

# Suitable Agro-ecologies for Cashew (*Anacardium occidentale* L.) Production in Ghana

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## Summary

Among the non-traditional crops being promoted in Ghana is cashew (*Anacardium occidentale* L.). Cashew production in Ghana is limited to three agro-ecologies, namely the Interior Savanna, Forest Savanna Transition and Coastal Savanna. The paper describes the climatic conditions and soil characteristics, which are suitable for cashew production in these three agro-ecologies. The Forest Savanna Transition is ranked as highly suitable for cashew production. Majority of the soils in this zone are deep (> 100 cm), medium-textured with few limitations and the rainfall amounts are optimum for the crop. The Interior Savanna, which is moderately suitable for the crop, has majority of the soils being gravelly and concretionary. The Coastal Savanna is ranked marginally suitable. Climatic conditions, especially rainfall amounts, constitute the major limitations to the optimum production of the crop in the zone. Irrespective of agro-ecology, the most suitable soils in the three zones are Luvisols, Lixisols and Acrisols. Associated with these soils are Plinthosols and Arenosols, which are marginal for the crop. All the soils are inherently low in fertility.

## Introduction

Cashew is ranked among the most important edible nuts in global commerce and the confectionary industry. Apart from the nuts, the tree as a whole has a variety of uses. The bark and leaves of the tree are used in the treatment of gastro-intestinal disorders such as dysentery and diarrhoea. Resins obtained from the tree are of commercial value in the book industry due to their adhesive properties. According to Irvine (1961), wood from the tree is very resistant to termite attack. He also stated that cashew nuts are known to reduce blood cholesterol and related problems while the tree can be easily incorporated in farming systems, especially agro-forestry programmes.

Addaquay & Nyamekye-Boamah (1998) reported that cashew production in Ghana actually began in the 1960s under the then government's savanna afforestation programme. This programme resulted in

the establishment of plantations in the Volta, Greater Accra, Eastern and Brong Ahafo regions of the country, but improper care of the plantations and poor management practices in the ensuing years resulted in drastic decline in yields, and the plantations were subsequently abandoned. However, starting from the mid-1990's, a renewed interest has been shown in the cultivation of the crop in Ghana. This is due to the prominent place given to the crop in the non-traditional export sector. Records from the Ghana Export Promotion Council on the export performance of the crop under the Cashew Export Development Programme (1990-1998) show that the export of raw nuts increased from a mere 15 metric tonnes in 1991 (valued at almost US\$9,000.00) to over 3,570 metric tonnes (valued at about US\$1,844,200.00) in 1997.

Cashew does well under high temperatures especially within a range of 15-35 °C with an optimum range of 24-30