



Oasis Irrigation Equipment Co. Ltd.



OASIS VERMI BED

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- The State governments are looking forward to develop the state as an organic state. This has given us a buoyancy to bring forward to you the proposal of setting up individual and commercial Vermi Compost units in various talukas. Herewith we provide an opportunity to the village people as well as the small and marginal farmers an additional source for income. These units do not require costly inputs and the raw material is easily available to the villagers, as every household almost keeps a few domestic animals. In addition to this farm waste and agriculture waste can also be used as raw material along with the manure.



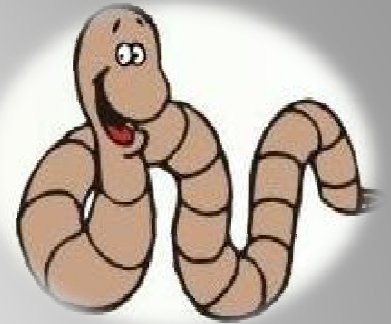
Oasis VERMIBED





VERMIBED

- Verm: a Greek word; which means any cylindrical, elongated & limbless animal which has a general tendency to crawl or burrow: “EARTHWORMS”.
- Vermi culture is process or technology of artificially cultivating or rearing earthworms for getting their byproduct called vermicompost and this process of producing vermicompost is called vermicomposting.
- The main instrument used to complete vermicomposting is known as Vermibed.





Needs of the Vermiculture:

- First question is that; why vermicompost?
- Scientifically, vermiculture castings or earthworm's excretions i.e. vermicompost, when mixed in the soil, have seven times more phosphorus, five times nitrate, 11 times potash, thrice amounts of magnesium and almost two times more calcium than normal soil.
- Earthworms are the only means to attain vermicomposting
- Earthworms are naturally demised by too much exposure to light, particularly sunlight, high and extremely freezing temperatures and non-moist soil.
- These are the basic reasons behind artificial culture of the earthworms with the help of vermibed.



Traditional Method of vermi culture:

- Traditional method has been in vogue for a long period of time by the farmers.
- In this method the culture takes place in a cemented pot above the ground or by making a pot by digging the land.
- The farmers use to put the garbage, waste and the farm yard manure in this excavated pot hole structure to make the compost.
- The traditional method has some drawbacks, which has been taken care in Oasis Vermi Bed.



Visual comparison:

Traditional vermi bed



Oasis Vermi Bed





Traditional Vermi Bed V/S Oasis Vermi Bed:

Highlights	Excavated pot hole used structure	Oasis Vermi Bed structure
SELECTION OF SITE	difficult to select place to avoid water collection	can select any place
SHIFTING OF SITE	shifting is not possible basically the excavated pot hole structure is permanent	can shift any place with minor expenses to suit the waste in 2 hours
SIZE OF THE STRUCTURE		12 ft x 4 ft x 2 ft (lxwxh)
DETAILS OF CONSTRUCTION	all side walls cannot remain without collapsing	a box structure from a very strong sheet with built in double net ventilation
TIME REQUIRED FOR COMMENCEMENTS	24 hours	2 hours
VERMIWASH	difficult to collect vermiwash	220 lt. per year
VERMI COMPOST PRODUCTION	6 m.t. per year	11 m.t. per year
VERMICULTURE PRODUCTION	difficult to retain culture they will escape from side walls	110 kg per year
PROTECTION FROM INSECTS SNAKES & RATES	cannot be protected because access of these is easy.	as above the ground level and wall surface being smooth very well protected.



■ Benefits of Oasis Vermi Compost:

- Better germination
- Improved soil texture
- Less weed infestation
- Less insects and pests attack
- Significantly more tillering, flowering and grain setting
- Less irrigation water requirement
- Additional price gain from the sale of farm produce
- Cultivation has been possible in saline and alkaline conditions.





Specifications of Oasis Vermi Bed:

- ❑ Following are the features/advantages of Oasis Vermi Bed :
- Available in size 3600 x 1200 x 600mm (LxWxH)
- U.V. Stabilized.
- Flexible and economical.
- Easy to handle and install.
- Available with facility for ventilation
- Provision for the collection of Vermi wash





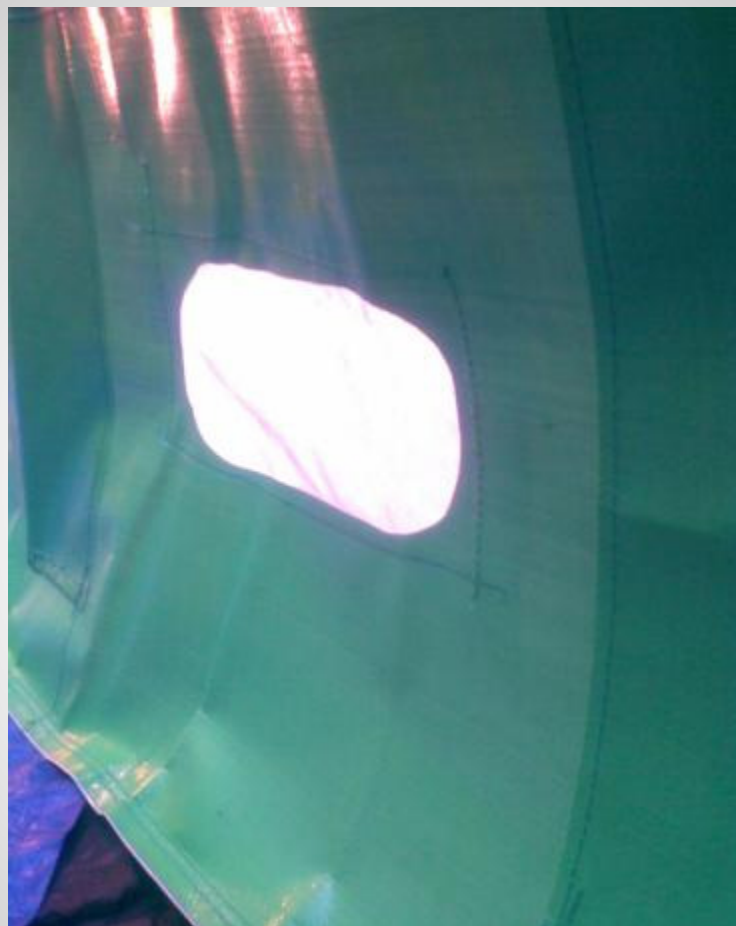
- Better distribution and availability of nutrients.
- Minimum loss of water
- Higher quantity of actinomycetes (biological organisms) .
- Improves the moisture holding capacity of the soil.





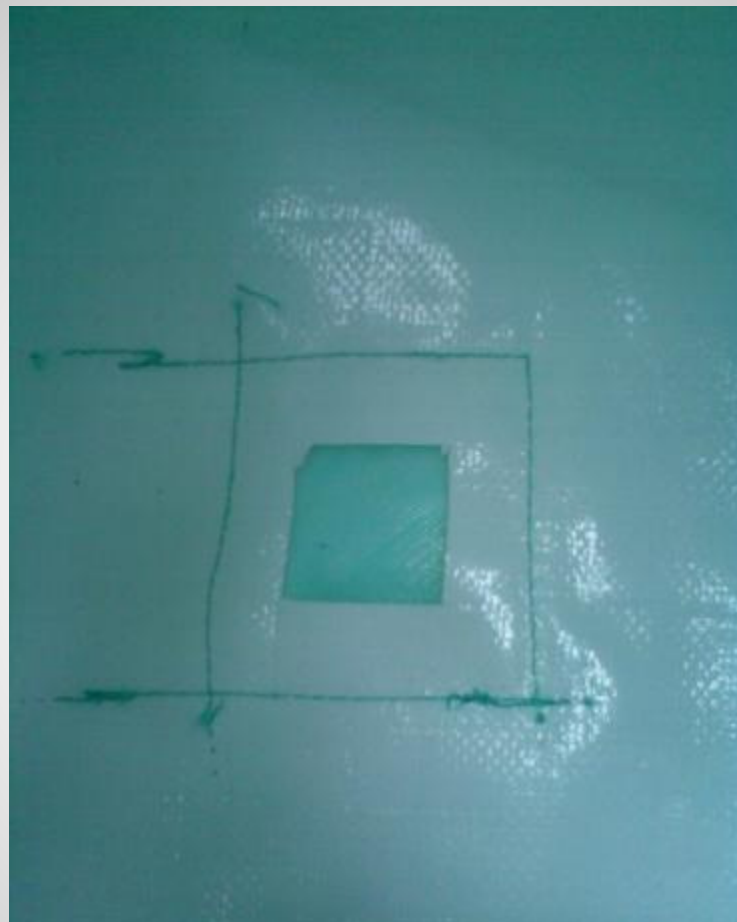
Place provided for stand

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Use of window for ventilation

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Space provided at bottom for extra water leak out



USERS MANUAL:

- ❑ Process for fixing up the bed:
 - Material required for fixing up the bed
 - ❖ Vermiwash pipe with the length of 2 fts and diameter of 2.5 inches, tub for the storage of vermiwash, iron rod and 14 circular poles (Length- 39 inches Diameter-1.5 inches)
 - Marking for the poles
 - ❖ Make foundation with 6 inches slope on the place where you have to fix up the vermibed, in order to provide proper direction for the drainage of verminwash.
 - ❖ Open the bed and put it on the foundation, and mark the foundation exactly under the pockets.
 - Fixing up the poles
 - ❖ Dig 18 inch deep on the markings of the hole should have a diameter of 6 inch; do the same for all the 14 markings. The pole should be 18 inches in the hole and 21 inches above surface. Cut the pipe vertically and put it on the surface below the bed to collect the vermiwash.



- Fixing up the bed
 - ❖ Fix the poles in to the poles slowly.
 - ❖ Adjust the bed to the surface by fixing it on the poles.

- Process for filling up the bed:
 - Putting Cow dung & Garbage, wastage in the bed:
 - ❖ Make a 6 inch layer of garbage and wastage on the surface and then second 6 inch layer of cow dung and the same has to be repeated respectively to make total 4 layers; each of 6 inch. Fourth and the upper most layer should always be of cow dung. Then spray water on the bed to bring down the temperature.

 - Putting the worms (Eisenia Fotida) in the bed:
 - ❖ When the temperature of the bed becomes normal, make 4-5 inch whole throughout the bed and leave 2kg of eisenia fotida worms.

 - Irrigation of the bed:
 - ❖ Put the water in the bed on every alternate day to maintain the moisture in the fertilizer. Repeat the process for 40-45days.



- Collection of the fertilizer:
 - ❖ When the process is complete; start collecting the fertilizer from one corner of the bed.

- Separation of worm & Fertilizer:
 - ❖ Net is used to separate the worms from the fertilizer, the worms have to be kept in a bucket with fertilizer.



Precautions to be taken while installation:

- The ground area to be free from sharp objects, hard rocks etc.
- The vermi bed to be installed in shelter under waterproof shed with Any brand tarpaulin on the roof and shade net on all 4 sides.
- The eyelets of vermi bed to be tied firmly to the pipe frame on all 4 sides.
- The length side pipes to be inserted in loops provided and tied properly to the pipes opposite each other to avoid bulging of vermi bed.
- Do not walk inside the vermi bed. Do not compact the waste by standing in the bed or before adding the worms.
- Do not overload the vermi bed beyond capacity.
- To maintain moisture level spray water on the vermi bed as and when required.
- Vermin compost manure once ready to be removed from vermi bed with hand, do not use spade, sharp objects, or any tools.
- Protect the worms from ant, rat, birds & termite.
- All information given in good faith.



CONCLUSION:

- India being a country which is highly dependent on agriculture but as we all know by the facts that now a days the Indian agriculture industry is struggling to survive and make profit. In such phase the Indian agriculture industry is seeking a miracle to take it over from this situation. To make this industry to do so, we have to take it to the commercial level.
- We are just willing to contribute in this movement of commercialization of Indian Agriculture industry and want to give our helping hand to the government by making such products which are very much helpful in developing the revenue of a farmer. This all is done by using the plastic in a productive way.
- We also expect the government to walk hand in hand with us for completing this movement.



Thank You!