CHAPTER 6

CONCLUSIONS

. The skin surface of longan is generally rough and uneven covered with trichomes and with cuticular fragments on some skin areas. The filamentous fungi were observed on fruit surface. From the study of pathogenic fungi causing longan fruit rot, 200 fungal isolates were isolated *Lasiodiplodia* and *Pestalotiopsis*, the most virulent pathogenic fungus genera caused induce the fruit rot in post-harvested longan fruits.

From the study of the infection process in the disease development of *Pestalotiopsis* sp. MLP, it was found that its spores germinated at 3 hours after the inoculation, while the mycelia and the acevuli were developed at 12 hours and 96 hours after the inoculation, respectively. At day 5 after the inoculation, the whole experimented longan fruit were covered with the white cottony micelia with abundant black spore masses.

The filamentous hypha of the epiphytic fungus on the outer inoculated fruits skin with SO_2- fumigated were blistered or swelled up. Whereas on the inoculated fruits with SO_2-fumigation revealed blistered spores of *Pestalotiopsis* sp. MLP.

Additionally, from the *in vitro* experiment on PAD it was also found that the fungus *Lasiodiplodia theobromae* LP20 survived the SO_2 fumigation after being inoculated for 24 hours, and could re-grow again after other 24 hours passed.