

Evidence

UI GreenMetric Questionnaire

University : Muhammad Nawaz Shareef, University of Agriculture Multan.
Country : Pakistan.
Web Address : www.mnsuam.edu.pk

[3] Waste (WS)

[3.3] Organic Waste Treatment

Original

Flow of Organic Waste Treatment



Organic Waste Treatment (Muhammad Nawaz Shareef, University of Agriculture Multan)

Description:

Three bins system will be installed at different location of the MNS-UAM for proper collection and segregation of different wastes. Separate bins for each type of waste will also be placed in each office.

Organic wastes: The wastes which are biodegradable and come from living things (animals, plants) are called organic wastes. These wastes will be collected in **green bins**. Following wastes will be included in this category;



- Peels of fruits and vegetables
- Eggshells
- Used tea bags
- Leftover food
- Grass clippings
- Leaves of trees
- Paper pieces
- Newspaper pieces
- Used tissue papers
- Twigs of trees

Management of Organic waste: The collected organic waste will be converted into organic fertilizer through composting by following steps.

Construction of composting structure: A composting structure (10x6x4 ft.) will be made with brick walls. Three walls of the structure will be of 4 feet height and one wall is of 2 feet height.

Size reduction: First of all, collected organic wastes will be crushed to reduce the particle size to 1.0 cm.

Addition of bulking agent and decomposition enhancers: Bulking agent (sawdust, dry leaves, wheat straw etc.) will be added and mixed to maintain the moisture content around 50%. 1.0 kg urea/100 kg of the mixture will also be added. If moisture content is less than 50% it will be maintained with 5% molasses solution.

Moisture content of the composting mixture will be maintained

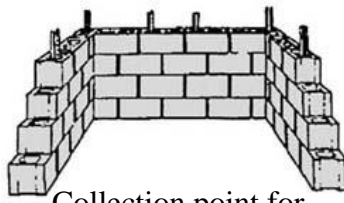
Composting: Finally, mixture will be filled in composting structure and will be covered with plastic sheet to initiate the composting process.

Stirring: Stirring of the mixture will be done weekly to increase aeration for accelerated composting.

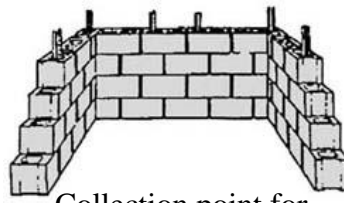
Maturity and Quality analysis: Various chemical analyses will be performed to evaluate the quality and maturity of the compost.

Germination test: Germination test with different plant seeds will be carried out to assess the toxicity of compost.

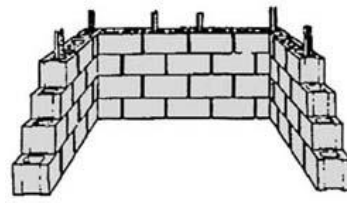
Packing and sale: After attaining the full maturity of the compost it will be packed in the specially designed packets and will be marketed and sold to gardeners and farmers.



Collection point for
Non-recyclable
waste



Collection point for
recyclable waste



Collection point for
organic waste



Windrow
composting



Shredding of
organic waste



Shredded
organic waste

