

**EFFECT OF AGRICULTURAL TECHNOLOGY ADOPTION ON HOUSEHOLD
INCOME AND EXPENDITURE IN NORTHERN, UGANDA**

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ABSTRACT

Despite the increasing promotion and adoption of agricultural technologies, there is limited research on the actual impact of these technologies on the income and welfare of farming households. Thus, this study assessed the effect of agricultural technology adoption on the income and expenditure of farming households in northern Uganda. A cross-sectional survey design was employed to collect data from a sample of 379 farmers in northern Uganda. Data was analyzed using descriptive statistics, the inverse propensity score weighting (IPSW) technique, and; instrumental variable (IV) estimation methods. The study findings reveal that the majority of the farmers fell under the late majority (39%) and laggard (27%) adopter categories. Also, farmers who adopted crop-based technologies on average, earned more income (UGX 301,539 equivalent to USD 78.73) compared to farmers who did not adopt the technology. On the effect of technology adoption on the expenditure of farmers, the study finding shows that farmers, who adopted crop based technologies on average, had more resources to spend on household food consumption and household welfare compared to farmers who did not adopt. Based on the findings, the study concludes that crop based technologies adoption positively affects the income and welfare of farming households and recommended amongst others that efforts should be focused on targeted interventions to raise awareness, educate, and provide resources to encourage farmers to adopt new technologies.

Keywords: *Agricultural technology adoption, household income, household expenditure, Northern Uganda*