



## **FACTORS DETERMINING ADOPTION OF IMPROVED COWPEA VARIETIES AMONG SMALLHOLDER FARMERS IN THE DRY SAVANNAS OF NIGERIA**

<sup>1,2</sup>Mohammed, S. B., <sup>2</sup>Pangirayi, B. T., <sup>2</sup>Gracen, V., <sup>2</sup>Dzidzienyo, K. D., <sup>1</sup>Ishiyaku, F. M.,  
<sup>1</sup>Umar, M. L. and <sup>1</sup>Abdulmalik, R. O.

<sup>1</sup>Institute for Agricultural Research Ahmadu Bello University, Zaria, Nigeria.

<sup>2</sup>West Africa Centre for Crop Improvement, University of Ghana, Accra, Ghana.

**Corresponding Author's E-mail:** [bsmohammed@abu.edu.ng](mailto:bsmohammed@abu.edu.ng) **Tel.:** +2348069299881

### **ABSTRACT**

The success of modern-day plant breeding is determined by adoption and use of improved crop varieties. Several improved cowpea varieties have been released in the last few decades in Nigeria. This study thus investigated the extent of use of improved cowpea varieties among smallholder farmers and factors influencing their adoption. To understand the extent and factors influencing adoption of these varieties, we used primary data from 420 households spread across 36 communities of three major cowpea growing states in the north-western part of Nigeria. Data collected on the use and non-use of improved varieties was analyzed using a binary logit regression model. Gender, age, household size, education, years of experience in cowpea cultivation, knowledge of nutrient deficiency, cropping system, attendance of cowpea field-days and contacts with extension agents were considered as independent variables that influence farmers' decision to adopt improved varieties. Four variables: years of cowpea cultivation experience, level of education, cropping system and contacts with extension services, were important in determining farmers' probability of using improved varieties of cowpea. Cowpea breeding programmes should incorporate farmer preferences in planning and designing of new varieties to ensure higher adoption. We recommend enhanced promotion and demonstration of available improved cowpea varieties and other production technologies as contacts with extension agents was among the most important factors influencing the use of improved cowpea varieties among farmers.

**Keywords:** Adoption, Cowpea varieties, Determinants, Insect pests, Yield.