

Phosphorus Management in Salt Affected Soil - A Review

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Abstract: *Phosphorus is the second most limiting nutrient in crop production after nitrogen. It is a constituent of cell nuclei, essential for cell division and development of meristematic tissue (Russell, 2001) and has a well-known impact on photosynthesis as well as synthesis of nucleic acids, proteins, lipids and other essential compounds. About 80 to 90% soils of Pakistan are P deficient (Memon and Puno, 1992). Deficiency limits growth of plants, especially when plants are deprived of P at early stages of growth. Deficiency reduces amino acid and protein synthesis. Correlated with this decrease in protein synthesis, there is often an accumulation of sugars in the leaf tissues, which favors phenol synthesis. The latter inhibits cell division and cell expansion as well as the development of plant tissues and organs. Phosphorous availability is influenced by various factors like soil pH, clay lattice and organic matter contents. In alkaline soils, calcareousness leads to the low recovery of P. Fixation of P in silicate clay is also responsible for deficiency. Soil salinity hinders the availability of essential nutrients to plants, amongst which the phosphate uptake by the plant in the saline soil has broadened the extent of the hazard. Hence, this work carried out to document the phosphorus management in salt affected soil and its effect of growth, yield and quality of different crops. It also creates an idea about to mitigate the deficiency of P in salt affected soil.*

Keywords: Phosphorous, Saline Soil, Growth, Yield and Quality

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