

Exchange rates are important to farmers. If you'd like to see them for all countries in a flash, click <http://www.x-rates.com/d/NZD/table.html>

If you lose this address, it is in the GrazingInfo free Spreadsheet > Conversions, near the top.

The Euro started at 0.45 to ours, and is now 0.52. Ten years ago the British pound was 0.3 and is now 0.5. Our dollar has risen way beyond what it should because of our high interest rates that attract overseas investments which make profits for banks and cost exporters, and encourage investing in New Zealand, and because farmers have made New Zealand a sound investing country. The many bankrupt developers, finance and other broke companies certainly haven't.

Farmers and their federation should lobby for interest rates to be on a par with other Western countries, not what the Reserve Bank, influenced by money making banks, chooses for their theoretical and money making reasons respectively, rather than practical and comparable rates.

Interest rates of between 4 and 5% depending on the risk, would reduce the number of farmers losing money to the wealthy, which includes banks paying CEOs millions of dollars a year.

Farming

Nitrates can kill and/or cause abortions. The worst time for this in the southern hemisphere is over the next few months.

Nitrates are naturally high in Cape Weed (Australia and South Africa), Amaranthus and yellow regrowth of any plant, even if it was not nitrogen boosted. Low calcium levels, that are common worldwide, can cause molybdenum to be low, which increases the incidence of nitrate toxicity.

Too much N, especially on Kikuyu and winter ryegrasses can increase nitrates. Remember that late afternoon nitrate levels are about half the early morning ones. You can get nitrate measurers or vets can measure it, or read Animal Health > Nitrates to see what causes it, and so avoid it.

In 36 years of farming I have never measured it, and never had nitrate problems, and never applied N to pastures other than to newly sown ones which need it until the clovers make it, which should be no more than three times, and preferably only twice. I used sulphate of ammonia which is cheaper and because N needs S to work.

To convince John Wright, I got him to do half his farm with urea and half with the same cost per hectare sulphate of ammonia. The start was not much different, but the sulphate of ammonia grew more and for longer. The same dollar value of both on my lawn showed the same. Farmers who saw it changed to sulphate of ammonia. For ages I've used half sulphate of ammonia and half urea, now called Ammo. There are new different nitrogens now. Do trials on your farm after recording the pasture analysis levels because sulphur and calcium can help different ones. Full information is too much for a newsletter. Please read Animal Health > Nitrates, and Elements > Nitrogen. Doing so could save you a dead animal. I saw one cow in a herd of 300 die - because it liked Amaranthus. The farmer wouldn't believe me so we cut it open to show him.

Pasture analyses

These should be done twice a year - autumn and spring, which is when lime or fertiliser should be applied with trace elements.

Two subscribers aiming to save money asked me if once a year applications would be satisfactory. I checked results and asked those who have tried it in the past. One emailed, "Twice yearly trace element fertilising is just as important as applying main elements twice a year."

If boron and salt are not kept at optimum, palatability decreases, so animals eat less.

If cobalt is not kept at optimum, which is hard to do since calcium levels have dropped, so humus has decreased, vitamin B12 may have to be injected like I've seen Ruakura's Scott Farm do. I had Japanese clients with me a few years ago, and they asked, "Why are they injecting the cows?" I had to ask the staff.

Cobalt is expensive, but cheaper than decreased milk production, and injecting vitamin B12 deficient cows. See Elements > Cobalt and the AgResearch deficient, so sick cow.

To make pasture analysing easier for you, collect and test ryegrass only, and ask Hills for, "A pasture analysis as done by Vaughan Jones". It will be cheaper if it saves unnecessary analyses and will

save your time filling in forms and deciding which minerals to get tested. Ask them to email me the results. They have my address. If Hill staff don't know about any of this, ask them to ask their Nevan Ofsoski, through whom I organised it for GrazingInfo subscribers.

If neither phosphate or calcium are needed, something will be needed to carry the essential trace elements. If only magnesium is low, 200 to 300 kg per hectare of serpentine can be used as the carrier. Otherwise lime is the cheapest.

The good lime companies that mix in trace elements are currently very busy doing autumn mixes, so have delays. Unfortunately some lime companies don't mix in trace elements, because like some fertiliser companies, they don't like stocking high value low turnover items.

The well known 'lime in autumn can increase milk fever' is not such a problem if lime-plus of calcium, serpentine (the best magnesium source), OrganiBor boron, and other deficient trace elements, are all applied, in fact, when calcium, magnesium and boron are all low, milk fever can be much worse, and worst of all, much more severe.

In Westland in the 1960s, before they knew to fertilise with more boron (B) because of their high rainfall, even two bottles of Calciumboroglucenate didn't get cows to stand up, and when some did, they just stood, because the joint pain caused by extremely low B made the dry joints freeze together and click when forced to move. Some of Westland gets 750 mm (300 inches) a year so boron is leached. Hurray for slow release OrganiBor. I hope you are all using it.

In all cases apply on short pasture and don't graze it until fertiliser and/or lime are washed in.

Do your knees click? Is your back crook? Read Human Health Elements > Boron and Magnesium, and a coming chapter called Body, after I finish it in a few weeks - I hope.

Soil Analyses

The most important parts of analysing to fertilise are accurate boron, cobalt, copper, molybdenum, selenium, zinc, and sulphur which some labs do two ways, but neither are accurate. Pasture does them all accurately.

Soil testing has three P test systems, none of which is accurate. Look at these two in the same sample from a dairy farm on Mangorei Road, New Plymouth.

Is P low or is it OK within the Olsen range which is not suited to New Zealand's acid soils, and everyone knows it, but it is used, costing farmers collectively millions of dollars in wasted information and because of applying more P, rather than lime-plus, because our soils are loaded with excess P causing pollution and waiting for lime-plus to make it available. Read Beef, Phosphorus and Calcium.

These soil tests show how useless both are. Which is the farmer expected to believe?

Resin P mg/kg	15	40 - 75
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Olsen Phosphorus mg/L	20	20 - 30
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The pasture tissue P level was 0.47% when 0.4% is high enough.

Calcium was also 0.47% when it should be 0.8%. So lime was needed desperately, with deficient elements. The calcium soil test was me/100g 5.0 4.0 - 10.0. Four to ten is 250% different.

A soil test on the same day from another paddock was much the same indicating that P was needed, while the pasture analyses also showed P was high and Calcium was low. So another \$200 went down the drain and confused those who don't know, but worst of all, a consultant \$12 a tonne commission agent, and a fertiliser company, would have stolen thousands of dollars from the farmer, had he not done pasture tissue analyses.

Maize for silage

Most should be ensiled by now. That not harvested will be getting lower in feed value every day, grain will be getting harder so more will go through your animals without being digested, nicked or not. The grain is where the feed value of maize is.

If not harvested yet, remember to spread coarse agricultural salt as described in Forage & Grain crops. Doing so will reduce animal waste of maize silage and give better digestion. See Elements > Salt.

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