

HUANGLONGBING (HLB) RAPID DETECTION KIT DISSEMINATION TO BUILD COMMUNITY-BASED EARLY WARNING SYSTEM: CASE STUDY IN KOTO TINGGI, WEST SUMATERA, INDONESIA

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ABSTRACT

Huanglongbing (HLB) is a disease of citrus that can lead to plant death. Most farmers are unaware of the symptoms of HLB from the beginning of plant growth, and normally they suspect the condition as a result of nutrient deficiency. The usual detection of HLB conducted is through expensive and complicated laboratory tests using PCR. A quick detection method is necessary in order to formulate a strategy to solve the HLB outbreak appropriately. The HLB Rapid Detection Kit is an innovation that can identify the presence of HLB easily and inexpensively. Even farmers can do the test by themselves with realtime result. An observation has been done to test the effectiveness of the HLB Rapid Detection Kit in a citrus plantation area at Koto tinggi, Agam district, West Sumatera. The results on productive citrus crops revealed that the number of plants infected by HLB was between 19.22%-41.84% of the citrus population. The use of the HLB Rapid Detection Kit in Koto Tinggi, Agam district, West Sumatera was successful in detecting the level of HLB infections at the citrus plantation. The kit was also able to predict the cause of infection, which was found to be from the use of citrus seedlings that were already infected with HLB. The strategies for restoration of citrus areas infected by HLB are eradicating HLB vectors and replanting citrus plants using certified healthy planting materials. The implementation of the program should be integrated in one area.

Keywords: citrus, HLB, rapid detection kit