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Sexual stage of *Sphaceloma manihoticola*, causal agent of the superelongation disease

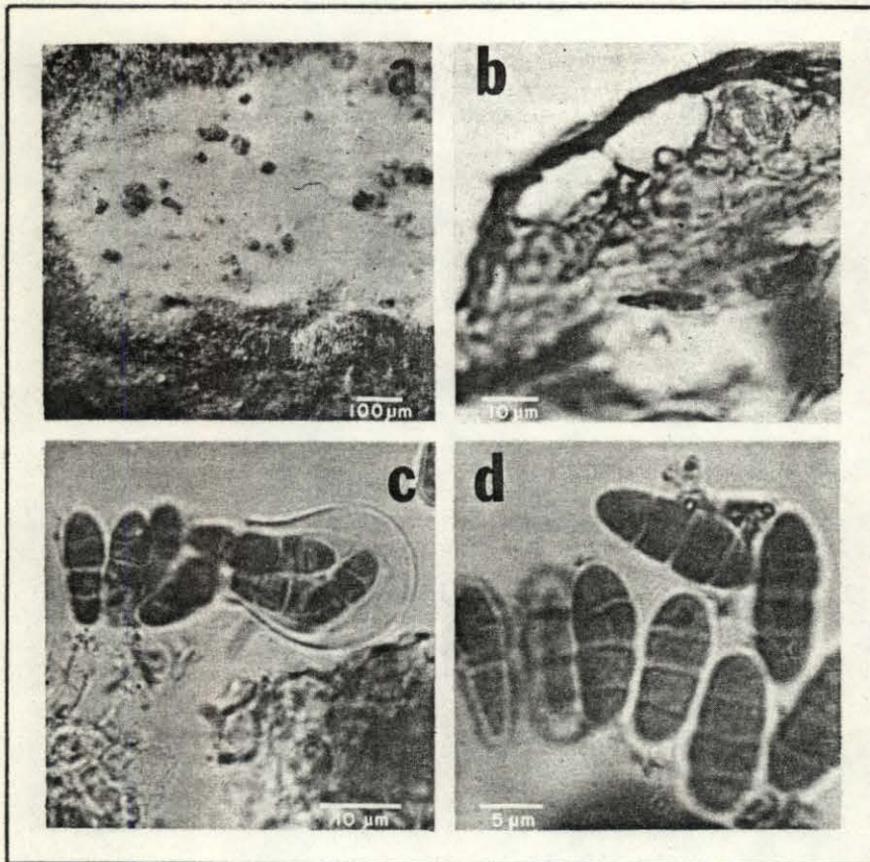
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The sexual stage of *Sphaceloma manihoticola*, causal agent of superelongation disease, has recently been found on diseased cassava plants from the

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Llanos Orientales, Cauca Valley, and North Coast areas of Colombia and Tabasco, Mexico. The ascusbearing structures (ascoma) are dark, convoluted, and raised, up to 0.25 mm in diameter and occur most commonly on stem and petiole canker. Globose bitunicate asci are found in locules in the ascoma, with only one ascus per locule. The ascospores (9-14 μm X 4-6 μm) are hyaline with three transverse septa and frequently a muriform septum in one of the internal cells. The sexual stage is, thus, unquestionably an *Elsinoe* species and may be previously undescribed. Current studies are being undertaken to determine whether this is indeed a new species and to clarify the relationship between *S. manihoticola* and *S. poinsettae*.

That the sexual stage of *S. manihoticola* is so common implies a potentially high level of variability in the pathogen. One result of such variability could be the existence and relatively rapid development of pathogenic races. Investigations are underway to confirm the existence of races.



Ascostroma, asci and spores of the sexual stage of Sphaceloma manihoticola tentatively identified as a species of Elsinoe: a) Ascostroma on surface of a stem lesion; b) section through an ascostroma showing well-defined locules with only one globose ascus per locule; c) ruptured bitunicate ascus showing 8 ascospores; d) ascospores showing muriform character.