# Value Addition of Coir Pith by Composting: A Comparison between Coir Pith Compost and Traditional Compost

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Coir pith is a natural and renewable resource obtained from coconut husks. Though coir pith has a number of beneficial properties, its direct utilization as a manure is restricted owing to its high carbon: nitrogen (C:N) ratio (100-120:1) and lignin content (30%) which delays natural decomposition. Hence, a study was conducted at the Eastern University, Sri Lanka to convert the raw coir pith to composted coir pith and to analyze its properties and suitability as a manure. The coir pith compost was prepared by using coir pith, spawn of oyster mushroom *(Pleurotus sajor caju)* and cattle urine and allowed to decomposition. The samples of coir pith compost were analyzed for their properties such as moisture content, porosity, bulk density, particle density, pH, electrical conductivity, organic carbon, macro nutrients and Carbon : Nitrogen Ratio. They were compared with the properties of traditional compost. The results of this study revealed that certain properties of coir pith compost namely, moisture content and porosity were significantly higher than the traditional compost. The Potassium content, bulk density particle density and electrical conductivity of composted coir pith were significantly lower than the traditional compost. However, there were no significant differences in the Nitrogen, Phosphorus and pH of the coir pith compost and traditional compost. Composted coir pith had more Organic carbon than traditional compost. The Carbon: Nitrogen ratio of composted coir pith was reduced to favourable level but, remained higher than that of the traditional compost. Hence, it could be concluded that coir pith can be converted into a manure by composting. The value added final product has favourable physical and chemical properties to be used as organic manure.

Key words: Coir pith compost, Properties, Traditional compost