

Plans to revert farms to native

By Paul Charman

CARBON farming has long copped flak from critics who see it as reducing food production, depopulating rural areas and creating a monoculture of exotics, which is unfriendly to native wildlife.

But while debate rages over the first two points, one major player in carbon farming, NZ Carbon Farming Group, denies it is responsible for the third. It claims its pine forests are being carefully managed to revert to native during the next 100 years or so.

The company is a major player in the industry. Its website said it owns or leases 89,607 ha of forest land; has already removed more than 25,075,674 tonnes of carbon from the atmosphere (and rising) and that its forests sequester an additional 4.5 tonnes of it every single minute.

LEADER

A stated aim of becoming a leader in the practice of native forest regeneration seems to set it apart.

"We have utilised independent scientific experts to develop the science that results in the reversion of forests to native estate," the company's website says.

It features an animation of a pine forest turning into a native forest over coming decades.

Asked by the *King Country Farmer* to enlarge on this claim, NZ Carbon gave us access to AUT professor Len Gillman, who is working with them on regeneration.

Len said he is 100 % convinced the company

would turn exotic forests into native ones over time.

As he explained it, the broader picture is that the ravages of climate change are already upon us, so it is critically important that we remove as much carbon from the atmosphere as rapidly as possible.

"The irony I guess is that the farming community suffers the most with climate change and even if we stopped all emission tomorrow, the farming community is going to be badly impacted by climate change. There's no two-ways around that.

FIRING LINE

"They are totally in the firing line. Over the next few decades, they too will be victims."

Recent flooding on the East Coast was a harbinger of this, though Len reckoned future effects would be far worse.

"So how do we remove carbon most effectively to slow global warming? If you look at a big mature native forests with old matai and rata in them, trees 600 to 700 years old, they will hold about 650 tonnes of carbon dioxide per ha.

"But pines take about 23 years to do that—so you're looking at 23 years versus 600 to 700 years to reach the same amount of carbon storage.

"It's a mind-boggling difference. So, if you plant native trees, yes, eventually you will get as much carbon stored but you're looking at a cycle that is going to take hundreds of years."

Len said even if all emitting carbon stopped tomorrow, we would still need to remove carbon from the atmosphere because what has been released already would be disastrous for



LEN Gillman is a professor of biogeography at AUT.

much of the world's population.

"The other economic aspect is I think NZ Carbon Farming is taking about four-and-a-half tonnes out of the atmosphere per minute," he said.

"And if New Zealand had to purchase that carbon, because we have the Paris agreement etc, whereby New Zealand is going to have to pay for its emissions on the global market, we would be paying about \$270 million per year (just for the equivalent of what is being

sequestered now by the company).

"And, of course as their forests grow, the amount they sequester will increase so that's only going to go upwards."

Did he believe that pine forest would eventually become native forest?

"Yes", was the answer.

Pines provided a useful canopy for the natives growing up underneath them, he said.

However, NZ Carbon further accelerated this natural process by

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From page 5 thinning the pines at about 15 years, creating light wells and planting additional natives among them over time.

“Even if we did nothing eventually the forest would convert to native and that’s because the pine is highly light dependent for establishment. Pine does not establish in mature forest unless there is a fire or some major disturbance.”

But how could he be so sure that NZ Carbon Farming would still be around in coming years to make good on its promise to maintain management work required to see native trees replace pines in their forests?

Len’s reply was that since the carbon price was only going to increase, there would be abundant resources to keep carbon companies operating.

SURVIVE AND THRIVE

Far from disappearing, he expected operations such as New Zealand Carbon Farming Group to survive and thrive.

“And anyway, what is the alternative—if we don’t sequester carbon this way?”

“Even if you assume that in 50 years there won’t be a carbon crisis, that could only be a good thing.”

“But I believe that the future of carbon farming is probably more certain (than sheep and beef) because of the problems that are going to be faced by pastoral farming are going to be massive (due to climate change). The price of carbon can only go up, so there’s an imperative to follow through and maintain these forests.”

Removing some of the pines in eight to 15

years was only one aspect, another was planting native seeds among the pines. Where there was local seed source—places like in the Wairarapa—there was a problem.

“So in those sorts of places they are taking islands out in one-to-three years, to create ‘seed islands’ that provide a seed source for the future.”

But would New Zealand Carbon Farming be capable and willing to do weed and pest eradication over the life of the forest?

“Absolutely,” Len said.

RIGHT THING

“There will be good income streams every year the forest grows to continue doing that.”

Similarly, he said bigger pine trees would be removed over time and the roads were provided with this in mind.

So, did the public at large simply accept New Zealand Carbon Farming’s stated intentions on doing the right thing over the coming decades?

“Well, the right thing is to sequester carbon,” Len said.

“Even if they didn’t convert to native it would be (in the broad sense) the right thing to do. But the people in the company are absolutely committed to this from what I have seen. And they wouldn’t be spending all this money for nothing.”

“They could, for example, just be planting these (pines) and just taking the money and not doing any regeneration. But they’re not; they’re actively involved in accelerating the conversion to native as fast as possible.”

As for the company’s forests requiring ongoing maintenance far into the future, Len



THIS sheep and beef property in Manganui Rd, Waikawau, was recently sold for use as a carbon farm.

pointed out that all forests, even native ones administered by DOC, needed similar ongoing maintenance.

“For example, New Zealand Carbon will work

with surrounding land-owners to create zones to keep pests down it. I am impressed by the people involved and how committed they are to this.”

FARMER Briefs

Safety first

Federated Farmers Vice-President and health and safety spokesperson Karen Williams has urged hunters to enjoy duck shooting but put safety first.

“Vehicles, firearms, and water remain the

key risks to duck hunters and mixed with a surge of adrenaline can be deadly,” Karen said. “Many are willing to have hunters on their properties but that access is a privilege. Hunters must seek prior permission and follow any instructions.”