

## Disease Notes (continued)

*richum* species was carried out (1). Based on morphological and molecular data, the papaya isolates were identified as *C. brevisporum*. Conidia of the papaya isolates were narrower than those described for *C. brevisporum* (2.9 to 4.8 µm and 5 to 6 µm, respectively) (1), which may be due to differences in incubation temperature or a typical variation in conidial size in *Colletotrichum* species (3). Sequences of the isolates obtained in this study are deposited in GenBank (ACT Accession Nos. KC702903, KC702904, KC702905, and KC702906; ITS Accession Nos. HM163181, HM015851, HM015854, and HM015859). Cultures are deposited in the Culture Collection of Phytopathogenic Fungi of the Universidade Federal Rural de Pernambuco, Recife, Brazil (CMM 1672, CMM 1702, CMM 1822, and CMM 2005). Pathogenicity testing was conducted with all four strains of *C. brevisporum* on papaya fruits (cv. Golden). Fruits were wounded at the medium region by pushing the tip of four sterile pins through the surface of the skin to a depth of 3 mm. Mycelial plugs taken from the margin of actively growing colonies (PDA) of each isolate were placed in shallow wounds. PDA discs without fungal growth were used as control. Inoculated fruits were maintained in a humid chamber for 2 days at 25°C in the dark. After 6 days, anthracnose symptoms developed that were typical of diseased fruit in the field. *C. brevisporum* was successfully reisolated from symptomatic fruits to fulfill Koch's postulates. *C. brevisporum* was described from *Neoregalia* sp. and *Pandanus pygmaeus* in Thailand (1). To our knowledge, this is the first report of *C. brevisporum* in Brazil and the first report of this species causing papaya fruit anthracnose.

**References:** (1) P. Noireung et al. *Cryptogamie Mycol.*, 33:347, 2012. (2) B. C. Sutton. The Genus *Glomerella* and its anamorph *Colletotrichum*. CAB International, Wallingford, UK, 1992. (3) B. S. Weir et al. *Stud. Mycol.* 73:115, 2012.

**A Leaf Spot Caused by *Phoma novae-verbascicola* on Black Mullein (*Verbascum nigrum* L.) in Italy.** A. Garibaldi, D. Bertetti, A. Poli, and M. L. Gullino, Centre of Competence AGROINNOVA, University of Torino, Via Leonardo da Vinci 44, 10095 Grugliasco, Italy. *Plant Dis.* 97:1660, 2013; published online as <http://dx.doi.org/10.1094/PDIS-05-13-0557-PDN>. Accepted for publication 5 July 2013.

*Verbascum nigrum* L., common name black mullein, family Scrophulariaceae, is a rustic perennial plant belonging to the native flora in Italy. The plant, which produces bright yellow flowers densely grouped on the tall stem, is used in low-maintenance gardens. During fall 2012, plants grown in mixed planting borders in a garden located in Biella Province (northern Italy) showed extensive foliar disease. Approximately 100 plants were affected by the disease. Early symptoms were small, light brown, necrotic spots on leaves, later reaching 10 mm diameter, with an irregular shape, showing a chlorotic halo. Necrotic areas often coalesced surrounded by yellowing. In some cases, the internal part of the necrotic areas dried with the appearance of holes. The disease progressed from the base to the apex of plants. In some cases, most of leaves turned completely necrotic and plants were severely damaged. Symptomatic tissues were immersed in a solution containing 1% sodium hypochlorite for 2 to 3 s and rinsed with sterile distilled water. Small fragments were excised from the margin of lesions and plated on potato dextrose agar (PDA) medium. Petri dishes were incubated at temperatures ranging between 20 and 25°C under alternating daylight and darkness (12 h light, 12 h dark). A single fungus was consistently isolated and subcultured on malt extract agar (MEA). On MEA, colonies were felty, white cream, and produced dark globose or subglobose pycnidia measuring 68 to 185 × 62 to 177 (average 122 × 113) µm, containing hyaline (light grey in mass), ellipsoid, non-septate conidia measuring 3.1 to 5.7 × 1.5 to 2.7 (average 4.0 × 2.0) µm after 15 days. The internal transcribed spacer (ITS) and D1/D2 regions of rDNA were amplified using the primers ITS1/ITS4 and N1/NL4, respectively, and then sequenced (GenBank Accession Nos. KC411473 and KF041823). BLAST analysis of both fragments showed 99% homology with the sequences GU237753 and JQ768403 of *Phoma novae-verbascicola* Aveskamp, Gruyter & Verkley (Basionym: *Phyllosticta verbascicola* Ellis & Kellerm.). Morphological characteristics of the fungus also were consistent with the descriptions of *P. poolensis* var. *verbascicola* (Ellis & Kellerm.) Aa & Boerema (2) (Syn.: *P. novae-verbascicola*). Pathogenicity tests were performed by spraying a conidial suspension (4 × 10<sup>4</sup> CFU/ml) obtained from 15-day-old PDA cultures of the fungus onto leaves of three healthy 3-month-old *V. nigrum*. Three plants inoculated with sterile water served as controls. Plants were maintained in a growth chamber for 5 days at 25 ± 1°C under 70 to 90% relative humidity. The first foliar lesions developed on leaves 2 days after inoculation and after 5 days, 80% of leaves were severely infected. Control plants remained healthy. The organism re-

isolated on PDA from leaf lesions was identical in morphology to the isolate used for inoculation. The pathogenicity test was carried out twice. *Phoma* spp. has been reported on *Verbascum* spp. *P. novae-verbascicola* has been very recently described (1). To our knowledge, this is the first report of the presence of *P. novae-verbascicola* on *V. nigrum* in Italy. At present, the economic importance of this disease is limited, but may become a more significant problem if the cultivation of this species increases.

**References:** (1) M. M. Aveskamp et al. *Studies in Mycology*, 65: 1, 2010. (2) J. de Gruyter et al. *Persoonia* 15 (3): 369, 1993.

**First Report of Stem Rot in Canola Caused by *Sclerotinia minor* in Western Australia.** R. Khangura and W. J. MacLeod, Department of Agriculture and Food, Western Australia, Locked bag 4, Bentley Delivery Centre, Bentley 6983, Western Australia. *Plant Dis.* 97:1660, 2013; published online as <http://dx.doi.org/10.1094/PDIS-05-13-0559-PDN>. Accepted for publication 27 June 2013.

Canola (*Brassica napus* L.) is a significant oilseed break crop in Western Australia. In late October 2012, canola plants (cv. Jackpot) showing typical symptoms of stem rot with bleached appearance and fluffy white fungal growth on the infected tissues were observed in an experimental plot at Katanning, Western Australia. Severely affected plants were lodged with partially filled pods and shriveled seeds. Small, irregular sclerotia (<2 mm) were found inside the plants and were more concentrated in the root and basal stem than in the upper stem regions. Ten sclerotia from three symptomatic plants were surface sterilized with 1.25% NaOCl for 1 minute, rinsed twice in sterile distilled water and plated on potato dextrose agar (PDA) supplemented with 10 mg liter<sup>-1</sup> Aureomycin. Plates were incubated under a black light at 22 ± 2°C. *Sclerotinia minor* Jagger was consistently isolated as identified by colony morphology, abundant sclerotia on PDA, and size of sclerotia <2 mm (3). A pathogenicity test was conducted on six 7-week-old canola plants cv. Tawriffic. Mycelial plugs (5 mm diameter) were excised from the margins of actively growing 3-day-old cultures and attached on to the 2nd and the 4th internodes of the main stem with Parafilm. Three plants inoculated with agar plugs without mycelium served as controls. Following inoculation, the plants were kept in a misting chamber for 48 h and then transferred to a growth room at 18 ± 2°C with a 12-h photoperiod. Typical lesions of stem rot similar to those observed in the field were noticed 3 days after inoculation. Within a week, all the inoculated plants were completely girdled by the lesions with stems breaking off and collapsing at the point of inoculation. Small sclerotia formed within lesions on the outside of the diseased stems. *S. minor* was reisolated from the stems of symptomatic plants, fulfilling Koch's postulates. No symptoms developed on the control plants. *S. minor* has previously been reported on host plants other than canola in Western Australia (4), canola petals in New South Wales, Australia (2), and also on canola stems in Argentina (1). To our knowledge, this is the first report of occurrence of *S. minor* on canola in Western Australia. Although *S. sclerotiorum* is the predominant species causing stem rot in canola in Western Australia, *S. minor* has the potential to cause significant yield losses under favorable environmental conditions. Correct identification and monitoring a shift in pathogens is essential for implementing effective management strategies and breeding resistant varieties.

**References:** (1) S. A. Gaetan et al. *Plant Dis.* 92:172, 2008. (2) T. Hind-Lanoiselet et al. *Aust Plant Pathol.* 30:289, 2001. (3) L. M. Kohn. *Phytopathology* 69:881, 1979. (4) R. Shivas. *J. Royal. Soc. Western Australia* 72:1, 1989.

**First Report of Geranium Rust (*Puccinia pelargonii-zonalis*) in the State of Michoacán, México.** M. R. Gregorio-Cipriano, S. P. Fernández-Pavía, G. Rodríguez-Alvarado, and N. Gómez-Dorantes, Laboratorio de Patología Vegetal, Universidad Michoacana de San Nicolás de Hidalgo, IIAF, Morelia, Michoacán, México 58880. *Plant Dis.* 97:1660, 2013; published online as <http://dx.doi.org/10.1094/PDIS-05-13-0570-PDN>. Accepted for publication 19 June 2013.

Geranium is one of the most popular ornamental plants in México. In December 2012, rust symptoms were observed on leaves of common geranium (*Pelargonium × hortorum* L. H. Bailey) growing in pots in garden landscapes in Morelia, Michoacán. Dark brown pustules with chlorotic halos appeared on the lower leaf surface. A center pustule surrounded by one or more partial-to-complete concentric circles of smaller pustules was observed in each lesion. Urediniospores were globose or subglobose

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