



First report of gladiolus rust caused by *Uromyces transversalis* in Cuba

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In March 2010, rust lesions were observed on leaves of hybrid gladiolus plants in a garden located in the outskirts of Santiago de Cuba city and in a flower production field in Güira de Melena (Santiago de Cuba and Havana provinces respectively). The incidence of the disease in both locations was near 100% with varying levels of severity. Lesions bearing uredinia were bright orange, variable in shape from globose to oval to transversely elongate. Uredinia (1-3 mm long) were scattered or grouped, orange, elliptical to irregular, and arranged transversely across the leaf (Fig.1). Urediniospores were bright yellow gold, ovate to oblong, and measured 16-26 x 13-19 µm (Fig. 2). The urediniospore wall was hyaline, minutely echinulate and 1.5-2.5 µm thick. Telia were scattered, dark brown, elliptical, bearing nonseptate, light-to-brown teliospores that measured 22-25 x 14-18 µm with an apical thickening measuring 2-4 µm. Paraphyses were densely aggregated (Fig. 3).

Three *Uromyces* species have been reported in gladiolus: *Uromyces transversalis*, *U. gladioli* and *U. nyikensis* (Hernández, 2004): *U. transversalis* has been reported in Africa, Europe, Australasia, several South American countries, United States and Mexico. *Uromyces gladioli* has been reported from several African countries, Argentina and Uruguay, while *U. nyikensis* has been only reported in Zambia and is not

considered of economic importance (Hernández, 2004). *U. transversalis* has transverse sori that develop across the width of the leaves and are up to 3 mm long, producing telia with paraphyses (teliospores measuring [17.5-] 20-25 [-34] x [14-] 15-17.5 [-21] µm). *Uromyces gladioli* (teliospores measuring 20-37[-40] x 18-26 µm) and *U. nyikensis* (teliospores measuring 19-32 x 14-22 µm) lack transverse sori and produce telia without paraphyses (Smith *et al.*, 1992). On the basis of these characters, the rust was identified as *Uromyces transversalis* (Hernández, 2004). This is the first report of *U. transversalis* causing gladiolus rust in Cuba.

References

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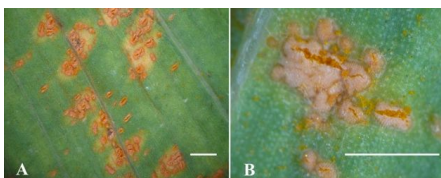


Figure 1

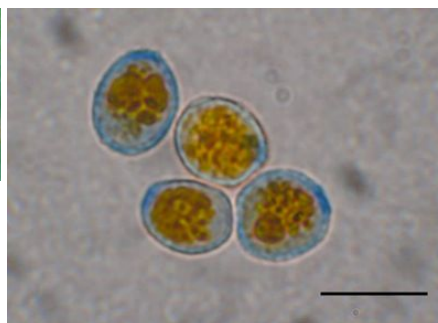


Figure 2



Figure 3

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