DISEASE NOTE

FIRST REPORT OF WHITE MOLD CAUSED BY SCLEROTINIA SCLEROTIORUM ON MARIGOLD (TAGETES ERECTA) IN BANGLADESH

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Marigold (Tagetes erecta) is one of the commercial ornamental flowers commonly grown in Bangladesh. In January 2011, rotten flowers of marigold covered with fluffy white mycelia were found in Rangpur, Bangladesh. Symptoms began from petals and subsequently expanded to the whole flower and the lower part of the plant. Dark brown lesions with necrotic tissues appeared on the infected leaves and stems. Seriously infected plants showed flower dropping and branch wilting. A fungus showing hyaline and septate mycelium was isolated from the infected tissue in potato dextrose agar. The fungus formed round to irregular-shaped sclerotia. Apothecia development from sclerotia was also observed on moist sand. The partial sequence (531 bp, GenBank accession No. AB937102) of the internal transcribed spacer region of rDNA was determined by the method described in Rahman et al. (2015). The result showed a 100% identity with that of Sclerotinia sclerotiorum, which is known as a pathogen to various plants (Purdy, 1979). Pathogenicity of the isolate to marigold was examined by detached leaf and flower assays using mycelial inoculum. After incubation at 20°C with 90% relative humidity in 12 h light/12 h dark conditions, all inoculated leaves and flowers were rotten, while no symptom developed on the controls. The fungus was re-isolated from the symptomatic tissues and Koch’s postulates were confirmed. In Bangladesh, the fungus is becoming an emerging threat to various hosts (Rahman et al., 2015). To our best knowledge, this is the first report of S. sclerotiorum infection on marigold in the country.


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DISEASE NOTE

FIRST REPORT OF RASPBERRY LEAF BLOTCH VIRUS IN RED RASPBERRY IN MONTENEGRO

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Raspberry leaf blotch virus (RLBV, genus Emaravirus) has recently been reported to be associated with red raspberry cv. Glen Ample showing severe symptoms of raspberry leaf blotch disorder in Scotland (McGavin et al., 2012) and in several samples of raspberry in England, Serbia, Finland and Bulgaria (Bi et al., 2012; McGavin et al., 2012; Mavrič Pleško et al., 2014). In June 2011, 57 red raspberry plants were sampled in three municipalities in Montenegro to test for raspberry infecting viruses. Many samples showed virus-like symptoms, including chlorotic mottling and yellow blotches. Total RNA was extracted from all samples using RNeasy Plant Mini kit (Qiagen, Germany) and served as a template in conventional RT-PCR using primers 1571 and 1286 (McGavin et al., 2012) for P5 gene. Products of the expected size (377 bp) were obtained from 38 samples. Amplified products from two positive samples were cloned into pGEM T-Easy Vector (Promega, USA) and sequenced in both directions using SP6/T7 primers (Macrogen, Korea). Both sequences were identical and were deposited in GenBank (accession No. KP709057). BLAST analysis of Montenegrin RLBV nucleotide sequence showed 93% nucleotide identity with three available RLBV RNA5 sequences (HG738849, HG738846 and FR823303) from Bulgaria and the UK. The deduced protein sequence was 96.1% identical to sequences from Bulgaria (CDJ26745) and showed 100% similarity to P5 sequence from the UK (CBZ42028). To our knowledge, this is the first report of RLBV occurrence in red raspberry in Montenegro. Due to the increasing importance of red raspberry production in Montenegro in the last decade, sanitary measures to prevent further virus spread and additional sanitary control of domestic and imported plant material should be adopted.


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