

# Brief summary of the Nguni Feedlot Project

## Purpose of the project:

- Assist the Nguni Cattle Breeders' Society to determine the most suitable ration for Nguni calves under feedlot conditions.
- What animals will do best under feedlot conditions, given the most suitable ration is used.

## Rations evaluated:

- Nguni Starter (High roughage),
- Nguni Grower (Medium roughage),
- Nguni Finisher (Low roughage) and
- Feedlot Grower Commercial (Low roughage)

## Animals sourced

Two hundred Nguni male calves, sourced from different herds, were randomly allocated to, and tested on four different rations, viz and slaughtered when they reached acceptable carcass subcutaneous fat classification, either after 105, 120 or 135 days on test.

## Results

- Animals with highest initial weights were slaughtered first (105 days on feed and had the highest end and carcass weights, none of the other slaughter groups were able to match these end and carcass weights, irrespective of the rations received.
- Calves on the commercial ration did significantly better than the calves on the other rations for ADG (1.34 vs 1.24-1.27), total gain (159.1 vs 147-150), end weight (7 to 11 kg heavier) and had a carcass weight of 204kg vs 196-198kg for the other rations.
- Dressing percentage of animals on the commercial ration was 56.5%, which was not significantly better than the dressing percentage of the high (roughage) ration animals. However, the commercial ration animals started out slightly (about 9-10 kg) although significantly heavier at 201kg than the other groups and needed on average 3 to 5 days longer to reach marketability than the calves on the other rations.
- Some significant differences in starting weight and age were evident in calves originating from different provinces, but these differences were not significant at the end of the test and with the carcass traits as animals were slaughtered at different days on test.
- Arrival weight had a marked influence on test length and margin over feed costs, favouring the heavier calves. Carcass weights of calves with higher arrival weights were also heavier and closer to market requirements.

## Most important findings.

- Given adherence to some basic conditions, Nguni cattle can be fed profitably in feedlots.
- Results indicate that the precondition for minimum weights to be considered at arrival (or at the end of preconditioning or backgrounding) to be close to 200Kg with an absolute minimum of 180Kg for profitable feeding of Nguni cattle in a feedlot.
- Although ration had a significant effect on ADG, it was negated by other factors contributing to differences in feedlot profitability. Although the low roughage and commercial rations were not the cheapest per ton, they were the most profitable to feed in this case. Nguni cattle did also perform profitably on the (normal) commercial diet.
- Significant differences in feedlot performance could be attributed to the source of animals. Individual herds were obviously confounded in region or province. Although not necessarily proven by this trial, these differences can be due to genetic merit, but also environmental conditions prior to being fed in a feedlot.
- No excessive health fallouts occurred.