AN AJSS

An Asian Journal of Soil Science

Volume **8** | Issue 2 | December, 2013 | 198-201

Research Article

Growth and yield of coriander (*Coriandrum sativum* L.) as influenced by different levels of farm yard manure, nitrogen and plant spacings

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Received : 16.04.2013; **Revised :** 03.08.2013; **Accepted :** 16.08.2013

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Summary

A field experiment was carried out on coriander (*Coriandrum sativum* L.) during *Rabi*, 2005-06 on loam sand soil. The experiment was laid out in split-plot design having four replications along with 24 treatments comprised of eight combinations *i.e.* two levels of FYM (F_0 and F_{20}), four levels of nitrogen (N_0, N_{25}, N_{50}, and N_{75}) in main plots as well as three levels of plant spacing *viz.*, recommended (solid row, S_R), 10 cm (S_{10} cm) and 15 cm (S_{15} cm) in sub-plots with 30 cm row spacing. The application of FYM (F_{20}) produced significantly higher seed(9.8 q/ha) ,straw yield and oil yield (1.83 l/ha),plant height,dry matter accumulation, number of branches per plant, number of umbels per plant and seed weight per plant over control, whereas number of seeds per umbel and test weight were not affected significantly with application of FYM. Application of N_{75} gave significantly higher straw yield, oil yield (2.08 l/ha), dry matter accumulation, number of branches per plant,number of umbels per plant and seed weight per plant than all other lower levels of nitrogen .But plant height, number of seeds per umbel, seed yield (10.73 q/ha) were recorded maximum with application of 75 kg N/ha which was statistically at par with 50 kg N/ha (9.78 q/ha) but significantly superior over all other lower levels of nitrogen, whereas test weight was not affected significantly with application of nitrogen. The recommended plant spacing (S_R) resulted in significantly higher seed(14.29 q/ha), straw yield and oil yield (2.53 l/ha), plant height, dry matter accumulation as compared to S_{10} and S_{15}, whereas number of branches per plant, number of umbels per plant and seed weight per plant were significantly higher under wider plant spacing *i.e.* S_{15} but test weight of seed was not affected significantly under various plant spacings.

Key words : FYM, Nitrogen, Plant spacing, Yield, Solid row.

How to cite this article : Nayak, Biswa Ranjan, Samanta, P.K., Dash, A.K. and Swain, S.K. (2013). Growth and yield of coriander (*Coriandrum sativum* L.) as influenced by different levels of farm yard manure, nitrogen and plant spacings. *Asian J. Soil Sci.*, **8**(2): 198-201