6. CONCLUSION

The quantitative results in this study is from 144 air samples in addition to 20 air samples for the purpose of the comparative study. In the rainy season (from September to October 1996), the average density of airborne bacteria was 4.8 CFUs/dish/min. and the mean density of airborne fungi was 1.3 CFUs/dish/min by sedimentary method. The mean concentration of bacteria was 720.0 CFUs/m^3 air and the average concentration of fungi was 1690.0 CFUs/m^3 air by inertial method. In the cool season (January 1997), the average concentration of airborne bacteria was 2364.4 CFUs/ m^3 air while the mean concentration of fungi was 2842.2 CFUs/ m^3 . The differences in bacterial and fungal concentrations between two seasons were statistically significant but the differences in bacterial and fungal densities between two sampling batches in the rainy season were not statistically significant. In this study most of the airborne bacteria were Gram positive rods, which were mainly *Bacillus* spp. i.e. *B. cereus, B. circulans, B.coagulans , B. licheniformis, B.macerans, B.mycoides , B.polymyxa , B.sphaericus and B.subtillis* . The airborne fungi found in this study included *Aspergillus* spp. , *Cladosporium* spp. , *Curvularia* spp. , *Fusarium* spp. , *Penicillium* spp. , *Trichosporon* sp. and Zygomycetous fungi. The inertial method was a better air sampling technique than the sedimentary method in terms of the efficiency of sampling and the precision of results. The risk assessment indicates that the high risk was shown at grid 2. The airborne bacteria and fungi in Chiang Mai city might be the potential risk to the health of the tourists and the local people.