



## **Adoption of Conservation Agricultural Practices and Their Effect on Crop Yield**

### **(A Case Study of Wudil Local Government Area, Kano)**

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#### **Introduction**

Conservation agriculture is promoted as a sustainable approach to enhance crop yield, improve soil health, and mitigate environmental degradation. This study examined the adoption and effect of conservation agricultural practices among farmers in Wudil Local Government Area, focusing on practices such as minimum tillage, crop rotation, and cover cropping.

#### **Methodology**

Primary data were obtained through well-structured questionnaires and interview schedules. A purposive sampling technique was utilized to select 95 respondents. The data was analyzed using descriptive statistics such as percentage, average and standard deviation and qualitative information was examined and utilized thematic examination and chi – square test.

#### **Result and Discussion**

Result revealed that (65.3%) were male. 31 - 40 years had the highest age range (44.2%) of population. (44.2%) had a secondary school education. 50.5% owing 1 - 3 hectares of land. (71.5%) of the respondent adopt in conservation agriculture. (48.4%) practices crop rotation. (71.6%) observed increased in crop yield. While 60% received support and training for conservation agricultural practices. Which means the statistical analysis conducted to test the three main hypotheses of the study. Therefore, According to (71.5%) indicated that they have adopted one or more conservation practices. The high adoption rate was statistically significant, as indicated by chi-square test for proportion ( $\chi^2 = 17.69$ ,  $p < 0.001$ ), confirming that a substantial majority of farmers in the study area have integrated conservation agricultural practices.

#### **Conclusion**

The study concluded that conservation agricultural practices are both widely adopted and beneficial for farmers in wudil local government area. The positive effect on crop yield highlighted the effectiveness of these practices in improving productivity, aligning with broader agricultural goals and sustainable farming and food security.

**Keywords:** Conservation Agriculture, Tillage, Crop Rotation, Cover Cropping, Crop Yield.