

University of Adelaide trial

"Is the addition of a trace element and amino acid supplement to the water supply beneficial to Angus steers?"



TRIAL

To support the results enjoyed by clients as well as our internal development trials, in 2021 we began trial work with the University of Adelaide. 80 steers were split into 2 groups before being transported to the Roseworthy Campus from Flinders Island.

1. Control group (n=40)

- Received no Beachport supplementation.

2. Treatment (Beachport) group (n=40)

- Received Beachport Liquid Minerals Green Cap before transport and Beachport Liquid Minerals Blue Cap throughout the trial.

Upon arrival, the steers were randomly allocated into smaller groups of around 10 and put into feedlot yards.

TRIAL GOALS



Trace element efficacy

Is Beachport Liquid Minerals an efficient and cost effective trace element supplement?



Improve daily weight gain

Does using Beachport improve weight gain and profitability?



Water dosing efficacy

Is using Beachport via the water as efficient as an injection? Does it stay in the bloodstream?

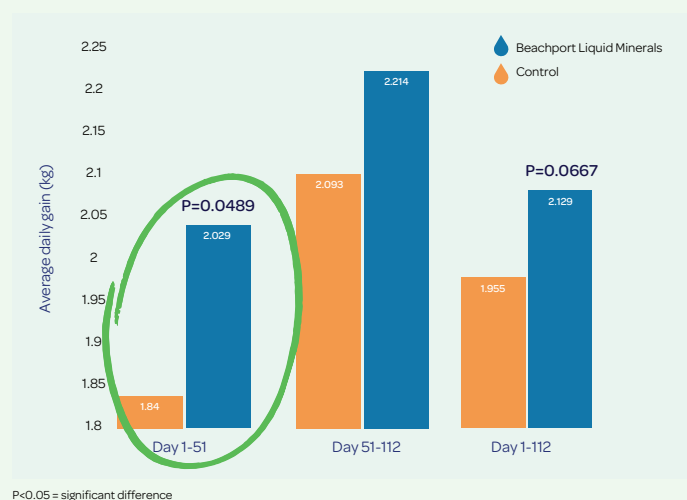
TRIAL NOTES

- Beachport Green Cap was given to the Treatment group before transport and before slaughter.
- Blue Cap was given to the Treatment group on day 4, day 70 and day 97. Treatment of the Blue Cap was on hold for a period of time due to Selenium and Copper injections given on day 23.
- Day 35 - steers were moved to other paddocks due to poor conditions in the feedlot.
- Bloods and weights recorded day 1, 23, 52, 77, 99 and day 112.
- All steers were given the same feed throughout the trial.
- All steers left the Roseworthy campus on Day 120.

WEIGHT GAIN

The average daily weight gain is shown here for the control group and treatment group at different stages of the trial.

Throughout the trial, the Beachport group had a higher average daily gain than the Control group with Day 1 - 51 a significant weight gain result.



AVERAGE DAILY GAIN FOR THE BEACHPORT GROUP PER HEAD

1 - 51 DAYS	WHOLE TRIAL
additional 189g	additional 174g
per day MORE than the control group	per day MORE than the control group

COST BENEFITS

The value paid per carcass was ultimately \$95.64 more for Beachport Liquid Minerals group, compared to the control.

The cost per head for the trial with the Beachport supplements was \$4, meaning there was a profit of \$91.64 per head difference between the groups.

\$95.64	MORE than the control group over the whole trial
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SELENIUM CONCENTRATION

After receiving Blue Cap, the selenium concentration increased in the Beachport steers showing a statistical difference within the first 24 days of the trial. This took them from being deficient to being in the optimal range, while the Control group remained deficient.

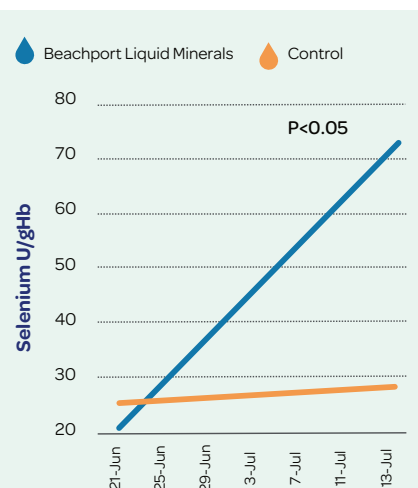


FIGURE 2

Blood selenium concentration of treatment and control group steers (optimal range 40-300 U/gHb)

COPPER CONCENTRATION

The control group had lower copper concentrations throughout the whole trial compared to the Beachport group.

Unfortunately outside of the scope of the trial, both groups were given a Selenium and Copper injection at day 23 due to a deficiency but after the copper injections, the Beachport group's blood concentrations continued to increase, while the control group's seemed to decrease.

The blood results prove that minerals are entering the bloodstream in safe levels, even in conjunction with mineral injections. There was a statistical difference seen at day 99 ($p < 0.05$).

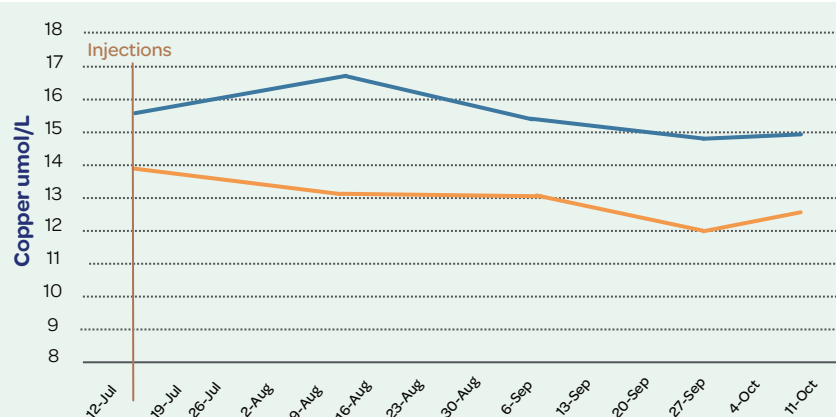


FIGURE 4

Blood copper concentration of treatment group and control group (optimal range 9-20 umol/L)

Beachport Liquid Minerals Control

ADDITIONAL RESULTS

In addition to the results outlined here, the Beachport group achieved optimum magnesium levels, they achieved lower cortisol levels (an indicator of stress) and had lower pepsin levels than the Control group, meaning a less likelihood of parasites being present.

SUMMARY

The exciting and indisputable results prove that Beachport is an effective supplement for not only trace element levels, but weight gain and profitability of your animals. Most importantly, the trial results prove the effectiveness of our water supply delivery method, which saves producers time and money, has significant animal welfare benefits and is more sustainable than traditional supplementation alternatives.

MAIN OUTCOMES



Supplementation via the water supply is just as effective as an injection.



Beachport Liquid Minerals water supplements are more cost effective and can produce an increased profit.



Amino acids and minerals are able to enter the bloodstream and are not degraded in the rumen or the abomasum.



All essential elements are maintained within the optimum levels required when supplemented with Beachport.

