

Comparative study of the technical efficiency of the cotton farms in the towns of Banikoara and Savalou

Authors : Boukari Abdou Wakilou

Abstract : Benin is one of West Africa's major cotton-producing countries. Cotton is the country's main source of foreign currency and employment. But it is also one of the sources of soil degradation. The search for good agricultural practices is therefore, a constant preoccupation. The aim of this study is to measure the technical efficiency of cotton growers by comparing those who constantly grow cotton on the same land with those who practice crop rotation. The one-step estimation approach of the stochastic production frontier, including determinants of technical inefficiency, was applied to a stratified random sample of 261 cotton producers. Overall, the growers had a high average technical efficiency level of 90%. However, there was no significant difference in the level of technical efficiency between the two groups of growers studied. All the factors linked to compliance with the technical production itinerary had a positive influence on the growers' level of efficiency. It is, therefore, important to continue raising awareness of the importance of respecting the technical production itinerary and of integrated soil fertility management techniques.

Keywords : technical efficiency, soil fertility, cotton, crop rotation, benin

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