

Title Studies on prevention of *Alternaria alternata* (Fr) Keissl. on persimmon fruit by some postharvest treatments

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Abstract

Alternaria alternata causes black rot in persimmon fruit and results in high economic losses after harvest. In the study, 40 *A. alternata* isolates were obtained from infected persimmon fruit from the gardens in Izmir, Aydm and Manisa and the fungicides tests have been done against them. Among the conventional post-harvest fungicides imazalil, prochloraz and iprodione and the new generation fungicides boscalid, fludioxonil, cyprodinil and strobilurinler group fungicides contained in azoxystrobin, mixture contained strobilurins fungicides, boscalid 25.2 + pyraclostrobin 12.8, kresoximmethyl 55 + boscalid 5 boscalid 26,7 + pyraclostrobin 6,7, metiram 55 + pyraclostrobin 5 and pyraclostrobin 4 + dithianon 12 were tested at different doses in vitro against the pathogen. The isolates of 84.37 % to cyprodinil, 90.62 % to fludioxonil, % 81.25 to prochloraz are sensitive, isolates of 96.87 % to iprodione and 59.37 % to imazalil are moderately sensitive, while the majority of isolates were unaffected even under high doses of azoxystrobin and boscalid. The fungicide in mixture, pyraclostrobin 12.8 + boscalid 25.2 was more effective than the other mixture fungicides. *In vivo* fruit test, it was observed that prochloraz and azoxystrobin were moderately effective, while the hot water alone (50 °C and 52 °C) and hot water with low-dose fungicide combination were the most effective treatments. In the studies on the effect hot water (50 °C and 52 °C and 55 °C and 60 °C) on colony formation and spore germination of *A. alternata*, it was found that colony formation and spore germination decreased proportionate to the increase in water temperature.