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Influence of potting materials on nutritional composition of red onion (*Allium ascalonicum* L.) grown in different potting media

N Suthamathy and T H Seran*

Department of Crop Science, Faculty of Agriculture, Eastern University.

Onion is commercially important as a vegetable and a condiment. A nutritional analysis of onion bulbs was undertaken at the Eastern University of Sri Lanka to determine the effect of potting materials on nutritional composition of red onion (*Allium ascalonicum* L.) grown in different potting media. Potting materials used in this study for media preparation were sandy soil, cattle manure, coir dust and paddy husk ash. Four treatments with five replicates were arranged in a Complete Randomized Design. Treatments consisted of different types of potting materials in different ratios (v/v), medium 1 (sandy soil: cattle manure at ratio of 6:2) used as control, medium 2 (sandy soil: cattle manure: coir dust at ratio of 6:2:1), medium 3 (sandy soil: cattle manure: paddy husk ash at ratio of 6:2:1) and medium 4 (sandy soil: cattle manure: coir dust: paddy husk ash at ratio of 12:4:1:1). Media were prepared two weeks before the planting of bulbs and filled into polybags (50 cm diameter and 25 kg capacity). Onion bulbs were planted and managed as recommendation by the Department of Agriculture of Sri Lanka. Bulbs were collected at the time of harvesting and moisture content, dry matter, ash, K and P contents of bulbs were analyzed. The results indicated that composition of potting media have significant ($p<0.05$) influence on nutritional composition of red onion bulbs. Among the tested materials, coir dust increased moisture content of bulbs and paddy husk ash increased P and K contents, dry matter and ash content of bulbs. Among the different types of media, dry matter (15.5 g), ash (1.3 g), P (84 mg) and K (1080 mg) contents in 100 g bulbs recorded in their highest value when bulbs harvested in medium 3 that contained sandy soil, cattle manure and paddy husk ash at the ratio of 6:2:1. Paddy husk ash used as potting material in potting medium improves the nutritional composition of red onion grown in pot culture technique.

thayaseran@yahoo.com

Tel: 065-2240740