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## Applied Cognitive and Applied Evaluation of Citrus Producers as Related to Agricultural Operations for Citrus Orchards (Al-Gorair Region - Merowe Locality - Northern State - Republic of Sudan)

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### Abstract

Studying in countries such as ours in the third world is very important, especially with the spread of illiteracy and lack of education among large groups of the population, especially among the rural population, who are mostly farmers, In addition to poor agricultural extension coverage. The aim of the study is cognitive and applied evaluation of agricultural practices for citrus producers, to achieve this aim the study was conducted in the al-Gorair region - Northern State - Republic of the Sudan in 50 orchards that grow citrus trees, which contain about 2454 citrus tree in total with an average of 52 tree per orchard. A questionnaire was prepared to measure the farmers' knowledge and application level of agricultural operations in citrus orchards on three axes (axis of citrus orchards establishment, tree pruning operations, other agricultural operations of irrigation, fertilisation, identification of insects, diseases and control) Each of those three axes contained a group of items. The data were analysed and frequencies and percentages were used to describe the knowledge about the elicited issues with regards to the Citrus Orchards in the study area. The study clearly shows that there is a general weakness in knowledge and application of agricultural operations in citrus orchards. The study recommends that the responsible authorities (agricultural extension, Horticultural Sector, Agricultural Research in the Northern State - Republic of Sudan) intensify activities that increase the knowledge of farmers in Al-Gorair region on agricultural operations in citrus orchards to increase knowledge percentage and therefore an application of good methods recommended to increase the citrus productivity which it will increase the farmers income in the region.

**Keywords:** Agricultural operations, al-Gorair region, citrus orchards