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Golovinomyces biocellatus on oregano (*Origanum vulgare* L. “Compactum”) in Italy. A. Garibaldi, D. Bertetti, P. Martini, L. Repetto and M.L. Gullino, Centre of Competence AGROINNOVA, University of Torino, Via Leonardo da Vinci 44, 10095 Grugliasco, Italy.

Origanum vulgare L., common name oregano, also known as pot marjoram, Lamiaceae family, is grown for its aromatic and medicinal properties and as ornamental. In particular, *O. vulgare* “Compactum” is becoming popular as potted plant. During the winter 2011, three month-old plants, grown on a commercial farm located near Albenga (Northern Italy), showed signs and symptoms of an unknown powdery mildew. Ninety percent of plants were affected. The adaxial leaf surfaces were covered with white mycelia and conidia, while the abaxial surfaces were less infected. As the disease progressed, infected leaves turned yellow, wilted and eventually fell. Mycelia were also observed on stems. Conidia were hyaline, elliptical, borne single or in short chains (3-4 conidia per chain) and measured 37.9 x 19.6 (31.2-45.1 x 14.9-26.2) µm. Conidiophores were erect with a cylindrical foot cell measuring 81.1x9.7 (54.2-112.4 x 7.9-11.6) µm followed by 2-3 shorter cells, measuring 26.8 x 11.8 (16.6-38.1 x 8.5-15.3) µm. Fibrosin bodies were absent. Chasmothecia were not observed in the collected samples. The Internal Transcribed Spacer (ITS) region of rDNA was amplified using the primers ITS1F/ITS4 and sequenced (3) (GenBank Accession JN594608). The 560 bp amplicon had 99% homology with the sequence of *Golovinomyces biocellatus* (AB307675). Pathogenicity was confirmed through inoculation by spraying a conidial suspension (6×10^4 CFU/ml) prepared from diseased leaves onto leaves of healthy *O. vulgare* “Compactum” plants. Four plants were inoculated, while the same number of plants non-inoculated served as a control. Plants were maintained in a glasshouse at temperatures ranging from 23 to 28°C. Ten days after inoculation, typical symptoms of powdery mildew developed on inoculated plants. The fungus observed on inoculated plants was morphologically identical to that originally observed. Non-inoculated plants did not show symptoms. The pathogenicity test was carried out twice. *G. biocellatus* on *O. vulgare* has been reported in Switzerland (2) and Argentina (4), while is present on other plant genera in Italy. In Italy, on the same host, attacks of *Erysiphe galeopsis* have been previously reported (1). The economic importance of this disease is at present limited, due to limited planting of this species. However, in the last years, potted aromatic plants represent a steady increasing crop in Italy. Voucher specimens are available at the Agroinnova Collection, University of Torino.

References: (1) K. Amano. Host range and geographical distribution of the powdery mildew fungi. Japan Sci. Soc. Press, Tokyo, 741 pages, 1986. (2) A. Bolay. Cryptog. Helv., 20: 1-176, 2005. (3)

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