

# First report of *Alternaria alternata* infection of kiwifruit in Turkey

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**Abstract** A leaf spot disease of kiwifruit caused by *Alternaria alternata* is reported for the first time from Turkey.

**Keywords** *Alternaria alternata* · *Actinidia deliciosa* · Kiwifruit · Rize · Turkey

During the surveys of kiwifruit (*Actinidia deliciosa* (A. Chev.) C. F. Liang & A. R. Ferguson) cv. Hayward in 2009 and 2010 in Rize province of Turkey, small, necrotic leaf spots were commonly observed (Fig. 1). The leaf spot was observed in the Rize central, Çayeli, Pazar and Ardeşen districts. The fungus isolated from the infected leaves, on potato dextrose agar, was identified as *Alternaria alternata* (Nees:Fr.) Keissl, based on conidial morphological characteristics (Simmons 2007). Pathogenicity tests were performed in a controlled growth room with a 18/23 °C night/day temperature regime. The relative humidity of the controlled growth room ranged between 65 % and 85 % during the experimental period. Pathogenicity studies were performed with 2 year-old kiwifruit plants cv. Hayward. Mycelial plugs, 0.5 cm in diameter, taken from a 10 day-old *A. alternata* culture were placed on the fully expanded kiwifruit leaves and removed 1 week later. In control treatments only sterile agar plugs were used. The leaves were misted three times each day for

3 days. Four weeks after inoculation, necrotic areas, ca. 4-mm in diameter, were observed on the inoculated leaves. *A. alternata* was reisolated from the diseased regions. No disease was observed with the control plants. Cultures of *Alternaria alternata* are deposited in a herbarium at the Ankara University, Faculty of Agriculture, Department of Plant Protection, Turkey and in the Gazi University herbarium (GAZI), Ankara, Turkey (GAZI herbarium no: A. Karakaya 1046). *Alternaria alternata* was reported from Italy and Greece as the causal agents of leaf spot and dieback of kiwifruits (Corazza et al. 1999; Tsaouridou and Thanassouloupoulos 2000). This is the first report of



**Fig. 1** Leaf spot symptoms caused by *Alternaria alternata* observed in kiwifruit orchards in Rize, Turkey

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*Alternaria alternata* causing disease in kiwifruit in Turkey.

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