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IDENTIFICATION OF FUNGI THAT CAUSE “PEPPER WILT”, IN THE BAJIO REGION

Luis Pérez-Moreno, Luisa Josefina Durán Ortiz and Jesús R. Sánchez Pale. Instituto de Ciencias Agrícolas de la Universidad de Guanajuato (ICA-UG). Apartado Postal 311, C.P. 36500. Irapuato, Guanajuato, México. Tel./ Fax: (462) 4-18-89; 4-41-18. Email: luispm@dulcinea.ugto.mx.

Víctor Olalde Portugal. Centro de Investigación y de Estudios Avanzados (CINVESTAV-IPN), U. Irapuato, Apartado Postal 629. Irapuato, Gto., México.

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INTRODUCTION. Pepper is attacked by many pests and diseases, being “pepper wilt” the most important among the diseases, the soil-borne pathogen attacks the crop at all plant ages and is capable of causing crop losses up to a 100% (1). It has been reported that the pathogen that causes this disease in pepper is *Phytophthora capsici* Leo. (2), nevertheless, to confirm this hypothesis the present study was proposed to identify the fungi present in plants with “wilt” symptoms.

MATERIALS AND METHODS. The study was conducted in the Plant Pathology laboratory of Instituto de Ciencias Agrícolas de la Universidad de Guanajuato, located in the Ex-Hacienda “El Copal”, county. of Irapuato, Gto. The area of study included the Bajío region of Guanajuato and a county of Aguascalientes. Twenty two locations were sampled, in the counties of: Salvatierra, Tarimoro, Irapuato, Abasolo, Silao and Dolores Hgo., in Gto. and Pabellón de Arteaga, in Ags. One hundred and ten plants were sampled, washed with tap water and sections of root and crown were cut and disinfested with 1% sodium hypochlorite and plated out, 5 sections per plant were plated out in each Petri dish with tomato juice agar with antibiotic (TJAA) and were incubated at room temperature. The isolates were regrown until an axenic culture was obtained; the genus of each culture was identified microscopically according to the type of mycelium, conidia and sporangia.

RESULTS AND DISCUSSION. Of the 110 plants sampled *P. capsici* was identified in 9% of the plants, *Fusarium* sp in 29% and *Rhizoctonia* sp in 75% (Table 1). *Rhizoctonia* sp was isolated from all sampling sites, being widely distributed in the region, in the case of *Fusarium* sp it was isolated in 12 of the 22 sites, in 5 of the 7 counties included in the study; *P. capsici* L. was identified in 6 sites, located in 3 counties: Salvatierra and Silao, Gto and Pabellón de Arteaga, Ags. *Rhizoctonia* sp. and *Fusarium* sp. were found in the same county estate property in 7 sampling sites, *Rhizoctonia* and *P. capsici* were located together in the same county estate property of Sta. Rosa, county of Salvatierra, and finally only in one site named El Bosque, in a Silao county. *P. capsici* L., *Fusarium* sp and *Rhizoctonia* sp. were found.

Table 1. Incidence of fungi identified on 110 plants sampled.

No.	Identified Fungi	No. of plants w/fungi	Percentage
1	P ^a	10/110	9
2	R ^b	83/110	75
3	F ^c	32/110	29
4	R-F-P	1/110	1
5	R-F	12/110	11
6	R-P	2/110	2

Note: In some plants more than one fungus was isolated.

^a*Phytophthora capsici* Leo.; ^b*Rhizoctonia* sp.; ^c*Fusarium* sp.

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