DIRECT DATA CAPTURING SYSTEM FOR BUNCH ANALYSIS

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il palm breeders routinely carry out bunch analysis to estimate oil and kernel content in bunches (Rao et al., 1983). Normally, three to five bunches are analysed per palm and breeding trials involve thousands of experimental palms generating voluminous data. At present, bunch analysis data is captured manually in a record sheet and later the data is entered into a computer. This method is found to be timeconsuming, error-prone and expensive. MPOB has developed a direct data capturing system to overcome the above limitations.

A conventional method where data are manually recorded followed by manual data entry into computer. This requires data checking before analysis.

METHODOLOGY

Direct data capturing is a process where information is instantly entered into the computer after each weighing. Data will be captured in two stages (*Figure 1*). Once samples are placed on the weighing balance, data will be captured in Microsoft Excel worksheet format. The second step involves importation of data into bunch analysis direct data capturing system (BA d-capture). BA d-capture has the ability to update, delete, view, sort and export the analysed data from Microsoft Access database to Microsoft Excel worksheet (Table 1).



automatically captured into the computer and the error-free data can instantly be retrieved.

BENEFIT

Instant data capturing with reliable results is the main feature of this system as it is punchingerror-free. One worker will be reduced, as data punching and error checking are not required.









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Figure 1. Flow chart of direct data capturing system.

TABLE 1. INSTANT OUTPUT OF RAW AND ANALYSED DATA

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ECONOMIC ASPECT

ACKNOWLEDGEMENT

The total initial cost for this system is RM 26 000 which includes the processing software, three computer terminals and three weighing balances as compared to RM 12 000 for cost of three balances for the

Special thanks to Ms Junaidah Judin who initiated this project.

TABLE 2. COST COMPARISON BETWEEN TWO DIFFERENT METHODS OFBUNCH ANALYSIS DATA CAPTURING

Method	Item		Total				
		Year 1	Year 2	Year 3	Year 4	Year 5	
Conventional method	Weighing balance	RM 12 000	-	-	-	-	RM 12 000
(manual data capture)	(3 units)						
	One worker	RM 9 000	RM 9 000	RM 9 000	RM 9 000	RM 9 000	RM 45 000
	(RM750 mth ⁻¹)						
						Total cost	RM 57 000
Direct data	Weighing balance	RM 12 000					RM 12 000
capturing system	(3 units)						
(BA d-capture)							
	Data terminal	RM 11 000					RM 11 000
	(3 units)						
	Processing	RM 3 000					RM 3 000
	Software						
						Total cost	RM 26 000

conventional method. Assuming that the life span of the balances is five years, the new system (BA dcapture) will save a total of RM 31 000 for a five-yearperiod as the conventional method requires one worker (RM 750 month x 12 month x 5 years = RM 45 000) for manual data entering and checking (*Table 2*).

CONCLUSION

This system is able to speed up error-free data entry and economically viable for a long period.

REFERENCE

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