

EFFECT OF GROWING MEDIA AND FERTIGATION COMBINATIONS ON GROWTH AND YIELD OF HYBRID CHILLI UNDER RAIN-SHELTER CONDITIONS

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Mineral fertilizers are essential to boost the yield and obtain higher returns from chilli (*Capsicum annuum* L.) as it is a relatively heavy user of plant nutrients. Coupling fertilizer inputs into a good growing medium is essential for a better outcome. This study was conducted at the Field Crops Research and Development Institute, *Mahailuppallama*, Sri Lanka to identify a suitable growing media and a fertigation combination for MICH HY1 chilli grown under a rain-shelter during the *Yala* season in 2022. The experiment was laid out on a split-plot design, where the fertigation combination was the main-plot factor and the growing media were the sub-plot factor. Three tested media included topsoil: organic matter: paddy husk charcoal at 50:25:25, coir husk: coir chips at 50:50, and coir husk: coir chips at 75:25. Five fertigation combinations were consisted of control (water only), Department of Agriculture recommendation+cow dung manure mixture solution, sole Albert's solution, Albert's solution+cow dung manure mixture, and nano nitrogen+P+ K+cow dung manure mixture. The growth and yield of chilli were evaluated. Promisingly, high results on plant height, SPAD reading, number of branches per plant, total flower number at 50% flowering, the total number of pods at first harvest, and pod thickness were observed in the combination of Albert's solution+cow dung manure application added topsoil: organic matter: paddy husk charcoal at 50:25:25 media. This particular medium has performed significantly better and thus is a suitable medium under rain-shelter condition. Further, this medium can be promising when growing hybrid chilli under plant house conditions in polybags.

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