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(57) Abstract :

The invention relates to a process for producing iron and zinc-enriched vermicompost that enhances soil fertility and promotes plant growth by improving the bioavailability of essential micronutrients. The process involves the selection of organic waste materials, earthworm species, and micronutrient sources (iron and zinc), followed by the pre-composting of the organic waste and inoculation with earthworms. Iron and zinc sources are gradually introduced into the compost during the decomposition process, where earthworms and beneficial microbes break down the waste and convert it into nutrient-rich vermicompost. The final product is sieved, cured, and tested for nutrient content, resulting in a high-quality, enriched compost suitable for agricultural use. This sustainable method reduces reliance on chemical fertilizers and promotes eco-friendly farming practices.

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