African Midwifery Studies

Iron-Bearing Soil Amendments and Wheat Yields in Kenyan Highlands: An Agricultural Adoption Study

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Abstract

In Kenyan highlands, wheat yields are often constrained by soil iron deficiency, leading to poor crop performance and farmer dissatisfaction. A mixed-methods approach was employed, including surveys, interviews, and field observations to assess both farmer perceptions and actual yield outcomes following the use of these amendments. Field data indicated that the application of iron-bearing soil amendments significantly increased wheat yields by an average of 25% in tested plots compared to untreated fields. The study supports the efficacy of iron-bearing soil amendments as a viable strategy for boosting agricultural productivity, particularly among Kenyan smallholder farmers facing soil nutrient deficiencies. Farmers should be provided with training and access to affordable iron-bearing soil amendments, along with financial incentives to encourage wider adoption in their farming practices. iron-bearing soil amendments, wheat yields, smallholder farmers, agricultural productivity, Kenyan highlands

Keywords: *Kenyan, Highlands, Soil Science, Iron Metabolism, Agricultural Economics, Participatory Research, Soil Fertility*

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