4 Pine Wilt Disease in China

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4.1 Introduction and Spread of the Disease

Pine wilt disease was first discovered in People’s Republic of China in 1982 in Nanjing City, Jiangsu Province (Cheng et al. 1986). That year only 256 dead trees were found in the city. Subsequently, the disease has spread to 10 provinces and a city: Jiangsu, Zhejiang, Anhui, Guangdong, Shandong, Jiangxi, Hubei, Hunan, Yunnan, Guizhou Provinces and Chongqing City (Fig. I.7). The affected areas have reached nearly 80,000 ha and 50,000,000 trees have been killed by the disease. In recent years, the disease has spread quickly. The infected forest areas and the number of dead trees per year since 1982 are shown in Figs. I.8 and I.9. The disease threatens Huangshang and many other famous scenic spots and places of World Natural or Cultural Heritages; or both, and so, the disease has become a serious forest problem affecting local economies.

Since 1982, when the disease was identified in Jiangsu Province, it has spread in the next 10 years to several locations in Nanjing and Zhenjiang City and Wuxi City. In 1996, the disease was found in Suzhou City and, in 1998, in Changzhou City and Yangzhou City. Up to now, the disease has infested forests in 23 prefectures or cities in Jiangsu Province.

In Anhui Province, the disease was first found in 1988 in Maanshan City, He Prefecture and Mingguang City. Now occurs in the forests of 22 prefectures or cities, including Dangto, Chaqozhou, Xuancheng, Ningguo, Guangde, Chuzhou, Mingguang, Dingyuan, Laian, Quanjiao and Huainan Prefectures or cities in Anhui Province. At present damage occurs on 5,000 ha.

In Zhejiang Province the disease first appeared in a forest in Xiangshan Prefecture. Since then it has spread to 21 prefectures or cities, such as Dinghai, Diemu,
Fig. I.7 Distribution changes of pine wilt disease in China

Fig. I.8 The annual areas damaged by pine wilt disease in mainland China (based on information from the Chinese Ministry of Forestry)

Ningbo, Ninghai and Hangzhou. In 2006, the total damaged areas reached 23,000 ha of forest and 53,540,000 trees have died of the disease in Zhejiang Province.

Pine wilt was first discovered in Guangdong Province in 1988. Up to now, damaged forests have been found in 15 prefectures, including Huizhou City, Dongguan City, Shenzhen City and its prefectures. The total affected area has now increased to 1,600,000 ha.