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Food Security, Safety and Environmental Concerns: Restoring Long-term Agricultural Sustainability

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Abstract

The ongoing debate regarding “feeding the entire population through organic is feasible” is still in its establishment phase due to the demand for food security and safety. It has been observed that Organic agriculture, on average, produces lower yields and productivities as compared to chemical cultivation methods but these yield gaps can be easily and progressively patched up after a successful inter-conversion period. The increasing interest towards food quality is a clear indication that the organic products are safer, nutritious and healthier. However, some major flaws have been associated with organic farming like high price, reduced governmental subsidies (major equity issues), but the need of hour demands a holistic approach where quality and safety in terms of food production or environmental issues can't be compromised. Therefore, strategies should focus on factors like Improvements to the food chain, marketing and food supply and human consumption patterns. The need of the today's era demands a quick improving in organic strategies to increase yield parameters by approaching the methods like crop rotation, inter and mixed cropping patterns and reducing tillage. To work out the midway between advantages and disadvantages of both the systems some researches have also recommended “partial conventionalisation of organic agriculture”, which proposes a breakthrough of alterations at field management practices to allow broader aspect of pest and plant nutrient management, but these researches have been proved against the agroecological principles. The mixing up of various farming practices that reduces the risk of toxic residues and solve issues related to food security, yields and environmental issues can prove a solution. Therefore, it can be concluded that to meet demands of food, fibre, fuel and environmental issues, the individual organic practices needs some modification and should be blended with other practices like integrated management practices to ensure a long-term sustainable agriculture able to feed the entire population in terms of security, quality and ecological safety.

Key words: Land exploitation; Food security, Environmental safety; Partial conventionalisation; Organic farming

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