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## YOUTHS AS RECIPIENTS AND PROVIDERS OF AGRICULTURE INFORMATION – THE VERTICAL VEGETABLE GARDENING CASE IN BUSIA COUNTY, KENYA

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### ABSTRACT

The intent of this study was to assess the feasibility of engaging youths in secondary schools in disseminating agricultural information among smallholder farmers using a five-month vertical vegetable gardening technology case in Busia County, Kenya. The research employed mixed research design targeting smallholder farmers and youths in secondary schools. A sample of 132 smallholder farmers and 132 youths in their first, second, and third years of study were selected to participate in the study at the baseline survey, during the intervention, and at the closure survey. The baseline survey was used to identify gaps, followed by participatory training intervention on the mound bed, primary tower, and second wall, to create awareness about vertical vegetable gardening through young farmers' clubs, and a closure survey to assess the change caused by the intervention and the feasibility of the approach. The study used kales, black nightshade, swiss chard, capsicum and carrots as examples of vegetables suitable for vertical gardens. Data was analyzed using the Wilcoxon sign-rank test at  $p < 0.05$  level of significance, thematic and descriptive analysis. The results showed that there was a significant change in access and use of vertical gardening information by smallholder farmers. At  $P = 0.000$ , 22% of the smallholder farmers appreciated the use of vertical vegetable gardening at the closure survey, compared to 1% at the baseline survey. The dissemination of information through secondary school youths allowed for multiple delivery channels, was a good technology result demonstration approach for technology replication, and had sufficient agricultural extension activity learning scope. Significant change in the level of technology acceptance offer practical implications for policy makers to support the role of youths in agricultural extension. Future studies are needed to examine suitable agricultural extension policies and strategies to increase the successful implementation of agricultural extension through secondary schools.

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### INTRODUCTION

The number of young people (aged 15–24) in Africa is projected to increase by about 95 million by 2030. The

projected population increase demands an increase in agricultural productivity for food and nutrition security (Fan *et al.*, 2020). Youth involvement in agriculture can