

NOTAS TÉCNICAS

FIRST REPORT OF *BOTRYTIS FABAE* ON BROAD BEAN IN MÉRIDA STATE, VENEZUELA Primer reporte de *Botrytis fabae* en haba en el estado Mérida, Venezuela

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Fitopatol. Venez. 20: 31-32, 2007.

Recibido: 20 de febrero de 2007.

Aceptado: 20 de junio de 2007.

Broad bean (*Vicia faba* L.) is a grain legume native from Asia and the north of Africa. However it is grown elsewhere, including the Mediterranean region of Europe, especially Italy. It is a common and popular crop in the highlands of the Venezuela Andes, particularly at Chachopo and La Venta, locations of Merida State, where it is consumed fresh or dried.

In January of 2006, foliar lesions and spots were observed in a commercial field of broad bean located in a sector of La Venta (3174 mosl, 08° 54' 247" N, 70° 47' 119" W). Six month-old plants (cultivar unknown) showed red-colored lesions and dark-brown spots on leaflets, stems, and pods. A *Botrytis* species was consistently isolated from infected tissues planted onto an acidified 2% water agar medium, and subsequently transferred to plates containing potato-dextrose agar (PDA). The same fungus was observed sporulating onto infected tissues incubated for 5 days in moist chambers at room temperature (22±2°C). The objective of this research was to identify the etiological agent of the foliar disease detected in natural conditions in Merida State, and to evaluate its pathogenicity on broad bean seedlings.

More than 25 isolates were obtained from reddish-brown lesions and dark-brown on 2% water agar plates acidified (pH 4.5) with lactic acid (AWA). After washing the materials with tap water for 1 h, small pieces (ca. 2-3 mm) were taken from the interface between healthy and diseased tissues, which were immediately surface-sterilized with 0.5 % of sodium hypochlorite (NaClO). They were then rinsed three times in sterile distilled water (SDW), dried with sterile absorbent paper, and finally plated onto AWA and incubated at room temperature. The emergent colonies were transferred to PDA and rabbit food agar (RFA) plates, and incubated at room temperature under a 12 h photoperiod.

In order to assess the fungus pathogenicity, sixteen broad bean seedlings 20 days-old were inoculated by spraying the foliage with a conidial suspension (3×10^5 conidia/mL) prepared with sterile distilled. Before inoculation, the seedlings remained covered for 3 days with transparent plastic bags under greenhouse conditions. After inoculation the seedlings were again covered with the transparent plastic bags, placed in trays containing water, and incubated at room temperature until the appearance of the first infection symptoms. Nine seedlings used as controls were sprinkled with a similar solution without conidia, and incubated under the same conditions of the conidia-inoculated ones. Reisolations were performed from experimentally infected seedlings to complete Koch's postulates.

Fungal colonies with identical aspect were obtained from naturally infected tissue. On PDA the colonies were initially white, turning later gray-greenish colored. Based on morphology and dimensions of conidia, conidiophores and

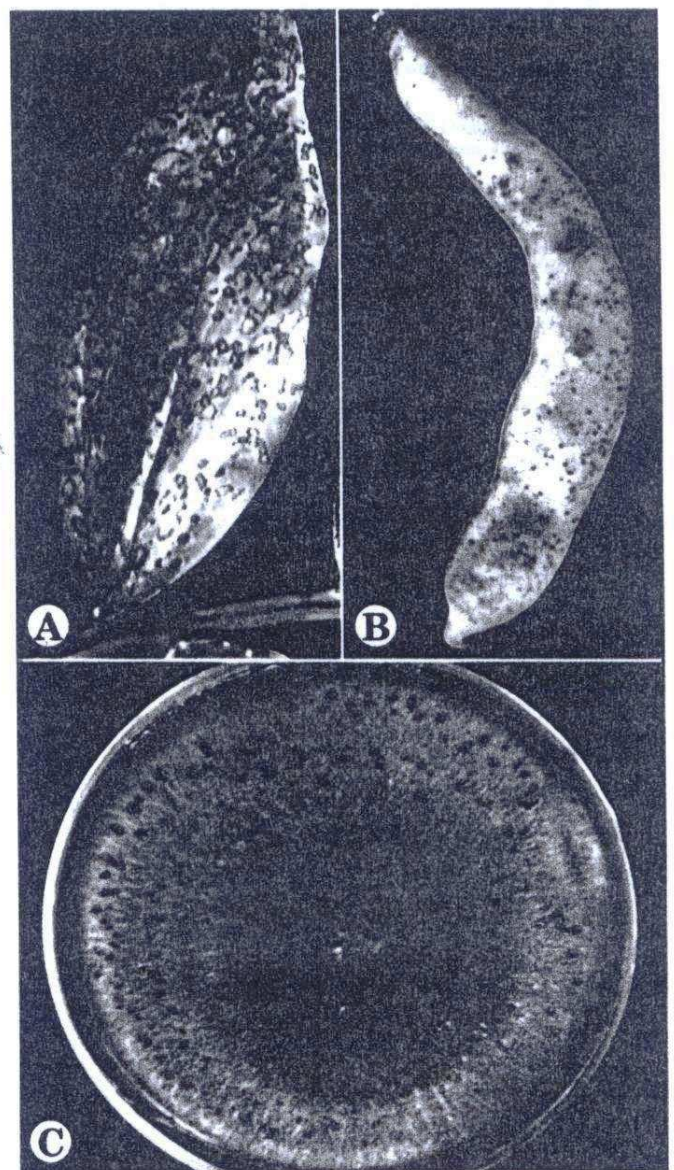


Fig. 1. Red-colored lesions and dark-brown spots on leaflets and stem (A), and pod (B) caused by *Botrytis fabae* on *Vicia faba*. C) Sclerotia of *B. fabae*.

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