# *Phosphorus nutrition: PN - plant growth in response to deficiency and excess (Advances in tissue science a case of phosphorus in plants)*

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***Abstract***

Phosphorus (P) is an essential element determining plants' growth and productivity. Due to soil fixation of P, its availability in soil is rarely sufficient for optimum growth and development of plants. The uptake of P from soil followed by its long-distance transport and compartmentation in plants is outlined in this research. In addition, I briefly discuss the importance of P as a structural component of nucleic acids, sugars and lipids. Furthermore, the role of P in plant's developmental processes at both cellular and whole plant level, viz. seed germination, seedling establishment, root, shoot, flower and seed development, photosynthesis, respiration and nitrogen fixation, has been discussed. Under P-deficient condition, plants undergo various morphological, physiological and biochemical adaptations, while P toxicity is rarely reported. We also summarize the antagonistic and synergistic interaction of P with other macro- and micronutrients.

***Biography:***

Cyus cooper has completed his high school education at the age of 17 years from St.Peter's high school and graduated as the Dux and presently a senior student at the university of Liberia majoring biology with emphasis in medical sciences. He is passionate about science and striving to become a molecular biologist. His delight is to improve stem education in his country Liberia.

***Speaker Publications:***

1. Mediterranean Diet and Knee Osteoarthritis Outcomes: A Longitudinal Cohort Study; King's Research Portal

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