

Manuscript Number: 2918 NAAS Rating: 4.96

Nutrient Release Pattern in Different Growth Media for Container Cultivation of Elephant Foot Yam

N.P. Limisha and O.K. Swadija

College of Agriculture, Vellayani, Thiruvananthapuram-695 522, India E-mail: nplimisha@gmail.com

Abstract: An experiment was undertaken to study nutrient release pattern in different growth media in order to formulate an effective growth medium for container grown elephant foot yam. The experiment was conducted during April to November 2016 with three growth media (M1 - soil : sand : FYM 1:1:1, M2 - soil : coir pith : FYM 1:1:1 and M3 - soil : coir pith : FYM 0.75:1.25:1). Higher pH and lower EC were observed in the growth medium M1 than M2 and M3 throughout the period of incubation. Dehydrogenase activity was found to be higher in the growth medium M1 upto four months of incubation and was on a par with M2 from five months onwards. But soil, coir pith and FYM in 1:1:1 ratio was found superior at end of seven months. Higher contents of organic carbon and available N, P and K were registered in the growth media soil, coir pith and FYM in 1:1:1 ration and soil : coir pith : FYM 0.75:1.25:1 throughout the period of incubation. Thus it can be concluded that the nutrient release pattern in soil, coir pith and FYM in 1:1:1 ration and soil : coir pith : FYM 0.75:1.25:1 is favourable for crop production.

Keywords: Container cultivation, Elephant foot yam, Growth media, Nutrient release pattern, Organic farming