



Effect of nursery media on emergence and growth of tamarind (*Tamarindus indica* L.) seedlings

Ugese F. D.

Department of Crop Production, University of Agriculture,
P M B 2373, Makurdi, Nigeria.

Author for correspondence e-mail: f_ugese@yahoo.com

ABSTRACT

Introduction and Objectives of the Study: Although tamarind can be considered an ornamental plant, it is much more valued as a fruit tree. The pods from this tree are regarded as its most important product. Modern trends in tamarind plantation establishment are moving away from planting at stake to raising seedlings in the nursery which are later transplanted to the field. However, tamarind seedling emergence could be slow and erratic, spreading over a period of two months even with pretreatment. Its growth rate could equally be slow. However, the use of a suitable nursery medium could address both problems. Generally, growth medium has been adjudged the most critical factor determining seedling quality in the nursery. The objective of this study was to assess tamarind seedling emergence and growth response to rice hull and saw dust based media with a view to identifying the best media for the raising of tamarind seedlings in the nursery.

Methodology and Results: Four growth media were evaluated for their effect on seedling emergence and growth of tamarind seedlings in the nursery. The nursery media comprised two rice hull based media (RHB) and two saw dust based media (SDB) formulated on volume basis in the following ratios: 1:2:3 (rice hull: poultry manure: river sand), 2:3:1 (rice hull: poultry



manure: river sand), 1:4:3 (Saw dust: poultry manure: river sand) and 1:2:3 (Saw dust: poultry manure: river sand). The soilless nursery media, filled into 7-litre plastic containers, were laid out in completely randomized design (CRD) replicated five times. Analysis of variance revealed significant effect of growth media on emergence and seedling growth of tamarind. Thus, the saw dust based media exhibited superior performance in most of the emergence and seedling growth characters considered, including dry matter attributes. This has been ascribed to the use of well weathered saw dust and inclusion of higher proportions of poultry manure in the saw dust based media which may have supplied adequate levels of nitrogen to compensate for nitrogen depletion occasioned by microbial decomposition characteristic of saw dust.

Actual or potential application of findings: The results of this can be utilized by farmers and other stake holders interested in raising quality tamarind seedlings. The technology is simple and within reach given the ready availability of nursery media constituents.

Key words: Emergence, dry matter, growth media; seedling growth, tamarind seedlings.