





Our research

A pilot study involving farmer interviews to better understand the impacts of Facial Eczema (FE) was funded by Beef + Lamb New Zealand.

AgResearch conducted 14 interviews with farmers (dairy, sheep, beef and Māori Agribusiness) and rural professionals from April to August 2022. These interviews were undertaken to build and understanding about the impacts of FE and the current management strategies.

This research will be used to provide directions for future research in FE and provide insights into how to support farmers to improve wellbeing when faced with FE and more broadly animal diseases.

What we heard

Farmers care for their animals

The prospect of not doing enough or not taking the right steps to manage FE was very distressing.

Seeing animals suffering created feelings of selfdoubt about the ability to manage FE appropriately.

The impacts of FE have prompted exits from farming, reconsideration of succession planning, and, in some cases, suicide.

"It's stressful...sheep are pretty tough aye, they can get a bit of a cut at shearing, they can get a sore foot and they'll still walk up the hill. You can lamb them and they don't show a lot of pain but as soon as they get FE, it's visually...you can see them and I reckon that is probably the toughest thing. Seeing them in that pain."

Sheep and Beef farmer, Waikato, endemic FE

Climate change was seen as a risk for FE

Climate change is likely to lead to longer, less predictable FE seasons. This will amplify FE risk in naïve stock. Interviewees in areas where FE is sporadic or has not occurred are vulnerable because they are less likely to have invested in FE management tools and strategies.

Without this kind of preparation and given the erratic and unpredictable nature of FE in some regions, a 'bad year' may result in substantial stock disease and losses.

"So you could imagine our teams out there just not knowing what to do. We were dragging dead sheep away by the ten tonne trailer load at one stage. So yeah, it was a huge shock, it was a big shock to the system and we didn't know why. Plenty of people told us why but we didn't believe it because most people would have told you if you go back through any papers between 2005 and 2012, there's no way they would have said our region was an FE region."

Sheep and beef farmer, King Country, sporadic FE

"We knew it was in the North Island when I was a kid but I've only heard of it around here for about five years...And facial eczema is spread by temperature and there's no doubt we're getting warmer. You know, when you were a kid around here, you'd go out to school in the morning and there would be frost on the ground and you'd have freezing fingers and toes. That doesn't happen now."

Dairy farmer, Marlborough, sporadic FE

Economic losses due to subclinical FE were concerning

Subclinical FE causes reduced milk production, weight gain and fertility, failure to thrive, or death. Interviewees were concerned that they did not know if an animal was subclinically affected due to limited tools for diagnosis.

"If it was subclinically happening, we probably wouldn't know and because I'm not aware of any diagnostic like stuff available to identify it early in the kind of non-clinical stage then yeah, perhaps we are being impacted on the lower country and we don't even realise it. Even if it was impacting us at a 2% to 3% level, I wouldn't know that. You know you can make sense of a bad lambing if you've had bad weather and those kind of things but [for sub-clinical FE], it would probably have to be quite extreme to realise that there's an issue."

Sheep and beef farmer, Taupo, sporadic FE



Current management tools for FE are limited and may be ineffective

Zinc and alternative pasture may mitigate the effects of FE, but these solutions are not always reliable, available, or used correctly, and may be less effective when there is very high spore numbers.

Breeding for FE tolerance was seen by many as the only long-term solution. Given the potential for reputational damage arising from current tolerance selection methods and the time it takes to make genetic gain, more humane and faster approaches were seen as critical.

"So no, the tools are fairly limited and really the only sustainable solution is the genetics because it works.....there's been very, very limited genetic selection in the terminal breeds. It's starting but they are well behind the eight ball and the cattle of course, ...there it is basically none. The dairy industry is onto it but you know, they have been chasing production for 40 years where the breeders of tolerant genetics for sheep have been chasing eczema for 40 years. So they've got a 20 year journey and this is why...the work on some alternative non-invasive tests to try and fast track some of this genetic gain, that will be of huge benefit, just to screen animals."

Sheep and beef farmer, King Country, endemic FE

"They use the zinc bullets, I'll zinc my cattle that aren't going to be on the coast, they'll get a zinc bullet but ideally you want to just have to do that once, you know, the 30 days to 40 day cover because it is a growth suppressant and by zincing them multiple times you really see an impact on those animals. Their coats go dull, they just stop growing and they do say that there's compensatory growth afterwards but it takes them quite a long time to catch up."

FE as a priority

FE was prioritised differently for each farmer interviewed. Priorities changed as other risks or opportunities arose and these were different in different regions of NZ.

"There are eight active farmers in our Red Meat group and maybe three of them were really keen to do further work on facial eczema but there were other things that overrode that decision to look at that because say, ...we're looking at pines and the opportunities and the risks. And then our most recent session was trying to get our heads around He Waka Eke Noa and figuring out our numbers, like all these impending threats that are actually going to impact us like in two years' time with new taxes. So FE is probably down the list, even though potentially it could be a huge impact. As a farmer right now, I think you could feel pretty overwhelmed by the amount of legislative pressure that's coming at you. So it's probably down the list, not because it has become less important. But simply because... there's other threatening issues to your bottom line."

Sheep and beef farmer, Taupo, sporadic FE

B+LNZ will keep advancing FE research based on this pilot study.

Work currently underway:

Management tools and solutions

- Development of a non-invasive alternative test for FE-tolerance in sheep.
- Increased understanding of the fungus associated with FE to ensure effective tools and solutions are developed in the future.

Communication

- Raise the awareness of sub-clinical FE.
- · Raise awareness of current monitoring tools for FE.

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