

Blueberry blight caused by *Bipolaris cynodontis* in Argentina

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Blueberry (*Vaccinium corymbosum*) production in Argentina has grown remarkably in the last 8 years due to the high demand worldwide in the off-season fresh market. Since it is a new crop in Argentina, diseases are just starting to become problematic for farmers. Surveys have been conducted since 2000 to detect new pathogenic associations and to evaluate their distribution, incidence and severity in different blueberry varieties and localities.

Blueberry plants cv. Duke with dieback, and bud and branch blight, were observed in the winter of 2006 in La Plata, Buenos Aires province. Diseased pieces were washed with running water, disinfected with 2% sodium hypochlorite, then 70% alcohol, rinsed in sterile distilled water, plated on carrot agar (CA), and incubated for 12 h under near UV light until colony maturation. Conidia were single, fusiform, straight or slightly curved, 30–50 (46.7) × 11–22 (18.4) μm, 3–7 distoseptate (mostly 5–6), pale to mid-golden brown, with bipolar germination. Based on these characteristics, the fungus was identified as *Bipolaris cynodontis* (Sivanesan, 1987). The strain was deposited in the culture collection of the Instituto de Micología Spegazzini (La Plata, Buenos Aires, Argentina), No. 1018.

Pathogenicity tests were carried out using 2-month-old blueberry plants cv. O'Neal inoculated with a suspension containing 10⁶ conidia mL⁻¹. Sterile distilled water was sprayed on controls. Plants were maintained in a humidity chamber at 20°C ± 2°C for 48 h, and incubated under 12 h

light until symptoms developed. The fungus was recovered from inoculated plants that displayed similar symptoms to those observed in the field. Control plants did not show symptoms. *Bipolaris cynodontis* has been isolated from *Cynodon*, other grasses, apple, pine, *Ipomoea* spp. and *Lycopersicon* spp. and is seed-borne on *Agropyron*, *Hordeum* and *Triticum* spp. (Sivanesan, 1987). In Argentina, this fungus has been found on leaves of *Bromus unioloides* (Sisterna & Wolcan, 1989) and *Cynodon dactylon* (Sisterna & Dal Bello, 1991–1992) and on cereal seeds (Sisterna, 1987). This is the first report of *Bipolaris cynodontis* on blueberry in Argentina.

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First confirmed report of citrus black spot caused by *Guignardia citricarpa* on sweet oranges (*Citrus sinensis*) in Uganda

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Oranges are locally abundant in the Teso district of Uganda, and are important cash crops for subsistence farmers. In November 2006, orange fruits showing black spot symptoms were brought to the rural plant clinic at Katine market near Soroti, run by the local organisation SOCADIDO. Small 4–5 mm lesions with light centres, surrounded by a darker red to purple rim were observed on the surface of the fruit. Within the lesions, numerous dark black fruiting bodies were seen, typical of *Guignardia citricarpa* infection. This fungus is a damaging pathogen on *Citrus* species and causes black spots on leaves and fruits. Fruit quality is affected by the disease and blemishes reduce the aesthetic value and saleability of the fruit.

Fruits were brought back to the Global Plant Clinic, UK, and pycnidia picked directly from the lesions and placed onto oat agar. Cultures were incubated for 2–3 days at 20–23°C before being subjected to a 12 h dark/12 h near-UV light cycle. The *Phyllosticta* state of *G. citricarpa* was consistently isolated from affected tissues. In culture, colonies were dark brown to black with thick, prostrate mycelium. Pycnidia were immersed in the agar, globose in shape and dark-brown to black. A yellow pigment was produced on oat agar which is characteristic of *G. citricarpa* (Baldassari *et al.*, 2008). Conidia were hyaline, obovoid to broadly ellipsoid, aseptate, (6–)8–10.5(–13) × (5–)5.5–7(–9) μm, lacking a visible mucoid sheath and with a subulate apical appendage. The culture was positively identified by taxonomists at CABI, UK as *G. citricarpa* and a culture placed in the CABI, Genetic Culture Collection (ref. IMI 394918). Further molecular identification was performed by the Central Science Laboratory, York, who confirmed *G. citricarpa* using TaqMan real-time PCR (van Gent-Pelzer *et al.*, 2007).

This is the first confirmed record of *G. citricarpa* from Uganda, although it has been reported from other African countries including Kenya, Mozambique, South Africa, Zambia, and Zimbabwe (EPP0, 2006). *Guignardia citricarpa* is an IAPSC (Interafrican Phytosanitary Council) A2 listed pest, therefore it was important to confirm the presence of the pathogen. In areas where black spot is well established, fruit losses may periodically be severe and devastating. *Guignardia citricarpa* is considered to be the most important pathogen of citrus in China, Australia and South Africa, where the citrus industry is of major importance (McOnie, 1967).

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