



Dairy facial eczema an underrated issue

Dairy facial eczema (FE) can cost individual farmers more than \$100,000 a year in lost milk production, a recent study has found.

The Ministry for Primary Industries' (MPI) Sustainable Farming Fund is supporting the Facial Eczema Action Group – made up of veterinarians, dairy farmers and rural professionals – to explore ways of raising awareness of FE so that more farmers take preventative action.

Many cows don't show clinical signs of FE. As a result, farmers often don't know why milk loss is happening and end up drying off their cows early. "It's hitting farmers hard in the pocket – they're losing 0.14-0.35kg milk solids per cow per day. We worked out that one of the herds in our study had lost \$125,000, just in milk production," says Emma Cuttance, a dairy veterinarian and head of Veterinary Enterprises Group (VetEnt) Research, which is leading the project.

"Often, people don't think FE is as big an issue as it is, because about 95% of the cattle that get the disease won't display obvious skin lesions, even though the FE is causing damage to their livers.

"If our project can improve the number of farmers effectively managing this disease by even 20 percent, it will make a phenomenal improvement to the productivity, animal welfare and sustainability of the dairy industry."

Zinc is currently the main way of treating FE. However, Emma Cuttance explains that many farmers don't administer enough to control the toxin that causes FE.

"Blood testing is the best way to determine how badly affected the cows are if they have FE.

"However, getting farmers to do blood tests can be tricky because of the cost and time involved."

The project team brought in AgResearch to examine the wellbeing of cows affected by FE to see if there are other ways of identifying symptoms. The first trial involved putting pedometers on cows to observe their movements. Having found no real difference in their behaviour compared to healthy cows, they moved on to analysing the blood profile of affected cows.

"Stress and pain can be detected in the blood," says Emma Cuttance, although analysis of the results is still in progress.

Another approach the team is exploring is photographing damaged livers at the meat works. "If processing plants were required to grade livers according to damage and report back to farmers that would increase understanding of how serious the issue is."

The next step is to get the word out via a range of resources, which will be made available through DairyNZ's website. These include an online cost calculator, an investigation tool for testing zinc, and

educational videos and webinars.

Steve Penno, Director Investment Programmes at MPI, says MPI's support of this project recognises that FE is an issue that needs to be addressed.

"Whichever way you look at it, it's in farmers' best interests to proactively manage this disease – both in terms of improving cattle health and wellbeing and the bottom line."

About facial eczema

Dairy facial eczema (FE) is caused by a fungus that grows on dead and dying matter in the pasture which releases a spore with toxins in it. It is most likely to grow and produce spores in warm and humid conditions. Zinc is currently the main way of preventing the disease.

Trial work done in 2014 examining zinc concentrations in the blood of 1200 cattle from over 100 farms in the North Island showed that around 70 percent of cattle did not have enough zinc to protect against facial eczema.

To help prevent the disease, farmers need to monitor the spore count on their own farm. They are advised to start a management programme when spore counts trend upwards to 30,000 spores/g and continue until spore counts are 10,000 spores/g or below for at least 3 weeks. Blood testing is advised to check the effectiveness of zinc administration.

MPI's Sustainable Farming Fund and Primary Growth Partnership have now been replaced by Sustainable Food and Fibre Futures (SFF Futures). SFF Futures supports problem-solving and innovation by co-investing in initiatives that make a positive and lasting difference to New Zealand's food and fibre sectors. www.sff-futures.mpi.govt.nz