

Obituary: Gladys Reid

By Annette Taylor



Reid received an OBE for her work in animal health.

Gladys Reid, OBE, agricultural researcher. Died age 92.

The woman credited with finding the connection between zinc and facial eczema died last Friday, a month before her 92nd birthday.

Born in 1914, Gladys Reid was a member of a third-generation farming family in Tauranga. She trained as a dental nurse and in 1939 married local-body executive George Reid. Facial eczema, a disease in grazing animals caused by a toxic fungus which grows in pasture, was rampant in the autumn of 1948, when Gladys and George bought a farm in Te Aroha. The misery and suffering of the animals concerned her greatly, so George told her to do something about it.

She read very widely, ordering books and journals from overseas. Reid began treating her stock with niacin, a B vitamin, and in 1959 discovered papers describing zinc as the co-factor of this vitamin. From her dental training she was familiar with zinc oxide paste as an anti-inflammatory agent.

She began administering zinc sulphate to calves sheltering under hedges. Unable to catch one calf, she threw the zinc into a trough, and from then on this was her preferred method of administration. Some farmers still do this today.

In 1969 Reid purchased the neighbouring farm, which allowed her to test the zinc theory by dosing only one property. When facial eczema hit that season, milk production on the untreated block fell 30 per cent. Production on the treated farm fell only 9 per cent, with no clinical eczema.

Until 1974, she believed the eczema was caused by zinc deficiency, but in that year she found a paper outlining how high doses of zinc would protect the liver from damage by toxins.

At the Ruakura Farmers Conference in 1975 Reid received a standing ovation. Her work was well received overseas but local scientists remained cautious. In that year farmers were warned that zinc in water troughs was toxic to stock.

In 1981 official advice was still to spray toxic pastures with fungicides. Then a huge outbreak of facial eczema occurred. The following year zinc treatment was officially recommended for facial eczema prevention. Reid received an OBE in 1983. That year she was invited to an international nutrition conference in America, where she spoke about the role of zinc in liver protection.

In 1981 Reid turned her attention to Sudden Infant Death Syndrome (SIDS). She published more than 20 papers in the British journal Medical Hypotheses.

She is survived by two sons, nine grandchildren, and eight great-grandchildren.

Country-Wide Northern | Dairy

Zinc pioneer drew controversy

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When Gladys Reid died in mid August, an emerging generation of farmers would be largely unaware of the role she plays in their profitability today.

The 92 year old was the pioneer of zinc treatment in water troughs to protect animals against the debilitating impact of facial eczema.

The dental nurse from Te Aroha became something of a facial eczema sage. She dispensed advice on treatment whilst scientists at Ruakura worked from the ground up to understand how her zinc recommendations worked.

Her death marked the end of an era for farm borne, home spun research.

However feelings still run high in the agricultural scientific community about Gladys Reid. Some still harbour strong feelings on the facial eczema debate that Mrs Reid spearheaded for almost forty years.

Facial eczema was a blight on New Zealand's agricultural potential for a large portion of the 20th century on a scale unfathomable today.

Agricultural scientist Dr Clive Dalton recounts how a well-known Waikato farmer Togo Johnson was forced to slaughter thousands of sheep in 1938.

The disease's predominance was the very reason for the government of the day directing research to begin at Ruakura Animal Research Centre. However it took 30 years before it was traced to fungal spores found on the boots of a gardener in Hamilton.

"Researchers were initially scrambling, the disease spread so quick there was some thought it was bacteria borne," says Dr. Dalton.

Meanwhile at Te Aroha Reid had turned to her experience with zinc oxide as a pain reliever for five year olds with rotten teeth.

Her quest for knowledge was renowned. In an age when internet and Googling was unheard of she managed to get on the mailing list for scientific documents from the United States.

By the late fifties she had found research supporting the use of niacin and zinc having a beneficial impact on liver damage in animals.

In 1999 she recounted to Radio New Zealand how she began treating a herd on her home farm in 1968 by lacing the water troughs with zinc sulphate. She was astounded how the milk volume had not dropped, while every other farm on the tanker run was down by as much as 30%.

“The tanker driver thought maybe we were putting water in our milk to keep it up,” she recounted.

Key to her research was contact with Dr Jean Apgar, a Nobel Prize winner for identifying the structure of the t-RNA molecule. Correspondence with Dr Apgar revealed treating animals with up to 20 times the dietary requirements with zinc protected the liver from certain poisons.

Reid had the luxury of observing the results of zinc treatment through her own on-farm trials. Scientists at Ruakura had to undergo the rigours of peer review and evaluation and find exactly what was causing the condition in the first place.

However Dr Dalton says Reid was a great “hypothesist”.

“Ruakura had to do the hard yards while Gladys was able to think ahead, chucking some zinc in the trough and drawing conclusions scientists would never dare do.

“She was constantly telling scientists what her hypotheses were, and how they should be getting on testing them, and they never liked that as they saw it as questioning their integrity.”

Two sides rapidly formed in the debate on zinc’s efficacy. Reid was reluctant to make direct dose recommendations after claiming the Director General of Agriculture had told her she would be taken to court for misleading practices if she did.

However she won followers from farming wives in particular. Many would call asking for zinc advice after tiring of seeing suffering livestock and husbands on the brink of suicide from crippling stock and production losses.

Official opposition to her treatments continued through the seventies, with the Animal Health Board noting in 1975 zinc treatment was “completely useless as a form of treatment.” This was the same year she received a standing ovation from farmers at the annual Ruakura Farmers’ Conference.

It was not until 1981 zincs use was finally recommended by Ruakura, and in 1983 she received the OBE for her research efforts.

