

## CHARACTERIZATION OF FLY ASH COLLECTED FROM NATIONAL THERMAL POWER PLANT

**Thaneshwar Kumar\*<sup>1</sup>, A.K. Singh<sup>2</sup>, R.G. Goswami<sup>3</sup> and Meshwar Pratap Singh<sup>4</sup>**

*Department of Soil Science and Agricultural Chemistry,  
Indira Gandhi Krishi Vishwavidyalaya, Raipur - 492 012, Chhattisgarh, India  
Email: thaneshward15@gmail.com*

*Received-18.01.2017, Revised-25.01.2017*

**Abstract:** In this study fly ash collected from the National Thermal Power Corporation (NTPC) Sipat, Bilaspur (C.G.) was characterized for its physical and chemical properties. The fly ash is slightly alkaline in reaction and very low organic carbon content. The presence of various heavy metals elements was in the order of Cr > Pb > Co > Ni. The DTPA extractable micronutrients were in the order of Fe > Mn > Zn > Cu where as total N, P, K show the trend as N > K > P. Fly ash used for enhanced crop production depending upon the nature of soil and fly ash.

**Keywords:** Fly ash, FYM, Macro, Micronutrients

### REFERENCES

**Black, C. A.** (1965). Methods of Soil Analysis. Amer. Soc. of Agro. Inc. Publ. Madison, Wisconsin, USA.

**Jackson, M.L.** (1978). Soil Chemical Analysis. Pentice Hall of India Pvt. Ltd. New Delhi. pp. 498

**Kalra, N., Jain, M. C., Choudhary, R., Hari, R. C., Vatsa, B. K., Sharma, S. K. and Kumar, V.** (2003). Soil properties and crop productivity as influenced by fly ash in corporation in soil. *Environment Monitoring Assessment*, **87**: 93-109.

**Lindsay, W.L. and Norvell, W.A.** (1978). Development of a DTPA soil test for zinc, iron, manganese and copper. *Soil Sci. Soc Amer. J.*, **42**: 421-428.

**Maiti, S.S., Mukhopadhyay, M., Gupta, S.K. and Banerjee, S.K.** (1990). Evaluation of fly ash is

useful material in agriculture. *J. Indian Soc. Soil Sci.*, **38**: 342-344.

**Ravikumar, T. N., Yeledhalli, N. A., Ravi, M. V. and Narayana Rao, K.** (2008). Physical, Physico-Chemical and Enzymes Activities of Vermish Compost. *Karnataka J. Agric. Sci.*, **21**(2) : 222-226.

**Sharma, S.K., Kalra, N. and Singh, G.R.** (2002). Soil physical and chemical properties as influenced by fly ash addition in soil and yield of wheat. *Journal of Scientific & Industrial Research*, **61**: 617-620.

**Subbiah B.V. and Asija, G. L.** (1956). A rapid procedure for the determination of available nitrogen in soils. *Current Science*, **25**: 259-260.

**Sudhir, K. Sharma and Naveen, Kalra** (2006). Effect of fly ash incorporation on soil properties and productivity of crops: A Review. *Journal of Scientific & Industrial Research*, **65**: 383-390.

\*Corresponding Author