



Melbe camel a unique genetic resource and their contribution towards food security of Boran region, Ethiopia

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The Melbe breed is localized to Gorray, Arbale and Magadokebeles (villages) of Dirre and Dilo districts of Borana zone, Ethiopia (Fig-1) This ecotype can also utilize very brackish water quite common in volcanic depression. The she camel produce scanty but thick and sweet milk. There are phenotypic differences between the two breeds of dromedary camels reared in the study area viz. Joge (tall type) and Melbe (dwarf type). One of the reasons for which the Melbe camels are raised is because they require less forage when compared to Joge camels. The Melbe breed weigh less and mature earlier than Joge camels, they are able to utilize the scanty vegetation of the area. The Melbe has a “white” coat unlike that of Joge camel which has a brownish textured coat. This Melbe camel fattens well within 2-3 months (if provided with good quality forage) while the Joge camels emaciate when raised in the breeding tract of Melbe camels, which is predominantly because of low vegetation in the area and the well have brackish water. The respondents also reported that as the region is facing serious challenges due to recurrent drought the livestock demography of the region has shown changes, the Boran cattle are/have been (over the decades) replaced by goats and camels.



(Source: Humanitarian Data Exchange-Ethiopia Shape file and NMA station GPS points)

Fig 2 :Melbe camels at Dillo (a) and Dirre (b) district

The study also shows that as the region has been facing serious challenges due to recurrent drought the livestock demography of the region has shown changes, the Boran cattle are/have been gradually replaced by goats and camels which is because of withered rangelands. The Malbe camel also has a comparatively larger hump which grows on hip and ribs; which is perceived by owners to be linked with higher body and carcass weight. Melbe camel are traditionally considered as “**a good luck**” charm and the pastoralists raising Melbe camels have higher social prestige and the Melbe camels are given as gifts during social ceremonies. The Melbe camels are often bled for food and serve as gifts to family members or relatives. Daily milk yields of Melbe camels range from 1-6 liters which depends on the season and feed availability besides access to water. The milk yield of Joge camel cows are higher than those of Melbe camel cows.

Parameters (traits)	Melbe camels Mean±SD	Joge camels Mean ±SD
Lactation length(months)	11.44± 1.48	12.79 ±.23*
Milk yield (liters) in wet season	4.97± 1.43	6.36 ±0.85**
Milk yield (liters) in dry season	2.51± 0.82	3.00 ±0.04*
Age at first mating of cow. (yrs)	3.23 ±0.45	4.12±0.47**
Number of calves born in lifetime	13.05±1.99***	8.11±0.11
Reproductive life time of bull (Yrs)	14.28±2.52*	13.58±2.30
Culling age of Breeding bull (yrs)	22.04±3.24*	20.35±3.15
Culling age of Breeding cow (Yrs)	28.33±2.86*	24.46±2.73

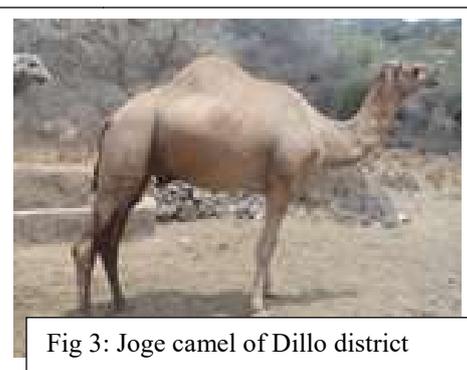


Fig 3: Joge camel of Dillo district

Means in the same row with the superscript are significantly different at $p < .05$ (* $P < 0.05$; ** $P < 0.01$ and *** $P < 0.001$, SD = standard deviation). N=225 (Melbe) and 100 Joge camel

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