



First report of *Aecidium cantense* (potato deforming rust) on *Solanum macrocarpon* (African eggplant) in Benin.

F. Beed^{1*}, J.H. Hotegni Houessou¹, P. Kelly² and V. Ezin¹

¹ International Institute of Tropical Agriculture (IITA), 08 BP 0932 Tri Postal, Cotonou, Bénin, West Africa ; ² CABI, Bakeham Lane, Egham, Surrey, TW209TY, United Kingdom

*E-mail: f.beed@cgiar.org

Received: 28 Sep 2010. Published: 04 Mar 2011.

Solanum macrocarpon (African eggplant and known as Gboman in Francophone West Africa) is widely cultivated across the African continent as a nutritious food and to generate income. In October 2009 specimens of African eggplant from around Cotonou in southern Bénin were observed initially to develop small, smooth swellings on the lower surface of the leaves and yellow-green depressions on upper leaf surfaces (Fig. 1). Within seven days orange to brown pustules formed on the lower leaves with diameter 4-10 mm (Fig. 2). Urediniospores were orange, circular and echinulate, and ranged in size 15-25 x 20-25 µm.

Urediniospores were recovered manually from sporulating pustules using a scalpel, and were placed into sterile distilled water; concentrations were then adjusted to 10 spores/ml using a haemocytometer with final solutions containing 0.5% Tween (to increase adhesion to plant surfaces). Upper leaves of healthy *Solanum macrocarpon* plants, grown in five litre plastic pots filled with soil and irrigated daily, were inoculated using an atomised hand held sprayer with 5 ml of the spore suspension. Plants were grown outdoors under ambient conditions and within 30 days the same distinctive symptoms observed previously in the field were produced. From pustules

on diseased leaves urediniospores were recovered, and when examined under light microscope were seen to have identical morphology to those first observed. Samples of diseased leaf material sent to the Global Plant Clinic, UK, confirmed the rust fungus as being *Aecidium cantense* (GPC Accession No. W10327). This fungus was previously thought to be restricted to South America where it is a serious pathogen of potato and other wild species of the Solanaceae (CABI, 2007; EPPO, 2009). While severe damage is rarely observed in South America (CABI, 2007) the impact on African eggplant in Bénin (and indeed other members of the Solanaceae family) could be significant. The disease appears to be currently restricted to peri-urban vegetable producers close to the international port of Cotonou.

References

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Figure 1



Figure 2

To cite this report: Beed F, Hotegni Houessou JH, Kelly P, Ezin V, 2011. First report of *Aecidium cantense* (potato deforming rust) on *Solanum macrocarpon* (African eggplant) in Benin.. *New Disease Reports* 23, 12. [doi:10.5197/j.2044-0588.2011.023.012]

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This report was published on-line at www.ndrs.org.uk where high quality versions of the figures can be found.