Vermicompost Production in Containers

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A. The benefits of earthworm compost

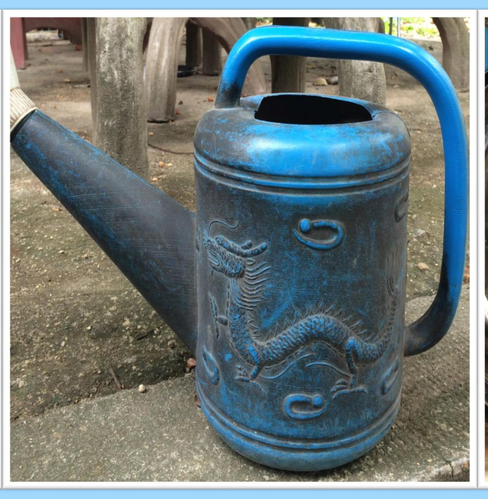
1) Improves soil physicochemical and biological properties by: a) introducing beneficial bacteria and protein through worm droppings, b) helping plants grow well, c) keeping crops healthy, d) increasing yield and e) lowering production costs.
2) Effectively recycles agricultural and household wastes to produce high quality compost.
3) Affordable since earthworms eat cow dung and most farmers in Cambodia feed cows, making it easy for farmers to collect the dung for raising earthworms for vermicompost production at their home.
4) Earthworm compost is highly useful in raising seedlings as well as crop production.
5) Vermicomposting is becoming popular as a main component of organic farming systems.

B. General Procedure and Materials

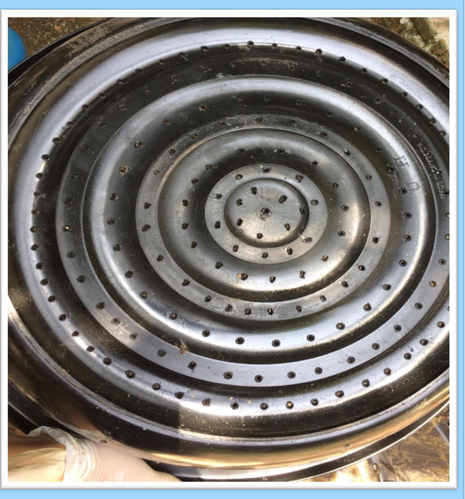
1) Use two-week old cow dung kept away from sunlight and water at least 3 days before use (to reduce acid content and release gas)

2) Coconut fibers, cut into small pieces

3) Dried leaves / Vegetable waste, cut into small pieces



4) Watering can (use to water every day to maintain moisture and temperature)



5) Black containers with holes in bottom to drain excess water (prevents overwatering which may spoil compost and kill earthworms)

C. How to produce compost with earthworms

(1)

(2)

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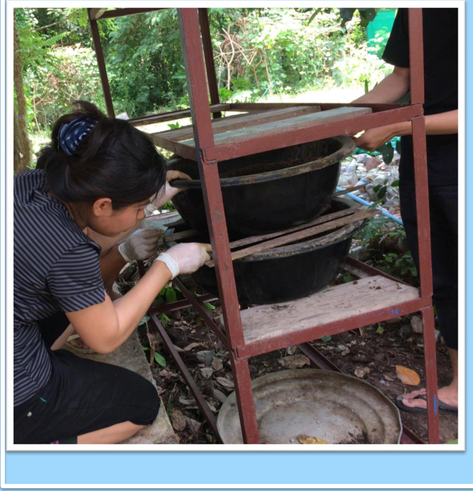

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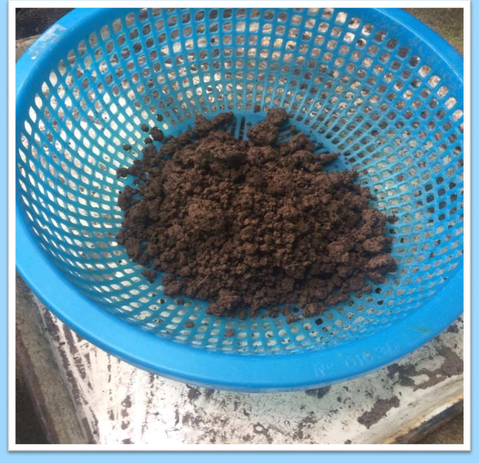

(6)

1) Mix soil, cow dung and vegetable waste thoroughly. Mix in water until moisture is around 70-80% (Until a small amount of water comes out when squeezed).
2) Transfer mixture into black containers with holes in the bottom.
3) Add 3% earthworms to the container.
4) Store container on shelf and water it every day to maintain the moisture and temperature.
5) After 3 weeks, harvest the compost from the container using a basket.
6) Place basket in the shade to dry the compost for 1-2 days.

D. How to use

1) **Use directly:** **0.1 kg** of Earthworm compost mixed with **5 kg** of soil. Apply to field **2-3** times per month.
2) **Use on farm:** **30%** of Earthworm compost is mixed thoroughly with **70%** surface soil collected from farm. Can replace 30% of farm soil with rice husk.

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