

The place of adequate plant nutrition in future plant disease management

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Alternative plant disease management strategies are needed for the future due to concern with environment and pesticide resistance from current practice. Plant nutrition plays a crucial role in plant disease resistance and susceptibility but its application is limited. This study was carried out to determine the reasons for limited use of plant nutrient manipulation in plant disease management as well as highlight its prospects in sustainable crop farming. A documentary approach was used in fact finding from academic literature consisting of review articles and empirical studies. Findings were evaluated using SWOT analysis (S-strength, W-weakness, O-opportunities and T-threat). The results were presented in a SWOT frame, divided into four categories, strengths such as: Potentially improve crop health and yields particularly for regions in sub Saharan Africa where fertilizer consumption is suboptimal; weaknesses such as: Variation in nutrient effects depending on plant-disease complex, nutrient-disease interaction is complex and poorly understood; opportunities such as: Reduction in pesticide consumption, cost-effectiveness and environmental health and; threats such as: continued lack of awareness of the potentials of fertilizer use in plant disease management. These were all presented as a holistic analysis on a SWOT worksheet. Plant nutrient manipulation when integrated into disease management alongside other cultural practices is a promising strategy in sustaining agricultural production.

Biography

Idorenyin Otung A completed her Master's degree in Sustainable Agriculture and Food Security in 2014 from University of East Anglia, Norwich. She is aspiring to find alternative plant disease management/control methods which are sustainable and eco-friendly in her Doctoral studies. She is a budding academic and currently a Faculty at her state university. She has two published papers in peer reviewed academic journals.

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