

## Use of Terminal Orthotropic Shoots for Production of Black Pepper (*Piper nigrum* L.) Planting Material in Sri Lanka

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Sri Lanka is a leading black pepper producer in the world. Lack of quality planting material is a major constraint in the country. Recently, the Department of Export Agriculture introduced the novel method of production of plants using terminal orthotropic shoots, which are the most vigorous shoot of pepper vine with terminal bud and few lateral shoots. Cuttings obtained from ground runners generally start to flower after three years from establishment, giving rise to fruits in lateral branches at a height of two to three feet from the base of the bush. However, the vines obtained using terminal orthotropic branches start flowering right from the base of the vine resulting in a large number of fruit bearing lateral branches. Plants propagated by terminal orthotropic branches produces flowers earlier compared to plants produced using other propagation materials. Terminal orthotropic shoots are free from *Phytophthora* infection due to no contact with soil compared to runners is an addition of benefit. This study was carried out with the objective of identifying the extent to which growers are aware on the new propagation technique, benefits, problems arising during adoption, and the role of extension services in dissemination of information regarding these planting materials. The study was conducted in the Matale district; the district has the highest land area of pepper in Sri Lanka. A 100 sample of black pepper growers and 25 pepper nursery owners were selected for the study and a pre-tested questionnaire was used for the data collection. A majority of growers were not aware of this novel method and farmers experienced both benefits and constraints at adoption. Almost all the pepper growers in Matale district use ground runners as the primary source of planting material in their cultivations, while a majority were not aware on the ability of using orthotropic terminal branches as planting material. The difficulty of finding large number of terminal shoots from pepper fields and higher price compare to the ground runners were the major problems for nursery owners. It was concluded that awareness on importance of this planting material through extension services and potential for decreasing the price of planting materials can be used as remedies to increase the use of plants produced from terminal orthotropic shoots.

**Keywords:** Black pepper, Terminal orthotropic shoots, Propagation