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PRESS RELEASE

RAPID ORGANIC WASTE STABILIZER (ROWS): Patent No. 373169

The rapid organic waste stabilizer (ROWS) is machine designed by **Prof. S. K. Gupta & Nitin Kumar**, Research Scholar, Dept. of ESE for rapid conversion of solid organic waste into a nutrient rich organic fertilizer. The total NPK value of the organic fertilizer obtained from ROWS was found much higher than the standard recommended values required for organic fertilizer (FAI, 2019). The working of ROWS is based on novel thermal digestion technique in which the waste is shredded into a particle size < 10mm and then uniformly heated at a temperature around 100-150^{o}C through convection mode of heating. This process sterilise the waste and removes the moisture. The organic waste is thermally digested and the nutrients are converted into a simpler and plant available form which can directly be used as a fertilised for enhancing agricultural productivity. It takes around 4 - 6 hours to convert the solid organic waste into a completely dried powder form end product rich in NPK. Around 20 - 25 kg of organic fertilizer could be produced by feeding 100 kg of the SOW.

Salient Features:

1. Rapid composting with 4 – 6 hours.
2. Onsite reduction in the waste volume (>75%)
3. Requires less space and ease in operation.
4. Eco-friendly modular plants can be designed for various capacities as per the user's requirement.
5. Zero waste technology
6. Doesn't requires any skill operator.

Well suited for:

➢ Municipalities & *Nagar Palikas* of big cities and metros.
➢ Apartments & Residential Societies;
➢ Hostels;
➢ Hotels, restaurants, canteens, mess;
➢ Vegetable & fruit/Meat markets;
➢ Agricultural waste;
➢ Bio reclamation of mine degraded lands.

Future Plans:

A pilot scale plant has already been installed at the 48 Quarters of the IIT(ISM), Dhanbad. The future plans include installation of such more plants at the municipality levels. Discussion with various municipalities and industries is going on for the commercialisation of this technology.

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