

## Effect of Vermicompost and Mycorrhizal Consortia on growth of Jatropha and Casuarina seedlings

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### ABSTRACT

Composting emerges as the most widely applicable process for handling diverse wastes in recycling. Organic wastes are composted to mitigate the environmental consequence of direct land application; composting also helps to meet the demand of organic manure for intensive farming. A very wide variety of organic residues from sources of plant, animal and industrial wastes can be composted to evolve a stable eco-friendly product of utility. The environmental friendly 'vermicomposting technology' can very well be adopted for converting these wastes into wealth. 'Vermicomposting' is a process of composting, featuring the addition of certain species of earthworms to enhance the process of waste conversion and to produce a better end product. Nursery experiments were carried out to find the effect of vermicompost on Casuarina and Jatropha seedlings. Seeds of one month old seedlings of Casuarina and Jatropha were planted in the polybags with various treatments involving different types of litters. The impact of the composts on growth and development of casuarina and jatropha seedlings were studied. The growth parameters were recorded 15, 30, 45, 60 and 75 days after planting. Vermicompost obtained out of teak vermicompost + mycorrhizal consortia can be used to produce quality casuarina seedlings. The growth of casuarina seedlings was equally promoted by all kinds of vermicompost. Coffee pulp vermicompost application registered the highest collar diameter for jatropha seedlings among all other treatments, followed by pungam vermicompost.