Lombriculture is a modern technology which consists in transforming organic waste products organic (manure, plant debris, etc.) into humus by the intensive rearing of earthworms.

This technique permits the recycling of organic waste to obtain organic material (worm humus) and proteins (the worms are then used to feed birds, fish, pigs, etc.) This activity allows a minimal investment, minimal risk, easy administration and a high profitability due to the multiple benefits obtained.

The cullucos or earthworms are annelids (ringworms), which feed on organic matter and are very prolific. For our lombriculture program we have selected the red worm (Eisenia foetida) as an extremely prolific worm, which lives in high densities, reproduces in captivity, is very voracious, accepts all types of organic wastes, and breathes through its skin. These worms eat the equivalent of their body weight everyday and 60% of the food is expelled in the form of humus. In addition, they adapt well in all climates as long as the temperature and humidity factors are controlled.

For the installation of a lombriculture program the following basic conditions are necessary:

* Availability of sufficient organic waste materials. (manure, plant debris, kitchen waste, etc...)
* Availability of sufficient water to moisten the organic matter and maintain the beds moist, use of available resources (tools, manpower, materials, etc.).
* Receive basic training regarding the process.

For the installation of a 100 m2 lombriculture you will need the following:

· Implements: two forks, a wheelbarrow, straight shovel, spoon shovel, machete, garden hose, a sieve of 5 mm, ribbing, thermometer from 0 to 100 ° C, pH meter or litmus paper to measure acidity.

· Location: dry region, well drained, with a slight incline, near waste products. .  
  
**·** The worm beds are rectangular racks on the floor with walls 30 cm tall (wood or bricks), 1 m wide and variable length. Must have a straw or palm roof and be well protected.

**·** Organic waste should be prepared in mixtures of straw and manure and watered about 30 days.  
  
**·** Obtain about 2000 worms at guaranteed sites.

**·** Fill the beds with prepared organic matter and inoculate the worms. The food supply should be periodic and the watering should be continuous.

· The bed will be ready to cultivate humus after its third month. For this place new food in the form of fish tenderloin into bed and worms will move there. Sieve the remaining organic matter and separated it from the remaining worms.   
  
· The worms can be harvested from the beds by washing or sieving.

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| |  |  | | --- | --- | | **DID YOU KNOW?** |  | | Worms are a great food source for fish, fowl, and pigs, because they contain 60% protein and are free from illnesses. The worm humus is an excellent fertilizer used in agriculture and it up to triples crop production, and saves the farmer money by requiring lower feed purchases and eliminates the need for chemical fertilizers. It is also a great way to transform garbage and organic waste into useful material. | | |  | | |

**Contingency Plan:**

Use the resources generally used for lombriculture to elaborate organic fertilizer until the process can be reestablished.