Its A GELSEF presentation !

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MAKING BIO-FERTILIZER

Biomass rich solid waste can be bio-degraded through a simple process using spurolating *Trichoderma viride* and *Aspergillus niger*. In three weeks it produces brown coloured free flowing odourless biofertilizer which can be used in the field. *This whole process can also be automated till packaging of the decomposed material as bio fertilizer.*

Biofertilizer making process

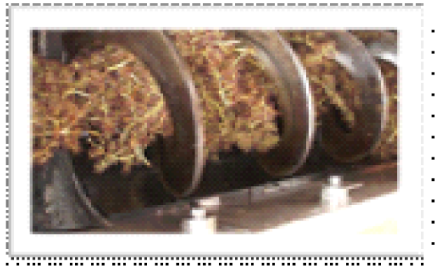
Collect and sort the bio-degradable waste material at one place.

Crush or chop the material to powder. Use screw crusher for large quantitities.

Collect the biomass in a bin/bed like container and pass steam for 10 mins. This will help in conversion of cellulose into simple sugars and fastens the process of decomposting.
(For steaming: Use a cooker and attach a rubber pipe to stem outlet. Insert the outlet at the bottom of the bin/ bed)

Cool down the powder and then add a sporulating suspension of *Trichoderma viride* and *Aspergillus niger*.

Example of a Screw crusher:



Biofertilizer making process

(Culturing Trichoderma: Get the revived culture of the fungus. This is available in market/any Agricultural university. Prepare slurry of cow dung or sugarcane molasses or three parts of cow dung and one part of molasses and add about 2 spoons of this culture. Incubate for 72 hrs in cool place in shade. This slurry can be used as seeding material every time one initiates the culture.)

Mix the partially digested solid waste with the culture (In 60 kg put 500 ml) and keep at moist place/under shade for 3 weeks. During this period see that the mixture remains moist.

Rotate the mixture periodically once in a week to hasten the process of biodegradation.

In about 3 weeks free flowing odourless biofertilizer is ready.

The process can be followed in every household/ society/industry also for waste management.