

## First record of *Cryptosporiopsis citri* on lime in Australia

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**Abstract.** *Cryptosporiopsis citri* was found for the first time in Australia on leaf spots of lime trees at Virginia, Northern Territory, Australia. *Cryptosporiopsis citri* was found only on one property and is currently under an eradication program.

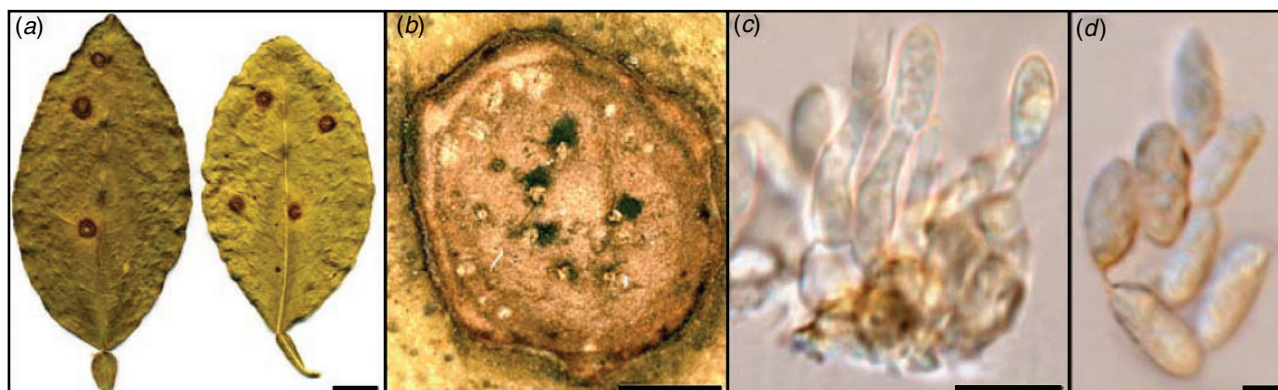
*Cryptosporiopsis citri* causes a leaf spotting disease on older leaves of several *Citrus* spp. in Pacific Island countries, including the Cook Islands, Fiji, Niue, Tonga, Vanuatu, and Western Samoa (Johnston and Fullerton 1988). Johnston and Fullerton (1988) confirmed pathogenicity with inoculation tests using *Citrus limon* seedlings. Johnston and Fullerton (1988) further observed that in some areas the trees may be severely affected, with many of the diseased leaves falling prematurely.

In November 2007, during a Plant Health survey carried out by the Australian Quarantine and Inspection Service (AQIS) leaves with leaf spots (Fig. 1a, b) were collected from lime trees (*Citrus aurantifolia*) on a property in Virginia, Northern Territory, Australia. The samples were forwarded to the QDPI&F Plant Pathology Herbarium, Indooroopilly where they were deposited as herbarium specimen BRIP 51757. *Cryptosporiopsis citri* (Fig. 1c, d) was found in all of the lesions and was identified based on Johnston and Fullerton's (1988) well illustrated and detailed description of the fungus, which is reproduced here. The leaf spots on living leaves are circular, 3–5 cm diam., slightly depressed, pale grey to brown,

with a dark-brown border. Conidiomata immersed, appearing visible only within the spots as large 40–60 µm diam., round, slightly raised ostioles, in vertical section lenticular in shape, measuring 300–700 × 170–350 µm. Walls 10–15 µm wide, composed of 3–4 layers of thin-walled, pale brown, 2.5–3.5 µm diam. cells. Conidiogenous cells solitary, cylindric, phialidic, 9.5–12 × 2.5–5 µm, with a well developed, thickened collarette, and narrow apical channel, no proliferation observed. Conidia 9–11.5(–13.5) × 4–5.5 µm, oblong-elliptic, broadly rounded at the apex, tapering abruptly to a narrow, truncate base, hyaline, nonseptate. A teleomorph is unknown.

Verkley (1999) used the generic name *Cryptosporiopsis* in a broad sense, for anamorphs of *Pezicula* and *Neofabraea*, or similar anamorphs without a known teleomorph, covering a wide range of conidial morphology and conidiomatal structure. *Cryptosporiopsis citri* was one of seven species of *Cryptosporiopsis* without a known teleomorph, accepted by Verkley (1999).

Following the initial detection of *C. citri*, delimiting surveys were performed by the Northern Territory Department of Primary Industry, Fisheries and Mines. *Cryptosporiopsis citri* was found



**Fig. 1.** *Cryptosporiopsis citri* on *Citrus aurantifolia* (BRIP 51757): (a) leaf symptoms; (b) pycnidia on leaf spot; (c) conidiophores and conidiogenesis; and (d) conidia. Scale bars: 1 cm (a), 1 mm (b), 10 µm (c), 5 µm (d).

only on one property and is currently under an eradication program (E. S. C. Smith, pers. comm.).

Verkley GJM (1999) A monograph of the genus *Pexicula* and its anamorphs. *Studies in Mycology* **44**, 137.

## References

Johnston PR, Fullerton RA (1988) *Cryptosporiopsis citri* sp. nov.; cause of a *Citrus* leaf spot in the Pacific Islands. *New Zealand Journal of Experimental Agriculture* **16**, 159–163.

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