

Title Fruit diseases of guava in west Bengal
Authors S.K. Ray, M. Jana, S.S. Maity, R. Bhattacharya, D.C. Khatua
Citation ISHS Acta Horticulturae 735:525-531. 2007.
Keywords guava; fruit rot; fruit canker; *Phytophthora nicotianae*; *Pestalotiopsis psidii*; Bioassay of fungicides; selective medium

Abstract

Fruit rot caused by *Phytophthora nicotianae* and Fruit canker of guava caused by *Pestalotiopsis psidii* are prevalent in West Bengal. The first disease causes rotting of fruits approaching ripening, during June to end of October. On artificial inoculation, the guava isolates of *Phytophthora nicotianae* infected brinjal, chilli, bell pepper, tomato, pointed gourd, cucumber fruits, betelvine and black pepper leaves. *Phytophthora nicotianae* can be successfully isolated in oatmeal agar medium amended with vancomycin, pimarinic acid and carbendazim. An easy method for bioassay of fungicides has been developed. When an agar disc with mycelial growth is put in water in half submerged condition, *P. nicotianae* produces good mycelial growth, abundant sporangia and the sporangia germinate in water. Sensitivity of this fungus towards chemotoxicants/fungicide is successfully tested by putting colonized agar disc at different concentration of a chemotoxicant and recording the extent of mycelial growth, sporangia formation and sporangial germination. Copper oxychloride, copper hydroxide, mancozeb, ziram, thiram, combination product of mancozeb + metalaxyl, copper oxychloride + metalaxyl and cymoxanil + mancozeb showed good inhibition against guava isolate of *Phytophthora nicotianae*. The second disease causes scab and canker on fruits. The isolates of the causal pathogen, *Pestalotiopsis psidii* showed variation in respect to mycelial growth and sporulation in potato sucrose peptone agar medium. Chlorothalonil, carbendazim, mancozeb, combination product of metalaxyl + mancozeb and carboxin + thiram gave good inhibition against this fungus in vitro.