DHARAMPET M. P. DEO MEMORIAL SCIENCE COLLEGE NAGPUR

7.3.1 INSTITUTION DISTINCTIVNESS

1. **Title of the Practice:** Solid waste management by vermicomposting

Objective of the Practice

- Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean.
- It creates awareness among the students about clean environment and best from waste. Analysis will help to know concentration of nutritive elements present in variety of cast generated by different waste for carbon and other important element present in different type of casts
- To provide experiential knowledge of subject

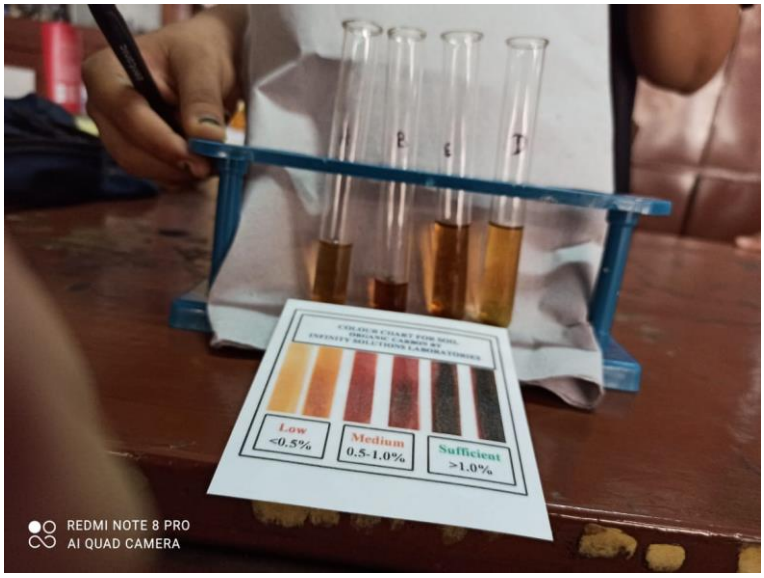
The Context: Vermi-composting activity is of immense importance in solid waste management which is beneficial for society and also keep college campus clean. It will also create awareness among the students about clean environment and best from waste. Vermicast (also called worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by an earthworm These castings have been shown to contain reduced levels of contaminants and a higher saturation of nutrients than do organic materials before vermicomposting. Vermicompost contains water-soluble nutrients and is an excellent, nutrient-rich organic fertilizer and soil conditioner. Vermi-composting is a part of applied Zoology. To create an awareness among the students about environment Department of Zoology has taken an initiative and started this activity since 2017-18. We use pit method for vermicomposting. We prepared variety of vermicasts from different wastes. Analysis was done for carbon and other important element present in different type of casts during session 2020-21.

The Practice: Uniqueness of this activity is that we made this project research oriented through which variety of vermicasts generated from different type wastes. Analysis of carbon and other important element present in different type of casts. The practice intended to produce low cost vermicompost with simplified method looking at the Vidarbha farmers for who are suffering since long and also committing suicide. We are planning to hand over the method to all possible farmers.

Evidence of success: Research paper published with students in international journal

https://drive.google.com/file/d/1OdldGKu39wpa56IWzZxL5pHph5H21tev/view?usp=drivesdk

Problems encountered and resource required- Corona Pandemic situation is the main problem encountered.



International Journal for Environmental Rehabilitation and Conservation

essence

ISSN: 0975 6272
XI (SP2): 38 — 41
www.essence-journal.com

Original Research Article

Comparative study of vermi-cast generated from flower waste and leaf waste

Paturkar, Kirti; Kulkarni, Prasad and Shambharkar, Sahil

Department of Zoology, Dharampeth M. P. Deo Memorial Science College, Nagpur, Maharashtra
Corresponding Author: kmpaturkar@gmail.com; prasdkulkarni707@gmail.com; sahilshambharkar1@gmail.com

ARTICLE INFO

Received: 28 July 2020 | Accepted: 15 August 2020 | Published Online: 30 September 2020
EOI: 10.11208/essence.20.11.SP2.125

ABSTRACT

This study evaluates concentration of essential elements (Mg, N, S, P, Ca, Zn, Fe, K, Organic carbon, C:N ratio) for plant growth present in the vermi-cast generated from flower waste and leaf waste. The flower waste from holy places and leaf waste from college yard was collected separately and cast generated from these waste analysed for the comparative study of different trace elements in cast generated from flower and leaf waste using IS and APHA method. Out of all the detected element N, the essential element for plants was found in high concentration in cast generated from flower waste(134.6mg/L) than in leaf waste cast (86.16 mg/L) while potassium(108.30mg/L)and zinc(415mg/L) is in higher concentration in leaf waste cast than the flower waste cast (potassium94.33mg/L, Zinc2.805mg/L).This implies cast generated from flower waste and leaves waste separately will be beneficial in overcoming deficiencies of particular essential element in plants.

KEYWORDS

Vermi-cast | Essential elements | Flower waste | Leaf waste | Deficiencies

CITATION

Paturkar, Kirti; Kulkarni, Prasad and Shambharkar, Sahil (2020): Comparative study of vermi-cast generated from flower waste and leaf waste. ESSENCE Int. J. Env. Rehab. Conserv. XI (SP2): 38 — 41. https://eoi.citefactor.org/10.11208/essence.20.11.SP2.125