

Integrated Soil Fertility Management in Vegetable Production Systems: A Potential for Improved Food Security in Kenya

Millicent Akinyi Bunde

School of Agriculture and Biotechnology, University of Eldoret

Corresponding e-mail millicentbunde@gmail.com

Citation: KIBU Conference (2017). Innovative Research and Knowledge for Global Competitiveness and Sustainable Development. Proceedings of 2nd Interdisciplinary International Scientific Conference 14 – 15 June 2017. Kibabii University Main campus, Bungoma Kenya ISBN: 978-9966-59-011-4

Abstract

Many countries in the sub Saharan Africa are currently facing food security problems due to poor yields resulting from unavailability of nutrients for plants growth and development. This declining soil fertility has been accelerated by the increased population pressure on land leading to over cultivation, poor plant nutrition and inappropriate soil and water conservation measures among others. The major solution to reduced fertility is the application of integrated soil fertility management practices whereby soil improvement technologies are combined with Good Agricultural Practices (GAP) to avoid land degradation which is the major cause of reduced soil fertility. In Kenya, diversification of agricultural production is an important strategy used in ensuring food security. Unfortunately priority is given to staple and commercial foods in terms of resource allocation leaving vegetables to survive on traditional systems. Further more government projects aimed at improving food security mostly support cereal production. Nutritionally vegetables provide vitamins, proteins, carbohydrates and minerals which are responsible for good health thus enabling one to participate actively in agricultural production activities. High value vegetables provide income to small scale farmers improving accessibility to inputs for production of staple food crops. Vegetable production is advantaged by having several production systems in which integrated soil fertility management practices can easily be incorporated for increased yields. This paper describes the various vegetable production systems showing how integrated soil fertility management practices have been applied for maximum production. Proper implementation of the techniques will improve soil fertility accompanied by high yields thus improving food security in the country. Trainings through demonstrations will enhance the adoption of the technologies.

Key Words: soil fertility management; Vegetable production systems; food security