

## Research Article

**Management of Post-harvest Green Mould Rot (*Penicillium digitatum*) of Kinnow Fruits**RN Sharma<sup>1</sup>, RB Gaur<sup>2</sup> and P Rawal<sup>3</sup>

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**Abstract**

Nine fungicides of different groups were tested against *Penicillium digitatum* under *in vitro* conditions and further explored their bioefficacy in controlling the incited green mould rot of kinnow fruits. Systemic fungicides were more effective as compared to non-systemic against the growth of the test pathogen as well as incited rot. Prochloraz fungicide found significantly superior over rest of the fungicides tested in respect of mycelial inhibition of the test pathogen and controlling the fruit rot development where cent per cent growth inhibition was observed even at lower concentration (25 ppm) and provided complete protection from the rot when fruit dipped in solution at 500 ppm in both pre- and post-inoculation treatments. Next most effective fungicide was Carbendazim which provided 100 per cent inhibition of the mycelia growth at 25 ppm concentration and rendered complete control of the rotting at 1000 ppm in both pre- and post-inoculation treatments followed by a combination of Carbendazim 12% + Mancozeb 63% that showed 100 per cent growth inhibition of the test pathogen and checked the rot incidence to the extent of 90.54 and 87.61 per cent respectively in pre- and post-inoculation treatments at same concentration. Fungicides exhibited more effectiveness when applied as pre-inoculation rather than post-inoculation treatments and fruit rot incidence correlated positively with incubation period *i.e.* thereby incidence at 6<sup>th</sup> DAI (Day after inoculation) was noted significantly higher to 3<sup>rd</sup> DAI.

**Key words:** Fungicides, green mould rot, Kinnow fruits, *P. digitatum*, post-harvest

**Citation:** Sharma RN, Gaur RB and Rawal P. 2020. Management of post-harvest green mould rot (*Penicillium digitatum*) of kinnow fruits. *J Mycol Pl Pathol* 50(4): 392-398