

Eco Enzymes

FERMENTATION PROCESS

Observations from the second month

Eco Enzyme (EE) is a fermented liquid made from fresh fruit and vegetable waste which are mixed with brown sugar (or molasses) and water. The ratio of the three ingredients are:

1 (brown sugar) : 3 (organic waste): 10 water

In the previous edition, we had learned about the 'step by step' making of eco-enzyme. In this edition, we will understand the fermentation process that is essential to production of the enzymes. The fermentation process takes three months for tropical countries and six months for the subtropical countries.

How does fermentation occur?

According to Dr. Rosukan, the inventor of eco-enzymes, fermentation is a process that creates a natural chain of proteins, mineral salts, and enzymes. Moreover, the catalytic process releases O_3 or ozone gas that is useful in reducing carbon dioxide in the air, including the heavy metals from air pollutants.

<http://veg4planet.blogspot.com/2012/04/dr-joean-oon-greening-earth-with.html>

Decomposition by the microorganisms feeding on the brown sugar results in the fermentation of the garbage.

- During the first month of fermentation, we need to observe our containers of EE and open the lid once every two days and stir the mixture. This releases gas produced during fermentation and also brings in more oxygen for the fermentation process.
The mixture must not become rotten and must not contain maggots.
- Gas expands the plastic bottles/containers, and thus we must avoid using glass bottles/ containers which are brittle.
- Fermentation can fail in the first month if we do not close the lids of our containers tightly.

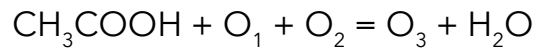
How to recover your EE if maggots are observed!

Add a similar portion of brown sugar we used to prepare EE and then close the lid of the container tightly.



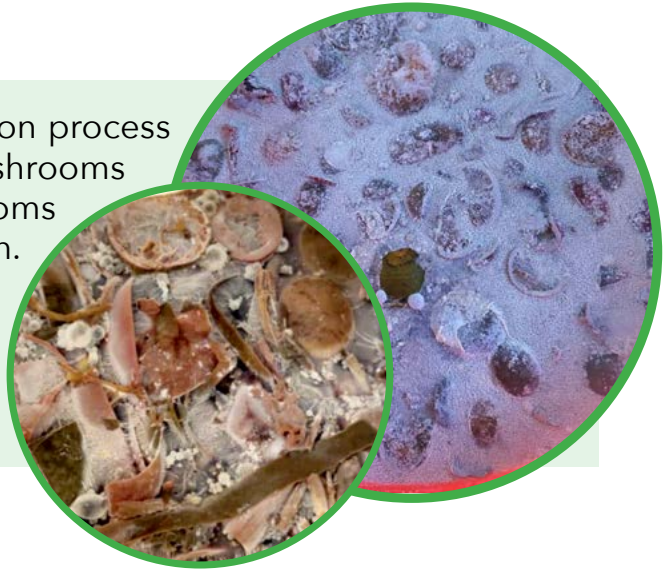
The chemical reaction during fermentation

Ozone gas will be produced during the fermentation through the chemical process as follows:



<http://www.enzymesos.com/what-is-eco-enzyme>

During the first month, the fermentation process will produce alcohol and white mushrooms will appear. The number of mushrooms will increase during the second month. Practitioners who have made eco enzymes for years have observed that these mushrooms are beneficial for non-sensitive skin.



In the second month, the fermentation will produce vinegar which has an acidic smell. These photographs were taken with a microlens camera.



In the third month, the fermentation process will produce enzymes.