



Precision Agriculture

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ABSTRACT

Depriving natural resource base and emerging environmental pollution created the need to manage present agricultural practices to target hit accuracy. Precision agriculture focuses on precise utilization of Agri-inputs by site specific management that use technology to manage field variability while producing high profits and yield stability with less environmental impact. The unique spectral signature of available agricultural resources led to designing of database by which efficient decisions are now taken on farm with no time lapse. The wide applications of information technology, Global Positioning System, Remote sensing has made precision farming as excellent approach for sustainable intensification of crops. The more socially and economically effective way of assessing agro-ecological parameters, Crop monitoring, Soil mapping, Land suitability by precision farming techniques provide prior vigilance for future stresses. Researchers revealed the superiority of 'Nutrient Expert' based recommendations over existing practices in terms of yield profitability, while 86% of small holding Indian farmers are not having access to soil testing. The advancements in aerial photography, real time data analysis tools answer a farmer, how much to apply? Where and when to apply? The multidisciplinary approach of precision agriculture will aid in renovation of traditional farming to achieve sustainable development of India.

Key words: *Global Positioning System, Remote Sensing, Site specific management.*