

Determinants of the adoption of improved cassava varieties in Southern Ghana - logistic regression analysis

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Abstract. A benchmark adoption survey under the Root and Tuber Improvement Project of Ghana was conducted in 2001 to provide baseline indicators of adoption and impact for cassava. The sample size of the survey was 150 farmers selected at random from 18 agricultural districts under 5 of the regions of southern Ghana. The adoption rate for improved cassava varieties was 9%. The adoption intensity which is the area under improved cassava cultivation was 37% in the 2001 crop season. The mean size of fields planted to improved cassava by farmers was 3.6 hectares compared with 0.8 hectares by farmers planting local varieties. This means that farmers who plant improved cassava varieties may appear few but cultivate larger field sizes than their counterparts who plant local varieties. For farmers who never used improved cassava varieties, their reasons

were related to availability of improved cassava planting material. Most of them did not know about the improved varieties or could not get them to plant. In a logistic regression analysis to determine the factors affecting the adoption of the improved varieties, land tenure, total field size farmed in 2001 and decisions with extension staff on cassava with farmers had positive and significant effect on the adoption of improved cassava varieties. Years of self-decision on farming and whether farmers had ever bought cassava cuttings were however, negatively related and significant. This suggests that farmers who have recently been in cassava cultivation are more likely to adopt improved cassava varieties than their counterparts with longer experience. Gender and planting arrangement did not have a significant effect although they were positively related.