

# Making compost in three weeks

## Introduction

**C**OMPOST is well known to be a good organic fertilizer and soil conditioner. It is a product derived from the decomposition of organic matter or agricultural wastes. In normal circumstances, it takes about four to five months to get compost from the composting process. However, a new technique of composting, which was developed in Korea, helps to shorten the decomposition period to only three weeks.

The new technique is similar to the normal organic decomposition process, except that it involves the inoculation of the compost heap with cultured indigenous microorganisms.

This technique involves two major steps. The first is preparing the indigenous microorganisms (IMO) inoculum, the second is preparing the compost heap.

## Preparing the IMO inoculum

### Preparation of IMO 1

Place a cup of rice in a plastic container (Fig. 1). Cover the container tightly with a clean piece of soft, white paper (known in Malaysia as “Mahjong” paper). Do not use newspaper or paper that has already been used for something else. Put the plastic container under bamboo plants for two days (Fig. 2) and the mycelium of the fungi will appear, growing on the rice (Fig. 3). Placing the container under bamboo plants has been found to be an effective way of getting IMO 1.

### Preparation of IMO 2

Mix the IMO 1 which has formed with an equal volume of brown sugar (Figs. 4 and 5). Keep the mixture in a plastic container, firmly covered with “Mahjong” paper for seven days (Fig. 6). After this time, IMO 2 has formed and is used to prepare IMO 3 and IMO 4



Fig. 1. Cup of rice in container covered with paper



Fig. 2. The container placed underneath bamboo plants



Fig. 3. Mycelium of fungi on the rice



Fig. 4. Adding brown sugar to the IMO 1



Fig. 5. Mixing the brown sugar with the IMO 1

Fig. 6. Covered container of brown sugar and IMO 1



### Preparation of IMO 3

Add 10 g of IMO 2 to a liter of water (Fig. 7). Mix thoroughly until the solution turns a brownish color (Fig. 8). Then, pour it into 8 kg of rice bran (Fig. 9). Mix it well, cover the container firmly and keep it for five days.

### Preparation of IMO 4

Take the IMO 3 and mix with an equal volume of soil (Figs. 10 and 11). This mixture is considered to be IMO 4. Cover the container firmly and leave it for five days. The presence of the fungus mycelia indicates success in effective IMO 4 formation (Fig. 12).



Fig. 7. Ten grams of IMO 2 added to water



Fig. 8. Thorough mixing of IMO 2 and water



Fig. 9. Pouring the solution into rice bran



Fig. 10. Mixing the IMO 3 with soil



Fig. 11. Thorough mixing of IMO 3 and soil



Fig. 12. Mixture covered and left for five days

### Preparing the compost heap

Prepare organic matter such as oil palm waste, leaves, cut grass, and corn stalks by cutting or shredding them into small pieces. Water the shredded materials to increase the moisture content to 60% (Fig. 13)

Make a layer of organic materials and spread a layer of IMO 4 on it. Repeat this step until several layers of organic materials and IMO 4 have been formed. The heap should not be more than 60-70 cm high (Figs. 14 and 15).

Leave the pile of organic materials + IMO 4 to decompose for three weeks. During this period, check the temperature. It should ideally be 50-60°C (Fig. 16).

After three weeks, the compost has been formed when the pile of organic matter turns from light brown to a dark brown color. The presence of white dust indicates that compost production has been a success (Fig. 17).



Fig. 13. Watering the shredded organic materials



Fig. 14. Spreading a layer of IMO 4



Fig. 15. Another layer of IMO 4



Fig. 16. Checking the temperature



Fig. 17. The mature compost