



Performance of different turmeric cultivars under coconut plantation for sub Himalayan Terai region of West Bengal

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Abstract : A total of fifteen turmeric cultivars were evaluated in coconut plantation under sub Himalayan terai region of West Bengal. Growth parameters, yield and yield attributing characters were recorded. The cultivar Sudarsana produced maximum yield of 20.9 t in one hectare of coconut plantation and the performance of this variety was differed statistically than the other varieties under study. Cultivar like Suguna, Suranjana and Suvarna also performed well in coconut plantation in terms of yield and they produced 17.1, 16.0 and 15.9 t fresh turmeric in one hectare of coconut plantation, respectively. More yield of these varieties were contributed by leaf number, leaf length, number of secondary finger, length, width and weight of primary and secondary finger and clump weight.

Key Words : Turmeric, Cultivar, Sudarsana, Suvarna, Coconut, Intercrop

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INTRODUCTION

Turmeric (*Curcuma longa* L) belongs to the family Zingiberaceae. It is mainly used as a condiment in vegetables, meat and fish preparation for its colour and flavour. It is also used as a preservative. The medicinal value of this crop is well known to all class of people of the world. It is believed that turmeric is stomatic, tonic, blood purifier, anthelmintic, antacid, antiperiodic and carminative. It is being used in treating gall stones and gall complaints. Moreover, Indian women use turmeric paste to make their skin more glorious and against skin problems. Thus, it is an important spice and condiment crop grown in tropical and subtropical part of the World. India ranks first in terms of area and production of turmeric. In India, turmeric is mainly grown in Andhrapradesh, Tamilnadu, Odisha, Assam, Kerala, West Bengal and almost all states except some states of extreme North India in open as well as in partial shade condition. Turmeric is an essential intercrop of plantation garden like arecanut and coconut. Wherever, arecanut or coconut plantation is there, it is cultivated as intercrop at pre and post bearing stages of the crop. Coconut

palms are spaced at a distance of 7.5-8 m. In this type of plantation, up to three years of planting of seedlings the entire area is used for intercropping as the shade is almost negligible. As the palms grow, there is progressive ground coverage by the crown up to an age of 20 yrs. After that with the increase of palm height, there is increase penetration of more quantum of sunlight through canopy. More over, about 25 per cent of ground is effectively used by coconut palm at bearing stage. Hence, there is a plenty of scope to grow intercrops in interspace of coconut garden for better utilization of land and sunlight. Different workers studied different intercrops in different places. Edison *et al.* (2006) reported that turmeric can be successfully cultivated in coconut garden of more than 8 years plantation. It was found that coconut yield was increased to more than 30 per cent when different intercrop like taro was taken. Coconut is also an important plantation crop grown in West Bengal. Different intercrops like turmeric, colocasia, elephant foot yam, ginger and amaranth were recommended for their cultivation in coconut garden. But it is essential to know that which variety of turmeric is good for cultivation in coconut garden. Hence, a study was made with

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