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EFFECT OF SPACINGS AND ORGANIC MANURES ON GROWTH OF CORIANDER

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ABSTRACT

An experiment on "Effect of spacings and organic manures on growth of coriander was carried out during *rabi* season of 2003-2004" at Department of Horticulture, MAU, Parbhani. Different spacings of organic manures expert significant influence on growth parameters of coriander. Amongst the different organic manures, the treatment 20 t FYM recorded maximum plant height, primary branches, secondary branches, number of leaves, east-west spread and South-North spread. Amongst the different spacing, S1 (30x20 cm) was found best treatment in increasing height primary branches, secondary branches, number of leaves east west spread and south north spread. The interaction effect M1S1 (20 t FYM + 30 x 20 cm) recorded maximum east west spread.

Key words : Coriander, Organic manure, Spacing, Growth.

India is the largest producer of coriander in the world though the major portion is consumed within the country itself. In India coriander is grown on area of 5.21 lakh hectares with an annual production of 3.08 lakh millions tonnes with an average yield of 575 kg/ha (Anonymous, 2003).

The interaction of chemical fertilizers with the soils is considered less favorable to the soil environment in comparison to organic sources of nutrients which supply not only major but also trace elements and also beneficial organism to the plants. However, physical, chemical and biological properties of soil, are not maintained these three qualities of soil supplementary application of organic manures is necessary. The area under coriander as rainfed as well as irrigated crop as increasing rapidly around cities, towns and rural spots of the state the demand of coriander leaves are also increasing. Very little work has been reported on the effect of spacing and organic manure on growth of coriander. Therefore, an experiment on the "Effect of spacing and organic manures on growth of coriander" was undertaken at MAU, Department of Horticulture, Parbhani.

MATERIALS AND METHODS

The field experiment was conducted on experimental field at Department of Horticulture, Marathwada Agricultural University, Parbhani (MS) during *rabi* season of 2003-2004. The experiment was laid out in Factorial Randomized Block Design (FRBD) with four replications. Each replication consisted the treatments with three level of organic manures viz. M_1 (FYM 20 t/ha) M_2 (Vermicompost 5 t/ha) and M_3 (Biomeal 2 t/ha) and three level of spacing viz S_1 (30 cm x 20 cm) S_2 (30 cm x 15 cm) and S_3 (30 x 10 cm) these there were total 9 treatment combination.

The plot size was 3.00 m x 1.80 m. The variety selected for experiment was DWD-3 with 15 to 20 seed rate kg/ha. The seeds were sown on 18 November, 2003. the seeds were sown by opening small furrow of 3 cm depth at a distance of 20, 15, 10 cm as per the treatment seeds were sown by hand drilling and covered with soil.

The recommended dose of FYM (20 t/ha), vermicompost (5 t/ha) and Biomeal (2 t/ha) were applied at 100 per cent to the plots of given treatment before 15 days of sowing and light irrigation was given. Plants were harvested after 60 days after sowing as per the treatment. The growth observations were recorded and data were analysed statistically.

RESULTS AND DISCUSSION

The data presented in the Table-1 revealed that all the growth parameters of coriander were significantly influenced by different organic manures M_1 (FYM 20 t/ha) recorded maximum plant height (36.82 cm), it was at par with M_2 (vermicompost 5 t/ha) these significantly superior over M_3 (Biomeal 2 t/ha) these findings results are in confirmative with findings of Goyal *et al*. (1992) amongst different spacing S_1 (30 cm x 20 cm) showed highest plant height (37.71 cm), which was significantly superior over S_2 (30 cm x 15 cm) and S_1 (30 cm x 10 cm), In case of primary branches, amongst various organic manures M_1 (FYM 20 t/ha) showed maximum number