



MAKING TB HISTORY

PERSONAL ACCOUNTS FROM THE FRONTLINE OF
NEW ZEALAND'S BATTLE WITH BOVINE TUBERCULOSIS



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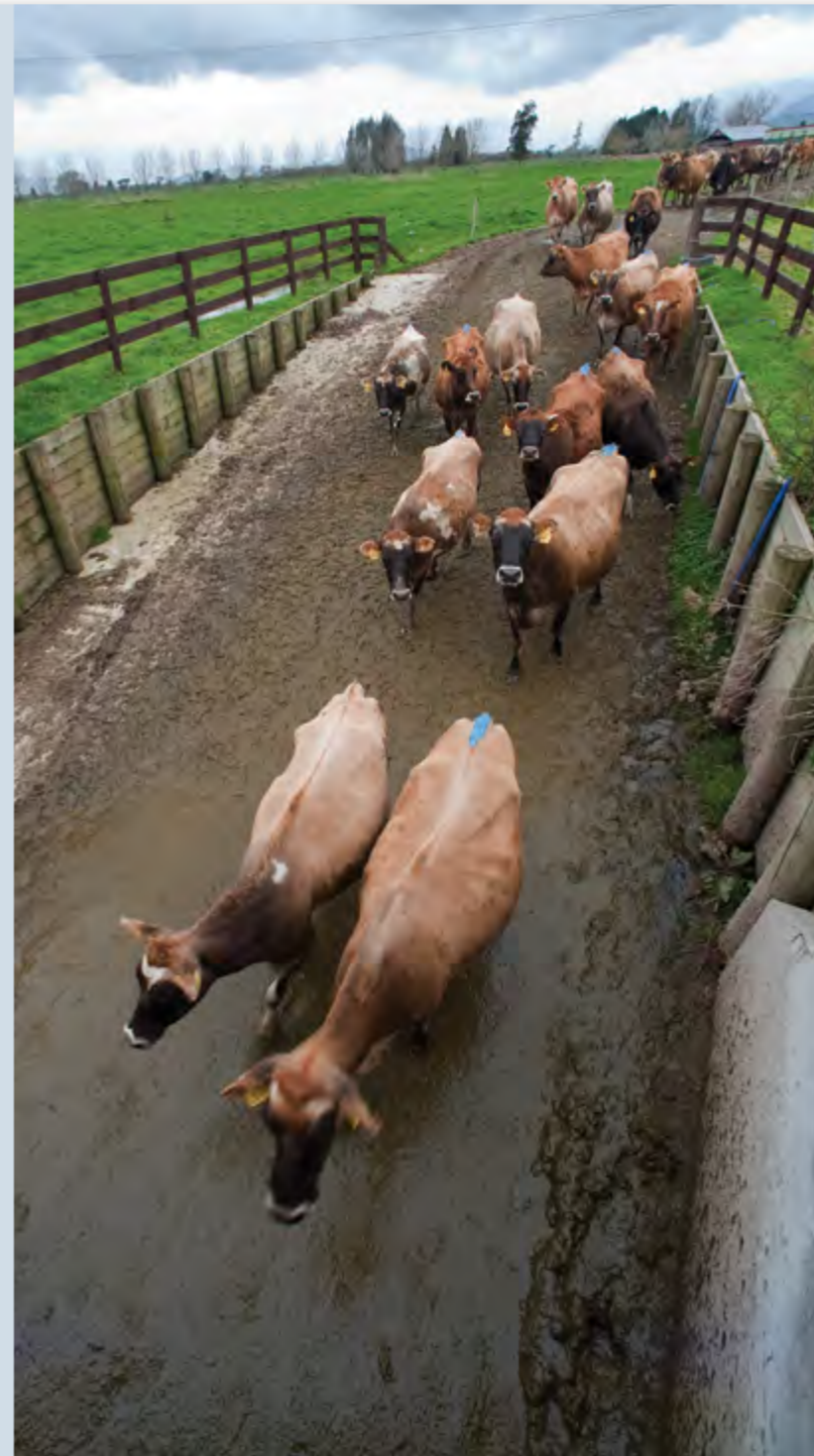
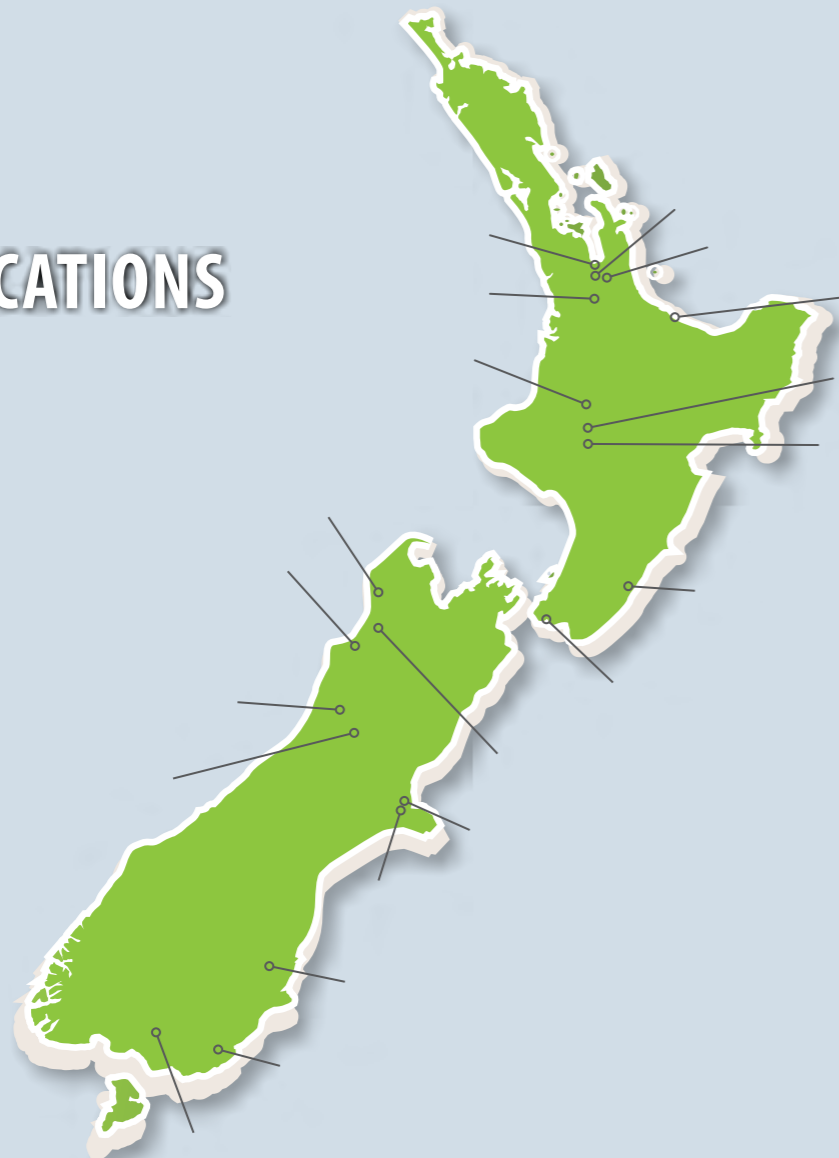
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LOCATIONS



INTRODUCTION

Peering back through the lens of time at what we have left behind frequently informs us about what may still lie ahead. Over the past decade, we have begun to edge closer to eliminating bovine tuberculosis (TB) from New Zealand. We are, however, not there yet.

We cannot afford to weaken our resolve. When funding was pulled from wild animal control in the late 1970s, many of New Zealand's cattle and deer herds fell foul of the disease. The work of the TB control programme since then is the reason most of today's farmers have been fortunate not to experience the disease first hand. However, others have and their accounts are a salutary lesson for us all.

The stories in this book tell of times, not that long ago, when our country was besieged. Many farming families found themselves close to breaking point and some were forced to leave the industry. Their experiences are genuine, often heart-rending and deeply personal.

Failure to seize our chance to rid New Zealand of bovine TB would be an opportunity missed, and one with potentially serious implications for our agriculture-based economy and export market access. Possums carry and spread the disease to farmed livestock and also pose a threat to our vulnerable native birds and forest.

I would urge you to read the engaging accounts that follow to get an insight into some genuinely dark times for New Zealand's cattle and deer farmers.

The accompanying DVD provides a snapshot of what it was like to farm through a time when TB was rife across much of the country and gives some insight into the battle with the disease.

The lessons learned should not be lost on those charged with the future stewardship of agriculture in New Zealand.

John Dalziel

Chairman, Animal Health Board

November 2011

PAUL LIVINGSTONE QSO VETERINARIAN

“Some farmers had TB in their herds before the testing programme began in 1961. One farmer had more than 1000 animals killed over 10 years. The stoicism of those guys was humbling”

Much of Dr Paul Livingstone’s knowledge of bovine TB was gained during his time as a young veterinarian on the West Coast.

He spent his early days sorting through the innards and carcasses of trailer loads of dead possums, as well as numerous TB-infected cattle and deer. As a vet, he knew what he was seeing and diagnosing but, as a trained scientist, he was kept awake at night wondering about the reason for the spread of the infection. Today, he is the Animal Health Board’s (AHB) manager of TB eradication and research, but back then he knew “very little indeed”.

When Paul arrived on the West Coast in 1974, he found a farming sector hit hard by bovine TB. The disease had wiped out so many

dairy cattle that the Buller dairy factory was forced to close. “Some farmers had TB in their herds before the testing programme began in 1961. One farmer had more than 1000 animals killed over 10 years. The stoicism of those guys was humbling,” said Paul. He recalls a number of farmers who simply gave up on dairy farming and went into beef. “You still got TB in beef herds, but it wasn’t as rampant, because the animals weren’t in such close contact.” Because beef farmers could finish and slaughter cattle within two years, there was less risk.

Many herdowners also supplemented their income by working off the farm in the mills or mines. What became obvious to Paul, however, was the discovery of massive numbers of TB reactors (animals that react positive to a TB test) – a quarter of all cattle in some localities and 160 infected herds in total. →

Too often, when the test results came through, the news was bad. Paul saw – and felt – the despair of young farmers trying to get established, only to lose much of their herd in a single test. His working days were largely spent making judgement calls about the need to re-test reactors. “There was always a risk that re-testing reactors would leave behind cattle that would then go on to spread infection in the herd.”

When TB turned up in a wild possum on the West Coast in 1967, farmers raised the possibility that the introduced animals were the source of the disease’s continued presence in their herds. At the time, government agencies scoffed at the suggestion, but proof came in 1971 from trials undertaken at Mokihinui. During his time on the West Coast, Paul watched TB-infected possums spread into Karamea and move from one river catchment to the next. “It was a terrible feeling. We were powerless to stop the spread.”

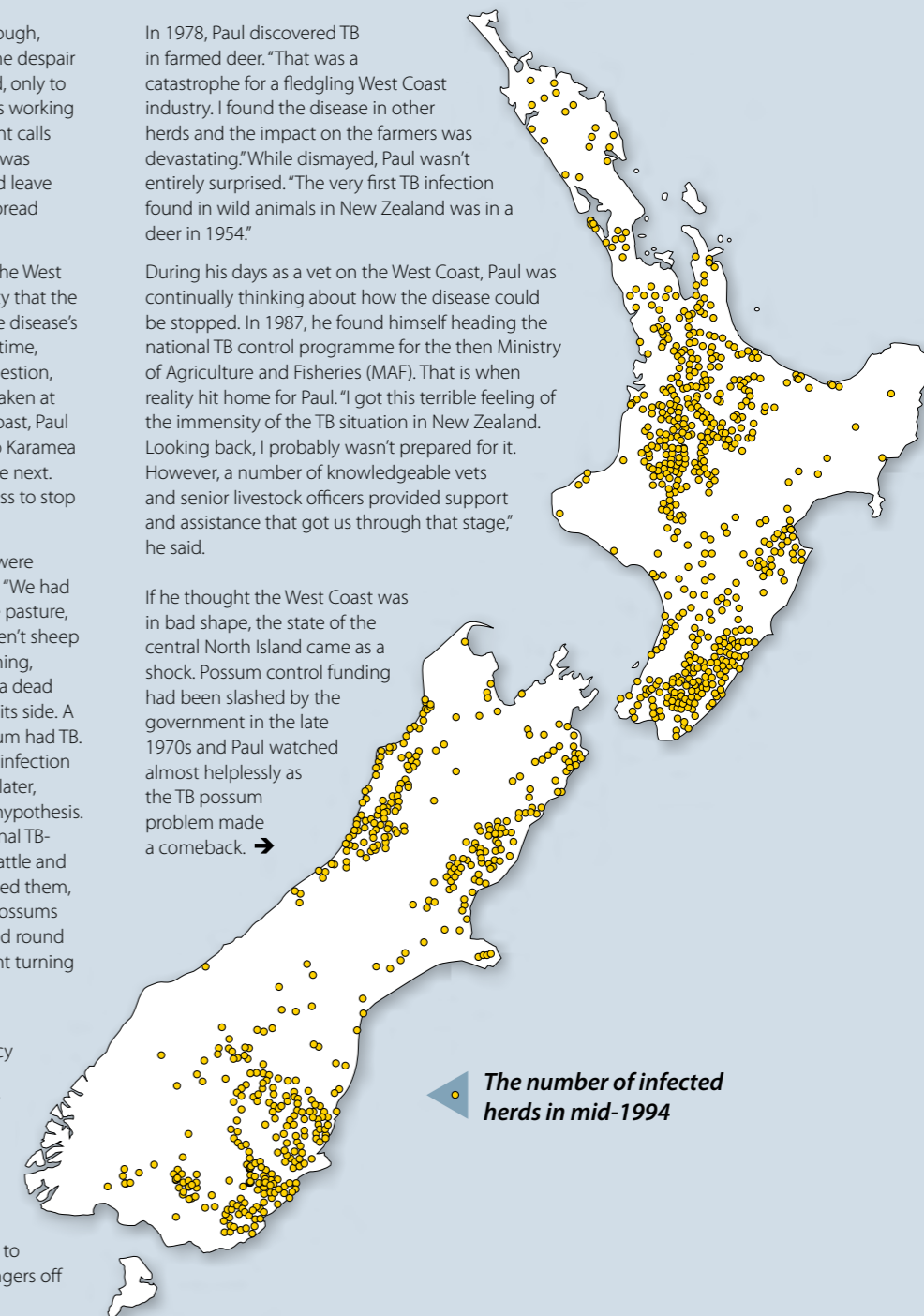
He wanted badly to know how possums were infecting cattle and deer with the disease. “We had been told that TB possums left pus on the pasture, but if that was all there was to it, why weren’t sheep being infected too?” Then one frosty morning, as Paul worked a cyanide line, he noticed a dead possum with a distinctive lick mark along its side. A post mortem later revealed that the possum had TB. “That got me thinking that the transfer of infection might be more direct.” A number of years later, Massey University researchers tested the hypothesis. “They sedated possums to simulate terminal TB-infected possums and put them in with cattle and deer. Cattle came up and nuzzled and licked them, deer were more aggressive towards the possums and mouthed them, whereas sheep skirted round them. Looking back, that was an important turning point in our understanding,” said Paul.

Not all his experiments went so well. Paul even investigated the use of low-frequency soundwaves to see if that would affect possums. “My office was in the old railway building in Greymouth, right next to the railway station platform, so I asked the railway technicians for help. We put a possum in a cage in our post mortem room and aimed low-frequency sound at it. It appeared to make no difference at all to the possum, but we cleared all the passengers off the platform.”

In 1978, Paul discovered TB in farmed deer. “That was a catastrophe for a fledgling West Coast industry. I found the disease in other herds and the impact on the farmers was devastating.” While dismayed, Paul wasn’t entirely surprised. “The very first TB infection found in wild animals in New Zealand was in a deer in 1954.”

During his days as a vet on the West Coast, Paul was continually thinking about how the disease could be stopped. In 1987, he found himself heading the national TB control programme for the then Ministry of Agriculture and Fisheries (MAF). That is when reality hit home for Paul. “I got this terrible feeling of the immensity of the TB situation in New Zealand. Looking back, I probably wasn’t prepared for it. However, a number of knowledgeable vets and senior livestock officers provided support and assistance that got us through that stage,” he said.

If he thought the West Coast was in bad shape, the state of the central North Island came as a shock. Possum control funding had been slashed by the government in the late 1970s and Paul watched almost helplessly as the TB possum problem made a comeback. →



The number of infected herds in mid-1994

Paul Livingstone checking a fawn on a West Coast deer farm in 1979



At that stage, the disease was observed spreading at a rate of about four kilometres per year, down the river catchments from the Hauhungaroa and Rangitoto ranges towards Waikato's heartland. "There was no significant new funding for possum control until 1987, and we put what little we had into creating a low possum density buffer from the Whanganui River all the way to the Waikato River. This was a new concept and the aim was to stop TB possums spreading into heartland Waikato and the Taranaki hinterland. Looking back, it was effective in stopping the spread."

In 1989, the government allocated \$3 million for possum control – the same amount that had been received in the 1970s before

funding was cut. "So we were always behind the eight ball," said Paul. By then, TB possums were spreading into north Kaipara, north Waikato, north Wairarapa, north Canterbury, across Otago and into Southland. Pockets of new TB possums were turning up in areas such as Tauranga, Wanganui, coastal Rangitikei, Hawke's Bay, Golden Bay, Murchison, Banks Peninsula and the Mackenzie Basin.

The rebound in infection rates at least proved to the government what Paul had known for years. The key to beating TB was possum control. When he left the West Coast in 1979, there were just 53 infected herds, down from 160. "I had seen what possum control could achieve – it was like turning off a tap," he said. ➔

Gradually, and largely due to the formation of the AHB and farmers buying into the TB control programme, funding for possum control improved. The science and associated possum control methods also improved. Another critical turning point was the advent in the mid-1990s of performance contracting, which provided a basis to tender possum control work out to private contractors. "That brought costs down and because we'd developed a monitoring regime – residual trap catch (RTC) – we could finally measure how effective we'd been in reducing possum density," said Paul.

All the same, nobody dared dream about eradicating TB from possum populations. But in 2000, an early computer-based model showed that it should be possible. "The key was getting possum densities down to two per cent RTC and maintaining them at this level for at least five years," said Paul. "If we could do this, the model showed we had a better than 90 per cent chance of eradicating TB from that area. That fitted well with what I'd seen with possum control on the West Coast."

That was fine in relatively easy country, but not over extensive forest tracts. Nevertheless, Paul was encouraged by the results of a large aerial operation undertaken in the Hauhungaroa Range in 2000, near Pureora Forest Park. "We got fantastic results there. Herds cleared up all around the district and that gave us confidence. That's when I first believed we could eradicate TB from possums in that sort of country."

Meanwhile, the development of encapsulated cyanide, called Feratox, made lighter work of ground control, while the aerial application of sodium fluoracetate (also known as 1080) was being refined all the time. "Now we're looking at new techniques, developed by Landcare Research, such as cluster bait sowing, which uses lower bait sowing rates following the pre-feeding of non-toxic baits. The pre-feeding appears to train possums to come into the treated areas.

"Looking forward, we now need to investigate how we can improve the conservation value of our wild animal control. While aerial control kills a high percentage of the possums, rats and

stoats in an area, rat numbers usually rise to pre-control levels within about three years. We would like to extend that period for the benefit of the conservation estate," said Paul. Anti-1080 sentiment remains a concern and, while new toxins are in the pipeline, Paul cautions that they will still need aerial dispersal for possum control. "In the back country, there is no other cost-effective way to get possum densities down to the low levels required, despite what hunters claim. In addition, researchers have spent 20 years investigating alternatives like biological control agents and, while there has been some limited success with the concept of immuno-contraception, it's unlikely the New Zealand public will allow genetic engineering on the scale needed to develop a transmissible agent, capable of infecting the wider possum population."

While a TB vaccine for cattle and deer promises to be "very efficacious", research has still not been able to deliver a cost-effective vaccine that will prevent infection in cattle. Current vaccines also interfere with the TB test. If cattle were vaccinated, it could cost around \$30 per animal to differentiate between cattle that react to the vaccine and true TB reactors. "So from a cost-effectiveness perspective, possum control, testing and movement control remain the mainstay for managing TB in New Zealand."

New Zealand's TB control programme is, and has been, the envy of others around the world, including the United Kingdom, Ireland, the United States, Canada and some European countries. All have issues with TB in wildlife and regard the AHB's work as the textbook for controlling the disease. However, Paul is quick to point out that TB is spread by introduced predators, mainly possums. These non-native wild animals also impact on the country's native birds and forests, making wild animal control in New Zealand more acceptable to the public. "Currently, they cannot control badgers in the United Kingdom at all, largely due to public sentiment against it. In Ireland, the limited badger control they are doing is reducing the cattle TB problem," said Paul.

While TB possums remain the major impediment to the eradication of the disease

in New Zealand, Paul reminds us that there are two other planks to managing TB – herd testing and movement control. "Testing is clearly critical and the development of the current Bovigam test in 1996 was a major breakthrough – it allowed us to better differentiate between cattle that weren't tuberculous and those that were. This followed on the heels of a similar test for deer, developed in 1993. We've become very skilled at getting TB out of the vast majority of herds quickly through testing," he said.

"Finding TB in a herd isn't a problem, provided there are no TB possums. There are instances when we strike so-called anergic animals [cattle and deer that do not respond to the TB test, but are in fact infected and infectious to their herd-mates]. It's a frustration and we haven't found a way of identifying these animals yet."

After 37 years, Paul now finds himself looking towards the goal line. "Under the new national bovine TB control strategy, we're set to eradicate TB from wild animal populations over large areas of New Zealand," he said. Yet Paul is also acutely aware that the TB organism has been around for a long time and it is not in its nature to become extinct. It will seize the smallest of opportunities, or the briefest of lapses, to survive and then rebound. No-one – especially Paul – wants to see TB rebound and spread again. "There is a new generation of farmers coming through that have never experienced TB and some are questioning the need for sustained levels of funding and ongoing possum control, testing and herd movement restrictions. They want to know why we are still controlling possums when they can't remember TB in their area," said Paul.

The answer is simple. If we are to eradicate TB from possums – and the AHB has proved that it is possible at a local level – we must keep their populations at very low densities for up to 10 years without any immigration. This minimises the chances of a TB-infected possum infecting another. Unfortunately, as we can only attempt this in about 25 per cent of our infected areas at a time, TB will continue to be with us for some time to come. "That is why we can't afford to let up now," said Paul. ■

A woman with short dark hair, wearing a red long-sleeved shirt and a dark blue vest, is riding a red and black motorcycle through a forest. The background is blurred, suggesting motion. The motorcycle has 'OUTLANDER 550' written on the front fairing.

DIANNE MILNE WEST COAST FARMER

“Anybody who has had no experience of TB...needs to talk to some of the older farmers like me, who’ve had the shocking experience of being hit hard by the disease”

West Coast farmer Dianne Milne loves it here – loves the bush, the birds and the lakes that gleam.

But the same bush that lifts her heart every morning is also full of possums – the main source of the disease in the region’s cattle and deer.

Dianne once lost an entire beef herd to the disease. Back in the early 1970s, she worked hard to build up an elite herd of South Westland Herefords on her Boddytown farm. “Then TB struck and it decimated my herd within 18 months,” she said.

The then Ministry of Agriculture and Fisheries used the remains of Dianne’s herd to experiment with test dosages and timing. “We tested them every three months and each time more reactors would go.

“In the end, I got sick of it, so I sent the whole herd off to the works. They found four old cows – cows that had never, ever reacted in seven years of testing – that were absolutely riddled with TB.”

Dianne fought back the only way she could, trapping possums all around the farm boundary. “I found heaps of them with TB lesions.”

But the plague took no rest. Even the family cats contracted the disease, then the pet goats. “They had to be put down.” ➔

That meant every human in recent contact with the Milne household had to be tested for bovine TB as well. “People I know personally have contracted the disease through possums and that’s pretty devastating. One of those women still has bovine TB. It’s a horrible, horrible process getting rid of it. It takes years.”

Demoralised, Dianne gave up her beloved beef cattle and went sheep farming at Aratika. “I couldn’t be bothered with it anymore. It was too heartbreaking.”

By the early 1980s, she was ready to give beef farming one more go.

“I decided that I wasn’t going to develop a herd of my own, as such. I bought in nurse cows and bobby calves and reared the calves on cows so that there was never a permanent herd on the place. That meant it would be less emotionally taxing than losing a herd I’d built up myself.

“That was my way of working around TB.”

This time, she stepped up her possum control, determined to keep the blight from her boundaries. Then, in 1993, her herd broke down. Ten prime steers tested positive for TB.

She looks back out over the forest. “I’ll never forget the shock and the feeling of devastation.”

Down, but not out, Dianne hired a pest control contractor to come in and blitz the place. “I felt like my efforts hadn’t been good enough.”

Meanwhile, as a member of the Regional Animal Health Committee, Dianne mentored other farmers ravaged by “this awful, shameful plague”.

“Some of them blamed themselves. They got depressed – almost suicidal in some cases. They were bewildered. Some of them blamed government officials, some of them blamed the neighbours, but they were all angry about it. It was such a shocking thing.”

She even implored the regional council to buy up some “really dirty” properties and close them to cattle farming to try and break a destructive cycle in which infected herds were taken away, only to be replaced with new animals which were inevitably going to be infected themselves. “We were just farming TB,” she said. “So long as infected possums were still in the area, they’d simply re-infect any new herds you brought in.”

Finally, deliverance came. In the mid-1990s, the AHB, the Department of Conservation (DOC) and the regional council started broad-scale pest operations in the area and regular control has continued ever since. Dianne now hasn’t seen a possum on her place in a decade. If she sees one dead on the road, it’s a topic of conversation; but best of all, she’s not had TB on her place since pest control began.

But she bristles at rumours that funding for vector control might be reduced.

That same complacency, she points out, has happened before. “In the late 1970s and 1980s, when people in offices decided TB was nearly beaten, it wasn’t long before the disease was devastating West Coast farmers all over again. Rate of return on investment must never be allowed to apply to TB control. Even though we have to pay some of the possum and other wild animal control funding from our rates, I’m more than happy to do that, just to keep this plague at bay.

“Anybody who has had no experience of TB, or thinks that it can’t happen to them, needs to talk to some of the older farmers like me, who’ve had the shocking experience of being hit hard by the disease. They need to try and imagine what it would be like if they lost 30 per cent of their heifers to bovine TB.” ■



DAVE CLAY
ASUREQUALITY FIELD TECHNICIAN

“There is a stigma attached to TB and some farmers really feel it – they feel like lepers”

More than 40 years ago, stock inspectors at the Morrinsville saleyards could pick out TB-infected cattle just by looking at them. Today, the test is vastly more scientific, but AsureQuality field technician Dave Clay knows the consequences of bovine TB are as devastating as ever.

When he first started testing on the North Island's East Coast, TB was almost unknown. Then Dave watched the disease take hold and spread across Waikato during the 1980s. “There were about 1200 dairy farms around the Morrinsville area and we always had about a dozen on movement control at any given time,” he said.

Part of Dave's job was to post mortem cattle and deer that returned a positive reaction to the TB test. “They'd come in by the truck load. We had 4000 in a single year,” he said. →

“You'd recognise cattle you'd tested positive. They couldn't go to the works, so we boiled them down. We did that for 10 years.”

Dave's job appears straightforward enough – jab a needle full of TB protein derivative into a cow's tail, then come back in a few days to see if the animal has reacted to it. If it has, it has most likely got TB. But that's when his work really begins and the herd tester becomes farm advisor, or even counsellor.

“The mood changes rapidly when you find a reactor,” he said. “I had one guy try to kill me. He was going to drive his tractor into my car.”

Others become despondent. One night Dave got a call from a farmer's wife – in tears herself – who told him her husband was in the milking shed weeping. “He'd put the chain around one of his cows and found a lump. Then he found a dozen more.

“They were clearly distraught, so I went out there after tea and I picked up 18 reactors out of 120 cows. He was on his knees – it was very traumatic.

“There's a deep emotional cost to TB. You don't appreciate it until you're hit with it,” said Dave.

He will usually give the farmer – and the family – a day or two to adjust to the news, before he goes back to talk them through the process “one step at a time”.

“We try to manage them through it, but a lot of the stress still gets put back on you as the tester. We put in a lot of nights, because that's often the only time a farmer's free to sit and talk. It wasn't a requirement of the job, but we felt like we should be helping them out.

“There is a stigma attached to TB and some farmers really feel it – they feel like lepers.” Dave cautions anyone thinking of selling up to make sure they get their stock tested well ahead of time. “One guy didn't get tested until he was just about to sell up. We tested on a Friday and the sale was scheduled for the following Tuesday. We tested 180 cows and got a reactor that tested positive on post mortem.

“So the guy had to cancel the clearing sale and ended up selling at discounted rates. He lost a lot of money on that. If you're thinking of moving on in June, you really need to get your tests done before Christmas,” said Dave. ■



GARY AND BING CAULFIELD NGATEA FARMERS

“Eleven possums were found piled up beneath a single bait station”

Gary and Bing Caulfield remember that summer morning in 1991 when some of their cows were found to have lumps on their tails.

Herd tester Frank Pavitt had visited the farm, not far out of Ngatea, just a few days earlier to inject the cows with a protein derivative of bovine TB. It's a standard, regular test to check for the presence of *Mycobacterium bovis*.

Upon Frank's return, the brothers could read the bad news on his face. "He asked if he could go to the house to use our phone and he didn't walk, he ran," said Gary.

After calling a vet to the farm, Frank started fixing orange reactor tags to the infected cows' ears. He ran out of tags and sent for more. By mid-morning, half the Caulfields' 100-strong herd had been sentenced to death.

The brothers had quite a few tame animals that they had names for and Frank spotted that special bond. "I always knew their favourites, because they'd put their arm around them when they came into the shed," said Frank.

Bing recalls walking through the herd with his mother, Jessie, the morning the reactors were to be taken to the works. "It was pretty upsetting. We knew it had to be done, of course, but I can remember looking at them. We thought they looked so healthy and they were still milking well," said Bing.

With just 40 cows left, the farm was now a marginal proposition. The brothers agonised over their future. "It all seemed a bit hopeless – we didn't feel like we could ever build up another herd that we could feel the same about. We talked about going into dry stock or giving up altogether. It was pretty frightening – worrying about our income or the prospect of going out and finding a job somewhere," said Bing.

The local paper ran the story on the front page. Bovine TB was spreading through the district and, while some of the neighbours had reactors too, the brothers still felt a certain embarrassment. →

But the Caulfields aren't quitters. "Our mother had been through the Depression – she wasn't about to give up now." The brothers brought in replacement stock. It was a big gamble, as they had no way of knowing if their farm was rid of TB or not.

Meanwhile, Frank went looking for the source of the infection in the bush behind the back boundary. "It was full of old man puriri," he said. "It was beautiful when they were in flower." But puriri is also top of a possum's menu. Frank recalls getting his best kill ever there. "Eleven possums were found piled up beneath a single bait station."

Other herd testers came in to help. They trapped hundreds of possums, brought them out by the trailer load and undertook a post mortem right there on the farm, looking for the tell-tale lesions left behind. They never found them.

Those 60 days until the next TB test was a very tense time. On tenterhooks, they could scarcely believe their ears when Frank announced they'd tested clear. "Things started to look a little more hopeful," said Bing.

Six months later, another clear test sounded the closing bell on their TB blight. But things were never the same again. Gary said the ravages of TB shook their faith in farming. The brothers decided to get out of dairying and sold up in 1999. Nowadays, they run a grazing block not too far from the old family spread.

The source of the infection was never found. Apart from bringing in a few bulls, the herd had been closed.

If anything good came of it all, said Bing, the episode at least raised the profile – and awareness – of bovine TB in the district. He still runs for the shotgun whenever he hears a possum outside because, as far as he's concerned, you never know when TB could strike again.

"It can happen to anybody – out of the blue. Don't think that you are immune to it. It's in the interests of the whole industry for everybody to be vigilant. It's still out there and it could strike at any time," said Bing. ■

DAVE ANDREW OTAGO DEER FARMER

The Rock and Pillars are glinting through a glaze of late snow and the cloudy breath of Dave Andrew's hinds hangs in the air.

When you visit Dave, he shows you round his 5000 hectare farm, Tiroiti. He's proud of the place and so he should be. His grandfather broke it in, his father developed it and now Dave is steering it through volatile venison prices, rabbit plagues and bovine TB.

Back in 1982, he created an unenviable history here – his was one of the first closed deer herds in Otago to test positive for the disease. It's possible that ferrets brought it here – there are thousands of them now, as they were let go in 1877 to deal with the rabbit plague. Whatever it was, it cut through his herd like a scythe. Close to 150 of his best hinds were sent to slaughter.

AHB Southern South Island Regional Co-ordinator Owen Churchman said the infection is still etched in his memory. "I don't know of anybody that was hit as hard as Dave. It was an incredible rate of

reactors. Deer are very gregarious and it's easy for an infection to blow out," said Owen.

"The balloon went up at government," he said. "This was no ordinary infection; it was rife. They really needed to understand what happened here."

Owen said farmers had questioned the accuracy of the TB skin test for deer. "We wanted to learn something from this outbreak," he said. In the laboratory, researchers were labouring to perfect a blood test that would give everyone, including deer farmers, testers and policymakers, more certainty in the future.

Dave decided to donate the remains of his ravaged deer herd to science. He still has the photographs he took as the officials cut up his animals, checking for the tell-tale lesions left behind by TB.

"That went on for four months. We didn't keep a single animal from that herd. We'd been breeding them up since 1978 and we lost the lot. I think hinds were worth around \$4000 each and there was no compensation," said Dave. ➔

**"We haven't got TB under control yet.
It would be a stupid idea to relax now.
We'd be back where we started"**

He then took a scorched earth approach to the farm. "We buried anything that was dead, we let the grass grow up and then we burned what we could burn. We drained all the waterholes and sprayed them with disinfectant – we did all the troughs, all the deer sheds. And whenever anybody came in here, they got their truck washed," he said.

"We had three small kids at the time and we all got tested."

Dave would never farm the same way again. When he restocked two years later, he kept his numbers down. He identified all the high TB risk areas on the property and kept his deer away from them.

He kept his new herd young but suspected some of the older hinds might harbour TB that wasn't showing up in skin tests. "They can have older lesions that have become calcified and, when they get older, they become unstable and start leaking again." So he would send his animals away before they got too old.

Anergic animals or sleepers – infected cattle and deer that don't react to a skin test – have long been a thorn in the side of TB testers. Dave's sacrifice to science helped researchers develop a blood test less susceptible to sleepers.

In 1994, Dave's herd finally tested clear for the first time, but TB wasn't done with Tiroiti. In 2001, he spotted his deer playing with a dead ferret. The herd broke down soon after, with 11 of 48 stags sent to the works.

Pest control operations in the area had only targeted rabbits, until the Otago Land Levy funded TB wildlife control. The AHB went after possums and ferrets, laying toxins and traps on the ground. Things started to improve for Dave almost immediately as infection rates fell. Nowadays, his herd's been clear for the past two years. But he's nowhere near out of the woods. "They're still picking up TB-infected ferrets round here," he said.

Dave knows better than anybody that the price of peace is eternal vigilance. "We haven't got TB under control yet. It would be a stupid idea to relax now. We'd be back where we started." ■

GEOFF COCHRANE HERD TESTER

In the King Country, bovine TB was rife when Geoff Cochrane's job was to test and manage cattle herds.

Geoff would test cattle by injecting them with a TB protein derivative. If their immune systems fought back, a swelling around the injection meant they likely harboured the disease. He'd fit colour-coded tags to the ears of the infected cattle. Like a forester's paint on a pine tree, it was a death sentence.

"We were getting hundreds of reactors," said Geoff. "If you didn't take 100 tags with you, you wouldn't have enough. We were taking truck and trailer loads off single farms."

There was nothing in his job description about being a crisis manager, but Geoff felt the losses as keenly as anyone. "We were taking away their livelihoods – you couldn't just give them a form to sign and walk away."

The cattle were destroyed and dumped, but only one local abattoir would take TB reactors and it was overwhelmed by the epidemic – up to four truck and trailer loads a week. That meant infected stock had to stay on farms, passing the disease on to their herd-mates.

Geoff managed the King Country's worst-hit area, between Waimiha and National Park. Any farm found with TB was placed on movement control, which meant farmers couldn't bring stock in or send them out without pre- and post-movement testing. →

"If we've learned one thing from all this grief, it's that we can never take our foot off the throat of this thing. It's no good just doing a drop every four or five years. You have to follow it up every year"

Movement controls, Geoff said, turned Taumarunui into a "TB ghetto". The disease was stripping value from the land, the region. "People couldn't sell their farms – they couldn't even lease them out.

"If a herd was on movement control, all the calves had to carry a white tag. The saleyards were just a sea of white tags."

Geoff craved an answer, a foil to the suffering and loss. In fact, he'd held it in his hand a decade before. In 1974, he was sent to the West Coast to "trap possums from sea level to snowline. The traps were full and we had to carry every possum back for post mortem".

Deliverance for the King Country finally came from the air. The first large-scale 1080 operation to control possums was mounted in the late 1980s. The impact on TB was dramatic. "Within 18 months, reactor rates were down to zero in some areas," said Geoff.

Farmers noticed other benefits too. "After the 1080 operation, I can remember one lady saying to me, – 'we never knew what that tree was. We thought it was dead, but it came back to life."

The King Country came back to life, too. Vector control became the difference between testing herds into oblivion and busy saleyards.

It seemed that, finally, the disease was on the back foot. But then the government made a fatal assumption – that TB was beaten. "They slashed the funding for pest control and, within a few years, reactor rates were right back up again. It felt like a personal insult.

"If we've learned one thing from all this grief, it's that we can never take our foot off the throat of this thing. It's no good just doing a drop every four or five years. You have to follow it up every year."

Geoff knows better than anyone just how quickly a little bacterium can wreck lives and livelihoods. "It spreads so quickly and it could get away on us again – just the way it did before. The hardship to farmers – to us taxpayers – would be devastating." ■



GEOFF VOLCKMAN FARMER

“It was a constant battle. Every time we had a TB test, we lost a fair percentage of mostly younger stock”

Geoff Volckman thought he was finally rid of the disease that had plagued his farm for close to 40 years. But here it was again, a letter from the works telling him one of his steers was harbouring bovine TB.

“I was gutted,” said Geoff, as he looked out over his Karamea farm. He took this place on in 1974 and never stopped loving it. There were two farms in Karamea that seemed to be persistently infected and his was one of them.

The news that his property may again harbour TB means Geoff is now required to get his own herd tested before he can move it to his other grazing block.

He’s well aware of cases where stock have been shifted around the West Coast with reckless disregard for their TB status and points out that, in the end, it’s the farmers who will suffer the consequences. →

“It’s an honesty-based system. You can write as many rules and regulations as you like, but unless everybody is aware of the problem of shifting stock without testing, we won’t make any progress. It’s essential everybody realises that,” said Geoff.

Meanwhile, he is back to farming with TB himself after a long break from the disease. “But I believe it’s just a little hiccup on the journey towards beating it for good. Then everyone will understand that it has been money well spent.”

Geoff previously farmed with TB for decades. “Back in the day, you just expected to get reactors after every test. I figured I might have to farm like that for the rest of my career,” he said.

The disease routinely claimed a third of his replacement stock every season and Geoff simply carried more to soak up the losses.

But it came at a cost. “Of course, if you’re going to keep 30 per cent extra replacements, you have to feed them somehow, so you’ve got fewer of your milking cows to make an income from.

“TB eliminates a lot of your options when you’re farming. For one thing, it denies you the opportunity of being able to sell stock to other farmers,” said Geoff.

He reckons TB has cost him “hundreds” of animals. “It was a constant battle. Every time we had a TB test, we lost a fair percentage of mostly younger stock.”

Just over the garden fence is Kahurangi National Park, arching all the way to the horizon. The bush is both a blessing and curse. “I’ve always believed our TB infection originated from possums, because we never, ever brought cows in and we never sold cows out. It was a closed herd.”

One of the very first possum control operations happened right here in the late 1970s. They loaded the helicopters from Geoff’s farm. Karamea has been a hotbed of anti-1080 sentiment ever since. Ironically, it is also ground zero for bovine TB, one of the worst-infected regions in the country.

Geoff knows that possum control has brought the region’s TB infection rate way down. “Less than a decade ago, we had 257 infected herds on the West Coast. Now we’re down to fewer than 50.

“We’re on the way to achieving the objective of TB eradication... and I never believed we’d be in that position in my farming career.” He even saw a flock of 20 wood pigeons on the place just the other day, something else he never imagined.

Geoff was also chairman of the West Coast Regional Animal Health Committee for 10 years, where he mentored other farmers stricken by TB. He can recall when the funding came off possum control in the late 1970s and he watched TB surge across the West Coast a few short years later.

Geoff remembers the consequences of that outbreak and believes it is not the time to back off now, even with infection rates falling again.

“We’ve relaxed before and we saw what happened. I’d urge farmers to keep supporting the effort and funding going into wiping out TB. We have to carry on with the work that has been done.” ■



GRAHAM STEELE

HERD TESTER

**“We have to keep talking about TB.
We must let them know what can
happen if we take our eye off the ball”**

***Mycobacterium bovis* is best known to farmers by the name of the disease it inflicts – bovine TB. Graham Steele came to recognise it as despair and ruin.**

As a herd tester with the then Department of Agriculture, he was despatched to the West Coast in the early 1970s to check cattle herds for the presence of TB. In those days, the region was, as it is today, a habitat for TB, swarming with the disease's most common host, the introduced brushtail possum.

Every three months, Graham would sentence more and more of the herd to death as TB crept up every last valley onto every last farm. “A cow might have been worth \$400, but all they got in those days was \$16 a carcass. Whether they lost their top cows or their young heifers, it was tough for them to carry on,” he said.

“Some were heavily mortgaged. I tried to console them as best I could, but it was very hard. In the main, they understood what we were trying to do, but my relationship with some of the farmers grew a bit thin just the same – they felt like I was simply there to take cattle off them.”

TB tightened its grip along the West Coast. He recalls getting 100 positive TB skin test reactions (reactors) from a 1000-strong Lands and Survey herd. “A 10 per cent reactor rate was fearful. It felt like you were caught up in a war.” →

Graham didn't know it then, but a tide of sorts was beginning to turn. Post mortems had already shown that possums were a major carrier – or vector – of bovine TB. The next thing was to prove they could transmit the disease to cattle. Across Cook Strait, researchers chased that hunch. In a Wairarapa paddock, they let loose a few sedated possums among cattle. They stood back and watched the more curious cows approach the possums, then sniff and lick them – which also revealed, incidentally, why it was always the farmers' favourite cows that seemed to test positive. More adventurous, more curious cows are likely to be the approachable, even playful, ones that ease the monotony of milking.

Deer are even more inquisitive and the researchers eventually had to rescue the possums as the deer picked them up in their mouths and tossed them about.

It took years to convince the then government of the link but, finally, the authorities took the fight into the New Zealand bush, mounting aerial 1080 operations in a bid to bring down the number of infected possums. The idea is to leave the population so sparse as to make the possibility of one infected possum meeting another all but impossible, thereby shutting the revolving door of TB infection.

Graham knows it works because he saw reactor rates begin to fall on the West Coast. From 250 infected herds less than 10 years ago, there are now fewer than 40. “TB testing, stock movement control and vector control go hand in hand,” he said.

But he knows, too, that possums can bounce back in a few short years, if given half a chance. “We can't afford to back off for a moment, or TB will be back again with a vengeance.”

Graham said there's a new generation of younger farmers who've never suffered the sort of misery he saw in those early days. “We have to keep talking about TB. We must let them know what can happen if we take our eye off the ball!”

He's seen what TB can do to families, to farms, to fortunes. He wouldn't wish it on anyone. ■



IAN TROUGHTON DAIRY FARMER

“We can’t afford to relax the wild animal control or the testing – the cost is too high”

When his dairy herd tested positive for bovine TB more than a decade ago, Ian Troughton might have been forgiven for despairing. After all, one of his main income streams was rearing young stock for sale to cover his grazing bills. “And I’m talking \$100,000 grazing bills,” he said.

Bovine TB put an end to that and much more. Ian has lost nearly 200 cows to the disease, at \$1500 per cow – but despair has never been an option. “You can’t afford to let it come to that. You just have to look at it differently and consider the alternatives.

“I once found nine cows with bloat that had gone through the fence, or you might have an unexpected number of empty cows. We manage all those situations, so you have to keep these things in perspective. In a sense, TB is no worse than that.”

But even Ian accepts that the disease remains one of the biggest challenges he’s faced in a lifetime of farming on the Hauraki Plains. “It’s not something like mastitis that you can treat and cure and it never takes your scrubbers – it is always the best cow in your herd.” →

He recalls his favourite, a nine-year-old that had been his top cow for five years. “And she was taken away. It’s gut wrenching – you’re almost in tears – it’s like losing your favourite dog.”

Ian’s farm was put on movement control – no animals could come in or go out without testing and documentation. Any opportunities to sell when prices spiked, or buy when they fell, had to go begging. So, when he couldn’t sell his surplus calves, he changed the way he farmed. “We decided to shift focus from trading cattle to retaining them and building our numbers up”, he said.

“It was one way of getting around it. It wasn’t in the expansion plan, but it alleviated the issue of not being able to trade stock.”

In 2003, Ian’s herd returned just one positive TB test and he dared to let himself believe the ordeal was over. But the disease wasn’t done with the farm yet; the next eight tests revealed more positive reactions. “We slaughtered another 100 animals,” he said.

“But I always try to look for positives.” He soon found them, as there were plenty of other farmers in the district struggling with infected herds and some were trying to get out of their farms. “Some people had actually sold their herd, but as part of their sale agreement, they had to TB test their cattle before they handed over.

“Then they’d find [an infected animal], which scuppered the deal, because they couldn’t move those cows. So we took on some of those cows, at a reduced price. In some cases, we got them for just about the works price.

“It worked to the advantage of both parties. We were at least able to offer them an option, where before they’d had none. The scale of our breakdown meant that it didn’t make any difference to us. I was able to replace cows at a similar sort of price to what I was getting from the compensation, so it worked well for us.”

Ian set up a restricted area on one of his farms. “Because of the number of replacement calves we reared, we set up a quarantine area. We would bring those calves home and rear them in that area until they went clear, then we could shift them on. It was a hassle, but at least it gave us some flexibility.”

In all the years he’s battled with TB, his neighbours have remained clear.

“It’s difficult to understand why you were the one that got infected, why it stopped at your boundary. If it was possums, or ferrets, or stoats, or whatever, the boundary fence doesn’t stop them, so why were we infected and not our neighbours? You ask yourself what you’re doing wrong.”

There’s a difference, though, between resignation and apathy. With the number of TB-infected herds now at a historic low, Ian would hate to see the disease flare up again through complacency. “We can’t afford to relax the wild animal control or the testing – the cost is too high,” he said.

“As time goes by, each new generation has yet to experience how tough things can be.” ■



RON WALKER
WILD ANIMAL CONTROL
PROGRAMME MANAGER

“There will always be anomalous areas where, for some reason or another, you continue to get reactors and those challenges will take a bit of time, but I’m sure we’ll get there”

Ron Walker’s bovine TB tests found nothing for the first half of the 1980s, until the disease finally crept up on the Mackenzie country.

In 1986, Ron blamed a single breakdown on an infected cow being brought into the area, because TB didn’t show again for another three years.

But when it did – in a very well-bred and highly-regarded Angus herd – it really affected Ron. “It didn’t necessarily hurt the farmer financially, he was also a fine wool grower in the days when fine wool was extremely valuable, but we did the autopsies on the farm and I remember just how upset he was to see his cattle being cut up.”

This time, TB took hold with a vengeance. Ron undertook more intensive testing and found infections on the shores of Lake Benmore and on the Tekapo flats. Then it struck the shores of Lake Pukaki, before infesting the Tekapo catchment.

“And so it went on, until just about all the herds in the basin had broken down,” said Ron. But there was something odd about the way it had spread. Surveys had found TB-infected possums at Benmore and Tekapo, but the Mackenzie Basin is cut practically in half by a complex of hydrocanals. Possums aren’t great swimmers, but the disease had nonetheless leapfrogged the waterways. “So we reasoned that it couldn’t be the possums,” said Ron.

He started looking for another culprit. “I looked at wallabies, I looked at rabbits, I looked at Canada geese, I looked at cats,” he said. “There are seriously high wildcat numbers in the Mackenzie country – they were introduced in the 1940s to try and control the rabbits – and I did find TB in some of them.”

But farmers had introduced another predator to stem the rabbit plague – they’d released hundreds of ferrets around the basin. Wary and wily, the ferrets were difficult to trap, but

eventually Ron figured out a way. “In 1990, I caught some. Fifteen per cent of them had lesions,” he said.

Prior to that, nobody had given ferrets much thought, but sheer chance closed the case. At Lake Benmore, a farmer picked a ferret out of a trap and noticed it bore a tag. In an unrelated study, Landcare Research had been tracking ferrets about the basin for DOC and the corpse’s tag revealed it had been released six weeks earlier, at Lake Tekapo. The puzzling behaviour of TB in the Mackenzie was a mystery no more.

“We now knew that these things dispersed over quite big distances,” said Ron. “That young female [ferret] had roamed 30 or 40 kilometres. It was very interesting.”

He has been trying to get into the heads of wild TB vectors ever since. As the AHB’s programme manager for North Canterbury and Marlborough, his role is essentially to get possum and ferret numbers down as low as possible.

Along bush-pasture margins, he aims for – and routinely gets – a residual trap catch (RTC) of one per cent. What does that mean? After a wild animal control operation, 10 trap lines are set through the treated area with traps set at 20-metre intervals. The idea is to get a handle on just how many possums are left behind following the control operation.

One per cent RTC literally means that just one possum or ferret is caught for every 100 trap-nights – the level Ron needs to rid an area of TB altogether. He’s done it before, on Banks Peninsula, over thousands of hectares. “And that’s what we’re looking to do south of the Ashley River and on the northbank of the Wairau River.”

Can we eradicate TB from the entire country one day? “I don’t think I’ll see it in my lifetime, but it’s doable. We’ve got the technology to do it, but it’s a resourcing issue,” said Ron.

“On the West Coast alone, 460,000 hectares of Kahurangi National Park, and probably another 200,000 hectares of DOC land north of the Buller, would all need to be treated. That’s a big ask – somewhere in the order of

\$12 million worth of work. And that’s the big hurdle.”

For now, he’s concerned with what he calls ‘proof of freedom’ from TB, where he can say, with perhaps 98 per cent certainty, that a given area is free of the disease. To do that, he needs the goodwill of landowners and access is getting tougher all the time.

The ravages of TB are only too fresh in older farmers’ memories. “But there’s a generational shift... to a new generation of landholders who’ve never had anything to do with [the disease]. So there’s a complacency coming in. We’re getting a proliferation of 10-acre (four hectare) blocks and people often move out into the country precisely because they want to be left alone.”

Ron needs to keep trapping on those properties. “We need good coverage in proof of freedom areas, so we don’t leave any [infected wild animals] behind that we didn’t know about.”

He’s concerned that antipathy towards 1080 might deny him the single most potent weapon in the arsenal against TB. “We know those West Coast forests are infected and we can’t treat those vast areas any other way than from the air,” said Ron.

Talk of getting trappers to do it doesn’t wash with Ron either. “Those people no longer exist. The demographics have changed dramatically – people just aren’t interested any more.”

Then, of course, there’s money. Ron was working as a herd tester on the West Coast in the 1980s when funding was pulled from wildlife control and TB reclaimed a good deal of the region. “We were very upset to watch that happen. A lot of those farmers had become friends and we knew what they were going through. I’m sure they felt abandoned.”

He said refinements in technology and techniques will see more and more areas declared TB-free. “There will always be anomalous areas where, for some reason or another, you continue to get reactors and those challenges will take a bit of time, but I’m sure we’ll get there,” said Ron. ■



JOHN AND ROGER BECK FARMERS

“We had two 1080 operations on this place...After that, the possums pretty much disappeared and not long after that, the TB disappeared too”

High in the Taumarunui hills, the apple trees buckle under the weight of their fruit, reminding John and Roger Beck just how far they’ve come.

A couple of decades ago, possums ruled this place. Roger’s father, John, recalls a time when they never had apples as the possums would eat the buds off the trees. Now he points to the family Jack Russell that has been on the farm for 10 years but has never seen a possum.

As far as John’s concerned, the difference between plague and peace when it came to the possum population was the sheer bloody-mindedness of the regional council pest destruction gangs that trudded the hills surrounding the farm, night after night. That, along with a cluster of molecules commonly known as 1080, played a major part in controlling TB and protecting native flora and fauna. →

“I’ve got no problems with using 1080 – what it’s achieved here is amazing. The bush is vibrant and alive and we’ve got native birdlife like we never had when we first got here. Just the other day, I had four wood pigeons watching me through the window,” said John.

There’s another reason the pair toast the demise of the possum. “With them gone, TB is pretty much gone too.”

John came to the property in 1990, knowingly buying in a TB-infected region. Sure enough, he started getting reactors and his herd was placed on movement control. That niggling presence precluded any notion of trading stock. John said they got into the bull-farming game because it was a slaughter-only operation – one of the few options left.

As it turned out, bull farming wasn’t sustainable on the farm’s light soils. Things might have gone downhill, but salvation came in 1995.

“We had two 1080 operations on this place,” said Roger. “After that, the possums pretty much disappeared and not long after that, the TB disappeared too.”

Everyone remembers where they were the day Neil Armstrong stepped out of the Eagle Lander or the day the All Blacks won the World Cup. In the same way, Roger remembers without a second’s thought the day his herd tested clear for TB.

“The fifth of May 1997.”

When they discovered possums were the big problem, things started to turn around.

“I want to ensure we keep on consolidating the gains that have been made. My big concern is that everyone’s going to forget about TB, that they’ll write it off as history that can’t happen again. You can almost see that with a lot of guys; they’ve got a pretty blasé attitude to it now,” said Roger.

“I’m adamant that people don’t forget. We’ve spent so much money and put so much energy into getting where we are now. Twice before we’ve nearly beaten TB in New Zealand and both times we took our foot off its throat, so let’s not let that happen again. Otherwise, we’ll be going straight back to all that heartache.

“We need to keep going until the job is finished and it won’t be finished until we can say the country is TB-free. I believe we can eradicate it,” said Roger. ■



NOEL BEATSON VETERINARIAN

“It interests me that we should be having the same conversation about complacency again 30 years later. It’d be crazy to take our foot off the pedal now”

It was 1967 and Tommy de Malmanche was about to discover New Zealand’s very first TB-infected possum.

He rowed across the Mokihinui River on the West Coast, his dinghy jangling with leg-hold traps. Upon his return, his boat piled high with dead possums, he handed them to a livestock officer at Westport who undertook a post mortem. They were found to be riddled with bovine TB.

“That was the first time the diagnosis had been made in possums,” said Noel Beatson, a graduate vet back then.

No-one was surprised, as the West Coast had one of the highest TB infection rates in the country. But while de Malmanche had found the smoking gun, he hadn’t discovered the bullet. There was no proof that possums could pass the disease on to cattle or deer.

Noel said the next step was to run several quite crude but effective trials.

About 28 cattle were tested clear for TB and taken across the Mokihinui to a grassy flat, completely surrounded by bush. It was so isolated that the animals couldn’t come into contact with other cattle. “Six months later they all tested positive. When they were sent for post mortem, 20 of them had lesions,” Noel said.

The link from possum to cow had finally been proven.

The evidence couldn’t have come sooner. TB was wrecking coastal farming. “It was nothing to take a whole herd at a test – and that could be several hundred animals – and 12 months later do it all over again. Sadly, that happened to more than one farmer.

“One particular week, I took away 800 animals. We put them on a train for the works at Oamaru. We had permanent space booked with New Zealand Rail. It was huge,” said Noel. →

It was tough on testers, too. Those farmers had spent a lifetime breeding better herds and reactor tags were being put in one animal after another.

Unsurprisingly, some farmers rebelled, refusing to muster their animals for testing, or withholding some of their herd. “Animals were recorded on injection day and then marked with a stroke of paint. Then on reading day, they were painted with another stroke which formed a cross on the animal. Anything that didn’t have paint on it was shot and there were quite a number of animals shot, I can tell you.”

Eventually, a more compassionate solution was found. “In the early 1970s, the Buller/Inangahua area was declared a special case. It was a huge thing, because it guaranteed farmers compensation for the animals they lost.

“We’d write out a chit and the money would arrive soon after. It was our responsibility to remove those animals from the property and arrange slaughter,” said Noel. Yet it made his job easier – finally, farmers began to co-operate.

Nevertheless, infection rates on the West Coast hit 15 per cent across dairy and beef herds. The programme was gaining success elsewhere, but here it seemed so inadequate that some people suggested they might have been dealing with a different strain of TB altogether.

One suspicion was aggravated by the discovery of TB in a flock of Buller sheep. “That was a massive control programme that very few people know about,” Noel said. “We slaughtered all of them – one farmer puts the toll at 10,000 animals – and placed them in a big oven at Cape Foulwind. It was a nightmare.”

It seemed TB could hurdle any mammalian species barrier. “We found it in hedgehogs, pigs, horses... even people,” Noel said.


Then, at last, came the conclusive link between possums, cattle, deer and TB. The West Coast, with its vast swathes of forest, was a possum paradise. Many semi-developed farms were almost enclosed by thick bush and farmers frequently let cattle loose into the forest to forage in winter.

Wild animal control, when it came in the early 1970s, was as ruthless as block testing. Borrowing from Forest Service manuals, 1080 was flown in by fixed-wing aircraft and deployed at lavish sowing rates.

Today’s wildlife control bears no resemblance to those operations, but is more important than ever. “Sadly, the law of diminishing returns seems to be coming into play,” Noel said, referring to suggestions that now TB infection rates have been slashed, we can afford to relax funding and pest operations.

“As a disease programme progresses, complacency becomes a bigger problem than the disease.” Noel should know – he watched herd infection rates rebound after funding cuts in the late 1970s. “When the disease took off again, I was pretty sad, because it felt like everything we’d done up until then had been wasted.

“It interests me that we should be having the same conversation about complacency again 30 years later. It’d be crazy to take our foot off the pedal now.” ■



“The vast bulk of farmers know that it’s in their own interests to follow the rules”

KATIE MILNE
FARMER

As a hunter, Katie Milne has heard the claims against 1080. As a farmer, she knows too well the depredations of bovine TB. As a New Zealander, she loves the native forest that sprawls across these ranges almost to her front door. But she also knows that forest offers sanctuary to the hordes of possums that wreaked TB on her own herd.

On this still Rotomanu morning, kahikatea exhale and their vapour wafts across nearby Lake Kangaroo, above a babble of paradise ducks. This Elysian spread has been in her partner Ian’s family since 1918, and she never tires of showing it off. She stands on the deck, holds up her hand to bid a moment’s silence, so we can hear the carillon of calling tui.

“We’ve got all this beautiful native bush, which I really enjoy, but it’s the perfect habitat for all these little nasties that spread TB about. It’s almost like an impossible dream, in a way. You dare to wonder if one day we won’t have to worry about TB,” said Katie.

The West Coast, with its extensive forests, remains a hot spot in the battle to stamp out the disease.

Katie’s first cow tested positive in 1993. “Since then, it’s been a right royal pain, because we’re constantly in a state of flux; on and off, on and off.

“You think you’re getting ahead, that you’re beating it. But you’re on edge the whole time, waiting to see if it comes back. And it invariably does. It’s very demoralising.”

TB always seems to take her best cows. “Your foragers – the ones that do the hard work for you, chasing every last blade of grass. They’re probably the ones that run into the possums in that back paddock up, against the bush edge.” →

After 1080 operations, it goes into remission, only to rebound in step with recovering possum numbers.

“Ground control on the boundaries isn’t keeping up with the influx of possums from beyond, so you get that re-infestation over time and that’s why, I guess, we kept going on and off movement control.”

This makes a lie, she said, of claims by anti-1080 activists that possums aren’t a problem; that TB is being spread instead around the coast by farmers who flaunt restrictions on stock movements.

“The vast bulk of farmers know that it’s in their own interests to follow the rules,” she said.

She accepts that there was a time, years back, when farmers got full compensation for stock lost to TB. “Some got better pay cheques from MAF,” she said. “If their farming ability wasn’t that great – if they couldn’t fatten cattle – they would simply expose them to TB and take the money.”

But as farmers themselves took greater control of the TB eradication programme during the late 1980s, many of those cases “got tidied up very quickly”.

Katie sees a certain irony in the fact that, while New Zealand’s TB eradication programme is the envy and inspiration of other afflicted countries around the world, that very success has, in a way, kindled anti-1080 rhetoric here at home.

Another concern is that, if the West Coast continues to buck the national trend of going TB-free, other regions might carry out a veiled, but persistent, threat to put a fence around the region and leave them to it. “We’re very mindful of the fact that we’re on a knife edge. The rest of New Zealand could cut us out cold,” said Katie.

“Agriculture is worth about \$700 million every year to the West Coast. So if they imposed some sort of produce restriction, we’d be left in a terrible position. We’d all be on the dole overnight.”

If TB is to be eradicated here, it’ll happen when possum numbers are curbed to such a level that infected animals can no longer meet each other or farmers’ stock. ■

JOHN O'CONNOR WEST COAST DAIRY PIONEER

In some ways, the pioneering days never ended here in Buller.

John O'Connor was schooled in Nelson before coming here in 1945 to break in a block that had already been rejected for soldier settlement. "I realise now why it was rejected," he said.

Whatever he knew about farming, he'd picked up from childhood observation. He lost 30 head of stock in one of the West Coast's legendary torrents, but got back to clearing the bush and sowing grass just as soon as the waters abated.

In 1952, he milked cows by hand for eight months until he built the first pipe and bale walk-through cow shed in the area, to milk 100 cows.

John was convinced – against almost all prevailing opinion – that dairying held the key to the West Coast's future and he devoted his life to making it happen.

Nature had always made farming difficult here, but in 1950, it was about to threaten its very existence. Livestock officers began testing town milk cows for the presence of bovine TB – and they found it in John's herd.

"It was devastating. My father had given me 25 head of stock to start off and we'd built them into a brilliant herd of cows," said John. "In the finish, we lost most of them, and their offspring, to TB.

"One of the biggest disasters was when we sent four cows to my brother's in Nelson for winter milking. They'd tested clear back in Buller, but later, they had a major outbreak of TB in that herd." →

"It was devastating. My father had given me 25 head of stock to start off and we'd built them into a brilliant herd of cows...In the finish, we lost most of them, and their offspring, to TB"

He said the disease nearly annihilated the Buller Dairy Company. "We were just losing production. We went from 400 tonnes of butter down to 280 by the late 1960s. Those years were terrible – farms were running out of cows. That's what crippled us."

"Everybody was blaming the way we farmed," he said. The insult on top of injury was his abiding suspicion that, in fact, possums were the real culprit. "But nobody was blaming it on possums in those days. That's what really got us down."

"We had a big battle to get MAF to recognise that it was possums that were causing it. It took us three years to convince the powers that be."

By now, 90 per cent of Buller farms were infected, and TB had spread into Karama and Inangahua. Everyone was now in the same boat, and things got political. John had an abiding grievance with the compensation rates paid to farmers who lost stock to TB. "We were getting £6 a cow, when they were worth between £10 and £30."

So he took up another fight, campaigning long and hard for fair recompense, which was finally awarded – full market replacement – in the early 1970s.

With the possum link officially recognised, the tables finally started to turn on TB. Possum control began with bait stations and traps. Then, in the early 1970s, the first aerial 1080 operations were mounted in a bid to slow the transmission of the disease. "From then on, our reactor rates started to drop," said John. "They laid 1080 behind our farm and I remember the children coming up to the cowshed. They said, 'Dad, there's a sick possum down by the road'."

"I got MAF to come out and pick it up, and it was absolutely riddled with TB."

Within a decade, vector control brought infections down to just three remaining herds in the Buller. The war seemed all but won, which is perhaps why somebody in Wellington decided to scale back funding for TB control. John watched the disease rebound. He reckons that single cost-saving exercise ended up costing the country at least one billion dollars.

Vector control resumed in the late 1980s and, while the West Coast remains a hot spot, TB rates are now down to historical lows. ■

KEN AND AVRIL GILL

DAIRY FARMERS

The Kopuatai peat dome is one of the most precious wetlands left in the country and the world.

Thickets of kahikatea, rushes and clubmosses cloak one of the last surviving citadels for some of New Zealand's most threatened wildlife, including black mudfish, long-finned eels, bitterns and banded rails.

Whenever the Paiko and Waitoa rivers break their banks, it's the dome that takes the hit for local landowners, soaking up the floodwaters like a giant sponge.

But for Ken and Avril Gill, Kopuatai is 10,200 hectares of very mixed blessings, because it's also home to possums, deer and ferrets, which harbour TB.

The disease caused the Gills decades of loss, frustration and heartache when those possums crossed their back boundary and mingled with their 350 dairy cows.

The pair bought these flat, fertile hectares beside the Awaiti Canal Road, quarter of an hour from Paeroa, in 1971. They farmed here for nearly 10 years before the first sign of trouble; an inflammation on the base of their cows' tails. They'd reacted positive to a routine test for bovine TB.

"We didn't know much about TB," said Ken. "But people were always talking about it. Then our neighbour lost 60 out of 90 cows, so looking back, it was probably only a matter of time."

The Gills are thankful to this day they never suffered the sort of crippling blow TB landed on their neighbour, but their farming life changed beyond recognition.

Bovine TB always seemed to claim the couples' best cows. "It's disheartening trying to build up a herd – we were on AI for years – and then losing your top cows. It felt as though the herd was being systematically destroyed," said Avril.

"The worst was when they took away the kids' calf club calves. You never knew whether they'd take one cow or half the herd.

We were always worried that we'd get a breakdown like the neighbours did – that would have been totally devastating. It was always in the back of our minds. I hope those times never come back," she said.

The pair were compensated for each cow lost – at the time, they received 90 per cent of market value – but there was no payout for the loss of milk production that resulted and, now under strict animal movement control, neither could they sell bull calves to raise capital.

They now regarded their farm differently. "It had us baffled," said Ken. "We'd get a few reactors, then go clear, then break down all over again. It was disheartening. We were playing the game, but we couldn't get on top of it."

The couple had no way of knowing that among their herd lurked a number of 'sleepers', cows so riddled with TB that their immune systems didn't even notice the tiny amount of pathogen injected in a TB test.

Suspicious of this curious pattern of infection, testers took advantage of new blood-test technology in 1995 and found eight of the oldest of Ken and Avril's herd infected with TB.


Another turning point, as far as Ken's concerned, was when the AHB took the fight to Kopuatai, mounting an aerial 1080 operation in 1986 to knock down the possums and ferrets that kept the disease in circulation. "There's nothing nice about TB; it's awful, and if 1080's one way we can control it, then that's what we must do.

"Besides, I've spoken to a lot of guys in the bush, and they all say that the birdlife comes back stronger than ever," said Ken.

The blood tests and the pest control finally dealt TB a one-two punch and, on the Gill's farm, the disease never got back up. "We're C10 [clear status for 10 years] now," said Ken.

But, as funders and farmers alike perceive the TB threat to have vanished, there's a possibility that the tiny bacterium could stage a comeback. It has happened twice before, they warn.

"It would be short-sighted to relax our efforts now," said Ken. ■

A photograph of an elderly couple, Ken and Avril Gill, sitting on a large piece of driftwood on a sandy beach. They are both smiling and looking towards the right. The background shows a blurred view of the ocean and some trees under a clear sky.

"I've spoken to a lot of guys in the bush, and they all say that the birdlife comes back stronger than ever"

KEVIN CREWS NATIONAL DISEASE CONTROL MANAGER

Kevin Crews remembers it sounding like a war room. "It was like the Battle of Britain. On a Monday morning, all the crew – we had a team of 20 in those days – would assemble and we'd schedule their work, then they'd be sent out in their squadrons," he said.

These were the field testers, and the enemy they sought was sweeping the King Country farmlands, spreading bovine TB as it went. This was the early 1980s – what Kevin calls the "dark days" of TB. "It was out of control – the closest I've ever been to warfare.

"It was pretty soul-destroying. We once got 250 reactors on a single farm in the western bays of Taupo," said Kevin. It was made harder still by the knowledge that the then Ministry of Agriculture had been winning this war, until its possum control budget was slashed from under it.

Over the late 1970s, concerted herd testing and slaughter, along with possum control, had finally turned the tables on TB and infection rates across the country began to fall.

What happened next is infection rates went right back to where they started in the 1970s. In the Taumarunui operations room, a wall chart taunted the herd testers with an upswing that outlined policy failure.

Every Friday, the testers would debrief, pin all the latest herd breakdowns on the map and list the latest reactors. There would be hard stories to swap and they had to witness more stock taken to slaughter and more farming dreams shattered.

"It was pretty devastating," said Kevin. "Every week there were more breakdowns and we were always behind the eight ball. Farmers were losing animals hand over fist and we had no answer."

But Kevin and his technical colleagues were becoming involved with the latest research, noting the results of experiments with possum control that were starting to offer tantalising insights into TB and how it was being spread. →

**"He who forgets history
is doomed to repeat it"**

They convinced farmers and officials alike to relinquish the battlefield and regroup tens of kilometres away. They reasoned that they needed to create a buffer zone around the disease, surround it and then eliminate it from the boundaries back towards the centre. That, at least, would keep it contained.

"It needed a lot of selling," said Kevin. "We had this remorseless geographic spread going on and the outcome of the research we did on that was that you had to get to the front of the problem. You almost had to create a biological moat. That was tough for a lot of people to understand."

But it worked; knocking down possum numbers around the perimeter of an infection left the TB with nowhere to go. So long as farmers played their part by not shifting infected herds in or out, the disease had no way to spread. The formula became what Kevin – now an AHB national disease control manager – calls "the old three-legged stool" or, to be precise, infected-wildlife control, herd testing and movement control.

It has been so successful that TB rates are now at historic lows. Kevin knows TB can be eradicated from ever-larger tracts, too. The disease was driven out of Banks Peninsula across more than 100,000 hectares. The challenge now, under the current national TB control strategy, is to do that sort of thing in the disease's preferred habitat – large contiguous tracts of forest, where TB-carrying wildlife, like possums, abound.

It's a big ask. The disease is still present in possums across nearly 40 per cent of the country and, as long as they harbour the disease, they can pass it on to cattle and deer. That means the national herd will always be at risk of exposure, until such time as we can eradicate TB from every last wild host.

But Kevin knows better than anyone that the last possum will be the most expensive. He has seen government support dwindle before and worries that, as the war on TB looks increasingly won, funders might step back again.

Kevin cites philosopher George Santayana: "He who forgets history is doomed to repeat it." ■



KEVIN GILMOUR DEER FARMER

“We’ve got a lot of difficulty keeping awareness up about testing, about movement control, but whether it’s cattle or deer, it’s got to be done”

By his own admission, Kevin Gilmore has a lot to say – especially about deer farming and bovine TB. When he figures things could be done better, he comes out and says so, which is how he came to be on the TBfree Southland Committee.

“I’m one of those people that speak their mind.” When TB struck his deer farm in 1999, Kevin recalls how he kicked up a bit of a stink and criticised a lot of people. “Before I knew where I was, I was on the committee,” he said.

He spent 25 years as a possum trapper and knew every inch of the Hokonui Hills that harboured TB. He watched a succession of possum control operations make no difference to the fortunes of his herd. “There were control efforts going all the way back to the early 1970s and, I’ve got to say, the aerial drops back then weren’t done correctly. The weather wasn’t right, the timing wasn’t right, they used carrots and there was no pre-feeding.”

Ground control – trapping and poisoning – wasn’t working either.

Meanwhile, infected possums kept on delivering the blight of TB to his farm. “We were infected here for about five years. It didn’t matter how much we tested the stock. Even if we managed to get a clear test, we’d be re-infected again the next time because of the infected possums coming out of the bush.”

There was a lot at stake. Nationally, deer farmers had agreed there would be no compensation for infected animals gone to slaughter. “After five years [of infected status], we were thinking seriously about quitting the business altogether.”

Instead, he decided to get involved in the TBfree committee. His background in possum trapping – and deer farming – meant he had “a lot of preconceived ideas” and a lot of them were proven wrong. →

“The discussion got animated at times,” he said. But the important thing was that he at least got people talking about TB. There was a time when a stigma was attached to farmers with TB-infected stock. “If somebody had TB, you didn’t mention it in the wider community. It just wasn’t the done thing – it was very hush-hush.”

He said some farming families, particularly dairy farmers, had a hard time. “They were treated very badly – like pariahs – but TB was completely out of their control.”

Kevin, on the other hand, was upfront. “Because I believed that was one of the problems. People should have talked about it more. It helps psychologically, too, if you’ve had it for five years and you can’t get it out of your herd, it starts to gnaw away at you.”

The committee’s combination of skilled technical people and practically-minded farmers meant that at last TB was being tackled the way Kevin felt it should be. In 2005, the AHB mounted another aerial operation – and this time, he couldn’t fault it.

“There were two pre-feeds and it was done at the right time of the year, when the possums were hungriest.” Best of all, Kevin’s farm became clear of TB and stayed that way.

Much of Kevin’s 200-hectare property backs onto bush and he said the native birds rebounded in the absence of possums and stoats. “We’ve got more native birds here now than we ever did.”

But it’s no time to relax, he said. As committee members retire, fewer young farmers are stepping up to fill the gap. “They haven’t experienced TB and it’s as though it were already consigned to history.”

Kevin said it is vital that the hard work and huge achievements gained are not undone by complacency. Funding for testing and pest control must continue.

“We’ve got a lot of difficulty keeping awareness up about testing, about movement control, but whether it’s cattle or deer, it’s got to be done.

“If we don’t get TB rates down to acceptable levels, we could lose overseas markets,” said Kevin. ■



PETER MCNAB FARMER

“The last infected animal – that last opportunity to get rid of the disease once and for all – will be the most expensive. But it’ll also be the best value”

It’s bitter up here on Peter McNab’s airstrip – but, for the round-the-compass views, it’s worth braving the steep, slippery drive and the piercing southerly that comes off Mt Erebus and makes land here. Further south are the rolling ramparts of the Catlins Forest Park. Much of the remaining area – 3100 hectares in two blocks – is the McNabs’ farm, buried deep in the Clutha hinterland.

Peter’s parents bought this place in 1952 and today he runs around 15,000 stock units, including beef, deer and sheep and a forest block. He used to sell bulls but, in 1987 an outbreak of bovine TB changed all that. It wasn’t a complete surprise – his neighbour’s cattle herd broke down with TB in 1985 and Peter figured it was probably just a matter of time before it crossed the fence. →

Back then, stock movement restrictions weren’t quite as rigorous as they are today and Peter was able to carry on operating under certain conditions. But it slowed him right down. “You’d have somebody interested in buying animals and then you’d remember – ‘damn it, we’ve got to do a TB test’

“The costs were significant,” he said.

In 2001, TB struck his deer herd too. He never traced the source of either infection. But then, he’d had a possum hunter on the place for years. “That was probably one reason it took as long as it did to get here,” said Peter.

He eyes the distant Catlins dubiously. “They’re a massive source of [TB-carrying wildlife], including deer, pigs and, of course, possums and ferrets.”

In 1989, he decided to take the disease on and joined the Otago TBfree Committee. “It became something of a crusade, you might say.”

Money was the first big problem. Across New Zealand, regional councils were, as they are today, funding partners in TB eradication. However, the Otago Regional Council didn’t want to be bound into that. “We endeavoured to convince them that they’d made the wrong choice, but eventually we accepted that when they said no, they meant no,” said Peter.

The committee had to find another way to meet the 15 per cent local funding share of AHB operations. They came up with the Otago Land Levy, under which landowners contributed two thirds of the funding, while the Otago Regional Council agreed to supply the remaining third.

By the mid-1990s, bovine TB had reached every corner of Otago and herd infections peaked at nearly 300. The land levy quickly rewarded the committee’s persistence, though, by funding the possum and ferret control that finally turned the tide.

Peter puts that down to the sheer bloody-mindedness of the regional pest service contractors. “They were crawling their way through the gorse-filled gullies and doing the monitoring in the most mongrel patches of scrub to get us down to those very low densities of possums. That’s when the disease stopped spreading – it really was the key to turning this around.

“Since we dealt with the possums, we’re on top of TB.” Peter’s cattle have been clear for a decade and his deer for eight years.

Then, he said, every December there’s another payday. Everyone used to think all the rata trees round here were dead, until the first aerial 1080 drop. “Now we get displays of rata flower here that I’ve never seen in my lifetime.”

It was the same with the birds. “We had very few native birds here before. Now we’ve got wood pigeons, tui, silvereyes. ... I think we underestimated the impact of possums on native bird life. Until you get a serious possum control programme in place, you don’t realise just how many native birds we should have.”

Peter knows the disease is still out there and that it could surge again if we let it. “So we need to keep our foot on its throat, until we get rid of the last bacterium. Realistically, there has to be some sort of ongoing control to make sure possum numbers stay down.

“The last infected animal – that last opportunity to get rid of the disease once and for all – will be the most expensive. But it’ll also be the best value.” ■



PETER GASKIN
FARMER

“We have some lovely bush at the back end of this property and I’m astonished at the amount of birdsong and activity that’s going on now”

Peter Gaskin built his home near Castlepoint from a stand of Douglas fir his grandfather planted. From up here, he has a clear view back down the road to the property’s history.

In 1980, he and his brother Richard took the place on. The farm has had its past tribulations and Peter has, too, in the form of drought and bovine TB.

The disease struck in his very first year. “We were basically a store farm then. We ran a breeding cow herd and sold either weaners or yearlings. The herd was infected from day one. From then on, we got around 10 [animals that tested positive for TB] a year.

“It was pretty distressing,” said Peter.

So he made it his business to get to know TB. He joined the local TBfree committee. He plotted the sites of worst infection on his property, ran graphs and charts, started controlling possums and ferrets and followed the latest research.

Peter points to a chart he’s kept of TB infection rates. “You’ll see we had a brief lull – we were clear for almost a year and I thought I was pretty clever. I figured we could keep this thing under control with the work we were doing.”

Then his graph spiked in 1996, when he got 59 positive tests in a single, infamous year. “Thirty-three of those came out of a single rising two-year-old heifer breeding mob. Over 50 per cent of our replacement heifers tested positive and they were all the good ones.

“I’ll never forget it. It was horrible,” he said.

Eventually Peter swapped systems. “We made a major change, from being a breeding cow herd to trading bulls. At a stroke, we changed to slaughter-only, which was a far more preferable way to harvest our grass.”

Then there was another turning point. Finally, funding came through for large-scale, aerial pest control in the region. In 1996, 1080 was used on the farm. What happened next showed up on Peter’s graph as a huge dip. →

“Wellington Regional Council did a fantastic job. They were paying a big percentage of our [wildlife] control budget then. They were right on the cutting edge with their 1080 work and they’d done a lot of trials and they had it sorted out – two kilograms of pre-feed, two kilograms of bait per hectare. They understood the critical importance of weather and timing.”

AHB Southern North Island Regional Co-ordinator Terry Hynes has been in the TB business a long time and remembers just how bad it got here. “In 1977, we had 562 infected herds in the Greater Wellington region. It was huge – we had nearly 2100 culls in that one year,” Terry said.

Today, there is a small handful of infected herds in the Wairarapa. The place is ahead of its National Pest Management Strategy timeline. As far as Terry is concerned, what has been achieved in the Wairarapa is a highlight of his career.

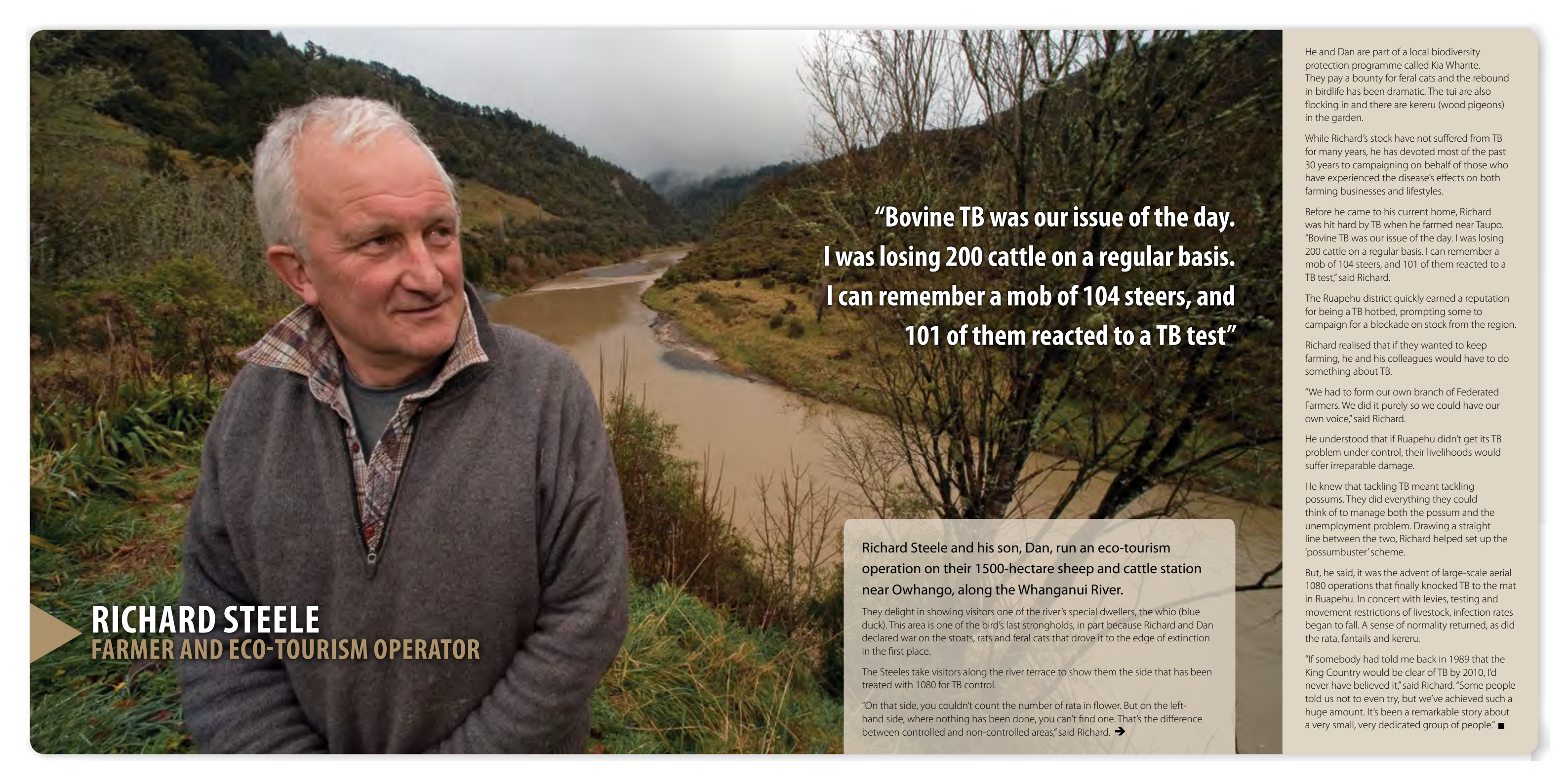
“It’s a huge success story and it was a team effort. The testing technicians, the veterinarians, the regional council – everybody had a part to play. But the understanding between all of those key players was what made it happen,” he said.

With possum and other pest control, Peter’s farm changed beyond recognition. “My wife is an extremely keen gardener. We used to put electric fences around her roses to keep the possums out,” said Peter. These days, however, the garden blooms unprotected.

His father wouldn’t recognise the place. “We have some lovely bush at the back end of this property and I’m astonished at the amount of birdsong and activity that’s going on now.

“We never had tui and bellbirds in the garden during the 1980s,” said Peter, who always thought silence was the norm. “Now, every year, it gets better and better. So what is the norm? I don’t think anyone knows.”

He puts it all down to the strategic approach towards controlling TB. “Nothing beats a shared vision. There was a goal that everybody bought into and... we’ve had an astonishing result,” said Peter. ■



“Bovine TB was our issue of the day. I was losing 200 cattle on a regular basis. I can remember a mob of 104 steers, and 101 of them reacted to a TB test”

RICHARD STEELE
FARMER AND ECO-TOURISM OPERATOR

Richard Steele and his son, Dan, run an eco-tourism operation on their 1500-hectare sheep and cattle station near Owhango, along the Whanganui River.

They delight in showing visitors one of the river's special dwellers, the whio (blue duck). This area is one of the bird's last strongholds, in part because Richard and Dan declared war on the stoats, rats and feral cats that drove it to the edge of extinction in the first place.

The Steeles take visitors along the river terrace to show them the side that has been treated with 1080 for TB control.

“On that side, you couldn't count the number of rata in flower. But on the left-hand side, where nothing has been done, you can't find one. That's the difference between controlled and non-controlled areas,” said Richard. →

He and Dan are part of a local biodiversity protection programme called Kia Wharite. They pay a bounty for feral cats and the rebound in birdlife has been dramatic. The tui are also flocking in and there are kereru (wood pigeons) in the garden.

While Richard's stock have not suffered from TB for many years, he has devoted most of the past 30 years to campaigning on behalf of those who have experienced the disease's effects on both farming businesses and lifestyles.

Before he came to his current home, Richard was hit hard by TB when he farmed near Taupo. “Bovine TB was our issue of the day. I was losing 200 cattle on a regular basis. I can remember a mob of 104 steers, and 101 of them reacted to a TB test,” said Richard.

The Ruapehu district quickly earned a reputation for being a TB hotbed, prompting some to campaign for a blockade on stock from the region.

Richard realised that if they wanted to keep farming, he and his colleagues would have to do something about TB.

“We had to form our own branch of Federated Farmers. We did it purely so we could have our own voice,” said Richard.

He understood that if Ruapehu didn't get its TB problem under control, their livelihoods would suffer irreparable damage.

He knew that tackling TB meant tackling possums. They did everything they could think of to manage both the possum and the unemployment problem. Drawing a straight line between the two, Richard helped set up the ‘possumbuster’ scheme.

But, he said, it was the advent of large-scale aerial 1080 operations that finally knocked TB to the mat in Ruapehu. In concert with levies, testing and movement restrictions of livestock, infection rates began to fall. A sense of normality returned, as did the rata, fantails and kereru.

“If somebody had told me back in 1989 that the King Country would be clear of TB by 2010, I'd never have believed it,” said Richard. “Some people told us not to even try, but we've achieved such a huge amount. It's been a remarkable story about a very small, very dedicated group of people.” ■



QUINTIN AND DEBBIE WATTS FARMERS

Quintin and Debbie Watts with their daughter Addison

The sunny shores of the Bay of Plenty offer an ideal place to farm for Quintin and Debbie Watts, who thought they had found the perfect spot to begin their sharemilking career three years ago. But their dream quickly turned ugly when TB came knocking on the door.

Quintin and Debbie had the dairying world at their feet when they started out. They had secured a 50/50 sharemilking contract on a lucrative property near Pukehina. They had previously been in an equity partnership with Quintin's family on the neighbouring family farm. Although they enjoyed the family environment, Quintin had always had ambitions of getting into a 50/50 sharemilking partnership. The opportunity to sign up for the Maori Trust block

next door was a rare one and, when they were accepted, the couple were excited by the prospect.

The 120-hectare farm is predominantly flat and a stone's throw from Pukehina Beach. Quintin and Debbie signed up for a three-year contract with a right of renewal and were aiming to milk about 420 cows. All they needed to make the picture perfect was the purchase of the perfect herd.

After much investigation, they thought they had found the right animals on a south Auckland farm. So Quintin arranged the purchase of 208 cows, which were part of a herd disposal sale. Although not obligatory for the area, the cows had been tested for TB three months prior to sale and had a status of C10. "These particular vendors were compliant, as were Quintin and Debbie, and it looked like a perfectly safe purchase," said Frank Pavitt, AHB Northern North Island Regional Co-ordinator. →

"Don't be complacent, and don't think that TB's not out there. Do your checks and you will know you have done everything you could to prevent it"

The cows arrived in the Bay of Plenty in late June 2008. As a new herd that had been put together through amalgamation, the decision was made to TB test in the first season. This took place in December 2008 and because they had no reason to suspect any bad news, Quintin and Debbie headed off on a well-earned break. It was then that their world began to unravel.

Unfortunately for the Watts family, four of the six cows returned a positive result for bovine TB after slaughter. The news struck them like a hammer blow, causing major stress and financial upheaval in what was supposed to be their dream job. A Restricted Place Notice (RPN) was put on the farm, meaning no animals could move off the property without permission from the AHB. Quintin had been relying on grazing herd replacements off the property, so the RPN was a severe restraint.

They received 65 per cent of the fair market value for the slaughtered cows in compensation from the AHB. But this did not replace what they had lost. They also had to re-test the herd every 60 days until the animals tested clear. The seriousness of the situation hit home after the second test discovered a further 13 cows in the "at risk" category.

Some farmers may not view losing a few cows as a big blow to the business, but there are other disadvantages that come with finding TB in a herd. A lack of management opportunities and restrictions on trading and sales, for example, can make life really tough. After news of the infection circulated through the tight-knit community, Quintin and Debbie were forced to make a difficult decision. Should they try and remain anonymous or front up to the issue and consult with the locals? To Quintin and Debbie's credit, they chose the latter option. A public meeting was organised at the local hall to address the issue and answer any questions from their farming neighbours. Quintin was blown away by the community's unanimous support. Most of the gathered farmers could remember a time when TB had affected them in some way and were keen to lend a hand to a young couple in need. The fact that they had innocently bought infected cattle and done everything they could to co-operate with the AHB endeared them to the local community. Quintin's biggest concern came when their

neighbours had to be tested as well. "I thought, what happens if one of them gets a reactor and it has come from us? They would hate us." Luckily all neighbouring herds tested clear and they didn't have to face that scenario.

Quintin thought about selling the entire herd but his options were limited. "We did consider it, but who would want to buy an infected herd? So we were bugged really. You've just paid pretty good money for your cows and you can only send them to the works, where you won't get nearly as much as you paid for them. So we just had to ride it out." Riding it out took two years, including frequent blood testing and plenty of stress.

Emotional stress has been a big factor since the outbreak. Each test involved a lot of extra work and management pressure. The herd had to be brought in three times to complete each test, on top of their milking requirements. For Debbie it sometimes felt like they were never going to escape. "It does start to get you down. There was a stage there where we got our hopes up with each test, only to be crushed. So we kind of learned not to expect too much. There is always that suspicion in the back of your mind now. You can't help but be affected by it and the stress levels go through the roof. Sometimes you feel like you are never going to get out of it. It's like you are stuck in this little hole with no way out," she said. Their first glimmer of hope became reality in January 2011, when the RPN was lifted and the herd was given a C1 status.

Despite Quintin and Debbie's experience of a herd TB breakdown, there are several precautions that can be taken to avoid the disease when buying in stock. For example, always check the status of the herd from which you are purchasing the stock, as well as the test dates and the disease status of the area you are buying from. If you have any concerns or questions, contact the AHB.

For the AHB, it's about ensuring there is a generational transfer of knowledge about the disease, and Quintin and Debbie are great examples of how to manage it efficiently. They did have awareness, but it was very much back-of-the-mind stuff. And what advice does Quintin have for other young farmers? "Don't be complacent, and don't think that TB's not out there. Do your checks and you will know you have done everything you could to prevent it. Not many young people would have had to deal with TB, but it is something we all need to be aware of," he said. ■



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Young Country magazine for the article and photograph on page 48.

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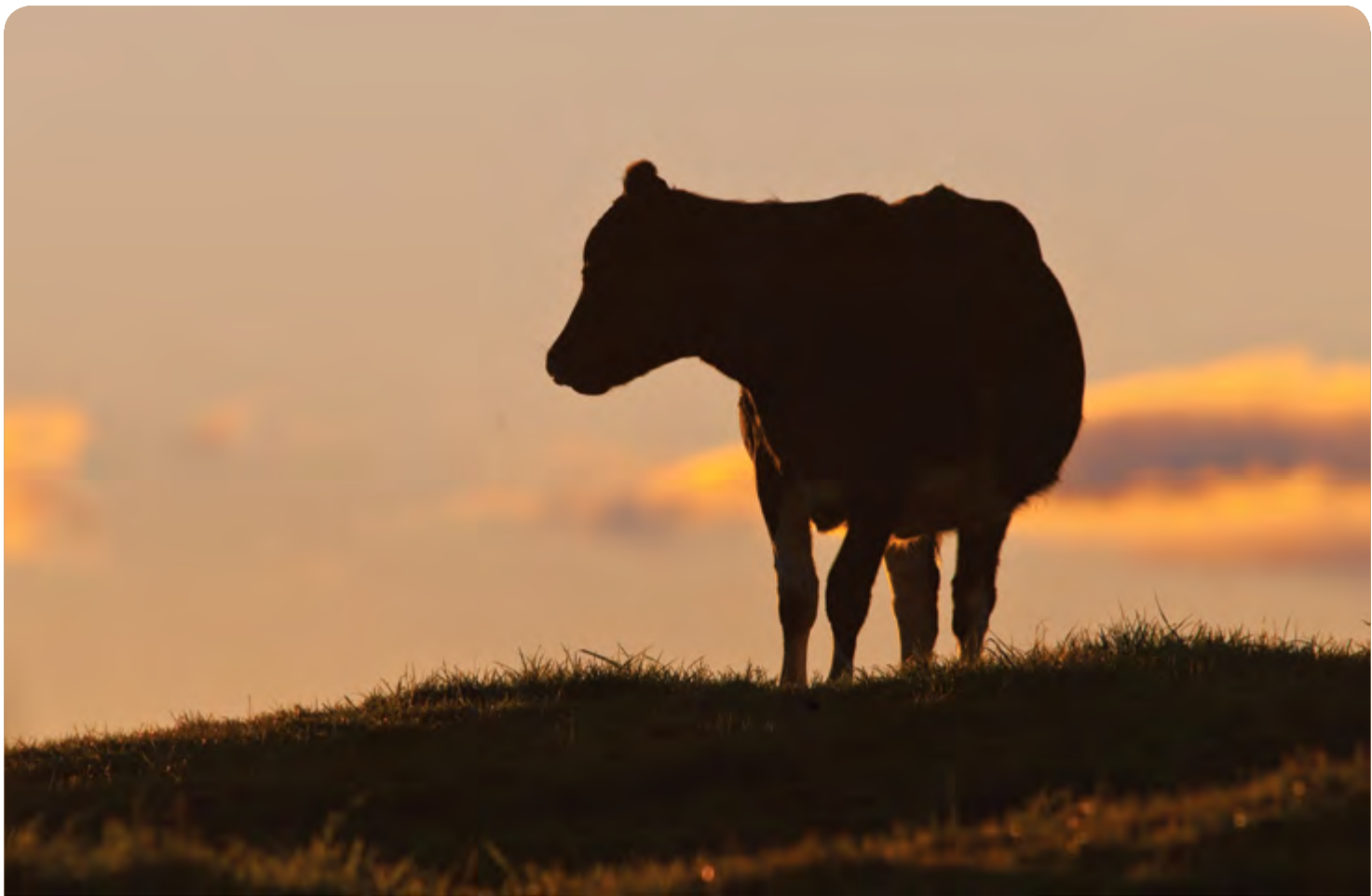
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