

Short Report

FIRST REPORT OF *Sclerotinia* HEAD ROT OF CABBAGE IN IRAN

V. YOUSEFDOOST and Y. GHOSTA

Dept. of Plant Protec., College of Agric., Urmia Univ., Urmia, Iran.

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Abstract

Cabbage (*Brassica oleracea* var. *capitata*) is an economically important and widely cultivated vegetable in Urmia region, West Azerbaijan, Iran. During the surveys of cabbage diseases in the years 2009-2012, mature plants of both white cabbage (*B. o.* var. *capitata* f. *alba*) and red cabbage (*B. o.* var. *capitata* f. *rubra*) with yellowing and detaching of lower leaves, watersoaking, browning and softening of leaf petioles and head outer parts, formation of white cottony mycelium and numerous large and black sclerotia on diseased parts, characteristics of *Sclerotinia* head rot of cabbage, was observed (Fig. 1 in Persian section). Infected heads or petioles and sclerotia were collected, surface sterilized and grown on PDA medium. Isolated fungi were purified by hyphal tip culture method and were kept in PCA slants for further studies. Apothecia were produced from sclerotia based on the method of Mylchreest and Wheeler (1987). Based on morphological characters of isolated fungi, *Sclerotinia sclerotiorum* (Lib.) de Bary was identified (Purdy, 1979; Saharan and Mehta, 2008). Pathogenicity tests were performed both on detached leaves and on container-grown healthy, 3 months old cabbage stems. Healthy cabbage leaves were washed under tap water, and then surface sterilized with 10% ethanol and inoculated at the center with a 5 mm² PDA plug from 5 days old mycelial cultures.

The inoculated leaves were kept in plastic containers equipped with wet filter paper and incubated at room temperature for 10 days. Cabbage stems were first surface sterilized and then inoculated as leaf assays without any wounding. Plants were incubated in a growth chamber and maintained at 25°C, 95% relative humidity on a 12-h fluorescent light/dark conditions for 7 days. Leaves and stems only inoculated with PDA plugs served as controls. Inoculated leaves and stems showed brown, water soaked and softened lesions several centimeters around the inoculated area (Fig. 2 in Persian section). No symptoms were observed on control plants. Inoculated fungi reisolated from symptomatic parts, so Kochs postulates were completed. This is the first report of cabbage head rot on white and red cabbages caused by *Sclerotinia sclerotiorum* from Iran. in Iran.

References

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