



## A simple design of worm tea brewer for the use of gardeners

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### Introduction

This simple brewer machine is made for preparing worm tea (vermi tea). Worm tea is used as liquid organic fertilizer for plant growth. Worm tea contains beneficial microbes and nutrients and can be applied to both flower and vegetable plants by pouring it directly into the soil as a root drench or spraying it on the leaves as a foliar feed. The present small capacity brewer is suitable for preparing worm tea for the use of vegetable and flower gardens.

Vegetable and flower gardeners can fabricate this simple brewing device by their own to prepare clean organic liquid fertilizer for cultivation purpose in their own garden. Rural unemployed youth can also go through the mass production of this brewing device by investing a small amount of money for self employment generation. The fabrication work requires few simple hand tools only.

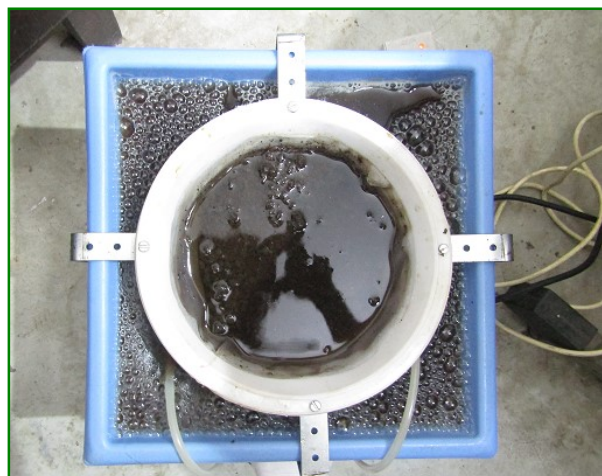
### Construction

The brewer contains a plastic container of 14Lts. capacity with tap near the bottom, a fine mesh nylon strainer, A 4 watt aquarium air pump with two air outlets, two air bubblers and air supply pipes.

The air pump is fixed with sidewall of the container and two air supply outlets of the pump are connected with two air bubblers through air supply pipes. Both air bubbles are placed just above the container bottom. The strainer is set at the top of the container.

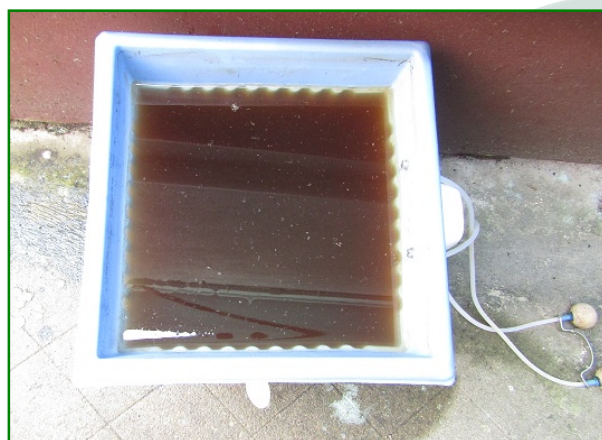
### Photograph: brewer machine





chlorinated water is filled in the container. Then the air pump is put on by connecting with 220-volt electric supply line. The air pump starts supplying air to two air bubbles. For preparing worm tea, air is to be supplied in the water continuously at least for 24 hours. After 24 hours, worm tea is prepared and ready for use.

After preparation of worm tea, it should be used within 24 hours of preparation. Dilute the worm tea with water as a ratio of one part of worm tea with ten parts of water to feed plant roots and one part of worm tea with five parts of water as foliar spray directly onto plant leaves.



Mixing of crushed jiggery into the water during brewing of worm tea at the rate of 20 gms of jiggery per liter of water provides carbohydrates for rapid reproduction of beneficial microbes in the liquid. This process makes the fertilizer more potent and effective.

#### **Cost of fabrication**

Fabrication cost of the present brewer is Rs.1200 approximately.

#### **Process of preparation**

To prepare worm tea, 600gms vermicompost is kept on the strainer screen and 12Lts of non-