

TOPIC : “SOIL MINERAL BALANCING FOR HOME GARDENING”.

GUEST SPEAKER :TIM & BEC CANTRILL

MALENY GARDEN CLUB MEETING : 25 JUNE 2019 AT THE OLD WITTA SCHOOL

Tim grew up in Cairns and worked in rain forests. Moved to Brisbane and failed at gardening so became a stonemason. He gave up the heavy lifting when he discovered Vermiculture at Nutrition Farms Nutri-Tech. Met Leanne and mixed minerals for her business, taking over when she retired.

Bec travelled and worked around the world for some time then studied management and became the Chief Financial Officer in her father’s lift installation business. She met Tim, listened, learned, became convinced by his passion, read lots of books and bought \$300 worth of seeds, having a 15% success rate in one bed – but she didn’t give up.

- Healthy soil is full of micro-organisms and chemical input is disastrous
- Healthy soil = healthy plants = healthy people. Helping plants to reach their full potential needs minerals in soil; biology; compost etc to bring soil into balance. Soil mineral analysis is important to achieve best results. Calcium opens and lightens soil. Calcium/Magnesium is a most important fertility ratio. High calcium brings issues with everything else
- Calcium Sources – lime; gypsum; soft rock; blood & bone
- A good sulphur level leaches excess calcium. Magnesium tightens and closes soil in conjunction with calcium. High magnesium compromises the uptake of potassium – toxic to plants in excess
- Magnesium sources – magnesite, Epsom Salts, dolomite, magnesium sulphate
- Potassium sizes up fruit – critical for quality and yield. 90% potassium in soil is insoluble
- Without microbes potassium is not plant available
- High potassium aids uptake of iron and magnesium
- Low potassium leads to slow growth, weak stalks, seed and fruit may shrivel. Fruit is often small and poorly coloured. Manufactured soils are often at fault
- Potassium sources – potassium sulphate, rock dust, kelp, well composted manure
- Nitrogen needs microbic life to aid its benefits. Needed for chlorophyll production and vigorous growth. It is the highest concentration of any mineral in plants. Without biology in soil it won’t convert to plant nutrition
- Nitrogen sources – ammonia sulphate, blood and bone, fish emulsion, compost
- High nitrogen – fertiliser burn. Boron promotes flowering, pollen viability and good seed set. Silica is cell strengthening. Sources – diatomaceous earth
- Phosphorous is the governor of sugar and mineral content in plants and promotes vigorous early root growth. Sources – soft rock, blood and bone
- Testing soil – Lamotte/ Riannes Category measures plant available nutrients. Albrecht Category measures total amount of mineral content in the soil. High phosphorous needs sulphur to compensate and adjust level

- Tim and Bec test for these minerals in soil – sulphur, copper, iron, zinc, sodium, ammonia, cobalt, manganese, selenium
- How to amend the soil, what can be added – organic humates, diatomaceous earth, lime, gypsum, paramagnetic rock dust, blood meal, organic blood & bone, soft rock, kelp meal,
- Boron, magnesite, magnesium sulphate, Epsom Salts, copper sulphate, sulphur, zinc sulphate, zeolite, sodium molybdite, natural potassium sulphate, ammonium sulphate and worm castings
- 1. Take soil sample
- 2. Send to laboratory for analysis
- 3. Results returned to Home Soil Solutions
- 4. HSS prepares report, mineral blend recipe and 12 month biological
- 5. Annual soil balancing amendment and dry mineral fertiliser prepared and mixed by HSS
- 6. Follow directions of 12 month biological gardening program

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