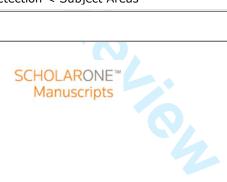
Plant Disease



First report of grey mould caused by Botryotinia fuckelina on golden berry

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3	1	First report of grey mould caused by <i>Botryotinia fuckeliana</i> on golden berry
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16	9	Abstract Symptoms of grey mould were first observed on golden berry (Physalis peruviana
17	10	L.) in Antalya, Turkey, during March 2014. Initially, symptoms of disease were characterized
18	11	by small, round, pale brown lesions on the calyx of the fruit. Calyx and fruit were completely
19	12	rotted and covered with grey mycelium in the later stages of the disease. Morphological
20	13	characteristics and the internal transcribed spacer sequences of ribosomal DNA identified the
21 22	14	fungus as <i>Botryotinia fuckeliana</i> .
23	11	Tungus us Don younnu juononunu.
24	15	Golden berry (<i>Physalis peruviana</i> L.) is a fruit consumed in many different ways due to its
25	16	functional food properties (Hassanien, 2011). It is produced in many countries. In recent
26	17	years, its production has increased in Turkey (Gerçekcioğlu and Ergür 2013). Botryotinia
27	18	fuckeliana (anamorph: Botrytis cinerea) is a widespread phytopathogenic fungus which
28	19	causes grey mold rot or botrytis blight and affects most plants.
29	20	In our surveys carried out in the spring of 2014, typical symptoms of <i>Botryotinia fuckelina</i>
30 31	21	were observed in golden berry greenhouses of Antalya province in Turkey (36°19'25.13''N,
32	22	30°18'43.88''E). The early symptoms of disease were characterized by small, round, pale
33	23	brown lesions on the calyx of the fruit. Later the pathogen infected the calyx and fruit which
34	24	became completely rotted and covered with grey mycelium. Botrytis cinerea is one of the
35	25	fungal pathogens with a wide host range. It is important pathogen of numerous plants
36	26	including vegetables, orchard crops, ornamental plants and stored agricultural products.
37	27	The fungus had typical morphology of <i>Botrytis cinerea</i> Pers. (Ellis and Walker 1974). The
38 39	28	pathogen was isolated on potato dextrose agar (PDA) from naturally infected fruit showing
39 40	29	typical symptoms using PDA. The fungus produced abundant conidia, conidiophores, and
41	30	sclerotia on PDA. Colonies showed fast growing, grey or greyish brown mycelium.
42	31	Conidiophores arising irregularly were often in patches with 2 μ m wide, often septate,
43	32	pigmented, smooth-walled, light brown, apically branching and bearing numerous conidia.
44	33	Conidia were unicellular, ellipsoid or ovoid, colourless to pale brown, smooth $6-18x3.5-12$
45	34	(mostly 6-12x5-8) μ m.
46	35	Pathogenicity of <i>B. fuckeliana</i> isolate was tested by inoculating golden berry leaves and
47 48	36	fruit with one agar pathogenicity test was performed. Also state how non-inoculated controls
49	37	by spraying leaves with a 10^6 conidia/ml suspension (Özer and Bayraktar 2014). The causal
50	38	pathogen was re-isolated from the lesions to confirm Koch's postulates. No disease symptoms were observed on the control.
51	39	
52	40	Isolate, Tr-inka, was confirmed using universal primers ITS1 and ITS4 (White et al. 1990).
53	41	The sequence (GenBank Accession No. KP462722) was 99% identical to the sequences of
54	42	Botryotinia fuckeliana (anamorph: Botrytis cinerea). To best our knowledge this is the first
55 56	43	report of the grey mold on golden berry caused by Botryotinia fuckeliana (anamorph: Botrytis
56 57	44	<i>cinerea</i>) in the world.
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