

**ROOT ROT ON ALMOND SEEDLINGS IN GREECE, CAUSED BY ROSELLINIA  
NECATRIX PRILL.**

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KEY WORDS: *Rosellinia necatrix*, *Dematophora necatrix*, almond root rot disease

**ABSTRACT**

*In spring 2008, almond seedlings in the region of Thessaly, central Greece, were infested by a soil borne pathogen that formed a white cottony mycelium and mycelia strands on the seedlings stem base or on the main roots of older plants and caused suddenly death. The pathogen was identified as Rosellinia necatrix Prill. This is the first record in Thessaly of R. necatrix on almond seedlings in Greece.*

**INTRODUCTION**

*Rosellinia necatrix* Prill. (anamorph: *Dematophora necatrix* Hartig) is recorded all over the world as a root rot pathogen that causes root rot of many plants (Sivan and Holliday 1972), mainly of fruit trees such as almond, peach, plum, apple, pear, olive, cherry and avocado (Sztejnberg and Madar 1979; Sousa et al. 1995; Schena et al. 2002). Apart of trees, there are numerous reports of serious infections caused by *R. necatrix* on a variety of crops, weeds (Busto et al. 2004) flower crops (Guillaumin et al. 1982; Mansilla et al. 2002) and field crops (Sztejnberg and Madar 1979).

**RESULTS - DISCUSSION**

This research reports a new record of infection and symptoms caused by *R. necatrix* on almond seedlings (Fig. 1) in the region of Thessaly in central Greece.

Almond's infestation was observed in central Greece, in spring (in April) of 2008. The main roots and the stem base of the infested almonds seedling were covered by a white cottony mycelium and mycelia strands (Fig. 2). Seedlings were died in 5-6 days whereas leaves were remained detached (Fig 2).

Diseased plants were observed in patches and the pathogen was infesting neighbouring plants. All diseased almond seedlings were cultivated in soils with high moisture. Pear trees have been reported as a previous crop before almond.

The identification of the pathogen was based on a direct observation with microscopic observation of the vegetative mycelia structures, collected and cultivated onto Petri (PDA) plates from the diseased tissues. Fifteen almond seedlings were observed.

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Mycelia from all cases showed the typical pear-shaped hyphae (Fig. 3) and synnemata, of *R. necatrix*.

Until now *R. necatrix* in the central region of Thessaly has not been reported as an almond seedling tree pathogen. In this investigation it was showed that *R. necatrix* is also an almond pathogen that could be a potential threat in warm areas with high moisture soils in central Greece.



Figure 1. Almond seedlings infested by *Rosellinia necatrix*. Leaves are remaining attached.



Figure 2. White cottony mycelium and mycelium strands of *Rosellinia necatrix* on the surface of infected almond seedlings.



Figure 3. *Rosellinia necatrix* characteristic pear-shape hypha (arrow).

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