

Recent Outbreak of Soybean Stem Canker Caused by *Diaporthe phaseolorum* var. *caulivora* in the Main Soybean-Producing Region of Argentina. R. N. Pioli, Fitopatología, Facultad de Ciencias Agrarias, Centro de Referencia en Micología (CEREMIC), University Nacional de Rosario, P.O. Box 14, 2123 Zavalla, Santa Fe, Argentina; E. N. Morandi, Fisiología Vegetal, Facultad de Ciencias Agrarias; A. Luque, Micología, Facultad de Ciencias Bioquímicas y Farmacéuticas, Centro de Referencia en Micología (CEREMIC), University Nacional de Rosario, Suipacha 531, 2000 Rosario, Santa Fe, Argentina; and C. O. Gosparini, Fisiología Vegetal, Facultad de Ciencias Agrarias. Plant Dis. 86:1403, 2002; published on-line as D-2002-1010-02N, 2002. Accepted for publication 19 August 2002.

The first report of soybean stem canker (SSC) caused by *Diaporthe phaseolorum* var. *caulivora* in South America was published in 2001, and was based on an isolate obtained in 1999 at Oliveros, Santa Fe (32°33'S, 60°51'W), Argentina (2). During the 2001 to 2002 growing season, isolates of *D. phaseolorum* var. *caulivora* were obtained from stems of field-grown soybeans (*Glycine max* L.) exhibiting SSC symptoms. Isolates were collected in three localities of the main soybean-producing region of Argentina: Marcos Juárez, Córdoba (32°66'S, 62°10'W); Salto, Buenos Aires (34°20'S, 60°33'W); and Diego de Alvear, Santa Fe (34°21'S, 62°10'W), and disease incidence in the fields was 10 to 60%, 5 to 15%, and 10 to 20%, respectively. The pathogen was isolated on potato glucose agar acidified with 0.2% lactic acid cultured in the dark at 25 ± 1°C. White colonies with compact and tufted mycelium were produced and turned yellow and light tan after 6 days. Appressed and fluffy mycelia were observed in old cultures. Stromata (2 mm diameter) were produced but pycnidia were not detected. After 20 days in culture at 25 ± 1°C under a 12-h light and 12-h dark regime, clustered perithecia developed on stem segments. For each isolate, 10 perithecia, 90 asci, and 30 bicellular, biguttulate ascospores were measured. Averages of asci length and width were 28.3 ± 2.3 and 5.9 ± 0.7 µm, respectively. Averages of ascospores mean length and width were 8.4 ± 0.6 and 2.5 ± 0.4 µm, respectively. These measures were similar to the measures obtained previously (2). Based on these features, the new isolates were classified as *D. phaseolorum* var. *caulivora* (Athow & Caldwell). Clustered perithecia, smaller asci and ascospores, and the development of fluffy mycelia with age were the main characteristics that distinguished *D. phaseolorum* var. *caulivora* from *D. phaseolorum* var. *meridionalis* (1). Pathogenicity trials were performed on cvs. Tracy M, Crockett, Hutchenson, and RA 702 in the greenhouse by placing a small amount of mycelium in soybean seedling hypocotyls wounds made with a scalpel. The pathogen was reisolated from stem portions of the symptomatic plants. Control plants remained healthy. The results reported here show that *D. phaseolorum* var. *caulivora* is widely disseminated in the main soybean-producing region of Argentina, where it coexists with *D. phaseolorum* var. *meridionalis* (2). The coexistence of both varieties indicates pathogen variability in the region is higher than previously recognized.

References: (1) R. N. Pioli et al. Plant Dis. 83:1071, 1999. (2) R. N. Pioli et al. Plant Dis. 85:95, 2001.

***Polygala myrtifolia* as a New Natural Host of Cucumber mosaic virus.** M. Tessitori, A. Reina, V. Catara, and G. Polizzi, Dipartimento di Scienze e Tecnologie Fitosanitarie, University of Catania, Via Valdisavioia, 5 - 95123 Catania, Italy. Plant Dis. 86:1403, 2002; published on-line as D-2002-1010-01N, 2002. Accepted for publication 12 September 2002.

Cucumber mosaic virus (CMV), Tomato spotted wilt virus (TSWV), and Impatiens necrotic spot virus (INSV) are among the most important viral pathogens of ornamental plants (1). *Polygala myrtifolia* L. (myrtle-leaf milkwort), originating from South Africa, and a member of the Polygalaceae, was recently introduced in Italy as a cultivated ornamental shrub for its fast and attractive free-flowering growth and drought-resistant characteristics. It can become an invasive plant and is now considered a serious problem in coastal areas of Australia where it was introduced as a garden plant. In Italy, *P. myrtifolia* is propagated by cuttings in commercial nurseries during the summer. In the winter of 2002, plants of *P. myrtifolia* growing in pots in an ornamental nursery in Sicily showed virus-like mosaic and malformation of leaves that appeared lanceolate with a lack of flowering. Leaf tissue was analyzed by double-antibody sandwich enzyme-linked immunosorbent assay (DAS-ELISA) with polyclonal antisera to CMV, TSWV (Lettuce type), and INSV. Positive ELISA results were obtained only with the CMV polyclonal antisera. Complete remission of

symptoms was observed on new flushes after pruning and incubation of infected plants at warm temperatures (30 and 20°C, day and night, respectively). This evidence led to the hypothesis that the disease or virus was disseminated by transportation and propagation of plants without visible symptoms during the hot season. A survey was also performed in two historical gardens of Catania (Sicily) where a group of apparently healthy *P. myrtifolia* plants, from the previously mentioned ornamental nursery in Sicily, were introduced as a single specimen or to form a hedge. These plants showed the same leaf malformations and mosaic symptoms observed in the nursery. DAS-ELISA confirmed the presence of CMV but not TSWV and INSV. To our knowledge, this is the first report of CMV on *P. myrtifolia* and it adds a new host to over 1,000 species (85 plant families) infected by this virus.

Reference: (1) M. L. Daughtrey et al. Plant Dis. 81:1220, 1997.

A Twig Canker on English Hawthorn Caused by *Coniothyrium sporulosum* in Italy. L. Montecchio and R. Causin, Dipartimento TeSAF, University of Padova, via Romea, 16, I-35020 Legnaro, Italy; and M. Vettorazzo, Servizio Fitosanitario Regionale, via Poerio, 6, I-30175 Mestre, Italy. Plant Dis. 86:1403, 2002; published on-line as D-2002-0925-01N, 2002. Accepted for publication 10 September 2002.

Large, open, irregularly shaped cankers on trunks and twigs of 4- to 12-year-old *Crataegus monogyna* Jacq. in a mixed oak forest in northern Italy were observed in 2001. Radial sections through the cankers, which often occurred at sites of hail damage from the previous year, showed a brown discoloration in the xylem. Foliage distal to the cankers became chlorotic, wilted, and finally died. When the disease was severe, the entire top of the plant died, and epicormic shoots developed below the cankers. Fruiting bodies were not present on the canker surface, and symptoms were not observed on root collars or roots. Microscopic examination of cankers showed that vessels frequently contained mycelium. Five symptomatic plants were selected, and from each of these plants isolations were made from one canker. Two chips, 3 mm wide, were cut from the necrotic margin of each canker, superficially sterilized with sodium hypochlorite, rinsed, plated on potato dextrose agar (PDA), and incubated at 20 ± 1°C for 8 days in the dark. Among a variety of microorganisms isolated from the necrotic tissues, *Fusarium solani* (Mart) Sacc. and *Coniothyrium sporulosum* (Gams & Domsch) van der Aa (1,2) were isolated from 70 and 100% of the chips, respectively. Artificial inoculations were made on 3-year-old, container-grown *Crataegus monogyna* seedlings obtained from the same seed stock using two isolates each of the two fungi. Where the stems measured 5 mm in diameter, the bark was surface sterilized with sodium hypochlorite, rinsed, wounded with a 2-mm-diameter cork borer, inoculated with a PDA disk containing mycelium and spores, and the wound sealed with Parafilm. Controls were treated the same but using sterile discs of PDA. Each treatment was replicated on five seedlings, incubated in the greenhouse (20 ± 2°C, 80% relative humidity, and 12-h natural light per day) for 60 days. After 20 days, the 10 plants treated with *C. sporulosum* showed small necrotic lesions, which developed into small patches of dead bark that cracked and formed spindle-shaped cankers. Radial sections through the stem at the canker site from four of the inoculated plants showed the presence of mycelium in the vessels, and *C. sporulosum* was reisolated from the infected tissue. After 60 days, the cankers measured as much as 22 mm, and the microscopic observations on the remaining six plants confirmed the presence of the fungus. No disease symptoms or mycelium in the inner tissues were observed for control plants, or plants inoculated with *Fusarium* spp. The present work adds the genus *Crataegus* to the wide list of hosts (e.g., *Rubus*, *Malus*, *Quercus*, *Picea*, *Taxus*, *Juniperus*, *Chamaecyparis*, *Cupressocyparis*, and *Mahonia*) susceptible to *C. sporulosum*, which may act as an important pathogen under forest conditions, in orchards, and in breeding programs.

References: 1) W. Gams and K. H. Domsch. Nova Hedwigia, 18:1, 1969. 2) I. Vegh and A. Le Berre. Papiinieristes Hort. Maraich. Rev. Hortic. 331:11, 1992.

(Disease Notes continued on next page)