

Eryngium foetidum, *Petroselinum crispum* and *Coriandrum sativum*: New Apiaceae Hosts of *Oidiopsis taurica* in Brazil

Ailton Reis^{1*}, Carlos A. Lopes¹, Milton L. Paz Lima² & Leonardo S. Boiteux¹

¹Embrapa Hortaliças, Cx. Postal 218, CEP 70359-970, Brasília, DF, ²UnB, Departamento de Fitopatologia Cx. Postal 4457, CEP 70910-900, Brasília, DF, e-mail: ailton@cnph.embrapa.br

(Accepted for publication on 13/02/2004)

Corresponding author: Ailton Reis

RESUMO

Eryngium foetidum, *Petroselinum crispum* e *Coriandrum sativum*: novas hospedeiras de *Oidiopsis taurica* no Brasil

Relata-se a infecção natural de plantas de chicória da Amazônia (*Eryngium foetidum*), coentro (*Coriandrum sativum*) e salsa (*Petroselinum crispum*), cultivados em casas de

vegetação e campo na Embrapa Hortaliças, Brasília, DF, por *Oidiopsis taurica*. A provável fonte de inóculo foram plantas doentes de pimentão (*Capsicum annuum*) e tomate (*Lycopersicon esculentum*) na casa de vegetação e pimentão no campo.

Amazon endive (chicória do Amazonas) or false coriander (*Eryngium foetidum* L.), parsley (*Petroselinum crispum* Miller) and coriander (*Coriandrum sativum* L.) are popular species of the family Apiaceae, except for *E. foetidum*, used only in the Amazon Region as a substitute for coriander. Plants of these three species were cultivated at Embrapa Hortaliças, Brasília, DF, under greenhouse and plastic house conditions, for diverse purposes. They developed typical symptoms of powdery mildew, which consisted of chlorotic spots on the leaves, followed by necrosis, on the upper surface and fungal structures on the under surface, when naturally exposed to high inoculum of powdery mildew, produced in green pepper (*Capsicum annuum* L.) and tomato (*Lycopersicon esculentum* Mill.) infected by *Oidiopsis taurica* E.S. Salmon (Syn.: *O. sicula* Scalia). Leaves of coriander cultivated in two open fields in Brasília were also found to show the same symptoms. In all cases, fungal structures taken from infected leaves were examined under a light microscope at Embrapa Hortaliças. Conidia morphology and morphometry were similar to those of *O. taurica*, anamorph of *Leveillula taurica* Lév. The teleomorph stage was not found on any host. The primary and secondary conidia found on leaves of false coriander, coriander, and parsley measured, respectively, 63,56 µm x 14,95 µm and 68,01 µm x 14,87 µm; 59,96 µm x 16,14 µm e 64,75 µm x 15,75 µm; 65,33 µm x 16,24 µm and 63,14 µm x 15,75 µm. Conidia from sweet pepper in the greenhouse, which probably supplied the inoculum, measured 65,53 µm x 16,19 µm and 65,02 µm x 15,70 µm. Regardless of the host, all the measurements fell in the range designated for *O. taurica*. The wide and increasing host range characteristic of this pathogen is an alert to growers of vegetables and ornamental plants, especially under greenhouse conditions, as observed in recent years for pepper and tomato. This paper corroborates findings of other authors (Café Filho,

A.C. *et al.*, 2001. Oídios de hortaliças. In: Stadnik, M.J. & Rivera, M.C. Oídios. Embrapa Meio Ambiente. pp.285-302) about the high level of plasticity of *O. taurica* and registers new hosts apparently for the first time in Brazil. It is worthwhile mentioning that carrot (*Daucus carota* L.), cvs. Brasília, Alvorada and Nantes, another representative of the Apiaceae, was not infected by the pathogen under the same exposure conditions and even when inoculated with conidia from coriander.



FIG. 1 - Powdery mildew symptoms in coriander (*Coriandrum sativum*) (A) “chicória do Amazonas” (*Eryngium foetidum*) (B) e parsley (*Petroselinum crispum*) (C), caused by *Oidiopsis taurica*.

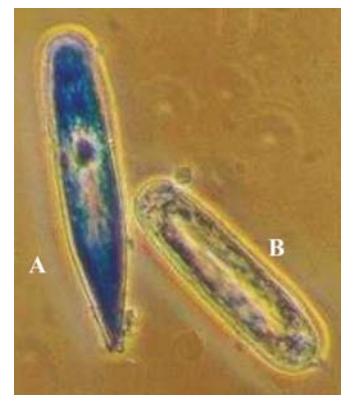


FIG. 2 - Primary (A) and secondary (B) conidia of *Oidiopsis taurica*.