

# The African Yam Bean (*Sphenostylis stenocarpa*): A Neglected Crop in Ghana.

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## Abstract

The African yam bean (*Sphenostylis stenocarpa* Hochst ex A. Rich) is a small-holder's crop in Ghana. There is danger of this legume disappearing from the hands of traditional farmers due to the popularity of the major legumes. This paper highlights the potential of African yam bean in contributing to food security in Ghana, steps initiated to assemble and conserve available germplasm in order to prevent extinction and research efforts required to facilitate its improvement and development as a viable commercial crop. Information gathered during germplasm collection trips on cultivation and uses are also presented.

*Key words:* African yam bean, food security, germplasm, Ghana, legume, neglected crop

## Introduction

African yam bean (*Sphenostylis stenocarpa* Hochst ex A. Rich) is a herbaceous leguminous plant occurring throughout tropical Africa (Porter, 1992). It is often cited among the lesser-known and underexploited species (Rachie & Roberts, 1974; Anonymous 1979; Edem *et al.*, 1990; Ene-Obong & Okoye, 1992; Bennett-Lartey *et al.*, 1993; Amoatey *et al.*, 1997).

In Ghana, the African yam bean typifies a neglected traditional crop. There is no record indicating when it entered into cultivation. However, for several decades it has been cultivated and maintained by traditional farmers but has not received any attention from researchers. In areas of cultivation it serves as the security crop prior to the new season's harvest of main staples such as maize, sorghum, yam and cassava.

Locally, very little is known about the economic and nutritional value of the crop, unlike in neighbouring Nigeria where results of

some research work have already been documented (Ezueh, 1977, 1984; Edem *et al.*, 1990; Nwachukwu & Umechuruba, 1991; Ofuya & Bamigbola, 1991; Ene-Obong & Okoye, 1992; Obizoba & Nnam, 1992; Oshodi *et al.*, 1994; Umechuruba & Nwachukwu, 1994; Okpara & Omaliko, 1995; Onyeike *et al.*, (1995). Available information is limited to the activities of the Plant Genetic Resources Centre at Bunso, which has collected a total of 10 accessions from Volta Region (Adansi & Holloway, 1978; Holloway, 1983; Bennett-Lartey *et al.*, 1997) for conservation.

Currently, there is no research activity on this crop as all efforts are focused on major legumes such as cowpea (*Vigna unguiculata* (L.) Walp), groundnut (*Arachis hypogea* L.) and soybean (*Glycine max* L.). The bean, thus, faces the danger of becoming extinct. There is, therefore, the need to collect all available accessions of the crop from regions where it occurs throughout