

HOME COMPOSTING TIPS!



By UM Zero Waste Campaign

According to the United Nations Food and Agriculture Organization (FAO), the **COVID-19 pandemic is impacting our food systems and disrupting agricultural trade and value chains**. On a positive side, with about 2 months implementation of Movement Control Order (MCO), the amounts of air pollutant concentrations has decreased tremendously according to the European Environment Agency (EEA); largely due to reduced traffic and other human activities. **Unfortunately, the release of carbon emission from organic waste degradation at landfills are still at worrying state**. After most economic & educational sectors are forced to close operations in response to the MCO enforcement, majority of large scale and small scale farmers become the most immediate affected groups due to disruptions in production, processing, transportation or even buying behavior that negatively influence food availability. Some others even had to throw out fresh supplies of vegetables due to MCO. It is worth noted the fact that the breakdown of those dumped crops (fruits and vegetables among others) will create unnecessary emissions that heat up our climate. Given a scenario on which fruits and vegetables are dumped into a landfill or piled up as waste, anaerobic processes will break down the crop and release methane gas. A Natural Resources Defense Council reported in 2017 that food waste accounts for at least 2.6% of greenhouse gas emissions in the United States, equal to total emissions from more than 37 million cars. Hence, by recycling food waste, we would be able to help our Earth to heal by creating **sustainable sources of fertilizer** while **reducing greenhouse gases**. Be part of the Change!

Designed and prepared by UM Zero Waste Campaign (2020)

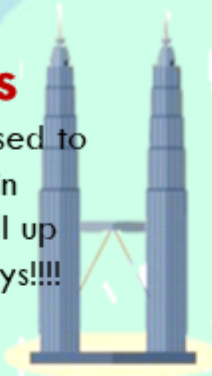


LET'S PLAY OUR PART!

Everyday about

38,000 tons

of solid waste are disposed to dumpsites/landfills in Malaysia, which will fill up KLCC towers in few days!!!!



Of this, about **15,000 tons** are food waste

WASTE HIERARCHY



Everyone deserves a second chance, so do our food waste! Why throw away and cause environmental pollution when you can treat the food waste and turn them into something valuable?

IMPACTS

CH₄ emission increase the risk of global warming potential

CH₄ CH₄ CH₄ CH₄



Leachate

Leachate formation affects groundwater quality

Leachate



FOOD WASTE COMPOSTING

Composting is a process in which organic waste such as food waste and garden waste were degraded into organic compost. The composting process occurs when biodegradable waste is piled together with a structure allowing for oxygen diffusion (aerobic) and with a dry matter content suiting microbial growth

WHAT YOU WILL NEED

Brown material to produce carbon:

Dead leaves, branches and twigs, sawdust or wood chips, coffee filters, cotton and wool rags, shredded pieces of paper, cardboard or newspaper



Green material to produce nitrogen:

Grass clippings and leaves, fruit and vegetable scraps, hair, lint, tea and coffee grounds



Water

All about composting



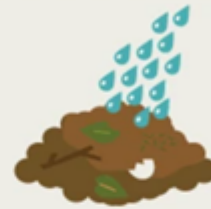
1. You can readily use UM ZWC compost sold at UM ZWC site as your fermenting bed

Or you can manually prepare the fermenting bed using rice husk and rice bran (1:1).



2. Add brown and green material in alternate layers

Try and keep the ratio roughly 3 parts browns to 1 part greens. Make sure larger pieces of material are chopped or shredded.



3. Keep the compost moist (but not too wet)

Moisture helps with the breakdown of organic matter.



4. Occasionally turn your compost mixture to provide aeration

This helps speed up the composting process and keeps things airy, which cuts the risk of things getting smelly.



5. As materials breakdown, the pile will get warm

There might even be steam. Don't be alarmed. That means it's working. Now you just have to wait.



All done!

After about 3 months, the material will turn to almost black with earthy smell (at this point you will barely see the remnants of the organic waste), it indicates your compost is ready.



How to use compost?

To get a 20% mix of compost to soil, you mix four containers of soil to one container of compost. A 20% to 50% soil blend would be the best mixture to use for pots on a deck or patio, since potted plants tend to dry out quickly.



There's a 'magic potion' used in composting to speed up the breakdown process of your food waste or to revive your compost (when the temperature started to drop). The 'magic potion' mentioned is Effective Microorganisms (EM) solution. Check out the next page on how to prepare EM solution at home!

WHAT NOT TO COMPOST

Metal, glass, and another products that do not easily breakdown, coal or charcoal ash, pet waste, bones, fats, oils dairy products and eggs (egg shells are OK), and yard trimmings treated with chemical pesticides



PREPARING THE E.M SOLUTION



INGREDIENTS A

Fermented Food



Sugared Water



Approximately

- ✦ Brown Sugar: 50g
- ✦ Tap Water: 15 Litres

MIX TOGETHER

Fermented Foods



Yoghurts, Yeast, Mushrooms, Local Wine, Fermented Soybeans, Unrefined soy sauce, etc.

Cover the mouth of bottle & **Shake Well**

Loosen the mouth of bottle And **Leave for 3 Days**



INGREDIENTS B

Fruits & Vegies Scraps



Salted Water



Approximately

- ✦ Salt: 15g
- ✦ Tap Water: 4 Litres

MIX TOGETHER

Leaf Vegetable, Fruit & Vegetable Peels



Pineapple, papaya, orange, passion fruit, cucumber, onions, and etc.

Cover the mouth of bottle & **Shake Well**

Loosen the mouth of bottle and **Leave for 3 Days**



COMBINE BOTH SOLUTION & LEAVE FOR 3 DAYS FOR BETTER FERMENTATION