*Third National Congress of Recycling and Reuse of Renewable Organic Resources in Agriculture*
**Islamic Azad University, Khorasgan Branch (Isfahan)**
**Agricultural Faculty, Waste and Wastewater Research Center**
**13-15 May 2008**

# Processing steel industry Kiln dust and its use in agriculture

**P. Papan[1] and A.A. moezi[2]**
1. M.Sc. of University Chamran
2. Assistant Prof. of University Chamran

Enviromental pollution due to steel industry kiln dust is well known. The kiln dust consists of considerable amount of iron and other nutritional element in a form not available to plants. On the other hand large number of horticultheral and agronomical crops grown in calcareous soils are suffering from iron chlorosis. In calcareous soils chlorotic plants do not respond to inorganic iron fertilizers properly . Even though Fe-EDDHA is the only proper remady . But that is economically beyond the reach of marginal farmers . The treatments in the prior experiment were T1- control, T2- ratio as 1:200 by weight kiln dust to suger can straw(k.s), T3- ratio as 1:100 k.s, T4- ratio as 1:50 k.s , T5- ratio as 1:25 k.s, T6- ratio as 1:12.5 k.s, T7- ratio as 1:6.25 k.s every of were which replicated there times. The above ratios were incubated under an aerobic condition for 60 days. Filtrate of incubated materials were sampled at 2,10,30 and 60 days after incubation as to measure pH, Ec and concentration of nutritional elements.The treatments brought about significant differences and increasing effects on pH, Ec as well as on P,Fe,Mn concentration of filtrate at different stage of sampling.The treatments effect was more pronounced in the case of iron concentration.

**Keywords:** Incubation, Steel industry

[1] Corresponding author Email: payvand_omid@yahoo.com