DISEASE NOTE

FIRST REPORT OF FRUIT SPOT OF POMEGRANATE CAUSED BY COLLETOTRICHUM GLOEOSPORIOIDES IN IRAN

S. Rahimlou¹, V. Babaeizad² and M. Sayari³

 ¹Department of Plant Protection, Sari Agricultural Sciences and Natural Resources University, Sari, Iran
²Department of Plant Protection, Sari Agricultural Sciences and Natural Resources University, Sari, Iran
³Department of Microbiology and Plant Pathology, University of Pretoria, Pretoria, South Africa

Pomegranate (Punica granatum) is one of the most important commercial fruit crop in eastern Mazandaran (Iran, 35°47'N, 50°34'E). During spring 2013, distinct dark brown spots were observed on pomegranate fruits, from which a fungus was isolated on standard potato dextrose agar (PDA) amended with streptomycin (0.05% w/y). The mycelium was white-grey turning olive green over time, and produced oval to cylindrical, hyaline, unicellular, aseptate conidia measuring 5-13×1.5-4 µm. Based on these morphological characters the mycete was tentatively identified as Colletotrichum gloeosporioides. The fungal internal transcribed spacer (ITS) region of r-DNA was then amplified using the primers ITS5/ITS4 sequenced locally and deposited under GenBank accession No. KJ769129. A sequence similarity search performed using BLAST (Altschul et al., 1990) algorithm available via GenBank confirmed the identification as C. gloeosporioides. Pathogenicity tests were carried out by placing agar-discs from a six-day-old culture of the fungus onto five artificially injured pomegranate fruits, which were placed inside sterile plastic bags. Controls consisted of noninoculated fruits. Symptoms were reproduced after six days only on inoculated fruits and the pathogen was subsequently re-isolated, fulfilling Koch's postulates. To our knowledge, this is the first report of. C. gloeosporioides in pomegranate fruits in Iran.

Altschul S.F., Gish W., Miller W., Myers E.W., Lipman D.J., 1990. Basic local alignment search tool. *Journal of Molecular Biology* 215: 403-410.