

Effect Of Coal Fly Ash On Early Growth Factors Of *Vigna acontifolia* L And *Pennisetum glaucum* L .

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ABSTRACT

Fly ash from thermal power plants can be a resource of micronutrients but with poor disposal could manifest into a serious environmental threat. Fly ash escaping into the atmosphere is a major problem and in order to understand to this problem, a study was conducted to test the application of fly ash to agricultural soil in varying concentrations and its effects on early plant growth. In the present study to understand the effects of various concentrations of fly ash (10mg, 50mg, 75mg, and 100mg) on growth and yield responses of *Vigna acontifolia* L. and *Pennisetum glaucum* L. The seeds were aseptically sown on the solidified agar previously mixed with varying concentrations of fly ash in multi well plates. Each treatment was replicated in a randomised design and observed over a period of 7 days. The seedlings were studied for their response based on germination rate, seed, vigour index, length of radicle, length of plumule and fresh weight against seeds germinated using distilled water as control. The intensity of inhibitory effect on all other parameters was directly proportional to the concentration of fly ash employed and inhibition was most prominent from 75mg. Based on the overall health of the seedling, the observed effect of coal fly ash was pronounced in *Vigna acontifolia* L. than *Pennisetum glaucum* L.

https://www.researchgate.net/publication/337464451_EFFECT_OF_COAL_FLY_ASH_ON_EARLY_GROWTH_FACTORS_OF_VIGNA_ACONTIFOLIA_L_AND_PENNISETUM_GLAUCUM_L Effect of Coal Fly Ash on Early Growth Factors of *Vigna Acontifolia* L and *Pennisetum Glaucum* L