

LASIODIPLODIA SP. CAUSES WHOLE-BUNCH FRUIT DROP IN LONGKONG (*LANSIUM DOMESTICUM* CORR.) FRUIT AFTER HARVEST

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Besides successful trials in exporting *longkong* from Thailand to China by sea, it was reported that some *longkong* bunches had total fruit drop. It was hypothesized that whole-bunch drop was caused by fungal infection via the cut surface of the peduncle. In order to understand and reduce this problem, a study on inoculating *Colletotrichum* sp., *Fusarium* sp., *Lasiodiplodia* sp., and *Phomopsis* sp. at the peduncle cutting surface of *longkong* bunches was conducted. The infected bunches were then stored for 10 days at 18.0 ± 1.0 °C, simulating the export condition. It was revealed that only *Lasiodiplodia* sp. caused whole-bunch fruit drop. The fungal species was detected at the base of the peduncle first and later on the adjacent part toward the tip of the peduncle. In addition, 1-aminocyclopropane-1-carboxylic acid (ACC) was detected subsequently after the fungus infection. This finding leads to the suggestion that the whole-bunch drop was caused by *Lasiodiplodia* sp. infection through the cut surface at the base of the peduncle during harvesting. The fungus grew along the peduncle toward each fruit and induced fruit drop by means of ethylene. Thus, to prevent fruit drop in *longkong* effectively, harvesting should be done with clean knives or scissors. Fungicidal treatment should also be done as soon as possible after harvest.

Keywords: abscission, disease, *Lansium domesticum*, *Lasiodiplodia*, 1-aminocyclopropene-1-carboxylic acid