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Effect of integrated nutrient management practices on seed yield and yield contributing characters in radish (*Raphanus sativus* L) cv. CHINESE PINK

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ABSTRACT : Seed is a crucial, critical, vital and basic input in any crop production programme. The production of good quality seeds in abundance is necessary to fulfill the increasing demand of seeds in the country as well as for export potential. Therefore, a field experiment was conducted at research farm of the department of Vegetable Science, Dr. Y. S. Parmar university of Horticulture and Forestry, Nauni, Solan, HP during *Rabi* season of 2009-10 to see the effect of integrated nutrient management on seed yield and yield contributing characters in radish cv. Chinese Pink. Fifteen combinations of different treatments comprising of organic sources (vermicompost, biovita liquid and granules), biofertilizers (*Azotobacter* and PSB) and inorganic fertilizers (NPK) were chosen for the study. These treatments were replicated thrice in RBD. Significant differences were obtained among all the characters under study. The maximum seed yield, pod length, number of seeds per pod, average seed weight per pod and harvest index was recorded with the application of vermicompost + biovita (L) +75% recommended dose of NPK.

Key Words : Radish, Biovita foliar spray, Seed yield, Yield contributing characters

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Radish (*Raphanus sativus* L.) is the one of the most important root crops belonging to the family Cruciferae. It is grown both in tropical and temperate regions of the world and is probably a native of Europe and Asia (Gill, 1993). Radish is grown for its edible young, tender and fusiform roots which are eaten raw as salad or cooked as vegetable. It is a good source of minerals, vitamins A and C and also reported to have medicinal properties. Production of any crop can be increased by supplying quality inputs and seed is the most important input in any crop production programme. Good quality seed is one of the most important criteria to increase productivity. Chemical fertilizers deteriorate the quality of the produce and are expensive too, leading to reduction in net profit and returns to the farmers. Alarmed with the decline in soil health and chemicalization of modern day farming, greater emphasis on integrated nutrient management system is being given in the recent past (Kumar and Srivastava, 2006). The integrated nutrient management system approach utilizes a judicious combination of inorganic fertilizers and organic manures in building soil fertility and to increase the production potential of any crop (Yadav *et al.*, 2004). Moreover, this

approach is economically cheap, technically sound, practically feasible and is capable of maintaining the sustainability in production (Kumar and Srivastava, 2006). Therefore, integrated nutrient management practice is the only answer for the production of good quality seed without any ill effect. Keeping in view the above facts in mind, the present studies have been planned to use organic, inorganic and biofertilizers on seed yield and yield contributing characters of radish.

RESEARCH PROCEDURE

The present investigation was carried out at vegetable research farm, Department of Vegetable Science, Dr. Y. S. Parmar university of Horticulture and Forestry Nauni, Solan during *Rabi* season of 2009-10. Fifteen combination of different treatments comprising of inorganic (NPK), biofertilizers (*Azotobacter*, PSB) and organic sources (biovita granules and liquid) were chosen, which were replicated thrice in RBD. All the recommended agronomic practices were followed to raise healthy roots (Anonymous, 2009). Stecklings were prepared by observing healthy and true to type roots and transplanted