Plant Pathology (2009) **58**, 401 Doi: 10.1111/j.1365-3059.2008.01973.x

First report of *Fusarium poae* on tomato in Argentina

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During the spring of 2003, blighted flowers were observed on numerous plants (*ca*. 20%) of a tomato (*Solanum lycopersicum* formerly *Lycopersicon esculentum*) crop in two glasshouses (approx. 300–400 m^2 each) in San Pedro, Buenos Aires, Argentina. Pedicels of flowers turned chlorotic and later became necrotic. Subsequently, the calyx and the petals turned brown, and the flowers shrivelled and generally abscised.

Small pieces of diseased tissue were surface sterilized with 0·5% NaOCl, plated on 2% potato dextrose agar (PDA) at pH 6, and incubated at 22 to 24°C. Dense, whitish mycelium developed within 72–96 h. Microconidia were abundant, globose to piriform, 0–1 septate, 4–10 × 4·5–7 μm, and formed on unbranched and branched monophialides. Cultures produced a fruity aroma similar to amyl acetate. Spores from 14-day-old colonies that developed on PDA were removed with 4 mL of sterile water. The pathogenicity of the fungus was tested by spraying five healthy inflorescences of tomato with a 5-mL suspension (2×10^5 conidia mL^{-1} of sterile distilled water). Another five healthy inflorescences were sprayed with sterile distilled water. The plants were placed in a growth chamber with a 12-h photoperiod at 22 ± 2°C and covered with polyethylene bags that were removed after 3 days when plants were moved to a glasshouse. While control flowers were healthy, all inoculated flowers showed symptoms similar to those observed previously.

A fungus was consistently isolated from diseased tissue in the inoculated plants and identified as *Fusarium poae* on the basis of fungal morphology (Nelson *et al*., 1983) and production of an amplicon of the appropriate size with primers 5′-CAAGCAAACAGGCTCTTCACC-3′-forward and 5′-TGTTCCACCTCAGTGACAGGTT-3′-reverse (Parry & Nicholson, 1996).

This is the first report of this fungus on tomato in Argentina. *Fusarium poae* is one of the main causal agents of fusarium head blight of wheat. The increasing occurrence of this fungus in Argentinean cereals and the finding of *F. poae* infecting tomato could be of importance due to the close proximity of the two crops in some areas, as this may represent an alternative host. In addition, because of the potential for *F. poae* to produce trichothecene mycotoxins such as nivalenol, this is of significance as it may pose toxicological risks to consumers if tomato fruit become infected.

Acknowledgements

This research was supported by FONCYT-SECYT PICT 2006-N°327 and an external stay CONICET fellow (N°3351/2007) of S.A.S.

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Plant Pathology (2009) **58**, 401 Doi: 10.1111/j.1365-3059.2008.01922.x

Sphenospora kevorkianii on the orchids *Epidendrum paniculatum* and *Stanhopea graveolens* newly reported in Argentina

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Plants of *Epidendrum paniculatum* and *Stanhopea graveolens* were collected in May 2007 as part of a native orchids preservation project in Baritú National Park, a protected area of the Yungas subtropical forest located in the province of Salta (northwestern Argentina).

Some plants showed symptoms of a rust disease. Leaves presented small chlorotic areas dispersed on the upper surface. On the underside, numerous erumpent pustules were found, containing powdery masses of yellow urediniospores. The pustules later turned dark orange when telia were formed. Uredinia were found on both orchid species while telia developed only on *E. paniculatum*. Specimens have been deposited in the herbarium of the Instituto de Botánica del Nordeste (*Stanhopea graveolens*, specimen Salas and Terada 370; *Epidendrum paniculatum*, specimen Salas and Terada 204).

The causal agent of the rust diseases was identified as *Sphenospora kevorkianii*. Urediniospores were ovoid yellowish and echinulate. Morphology and dimensions of the uredinia and urediniospores from both species were similar to those reported by Linder (1994). The telia observed on *E. paniculatum* were subepidermal and erumpent, in which numerous clavate paraphyses were found besides the pedicelated teliospores, longitudinally one-septate, hyaline and thin walled.

Sphenospora kevorkianii was first described by Linder (1994) on *Epidendrum difforme* from Nicaragua. It has been reported in Brazil on *Stanhopea graveolens* and other orchid species, such as *Pleurothallis mentigera* (Pereira *et al*., 2002), *Catasetum fimbriatum* (Pereira & Barreto, 2004) and *C. maranhense* (Soares da Silva & Barreto, 2006). These findings show that *Sphenospora kevorkianii* has a wide host range.

This is the first report of *Sphenospora kevorkianii* infecting *E. paniculatum* and *S. graveolens* in Argentina. This rust has been catalogued as a pest in Hawaii, the biggest orchid producer in the Americas, and is widely distributed in Brazil where chemical control in orchid nurseries is highly recommended to control the rust. The production of orchids in Argentina has greatly expanded in the last 15 years. Although still far from the scale of Brazil or Ecuador, the most important nurseries are now producing 50 000 plants per year. *Epidendrum* species are sought by growers because of their use in commercial hybrid development, while *Stanhopea* species are mostly collected by orchid enthusiasts for the rare beauty of their flowers.

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