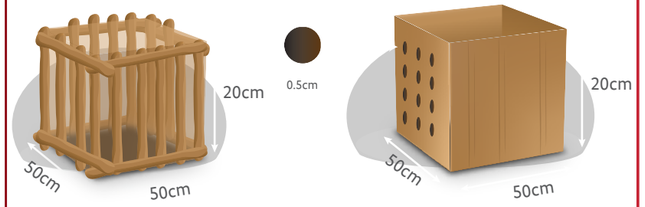
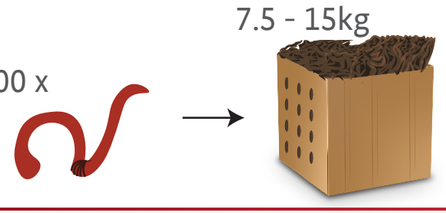
Worm type:
Eisenia fetida, commonly known as “red worms” or “red wigglers” are perfect worms for composting.

Worm bin:
The preferred size is 50 cm (length) X 50 cm (width) X 20 (height) cm with holes of 0.5 cm diameter on the top, bottom and sides. The bin with a population of 2000 worms will be able to process about 7.5-15 kg of waste weekly.

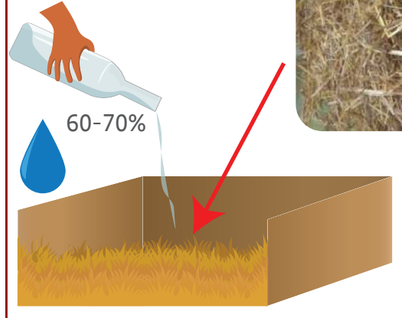
Bin can be prepared from locally available materials.





Examples of Bins

1 Bedding

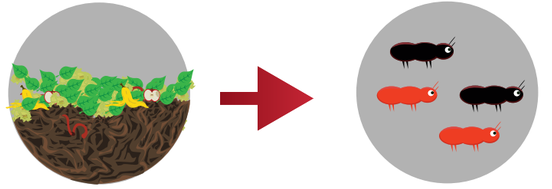


Can consist of:
Dry leaves, hay, straw, manure, and compost

2 Food

Dry plant material
Green plant material

Keep moist



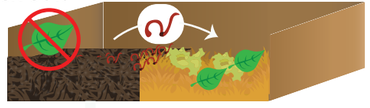
Too much food

Too little food

Worms leave bin to search for food

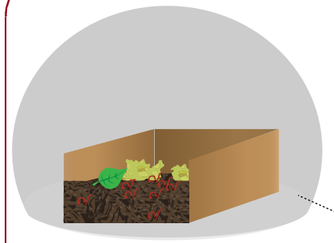
3 Harvesting

Old bedding, rich black soil



Collect vermicompost

New bedding + fresh food

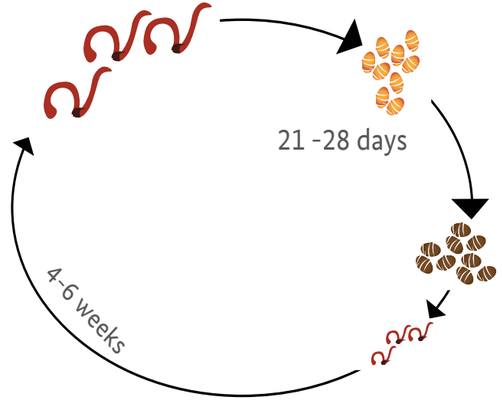


Regularly observing worm bin once a day is key to success

Reproduction:

Hermaphrodites but needs two worms to produce coccoons

Cocoons are hatched to worms



5 ESSENTIALS FOR WORM REARING

BEDDING

Any carbon source like dead & dried leaves,hay, straw, manure and compost

FOOD SOURCE

Under ideal conditions worms are consume food more than their body weight each day.

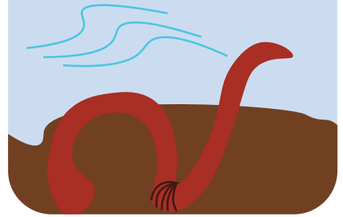
Dry, green plant materials & pre-fermented manures are suitable for worms.

ADEQUATE MOISTURE

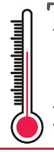
Worms require moisture in the range of 60-70%.

ADEQUATE OXYGEN

Worms need oxygen and cannot survive in anaerobic conditions.



TEMPERATURE CONTROL



15°C - 35°C

Require moderate temperatures from 15 – 35°C.
Higher temperatures (> 35°C) may result in high mortality

Prepared by: GIZ ISFM+ Project, P.O. Box 100009, Addis Ababa, Ethiopia in collaboration with MoA (V101218)

Strong Odour

Remove meat, dairy or oily items

Not enough air

Air holes are not blocked

Too much food in the bin

Provide less food

Food is exposed

Bury food completely

Fruit Flies

Food is exposed

Bury food completely

Too much food in the bin

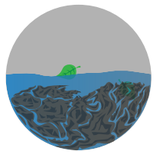
Don't overfeed worms

Mite Infestation

High mite population

Stop adding foods with high moisture contents like fruit & vegetable

Overly Moist



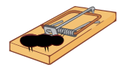
Too much water added to bedding

Stop adding water,

add paper to absorb moisture

Ant Infestation

High ant population



Place ant traps near bin and immerse bin feet in liquid

Vermicomposting

Vermicomposting is a method of composting that uses worms to break down waste into nutrient rich soil. It is a faster process than other composting methods.