

# INCOME POTENTIAL OF A NGUNI WEANER PRODUCTION SYSTEM

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## Introduction

A weaner calf production system is by and large the system most used by cattle farmers in South Africa and this explains why the most meat bought by consumers originates from a feedlot. The purpose of this short article is not to focus on the feedlot industry but rather on the potential income from a weaner calf farming system with purebred Nguni cows. Actual data of the Mara Research Station, a Nguni herd from the Boshoff district and the registered national herd (all breeds) are used.

**Table 1.** Income potential of a virtual pure Nguni herd when the results of a study on Mara Research Station is used.

	Simmentaler Type	Bonsmara Type	Nguni
Study period	1995-2003	1995-2003	1995-2003
Average rainfall during study period (mm)	480	480	480
Average cow weight at calving (kg)	486	455	337
Total number of cows	187	200	270
Average calving percentage	72	81	91
Weaning percentage	75	85	90
Average weaning weight (kg)	241	213	162
Kilogram produced/100 kg mated	27,6	31	37,6
Total kilogram produced	25 116	28 210	34 216
Income @ R15/kg (R)	376740	423150	513240
Difference	(136 500)	(90 090)	0
Income Nguni @R14/kg (R)			479 024
Difference	(102 284)	(55 874)	

If we use the results from Mara Research Station and create three virtual herds (Table 1) where there can be sustainably farmed on a given area with a biomass of 91 000kg (weaner production system), then 270 Nguni cows can be used against 200 Bonsmara type or 187 Simmentaler type cows (because the Nguni cow is on average lighter). Though the weaner weights of the Simmentaler and Bonsmara type cows were heavier the better calving and wean percentages of the Nguni result in more kilogram meat produced for every 100 kg cow weight mated.

Consequently the total income realized of the Nguni cows is also higher. If we create a scenario where the Nguni calves were sold for R1 less than the Bonsmara and Simmentaler type calves the total income of the Nguni calves will still be higher.

**Table 2.** Income potential of a Nguni herd in the Boshoff district against all registered herds of all breeds. Real weaning results for the year 2009 were used.

	Nguni herd	National herd (all breeds)
Total cows	200	161
Average cow weight at weaning (kg)	403	500
Average calving percentage	96	87
Average weaning weight (250 day) (kg)	189	216
Average cow/ calf ratio at weaning (%)	46,9	43,2
Kilogram produced/100 kg mated	45	37,6
Kilograms produced	36 270	30 306
Income @ R15/kg (R)	544 050	454 590
Difference		(89 460)
Income Nguni @ R14/kg (R)	507 780	-
Difference		(53 190)

In Table 2 the results follows the same pattern as the results in Table 1. More Nguni cows can be kept on a given area and in both herds the total biomass is 80 600 kg. The kilogram produced in Table 2 are calculated by converting the average intercalving period of the herds (380 vs 421 days) to calving percentages (365/380 and 365/421).

This is then multiplied by the average cow / calf ratio of the two herds with weaning (weaning weights of calves are corrected to 205 days); this then gives us the number of kilograms produced per 100 kg cow mated. As in Table 1, weaning weight as a single trait cannot be taken into account and the productivity in the Nguni herd is higher. Again, if a scenario is created where the Nguni calves are sold for R 1 per kilogram less, the total revenue will still be more (R 53 190).

If we also take into account that the Nguni has traits that reduce inputs, the potential for profit with the Nguni is much higher. These traits include: fewer calving problems, higher blood urea levels (less nitrogen lick in the winter) and better resistance to internal and external parasites (less chemicals).

