

# ASSESSMENT OF YIELD LOSS IN FLUTED PUMPKIN INFECTED BY *COLLETOTRICHUM LINDEMUTHIANUM*

UDO, S. E<sup>1</sup>, OSAI, E. O<sup>2</sup>, OKOI, A. I<sup>3</sup> & ETTA, H<sup>4</sup>

<sup>1,3,4</sup>Department of Biological Sciences, Cross River University of Technology, Calabar, Nigeria

<sup>2</sup>Department of Crop Science, University of Calabar, Calabar, Nigeria

## ABSTRACT

*Telfairia occidentalis* is an important vegetable in the dietary requirements of most Nigerians. In Calabar, the leaves are mainly prepared into soup and the seeds are eaten cooked or as soup thickener when boiled, Yield loss assessment in *Telfairia occidentalis* due to anthracnose disease of *Colletotrichum lindemuthianum* was carried out in a two (2) year study (2007 and 2008) in Akim, Calabar Municipality of Cross River State, Nigeria. The experiment was arranged in a completely randomized design (CRD). Assessment parameters were leaf area, stem length, leaf quantity and seed quantity. Analysis of results using ANOVA showed that at high disease severity, there was reduction in leaf area of the diseased plant ( $P > 0.05$ ) which directly resulted in reduction in the quantity of seeds in the pod (pepo). Stem length and leaf quantity were not affected. When losses for the two (2) study seasons were compared using the Critical Point Model (CPM), higher losses (77.44%) were recorded in 2007 than in 2008 (58.48%). This must have been as a result of high disease incidence (68%) and severity (4.7) in 2007 which must have been favored by the high early (April) rainfall (above 270 mm) in the study area in that year. The results of this research will help Government and local farmers to assess their losses at the instance of disease incidence in this crop in particular and other leafy vegetables in general especially, in disease prone environment.

**KEYWORDS:** Anthracnose Disease, *Colletotrichum lindemuthianum*, Calabar Municipality, Leaf Area, Pepo