

## STUDIES ON MANAGEMENT OF POSTHARVEST FRUIT DROP OF KINNOW THROUGH INTEGRATED APPROACHES

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**Abstract:** Kinnow is an important citrus fruit grown in India. Post harvest diseases account for 50% of losses in fruits stored under poor storage conditions especially under high humidity. They pose a major problem to the agriculture industry. Not only the quality and quantity are affected by the post harvest losses but losses in fruits can occur in terms of economics, quantity, quality and nutrition. Among the various pathological constraints, postharvest fruit drop is a most serious problem for citrus growers. The two most common pathogens that are responsible for post harvest fruit drop of citrus fruits are *Penicillium digitatum* (green mould) and *Penicillium italicum* (blue mould). Different bioagent, chemicals and botanicals evaluated under *in vitro* condition against the mycelial growth of *Penicillium digitatum* and *Penicillium italicum*. All botanicals, BCAs and chemicals inhibited the growth (colony diameter) of both pathogens over untreated PDA plates, but the maximum inhibition was exhibited by *B. subtilis* followed by garlic. Results indicated that BCAs and botanicals have the potential to control Postharvest diseases without causing any injury or harmful effects on Kinnow mandarin; these can be recommended as a safe method for extending its storage life while maintaining fruit quality at the same time.

**Keywords:** Botanical control, Fruit drop, Postharvest pathogens, Integrated disease management

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