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Preliminary Observation of Phenolic Acids on Basal Stem Rot Infected Oil Palm

KHIM PHIN CHONG[2*], CHONG MUN HO[1], JEDOL DAYOU[1] AND SUNG YAN CHEONG[3]

An observation was conducted in Kam Cheong Plantations Sdn Bhd, Lungmanis Fields 8 and 10, Sandakan, Sabah from October 2018 to September 2019. A biocontrol formulation consisting of phenolic acids was applied to Ganoderma *infected palms* via *trunk injection to control the basal stem rot (BSR) and reduce the oil palm yield losses. The formulation was first produced in Universiti Malaysia Sabah before being applied to the infected palms. A total of three rounds of the phenolic acids formulation were applied to 120 infected palms in Kam Cheong with two months interval each. Every infected palm was injected with 40 ml of the formulation (20 ml/injection hole) using a manual trunk injector. This was followed by monitoring and recording of the oil palm yield and disease recovery. The recovery of the infected palms was assessed based on the physical changes of the palms. Out of the 120 treated palms in the two affected areas, 68.33 per cent were still productive although infected, 13.33 per cent recovered from the infection, 9.17 per cent had dead* Ganoderma *fruiting bodies but with BSR foliar symptoms while 9.17 per cent collapsed or died after the six months' observation. The fresh fruit bunch yield increased from 1.24 to 3.14 tonnes per hectare in Field 10, an increment of about 154 per cent. However, the yield varied in Field 8 during the observation. This paper serves as a preliminary report on the benefits of phenolic acids to* Ganoderma *infected palms. More research may be necessary in the future to confirm this result especially on the effect of yield.*

Keywords: Ganoderma, *phenolic acids, biocontrol, oil palm, basal stem rot.*