



The Occurrence of Chili Anthracnose in Taiwan and its Control

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Chili pepper is an important vegetable used for multiple purposes in Taiwan. During 2003-5, the annual chili crop was estimated around 9,000 tons produced on 1,200 ha. Most commercial production is for the fresh market, with relatively little for processing. In Taiwan, high precipitation brought by Plum rain during May-June, or typhoons (June-September) always leads to severe damage from anthracnose on immature as well as ripe fruit, and even causes post-harvest losses. Anthracnose greatly reduced the yield and marketable fruit percentage. This disease was the major constraint for chili pepper production in summer season in Taiwan. Little or no anthracnose infection is observed during November to April. A 2006 summer yield trial conducted by AVRDC demonstrated the close correlation between precipitation and anthracnose damage.

In Taiwan, four *Colletotrichum* species have been identified by AVRDC as causal agents for pepper anthracnose, using morphological and molecular indicators: *Colletotrichum acutatum*, *C. boninense*, *C. capsici* and *C. gloeosporioides*. In order to identify anthracnose pathogens accurately and rapidly, an ITS-RFLP fingerprinting was developed. During 1992-2006, a total of 412 Taiwan isolates collected from diseased fruits island-wide were characterized. 65% of these isolates were *C. acutatum*, and is broadly distributed throughout Taiwan production areas.

AVRDC has pursued breeding for resistance to anthracnose for many years. Currently, some lines genetically resistant to *C. acutatum* have been developed and released by AVRDC, but no resistant variety is yet commercialized. Therefore, chemical control and effective crop management practices are recommended for the management of anthracnose in peppers.