

# Integrated Nutrient Management and Its Effect on Soil Fertility

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**Abstract:** *Integrated Nutrient Management (INM) is an effective and sustainable approach that combines organic, inorganic, and biological sources of nutrients to maintain soil fertility and enhance crop productivity. The continuous and excessive use of chemical fertilizers alone has led to soil degradation, nutrient imbalance, and environmental pollution. In this context, INM provides a balanced strategy for efficient nutrient utilization while preserving soil health and ecological stability.*

*INM focuses on optimizing nutrient use efficiency by integrating chemical fertilizers with organic manures and biofertilizers, thereby ensuring a steady and balanced supply of essential nutrients to crops. This approach not only improves soil physical, chemical, and biological properties but also enhances microbial activity and nutrient cycling processes.*

*The present paper highlights the concept, components, and principles of INM, along with its significant effects on soil fertility and crop productivity. It also emphasizes the role of INM in sustainable agriculture by reducing dependency on synthetic inputs and promoting environmentally friendly farming practices..*

**Keywords:** Integrated Nutrient Management, Soil Fertility, Organic Manure, Chemical Fertilizers, Biofertilizers, Sustainable Agriculture