

***Phytophthora boehmeriae* Boll Rot: A New Threat to Cotton Cultivation in the Mediterranean Region**

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A boll rot of cotton (*Gossypium hirsutum* L.) was observed for the first time in Greece in August 1993 in Larissa and Volos counties, and in August and September 1995 in Trikala and Phthiotis counties. Fungi of the genus *Phytophthora* were isolated from diseased plants. Morphological characteristics of the pathogen were recorded on mounts made directly from the infected tissues or after growth of the isolated fungus on corn meal agar or sterile distilled water. Colony morphology, growth rates, features of asexual and sexual structures and maximum growth temperatures were examined. A *Phytophthora* species new to Europe, *Phytophthora boehmeriae* Sawada, attacking cotton bolls, was identified. The pathogenicity of the isolates was confirmed by artificial inoculations of detached cotton bolls. Analysis of α -esterase isozymes revealed unique banding patterns for isolates of *P. boehmeriae* compared with those of *P. cactorum* and *P. parasitica*, which are *Phytophthora* species with similar morphology.

KEY WORDS: *Phytophthora boehmeriae*; boll rot; *Gossypium hirsutum*; cotton.

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