

The use of Liquid Sea Minerals has improved plant health, reduced insect and disease pressure, and led to higher yields and better nutritive value. Case studies and Factsheets can be found at <https://tinyurl.com/Liquid-Sea-minerals>.

Liquid Sea Minerals are sourced from sea water by natural processes during table salt production. In nature and farming, minerals are lost from the soil by being washed, blown away in dust and ash and harvested in produce. Many of these minerals are deposited in the ocean.

By using Liquid Sea Minerals, small quantities of **all** minerals, big and small, are returned to the soil to assist soil biology and plants to grow at their best.



Dust storm removing minerals



Checking plant sap brix as quality indicator

Liquid Sea Minerals are now being classified as a bio-stimulant along with seaweeds, humates, amino acids and similar products. Bio-stimulants can be loosely defined as any substance or microorganism that enhances nutrient uptake, stress tolerance, or improved crop quality, regardless of their own nutrient content.

Minerals in Liquid Sea Minerals – almost all minerals may be found in sea water – but in very small amounts and in balance.

Major and trace elements – Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulphur, Sodium, Zinc, Manganese, Iron, Copper, Boron, Molybdenum

Other minerals – Nickel, Chlorine, Selenium, Silicon, Aluminium, Cobalt, Titanium, Nickel, Barium, Tin, Beryllium, Lithium, Uranium, Vanadium, Mercury, Cadmium, Chromium, Lead, Silver.

There is little risk of toxicity by heavy metals as the concentrations are extremely low.

Application

Seedlings

- Transplanting: drench with 15 ml/L water and repeat in 14 days
- Soil drenching: cover 10 square m with 15 ml/L water
- Foliar spray: mix 5 -10 ml/ L water and apply early morning or late afternoon, add a wetting agent to increase wetting, 5 ml/L will often reduce insect numbers and leaf diseases.

Farming and grazing

- Soil applications: 3 – 5 L/ha
- Foliar applications: 500ml/100L

In Australia, Olsson's produces Liquid Sea Minerals. It is available from most agricultural suppliers.

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