



Report of *Sclerotinia sclerotiorum* as the causal organism of the leaf spot and stem blight disease of African yam bean (*Sphenostylis stenocarpa*).

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ABSTRACT

Objectives: There has been a dearth of information on the fungal field diseases, which affect the production of African yam bean (*Sphenostylis stenocarpa*) in Nigeria. This study was therefore carried out to assess the fungal field pathogens including *Sclerotinia sclerotiorum* associated with the crop .

Methodology and Results: Seed varieties used in the study were obtained from the Institute of Agricultural Research and Training, Ibadan and International Institute of Tropical Agriculture, Ibadan. Ten seed varieties were planted using a Completely Randomised Block Design in five replicates. Disease assessment was carried out weekly between April and September 2013. The leaves, pods and stems were assessed for disease symptoms and taken to the laboratory for pathogen isolation. The healthy and diseased specimens were cut into small pieces of 3mm diameter and disinfected in 5% Sodium Hypochlorite (NaOCl). Pathogenicity of the organism was done using foliar spray method on a 7 days old AYB plant. (Dinghra and Sinclair, 1985). There was the presence of white cottony mycelia on leaves close to the base of the plant on field as well as round black sclerotia on the leaves and plates in the laboratory. Using the appropriate morphological guides as illustrated in Barneth and Hunter (2010), the organism was identified as *Sclerotinia sclerotiorum*.

Conclusions and Application of Findings: The pathogenicity test confirmed the organism as the causal factor of leaf spots and stem blight of AYB. The organism has previously been reported on some members of the *Fabaceae* family; however, this probably is its first report of pathogenic invasion of African yam bean. The soil used for planting could be considered a possible medium of disease transmission since *S.sclerotiorum* is known as a soil organism. This study has shown that AYB is susceptible to *S. sclerotiorum*