

23 July 2012

Thallium information

Thallium has been found at levels above the Canadian Soil Quality Guidelines on a small number of properties. New Zealand does not have a national standard for thallium.

Thallium is an element which if present in high amounts, can be found in soil, water, and in locally grown fruit and vegetables, particularly greens. It usually enters the body via the gut, and most is excreted in urine and bowel motions within a few days.

Much is known about acute poisoning with thallium, because it has been used in the past as a rat poison in many parts of the world. However, little is known about the effects of longer term exposure to very low doses but a number of animal studies do NOT show any effects from long term exposure to low levels. As with arsenic, there is some information published from studies on communities where there is thallium in drinking water and in soil, where people eat only food produced locally, and live their entire lives in the same area. These communities are exposed to very much higher levels than could ever be experienced from Moanataiari soils, both from their food and their water supplies.

Thames' drinking water supply has now been tested for thallium and none can be detected.

Some reports suggest that chronic poisoning may be associated with tiredness, headache and difficulty sleeping but these are all very common symptoms in any community. More severe poisoning usually causes diarrhoea and vomiting, followed by loss of hair. The hair loss is quite unlike the gradual thinning of hair with age, or the development of male pattern baldness, in that normal hair actually falls over a short time, as may happen after some cancer drugs or radiotherapy.

There is no evidence to suggest that low levels of thallium exposure cause cancer or harm unborn children.

The measures recommended to reduce the risk of exposure to arsenic and lead, are all that Moanataiari residents need to do to avoid any harm from thallium in their soils.