

COIR PITH: A COST EFFECTIVE ALTERNATIVE GERMINATION MEDIUM FOR RUBBER SEED (*HEVEA BRASILIENSIS*)

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The germination medium plays a key role in the production of good quality planting materials in rubber and strongly influences the sustainability of rubber plantation industry. To study the effect of different media on germination and survival of seeds, an experiment was laid out using river sand as control and several other media such as raw coir pith, leached coir pith, new wood shavings, 6 months old wood shavings, raw saw dust, dried saw dust, rice husk, paddy straw, coconut leaf with a layer of soil, dried litter, rock powder, directly on the seed bed (without medium), soilrite and heaping of seeds on floor without any medium. All the germination associated parameters were significantly affected by the germination medium. In the experiment germination bed with river sand, leached coir pith, dried saw dust and soilrite recorded significantly higher germination percentage compared to all other germination media. The cost comparison of different germination medium showed that around 75 per cent of cost can be reduced by using coir pith as germination medium compared to river sand. Considering the cost, availability and germination capacity, leached coir pith is considered as an ideal seed germination medium for rubber.

Keywords: Coir pith, Economics, Germination medium, Germination percentage, *Hevea brasiliensis*

INTRODUCTION

In rubber (*Hevea brasiliensis*), the seeds are mainly used for raising root stock for bud grafting of clones. Root stocks are very important which influence the performance and yield of budded plants (Daud, 2012). The successful production of healthy and vigorous root stock in rubber to a great extent depends on the use of good quality seeds and management practices followed in the nursery. It is estimated that the direct contribution of quality seeds to the total production is about 15-20 per cent depending upon the crop and it can be

further raised up to 45 per cent with efficient management of other inputs (Poonia, 2013).

In India, the rubber fruits normally ripen in July- September months and seeds are popped off. Rubber seeds are classified as recalcitrant that are susceptible to deterioration and lose their germination capacity in a short time (Papadakis *et al.*, 2005; Dias *et al.*, 2010). Fresh and healthy seeds collected from the field can be kept under shade for about seven days without much loss of viability.

In rubber nursery, sowing of seeds in the germination bed has been considered as