# NATURE WORKS BEST DIY INSTANT COMPOST TEA

V 3 – Mar 23

## APPLICATION FOR FARMERS

By Trevor Galletly<sup>1</sup>, Peter van Beek<sup>1</sup>

Please first read *DIY Instant Compost Tea – Introduction, Starter and Brewing for Farmers* at: https://tinyurl.com/mvecbpm2

#### Soil biology

Soil biology may be killed by sunlight if exposed for over 15 minutes. During application ensure that the biology is placed <u>in</u> the soil by diluting the 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.

#### Transferring to application tanks

Once the brew has been checked by microscope and/or smells good, allow to settle for 5-10 minutes, then filter while transferring to a distribution tank. Ensure the tank is free of chemicals.

Use a low-pressure water pump with less than 60psi as higher pressures damage or kill the biology, for instance use a PTO pump, or a 12V bilge pump.

Prevent clogging up of nozzles by screening with a very fine sieve, for instance a midge proof fly screen or fine woven insect netting or a combination.







Photo 1 - Bilge pump (12V)

Photo 2 - Funnel & flyscreen

Photo 3 – Screen in tank

Add as much water as practical to ensure that the brew is placed <u>below</u> the surface when injecting the brew behind coulters, rippers or tines. Application by low pressure irrigators is ideal.

### **Application by tractor**

Photos 4 & 5 Front and rear mounted tanks

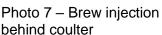




<sup>&</sup>lt;sup>1</sup> Trevor Galletly, QDA, B AgSC - 40 years in biological farming



Photo 6 - Brew injection & seeder





#### **Application 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.

#### Feeding the biology in the soil

Desirable 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 & plant growth.



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. Liquid Sea Minerals provide a wide range of micro and nano minerals.

*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. Close to a monoculture is developed.

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 an example of this in the factsheet: From 30 steers in 2000 to 90 in 2020.

Cropping – 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 <u>Soybeans.</u> website.

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

For Starter and mBrewing information: <a href="https://tinyurl.com/mvecbpm2">https://tinyurl.com/mvecbpm2</a>
Further enquiries to: <a href="mailto:trevorbundy8@gmail.com">trevorbundy8@gmail.com</a>



Photo 5 – Low pressure irrigator