NATURE'S WAY

By Trevor Galletly[1], Peter van Beek[1]

DIY INSTANT COMPOST TEA

Version 1 – Feb 23

APPLICATION FOR FARMERS

Please first read *DIY Instant Compost Tea – Introduction*' and *Brewing for Farmers* at:
https://www.gladstoneconservationcouncil.com.au/gcc-campaigns/regenerative-agriculture/

Soil biology
Soil biology is killed by sunlight. During application ensure that the biology is placed in the soil by diluting 100 L of brew with chemical free water and injecting it below the surface.

The biology will grow and spread fast, so narrow spacing of application rows is not required. With adequate moisture, applications 2 metre apart have shown to join within 100 days.

Rate – apply 100 L brew / ha.

Application by tractor
Allow the starter to settle for 10 minutes before transferring the brew to the applicator tank. Ensure any chemicals are removed from the tank before application

Transfer brew to the applicator tank. Keep pump pressure below 60 psi as high pressure can kill the biology.

Strain the brew while transferring from the brew tank to the applicator tank. (See Factsheet *Brewing for Farmers* for equipment for tranfer and strainer)

Add as much water as practical to ensure that the brew is placed below the surface when injecting the brew behind coulters, rippers or tines.

Feeding the biology in the soil
Optional additives to the brew in application tank,

- 5 L / ha Sea Minerals
- 3 – 10 L/ ha fish emulsion,
- 3 – 10 L/ha seaweed liquid and
- trace elements as required – if missing, trace elements slow photosynthesis.

Photo 1 – Rear mounted tank

Photo 2 – Front mounted tank

Photo 3 – Brew injection & seeder

Photo 4 – Brew injection behind coulter

[1] Trevor Galletly, *QDA, B AgSC - 40 years in biological farming* Peter van Beek, *Dip Agr, B Ec, M Ag studies*

Applcation by irrigation
Inject the diluted brew, sea minerals, fish emulsion and seaweed liquid into the irrigation water.

Avoid high pressure winch irrigators as biology will be killed and trickle irrigation as filtration may remove biology.

Photo 5 – Low pressure irrigator

Future Management
When the Instant Compost Tea gives you a good result – you can maintain the good soil biology by changing your management practices.

Fertilizers – a large number of major, trace and micro nutrients are required to allow all biological and plant activities and processes to run at maximum rate. The absence of a tiny quantity of one necessary trace element will restrict plant production. This may restrict photosynthesis and therefore reduce the root exudates for the soil biology. Sea Minerals provide a wide range of micro and nano minerals. See Factsheet *Liquid Sea Minerals* and *Case study – Avocados – increase in bin weight* at the above website.

Grazing – Long grazing times and continuous grazing lead to smaller sized plants for a longer time and the loss of favourites (plants the cattle eat first) e.g., legumes disappear.

Concentrated grazing with short grazing and long recovery allows favourites to regrow and gives long periods with larger plants capturing more light, pushing more root exudates to the soil and further building soils and future pasture. See Case study *From 30 steers in 2000 to 90 in 2020* at the above website.

C*ropping* – The use of chemicals, fertilizers, cultivation and monoculture are generally harmful to soil biology. A reduction of any of these may build soil biology.
Management to increase soil biological activity will lead to improved plant health, a reduction of insects and plant diseases, higher yields and higher profitability. See Case study *Soybean trial – 9% more yield* at the above website.

For full and lasting benefits, farming and grazing practices **must** be adjusted to protect and nurture the soil biology.

Further enquiries to: gladconscouncil@gmail.com