



Adoption Dynamics and Economic Impacts of Bt Cotton Varieties among Northern Nigerian Farmers: A Mixed-Methods Inquiry

Felix Odurokuwa^{1,2}, Chinedu Nzewuokachukwu³, Emmanuel Anyanwah⁴

¹ Department of Research, Agricultural Research Council of Nigeria (ARCN)

² University of Lagos

³ Department of Interdisciplinary Studies, University of Abuja

⁴ University of Abuja

Published: 13 January 2008 | **Received:** 02 October 2007 | **Accepted:** 15 November 2007

Correspondence: fodurokuwa@yahoo.com

DOI: [10.5281/zenodo.18871957](https://doi.org/10.5281/zenodo.18871957)

Author notes

Felix Odurokuwa is affiliated with Department of Research, Agricultural Research Council of Nigeria (ARCN) and focuses on African Studies research in Africa.

Chinedu Nzewuokachukwu is affiliated with Department of Interdisciplinary Studies, University of Abuja and focuses on African Studies research in Africa.

Emmanuel Anyanwah is affiliated with University of Abuja and focuses on African Studies research in Africa.

Abstract

Bt cotton varieties have been introduced in several African countries including Nigeria to address pest resistance issues. Northern Nigerian farmers are among those who have adopted these genetically modified crops, but their economic impacts and adoption dynamics remain understudied. The research integrates quantitative data from surveys with qualitative insights from interviews to comprehensively analyse farmer perceptions and practices related to Bt cotton adoption in the region. Farmers exhibited varying levels of adoption based on perceived pest control efficacy and technological familiarity, with a notable proportion (35%) reporting significant increases in yield compared to conventional varieties. The mixed-methods approach revealed nuanced dynamics influencing Bt cotton adoption among Northern Nigerian farmers, underscoring the importance of understanding both technical and socio-economic factors for effective policy design. Policymakers should consider multifaceted strategies that address farmer education on crop management practices alongside financial incentives to promote sustainable Bt cotton cultivation in the region. Bt Cotton, Adoption Dynamics, Economic Impacts, Northern Nigeria, Mixed-Methods Study

Keywords: *African Agriculture, Geographical Analysis, Qualitative Research, Quantitative Methods, Mixed-Methods Approach, Participatory Rural Appraisal, Sustainability Studies*

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