

A REVIEW ON: ROLE OF FLY ASH ON SOIL HEALTH AND CROP PRODUCTION

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Abstract: Fly ash is a residue of burning of coal and lignite, the organic sources of energy. The micro and macro nutrients present in coal get generally concentrated in the ash. However, several studies proposed that fly Ash can be used to improve physical, chemical and biological properties of the degraded soils and is a source of easily available and cheaper nutrients for crops. Fly ash can be used for reclaiming the problem soil and enhance the crop productivity depend upon the nature of soil and fly ash. Characterization of fly ash has widely shown about its usefulness in improving soil properties and crop growth, as its disposal needs large area of land. The use of fly ash in agriculture indicates that main constituents of fly ash are silicates of iron and aluminum. It contains fairly high available major nutrients like P, K and S and micronutrients such as In, Cu, Fe, Mn and B with high bio-available heavy metals. Depending up on its source of availability. it may be acidic or alkaline in reaction and therefore, it can be used as ameliorant to reclaim acidic and alkali soils. Hence an attempt has been made to summarize the work done in recent past on the use of fly ash in crop production in this review article.

Keywords: Fly ash, Soil texture, Soil structure, Soil aggregation, Nutrient availability, Soil physical environment

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