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Chemical Nutrient Analysis of Different Vermicomposts and their Effect on the Growth of *Zea Mays*

• **Vijya Laxmi** • **Kumari Varsha** • **Nandni Kumari**
• **Sister M. Stuti A.C.**

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Corresponding Author : Sister M. Stuti A.C.

Abstract : *Vermicomposts processed by two earthworm species, i.e. Eisenia fetida and Eudrilus Eugeniae, and pit compost (control) were taken first for nutrient analysis and then the effect of these composts on the growth of the vegetative crop 'Zea mays' was observed. Vermicompost of Eudrilus eugeniae was rich in nutrients like N, P, K, Mg, Mn, OC. The optimal plant growth was found in pots containing vermicompost processed by Eudrilus eugieniae after a period of one month. We found vermicompost of Eudrilus Eugeniae to be more efficacious.*

Key words : *Nutrient content, vermicompost, pit compost (control), Zea mays.*

Vijya Laxmi
B.Sc. III year, Zoology (Hons.), Session: 2011-2014,
Patna Women's College, Patna University, Patna,
Bihar, India

Kumari Varsha
B.Sc. III year, Zoology (Hons.), Session: 2011-2014,
Patna Women's College, Patna University, Patna,
Bihar, India

Nandni Kumari
B.Sc. III year, Zoology (Hons.), Session: 2011-2014,
Patna Women's College, Patna University, Patna,
Bihar, India

Sister M. Stuti A.C.
Assistant Professor, Deptt. of Zoology,
Patna Women's College, Bailey Road,
Patna–800 001, Bihar, India
E-mail : mstuti07@gmail.com

Introduction:

Earthworm is aptly called "*cinderella of organic farming"*, due to its vital role in sustainable organic farming (Rao, 2004) . Vermicomposting is an aerobic process, the process of ingestion , digestion and absorption of organic waste, carried out by earthworms followed by excretion of castings through the worm's metabolic system,during which their biological activities enhance the level of plant nutrients of organic waste (Pattnaik, 2009). "Vermicast" are popularly called as "Black gold". This compost is an odourless , clean , organic material containing adequate quantities of N, P, K, OC, Mg , Mn and several micronutrients essential for plant growth . Vermicompost is useful, as it increases soil porosity, aeration and water holding capacity . It also increases the surface area , provides strong absorbability and retention of nutrients, as well as retaining more nutrients for a longer period of time (Lunt, 1994) . In the long run , vermicompost will prove to be an indispensable natural organic fertilizer .