EFFECT OF NITROGEN AND PHOSPHORUS ON YIELD ATTRIBUTING AND YIELD OF DILL (*ANETHUM SOWA* ROXB)

M.K. Meena*, P.R. Kameriya and P.R. Raiger*****

Department of soil science and Agricultural chemistry, college of Agriculture,
S.K. Rajasthan Agricultural University, Bikaner-334006
Email : mk2010soil@gmail.com

Abstact: A 2-year experiment was conducted to find out the effect of nitrogen and phosphorus on growth and seed yield of dill (*Anethum sowa* Roxb). The crop planted during rabi 2006-07 and 2007-08. The nitrogen application upto 90 kg ha^{-1} significantly increased the number of umbels per plant, seeds per umbel, seed yield, straw yield and biological yield, net returns and B:C ratio. Whereas, branches per plant increased significantly upto 60 kg N ha^{-1} . Significantly higher seed yield (1239 kg ha^{-1}) , net returns (Rs.27890 ha^{1}) and B:C ratio (3.24)was recorded with 90 kg N while, significant increase in yield attributes like number of umbels per plant, seeds per umbel , seed yield, straw yield, biological yield, net returns and B:C ratio of dill was observed upto 40 kg P_2O_5 ha^{-1}. Whereas, branches per plant, test weight, harvest index, significantly increased upto 20 kg P_2O_5 ha^{-1} . Significantly higher seed yield (1163 kg ha^{-1}), net returns (Rs. 25507 ha^{-1})and B:C ratio (3.05) were recorded with 40 kg P_2O_5 $ha^{-1.}$ Interaction effect of 90kg N with 40kg P_2O_5 ha^{-1} were found significant higher for umbels per plant and seed yield.

Keywords: dill, nitrogen, phosphorus, economics

REFERENCES

Malva, N.B. and Yadav, S.N. (1997). Effect of row spacing and levels of nitrogen on growth and seed yield of coriander. *Indian Cocoa Arecanut and Spices J.,* **21** : 37-41.

Patel, B.S.; Patel, K.P.; Patel, I.D. and Patel, M.I. (2000). Response of fennel to irrigation, nitrogen and phosphorus. *Indian J. Agronomy.,* **40**(1) : 178-179

Singh, Avtar and Randhawa, G.S. (1991). Effect of cultural practices on periodic plant height and seed yield of dill (*Anethum graveolens* L.). *Indian J. Agron.* **36**: 574-577.

Tiwari, R.S. and Agrawal, Ankur. (2004). Production technology of spices. International Book Distributing Co. pp. 310-312.

Tuncturk, R. and Tuncturk, M. (2006.) Effect of different phosphorus levels on the yield and quality components of cumin (*Cuminum cyminum L.*). *Res. J. Agril. Biol. Sci.* **2**(6) : 336-340.

Verma, P.C. (1997). Effect of nitrogen, phosphorus and potash on growth, yield and quality of coriander (*Coriandrum sativum* L.). *Environ. Ecol.,* **17**: 238 - 239.