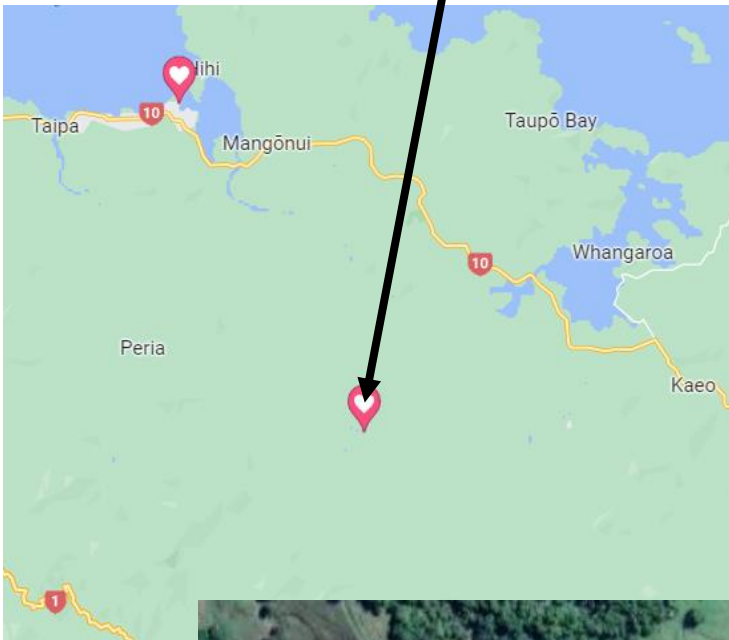


Farm Nutrient Retention Trials - End of first year soil sampling - 29 August 2023



Jeff and Helen Martin's Farm on Te Ranga Road, Otangaroa



Task:

Complete the following 12 monthly tests for the areas shown below:

- Assessment of nitrate, ammonium and Phosphorus levels in subsoil water, runoff water, and natural waterways.
- Assessment of soil for levels of P, K, Ca, Na, Mg, S, N, Fe, Cu, Mn, Zn, B, pH, CEC (cation exchange capacity), BS (base saturation), nitrate, ammonium, cobalt, dry matter, organic matter and pH.
- Determination of the soil CO₂ respiration
- Leaching testing for excess of Ammonium, Nitrate and Phosphate leach from the topsoil into the nearest water way.

Fertilisation regimes:

1. Control (no fertiliser application).
2. Conventional chemical fertiliser.
3. Natural soil microbial friendly fertiliser - biological approach.





Pipe takes a soil plug for leaching test – In the lab 100ml of clean rainwater is poured on top to monitor how long it takes to permeate the soil and how much is absorbed.



Soil plugs from all over each of the three areas to be sent off for chemical analysis