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Potential Pathogenic Bacteria in Loose Oil Palm Fruit (LOPF) from Smallholdings in Serian, Sarawak

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Abstract

Oil palm (*Elaeis guineensis)* is a species of palm tree cultivated mainly for its oil. Malaysia is the second largest producer of oil palm behind Indonesia. During the harvesting of oil palm fruit bunch, some over ripped fruits will get detached from the fruit bunch and these loose fruits will be contaminated with bacteria from the soil. Collecting the loose fruits from the ground is normally done manually by hand and this may allow the transmission of bacteria from the soil to the workers.

According to Table 1, this study reported on the microbial contents of the oil palm loose fruits collected from three different locations of smallholding oil palm in Serian Sarawak, Malaysia. The result shows that F3S3 at Kampung Raeh Baru has the highest number of colonies, 20.4 x 10^5 CFU mL-1, while the lowest number of colonies was at F2S1, which was at Kampung Beradau, Siburan, with 2.4 x 10^5 CFU mL-1.

Table 1: Number of bacteria colonies of each sampling station

Locations	Sampling Stations	Colony Forming Unit (CFU)/mL
Kampung Paon Rimu (F1)	F1S1	4.4 x 10^5
	F1S2	3.1 x 10^5
	F1S3	3.3 x 10^5
Kampung Beradau (F2)	F2S1	2.4 x 10^5
	F2S2	4.4 x 10^5
	F2S3	3.6 x 10^5