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*Pericallis × hybrid* en viveros de planta de temporada  
de Galicia

Short Scientific Note – NotaCorta Científica

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Illustrations – *Ilustraciones*: M. Marín Rodríguez

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FREE PAPER – ARTÍCULO GRATUITO

### **Abstract**

In the present paper the authors describe the presence of the quality pathogen *Alternaria cinerariae* Hori & Enjoji infecting flowering potted plants in Galician nurseries. They describe the pathogen as well as the symptoms observed on the hosts *Pericallis x hybrida*. This is the first reference of the presence of this pathogen in Spain.

Key words: *Alternaria spots*, *Pericallis x hybrida*

### **Resumen**

En el presente trabajo los autores describen la presencia de *Alternaria cinerariae* como patógeno de planta de temporada en los viveros de Galicia. Describen el patógeno así como la sintomatología observada sobre el hospedador *Pericallis x hybrida*. Esta publicación es la primera referencia de la presencia de este patógeno en España

Palabras clave: *Alternariosis*, *Pericallis x hybrida*

### **1. Introduction**

*Pericallis x hybrida* –synonymous to *Cineraria cruentus*, *Cineraria x hybrid*, *Senecio cruentus* and *Senecio x hybridus* (Brickell, 1996)– commonly named as “florists cineraria” is a plant belonging to the Asteraceae, originated by the cross of *Pericallis cruenta* and *Pericallis lanata*, both native of the Canary Islands. In April 2017, black and circular leaf spots were found on container plants of this species, imported from an European country, at a flowering potted plant nursery located in Galicia –Northwest Spain–. This plant production centre was inspected by the authors diagnosing

the causal agent responsible of the disease. The phytopathological analysis were carried out at Consultorias Noroeste S.C. Plant Pathology Laboratory.

### **2. Symptoms**

Deep brown to black irregular spots 0,5–1 cm in diameter were observed on the leaves. Sometimes light brown spots with a yellow halo were produced. Sometimes the spots gained surface and affected the main part of the leaf. The spots may also affect the petioles.

### 3. Isolation of the causal fungus

Fragments of the leaves and petioles of diseased plants were prepared for fungi isolation. The surface of these fragments were disinfected with 10% sodium hypochlorite solution for 4 minutes and plated on PDA (potato dextrose agar) (Rappilly, 1968). The fungi were grown under laboratory conditions and microscope observations were carried out every 24 hours during one week.

*Alternaria* species were identified following taxonomical criteria and pathogen descriptions carried out by Ellis (1976) as well as by Nishikawa & Nakashima (2015).

### 4. Morphological characteristics

Colonies were dark olivaceous brown. Conidiophores were pale to mid olivaceous brown, singly, simple or slightly curved. Conidia were mostly solitary, rarely in chains, obpyriform or obclavate, brown in colour, with 3 to 8 transverse and longitudinal septa, constricted at the septa, with a broadly tapered conical beak. Figures nº 1 and nº 2.

### 5. Results & Discussion

The species was identified as *Alternaria cinerariae* Hori & Enjoji. Until now this fungus has been known to infect *Senecio cruentus* –*Pericallis x hybrida*– in the USA, New Zealand, South Africa, Denmark, England, Japan & Korea (Farr & Rossman, 2019), but not reported in Spain. This is the first report of *A. cineraria* causing leaf spots in any host in Spain.

*Alternaria cineraria* has been reported as pathogen of a great number of ornamental species in the world, including *Gerbera hybrida*, *Jacobaea maritima*, *Tagetes patula*, *Taraxacum officinale* and *Zinnia elegans*

as the most frequently grown (Farr & Rossman, 2019). It has also been referenced as pathogen of certain vegetable and aromatic crops worldwide such as *Cucumis sativus*, *Lactuca sativa*, *Sesamum indicum*, *Cucurbita pepo* (Farr & Rossman, 2019). Most of the fungicides that have good efficacies on other *Alternaria* species such as *A. Alternata*, infecting other flowering potted plant species, have less significative efficacy managing *A. cinerariae*. (Andrés & Bastos, unpublished data). These are the main reasons that support the importance of a quick and economical species determination for plant producers and technicians, in order to design sustainable plant protection programs.

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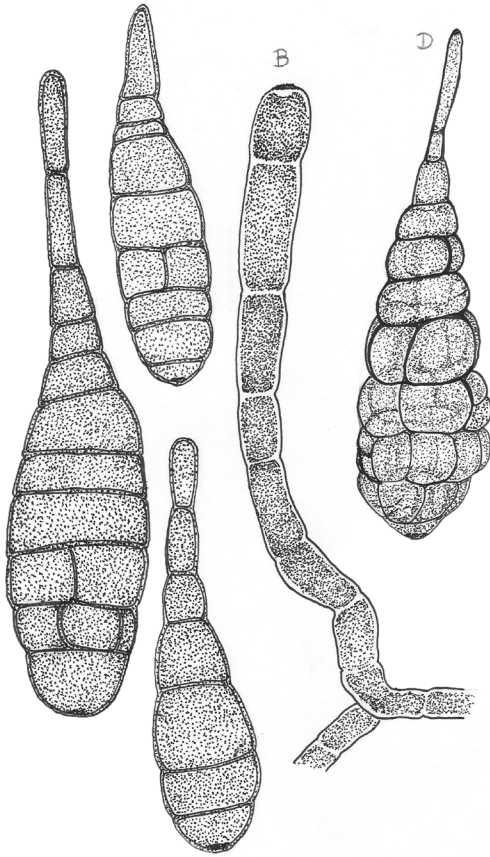


Figure 1. Conidia of *Alternaria cinerariae*. M. Marín for Consultorías Noroeste S.C.

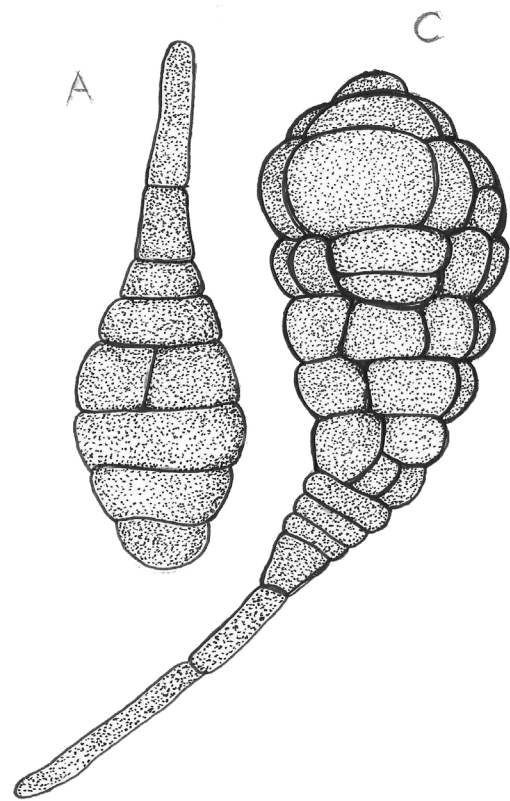


Figure 2. Conidia of *Alternaria cinerariae*. M. Marín for Consultorías Noroeste S.C.