 - Provides access to advanced scanning software and cloud-based tools in the field
 - Supports integration with modern farm management systems
 - Keeps rural businesses competitive in an increasingly tech-driven agricultural sector
 - Enhances worker safety by enabling emergency contact in remote locations
 - Improves work-life balance by reducing after-hours admin work
 - Becomes as essential as any physical farming tool