Evaluation of Efficiency of Organic Compost on Growth of Some Vegetables in Soil less Culture at Roof Top

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Abstract:

Green revolution technologies supported by policies and fuelled by agrochemicals, machinery and irrigation are known to have enhanced agricultural production and productivity.Conventional crop growing practices leads to high degree of crop specialization while organic cultivation leads to diversity of crop. In this paper an attempt has been made to evaluate the effect of cocopeat in various combination of vermicompost and cowdung compost on growth of different types of vegetables.The tallest plants of 66 cm ,92cm, and 43cm height of brinjal, tomato and chilli respectively were observed when treated with 1:3 ratio of vermicompost and cowdung i.e 5 kg and 15 kg respectively. Highest no of fruits calculated per plant were 63, 61, 46 in chilli, Brinjal and tomato respectively in the cocopeat medium supplemented with higher cowdung compost.

Keywords: Cocopeat, cow dung, vermicompost, Organic cultivation, Conventional.

Introduction:

Green revolution technologies, supported by policies and fuelled by agrochemicals, machinery and irrigation are known to have enhanced agricultural production and productivity (Reddy 2010) modern agricultural farming practices, along with irrational use of chemical inputs over the past four decades have resulted to loss of natural habitat balance, soil erosion, decreased ground water level, soil Salinization, pollution due to chemical fertilizers and pesticides, genetic erosion, ill effect on environment, reduced food quality and increase in the cost of cultivation, rendering the farmer poorer year by year. (Ram 2003).Vegetable crop growers are now looking forward to the alternative techniques and strategies for growing crops. The principle of organic cultivation is attracting crop growers all over the world because of its various advantages over modern agricultural practices. Organic farming supports and strengthens biological processes without use of inorganic remedies such as chemicals fertilizers and pesticides. Organic culture is productive and sustainable (Reganold et.al ,1993, Letourneau and Goldstein, 2001, Mader et al, 2002).Conventional crop growing practices leads to high degree of crop specialization while organic cultivation leads to diversity of crop.In conventional crop cultivation at roof top is strongly influenced by the type of soil, density of soil, its properties along with soil borne harmful microorganisms, water drainage system and soil aeration.This consideration led to the outcome that it would be preferable to standardize the soils used for determining soil contents, chemicals and composition (P Mangala et al 2009, Gawlik 2001). In the artificial soil (OECD, 1984, 2004, ISO 2012 a,), sphagnum peat represents soil organic matter. However, the cost of sphagnum peat is increasing (Meerow 1994) and also it is mined from endangered sphagnum plant ecosystems which are declining rapidly due to environmental constraints (Barkham 1993, Robert son 1993, Cushing et al 2001) and due to this, sphagnum peat become scarce and completely