



Sponsored by



## Honour shocks TB expert

JON MORGAN Last updated 10:37 09/06/2011

When Paul Livingstone opened the letter with the New Zealand Government seal on it he couldn't believe his eyes.

"I had to check the envelope to see if it had my name on it," the Animal Health Board expert in tuberculosis in possums says.

The letter told him he was to be awarded the Queen's Service Order for services to veterinary science. "I was astounded. It never entered my head that I could get an award like that."

But it had entered the heads of many other people. Farming, ministry and veterinary leaders in New Zealand and overseas wrote in to back the recommendation of the award and Dr Livingstone's name was included in the weekend's Queen's Birthday honours.

He says it feels "neat, and humbling" to be recognised for almost 40 years' work to remove the threat of TB from New Zealand cattle herds, a battle that still has a long way to run.

He first encountered bovine TB on the West Coast in the 1970s as a young veterinarian with the Agriculture and Fisheries Ministry. TB had killed so many cows that the Buller dairy factory had closed and some farmers were forced to give up dairying altogether.

"It was all new to me," Dr Livingstone recalls. "It must have taken about 18 months before I built up some sort of knowledge."

Possums had been discovered to be carriers only three years earlier and it was thought TB was passed to cattle through pasture. But that did not explain why sheep weren't becoming infected.

Then one day Dr Livingstone found a dead TB possum with a big lick up its back fur.

It was a turning point in the understanding of how TB was spread. Further research showed that cattle were curious about possums, deer were aggressive toward them and sheep stayed well away.

Attention then turned toward eradicating possums and other carriers from New Zealand's wildlife. After further study at University of California's Davis Veterinary School and a posting to Wairarapa, another high-TB area, Dr Livingstone was appointed the ministry's technical manager for New Zealand.

Then, in 1989, when TB control was devolved to the new Animal Health Board, he moved to a new job and is now TB eradication and research manager.

Looking back, he identifies a turning point in 2001, when a big aerial poison drop in the Hauhungaroa Range near Taupo proved extremely successful.

"It looked to me that if we could keep possums at that low density we should be able to eradicate TB. At the same time, AgResearch modelling showed if that low density could be maintained for about five years you could eradicate infection out of the area."

It set the pattern for what was to follow.

Asked how long before the whole of New Zealand can be safe from TB, he says it depends on how much money is spent. "Given that funding is at the same level as it was in 2001-02, we're looking to eradicate TB from about a quarter of our vector risk area, about 2.5 million hectares, by 2026."

The key is to keep on top of the wildlife population for a lengthy period. "We may have cleared TB from possums but a wild deer may die of it and then the possums that feed on the carcass will be reinfected."

He is resigned to never getting rid of all possums. "But what we must do is keep the population so low that if there is a tubercular one it will not be in infectious contact with another before it dies."

And 1080 is the only poison in the board's arsenal that is effective in rugged terrain. Other toxins are being researched but are three to five years from being used and may not be suitable for widespread use against all pests.

That overall killing power is 1080's strength, Dr Livingstone says. "I can understand that people are concerned about aerial 1080 but all the millions of dollars of research show it degrades in the environment and that the number of non-target deaths is extremely low. And the native wildlife increases as we take away all those introduced animals that have been preying on them."

He says there's still a long way to go. "We may have stopped the infection moving from possums to cattle, but it's still in that wild population and we have to keep spending a lot of money to prevent it moving back to cattle."

If the pressure is not kept on any progress will move back. "We saw it in 1978, when possum control was stopped and infection burst out. We don't want that to happen again."

Editorial B4

- **BusinessDay**