

**ORGANIC FARMING USING BIOCOMPOST : A CASE STUDY****TAUSIF AHMAD<sup>1</sup>**

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**ABSTRACT**

Organic farming is now become need of the hour as it utilizes solid waste of plant and animal origin to convert it into biodegradable compounds, not only saves our organic wastes but essentially meant to low cost agriculture practices and ecologically preferable. Biocomposting has been taken on farmer's field to check the yield in paddy, wheat, sugarcane and potato. It was found that these practices compels the one to think over organic farming with low cost input and comparatively higher returns avoiding the toxicity of soil and environment.

**KEYWORDS :** Organic farming, Biocompost, Agriculture practices

Organic farming is gaining momentum day by day as soil is getting infested due to excessive use of chemical fertilizers, pesticides and other harmful pollutants. Contamination of soil with toxic metals threatens both the environment and human health (Arora et al 2003). To overcome this problem and to make environment safe ,Biocomposting can be made through use of our organic wastes like leaf litters, cowdung, earthworms affords a low cost alternatives and ecologically preferable. Biocomposting is a process essentially meant to utilize solid wastes of animal and plant origin. i.e. biodegradable compounds through action of microorganism bacteria ,fungi and blue green algae .Along with these indigenous flora ,earthworms have also been used successfully as vermiculture (Ismail,1997).

**METHODS**

Certain villages have been selected for this purpose where farmers have been made aware to use organic manures like NADEP compost, blue green algae, vermicompost like manure of organic wastes Farm yard manure(F. Y. M.) and other Biodynamic preparations

named BD-500-501 (Procured from Haridwar)in the wheat, paddy potato and sugarcane fields in place of chemical fertilizers. Conventionally, these villages have been named Biovillages. The use of various biocomposts have been recorded given in the table 1.

**RESULTS**

Although the results were not very encouraging in terms of yield which ranges from 5.05% increase in Paddy, 8.41% in wheat and 25% in potato crop in comparison to chemical fertilizers. Studies are underway to isolate suitable microbes that can assist plants in better survival and yield as well. Further, how these microorganisms decompose useful compounds for ready use in the soil water interface is being investigated. Free floating Blue green algae like Nostoc, Anabaena, Aulosera has been established its role as nitrogen biofertiliser for flooded paddy fields. All these applications need bulk biomass production, besides N Fertilisation it increases VAM (VESICULAR ARBUSCULAR MYCORRHIZA) Fungi population as compost and also slow release carrier for other micronutrients specially phosphorus(Faisal,2013). The paper provides a provisional

**Table 1**

S.No.	Name of Biocompost	Rate of use (in per ha.)
1.	Liquid manure	01 litre
2.	Farm Yard manure	06 tonnes
3.	Blue green Algae (BGA)	12.5 Kg
4.	NADEP Compost	06 tonnes
5.	Vermicompost	06 tonnes
6.	BD preparations	35 gm

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list of waste substances of villages, food items or other debris like dung, leaf litters, paddy straw, sewage effluents to utilize it maximum and make soil healthy and vulnerable for plants with microbial fauna.

### CONCLUSION

The present study provides useful data for solid waste management that will ameliorate the soil in long term for sustainability .Need for immediate gain in cash crops like paddy, sugarcane, potato and use whatever means give optimum immediate returns. Many of these protocols are not sustainable particularly when the cost of cultivation increased drastically with poor returns for years. Still it can be said that continuous increasing yield with decreasing cost of cultivation compels one to think over organic farming to make our planet safe and healthy.

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