

DRIED PALM OIL MILL EFFLUENT AS A PARTIAL SUBSTITUTE FOR PALM KERNEL EXPPELLER MEAL FOR CATTLE FEEDLOT FATTENING

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Palm kernel meal (PKM) has been the major dietary component for feedlot cattle in Malaysia since the early seventies. This was mainly due to it being almost a complete diet by itself and its cheapness (U.S. \$82.00). The recent escalating price of PKM from US\$82 to US\$115/m tonne has forced producers to seek other cheaper by products to partially substitute PKM. Palm oil mill effluent (POME) can be produced cheaply (US\$50.00/m tonne) and in abundance. The present trial compares performances of feedlot cattle fed a diet of PKM partially substituted with dried POME with a control diet containing only PKM.

Two trials were carried out simultaneously, one on the government field station, and the other on a private farm managed by an independent cattle smallholder. Each trial utilized 20 Sahiwal-Friesian bull calves of 140kg average liveweight, selected from the farm stock and they were each divided into two groups of 10 animals. The two groups of animals in each trial were fed ad libitum, the diets shown in Table 1 with fresh water always available. The trial lasted 240 days.

Table 1. Ration composition

Ingredients	Test ration	Control
Palm kernel expeller meal (7% fat, 15% CP, 67% TDN)	58.0	98.0
Palm oil mill effluent (10% fat, 12% CP, 60% TDN)	40.00	
Ground limestone	1.0	1.0
Salt	1.0	1.0
ROVIMIX AD3 provided 2000 i.u. Vit A/kg		

Table 2. Feedlot cattle performance fed dried pome and PKM diets

Parameters	Government Station			Smallholder farm		
	Test	Control	LSD	Test	Control	LSD
Av. daily gain (kg)	0.65a*	0.75b	0.061	0.69a	0.76a	0.073
Av. daily DM intake (kg)	5.76a	6.27a	0.650	6.10a	6.59a	0.840
Feed conversion ratio	8.77a	8.42a	0.390	8.82a	8.68a	0.560

*Values with the same superscript (a, b) are not significantly different (P>0.05)

The growth rate of animals fed the normal PKEM diet was higher (P<0.05) than on the test ration at the Government station. There were no significant differences (P>0.05) in DM intake and FCR between the rations. On the smallholder farm there were no significant differences (P>0.05) in ADG, DM intake and FCR between the two rations, suggesting that the POME, although it contains a lower nutrient content than PKEM (Yusoff, et al, 1986) gives as good a performance when incorporated into PKEM at 40/60 ratio as the PKEM fed above. At that ratio, combination of the two ingredients probably provided sufficient nutrients for beef cattle growth. POME is another potentially useful feedstuff for feedlot cattle in Malaysia. It is cheap and readily available.

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