



R2 ANGUS STEERS GRAZING BRASSICA CROP SUPPLEMENTED WITH MAIZE AND PALM KERNEL EXTRACT CAN INCREASE GROWTH DURING WINTER



Growing stock as fast as possible leads to finishing stock earlier. Increasing the live weight per ha increases the efficiency of the system and ultimately leads to greater revenue.

Earlier on-farm investigations reported a reduction in crop intake (9 vs. 6kg, respectively) in the group offered a supplement of barley compared to the control group of steers and an increase in profit of \$32.50 per animal. Our idea of providing a supplement whilst the younger lighter steers were grazing a winter crop, rape, was developed from these results and some personal discussions with producers in the Wairarapa.

METHODOLOGY

Rising two-year-old Angus steers were used in the trial and the control group (grazing rape with no supplement, n=54)) weighed at the start of the trial with the control group weighing 317kg and the 'treatment' group (grazing rape supplemented with kibbled maize and palm kernel extract, n=52) weighing 320kg.

The steers were break fed and were moved onto the next break when the utilisation was at about 85%. The treatment group were allowed a period of 5 days to adapt and were allowed a total of 0.5kg/day of the maize and palm kernel extract. The supplement allowance increased to 0.75-1kg/-day after the adaption period.

All animals were weighed straight off the feed fortnightly and put straight back on to their treatment feed and the trial went for 6 weeks.

SUMMARY FROM THE TRIAL OPERATOR, FRASER MULVANEY

This investigation provides a basis to design more trials to finish cattle at Puatai, Whangare Farms, and potentially increase the revenue and the profit for this unit.

There is also the potential to supplement the Angus steers aiming to hit the BeefEQ specifications through increased marbling from the supplementation.

Further investigations are required to investigate the adaptation period and to reduce feed costs. There is potential to utilise a more appetising pellet developed that is classed as a complete supplement high in both energy and protein.



RESULTS

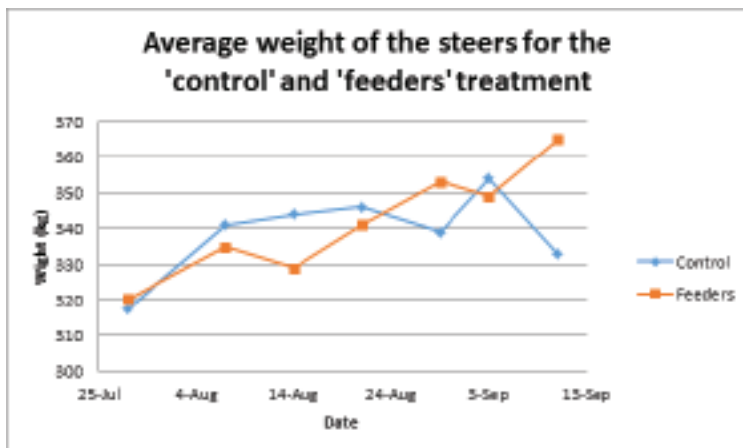


Figure 1: Growth rate of the control and feeders treatment over a period of 6 weeks at Whangara Farms during July/August

The 'control' group grew at 0.3kg/day and the 'supplement' group grew at 1kg/day. The final weights were 333kg and 365kg for the 'control' and 'feeders' group, respectively. This is a promising result.

By observation, the 'feeder' group consumed two-thirds of the crop compared to the control group. Further investigation needs to be completed however **this result shows that beef production increased by 421%** (150% x 45kg gain in the 'feeder' group / 16kg gain in the 'control' group).

At the current steer schedule at \$2.60/kg of live weight, the additional live weight of the 'feeder' group would be valued at \$83.20 per steer. There were 54 steers in the group which means a mob total of \$4492. There were some teething issues at the start of the trial where the steers in the 'feeder' group took nearly 3 weeks to adjust to the new feed.

Trial period (days)	42
Added average weight gain in the Advantage Feeders group (kg)	29
Value of weight gain/kg	\$ 2.60
ADDED INCOME/HEAD	\$ 75.40
Value of Winter Forage (\$/kgDM)	\$ 0.22
Reduction in Winter Forage consumption (kgDM/day - estimate)	3
REDUCTION IN WINTER FORAGE EXPENSE (based on \$0.22/kgDM)	\$ 27.72
Feed consumption/head: 75% maize, 25% PKE (kg)	74.1
Feed cost/head (\$620/tonne for maize and \$340/tonne for PKE)	\$ 40.74
Depreciation/head*	\$ 10.28
Feeder filling expense/head (\$50/tonne)	\$ 3.70
ADDED EXPENSES/HEAD	\$ 54.72
NET ADDED EXPENSES/HEAD	\$ 27.00
ADDED PROFIT/HEAD	\$ 48.40