



Effect of organic nutrients and biostimulants on nutrient uptake and post harvest soil available nutrients in radish cv. PUSA CHETKI

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ABSTRACT

An experiment was conducted to study the effect of organic nutrients and biostimulants on nutrient uptake and post harvest available nutrients in radish cv Pusa Chetki. The experiment was laid out in RBD (Randomized Block Design) with 13 treatments in three replications. The organic manures, viz., FYM and vermicompost combined with consortium of biofertilizers @ 2 kg ha⁻¹ were applied in the soil as basal application. The biostimulants like panchagavya, effective microorganism and Manchurian mushroom tea were given as foliar spray at 10 days intervals as three sprays. The results of the experiment revealed that the highest nutrient uptake for the major nutrients were recorded in FYM @ 25 t ha⁻¹ plus CBF @ 2 kg ha⁻¹ plus EM @ 1:1000 dilution ha⁻¹ and PK @ 3 per cent applied plots for both seasons. The post harvest soil available nutrients were observed the highest in treatment which received the application of vermicompost @ 5 t ha⁻¹ and consortium of biofertilizers @ 2 kg ha⁻¹.

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Key words : Radish, Organic manures, Nutrient uptake, Post harvest available nutrients

INTRODUCTION

Modern agriculture is heavily dependent on chemicals, which has caused problems related to environmental degradation and human health. In an intensive cropping system with vegetables, a number of crops are grown in each year on the same piece of land and accordingly the nutrient supply of each crop is to be balanced by the use of organic manures and fertilizers. The farmers tend to overuse fertilizers in vegetables. The use of organic manures like farmyard manure, vermicompost, consortium of biofertilizer and biostimulants like panchagavya, effective microorganisms, Manchurian mushroom tea were found to enhance and improve soil health, growth and yield of many crops. More over, they also help in balancing the nutrient availability to the growing plants and boost up the production and quality of crops. Hence, the present investigation has been aimed to study the effect of organic nutrients and biostimulants on nutrient uptake and post harvest soil available nutrients

in radish cv. PUSA CHETKI

MATERIALS AND METHODS

The experiment was conducted in the Department of Horticulture, Faculty of Agriculture, Annamalai University, Tamil Nadu, during two seasons viz., Jun-July -2009 (first season) and Jan-Feb - 2010 (second season), to study the influence of organic nutrients and biostimulants on nutrient status in radish. The experiment was laid out in RBD (Randomized Block Design) with 13 treatments in three replications. The treatments consisted of application of organic manures, viz., FYM @ 25 t ha⁻¹ and vermicompost @ 5 t ha⁻¹ along with combined application of consortium of biofertilizers @ 2 kg ha⁻¹ (mixed biofertilizer of N fixers P solubilizers and plant growth promoting rhizobacteria (PGPR) were applied in the soil as basal application. The biostimulants like panchagavya 3 %, effective microorganism 1:1000 dilution ha⁻¹ and Manchurian mushroom tea 3 % were given as

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