

COMPARISON OF ROOT TRAINER AND POLYBAG GROWN PLANTING MATERIALS OF *HEVEA*

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A propagation technique which will promote deep growth of taproot and well-developed lateral roots, is very important under a warmer and drier agro-climate influenced by global warming. Polybag plants with improper root system may not be able to withstand the various stresses characteristic of dry agro-climate. Vigorous seedlings of polycross origin propagated by means of seed-at-stake planting seem to be the best planting technique for the future. Advanced planting materials produced by the new propagation technique of *in situ* budding of stocks raised in root trainers may also perform well under an agro-climate influenced by global warming.

Keywords: Global warming, Plant propagation, Polybag plant, Root trainer, Seed-at-stake planting, Young budding.

INTRODUCTION

Climate is expected to get warmer and drier in the coming years in most of the traditional rubber growing tracts in the world. Developing appropriate technologies for cultivation of rubber under these climatic extremes will be one of the most important challenges before the rubber plantation industry in the immediate future. A propagation technique which will promote deep growth of taproot and well-developed lateral roots, is very important under a hot and dry climate influenced by global warming. At present, rubber is commercially cultivated mostly by using advanced planting materials raised in polybags. Despite various advantages, polybag plants

were noticed to have certain drawbacks like coiled taproot, meager development and deformed growth of lateral roots etc. (Soman and Saraswathyamma, 2005). Taproot coiling was reported to adversely affect wind fastness and drought tolerance of plants in several crop species (Sharma, 1987; Josiah and Jones, 1992). The present communication is an evaluation of different propagation techniques being practiced for rubber with particular reference to their comparative efficiency to survive under a warmer and drier agro-climate.

MATERIALS AND METHODS

The experiment was conducted during 2007 (Cheerakuzhy Nursery, Mannarkad)