

Response of Six Organic Soil Media on the Germination, Seedling Vigor Performance of Jack Fruit Seeds in Chitwan Nepal

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Abstract : Organic soil media plays an important role for seed germination, growing, and producing organic jack fruits as the source of food such as vitamin A, C, and others for human health. An experiment was conducted to find out the appropriate organic soil medias to induce germination and seedling vigor of jack fruit seeds at the farm of Agriculture and Forestry University (AFU) Chitwan Nepal during June 2022 to October 2022. The organic soil medias used as treatments were as 1. soil collected under the Moringia tree; 2. soil, FYM and RH (2:1;1); 3. soil, FYM (1:1); 4. sand, FYM and RH (2:1:1), 5, sand, soil, FYM and RH (1:1:1:1) and 6. sand, soil and RH (1:2:1) under Completely Randomized Design (CRD) with four replications. Significantly highest germination of 88% was induced by soil media, followed by media of soil and FYM (1:1) i.e. 63% and the media of soil, FYM and RH (2:1;1) and the least media was sand, soil, FYM and RH (1:1:1:) to induce germination of 28%. Significantly highest seedling length of 73 cm was produced by soil media followed by the media soil, sand, and RH (1:2:1), i.e. 72 cm and the media soil, sand, FYM, and RH (1:1:1:1) and the least media was soil, FYM and RH (2:1:1) to produce 62 cm seedling length, Similarly, significantly highest seedling vigor of 6257 was produced by soil media followed by the media soil and FYM (1:1) i.e. 4253 and the least was the media sand, soil, FYM and RH (1:1:1:1) to produce seedling vigor of 1916. Based on this experiment, it was concluded that soil media collected under the Moringia tree could induce the highest germinating capacity of jack fruit seeds and then seedling vigor.

Keywords : jack fruit seed, soil media, farm yard manure, sand media, rice husk

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