

# Beef Cattle Grazing Case Study

Bell, Queensland

## Summary

### 0-21 Days Weight Gain

- FHE treated = 1.29kg/hd/day average
- Control = 0.85kg/hd/day average
- 52% increase in daily performance

### 0-48 Days Weight Gain

- FHE treated = 1.27kg/hd/day average
- Control = 1.08kg/hd/day average
- 17% increase in daily performance

### Other observations\*

- FHE treated cattle were easier to handle than the Control.
- FHE treated cattle displayed a much lesser degree of looseness than the Control.
- Overall performance by owner is above initial expectations.

Most producers accept that the first 21-day transition to a high protein fodder / feed is a significant risk for cattle because the gut microbiome becomes unbalanced while adjusting to their new diet. It is also widely accepted that during this time, a 340kg average weight livestock with 0.85kg/head/day gain is considered reasonably good.

Multikraft Probiotics novel approach to livestock management may allow the the gut microbiome to naturally buffer feed transitions more effectively.

All livestock in this case study are scheduled to be re-weighed at day 42 with the case study updated to reflect this.

## Overview

**The purpose:** To record and evaluate the preliminary effects of Multikraft **Fermented Herbal Extract (FHE)** on a green fodder beef cattle grazing system.

**The desired outcomes:** Weight gain, increased overall performance & health and easier livestock handling.

This study encompassed 96 head of cattle, and now forms the basis for a more extensive evaluation on a broader scale within the Australian beef industry.

FHE is a consortium of beneficial microorganisms and herbal extracts. It is fermented with a range of *Lactobacillus* spp, *Saccharomyces cerevisiae* as gut flora stabilisers. Herbal extracts include caraway, yarrow, anise, fennel, birch leaf, goldenrod, peppermint, marshmallow root.

Case study details are outlined on page two of this document.

## Case Study Details

Design:	Two treatment comparison
Premises:	Hill Park
Location:	Bell, Queensland
Animals required:	96 beef cattle
Paddock area	Control paddock: 28 acres FHE Treated paddock: 45 acres
Initial weight range:	Control: 236kg - 426kg (343kg average) FHE Treated: 236kg - 448kg (337kg average)
Breed:	Mixed breed (majority British)
Treatments:	A. Control B. FHE treated 50ml per head/day injected into water point
Application:	FHE added to watering point
Start date:	23rd May 2021 Start of cattle going onto oats 24th May 2021 Start of FHE being applied
Term of research:	Seven weeks
Feed required:	Mixture of open grazing and oats
Measurements:	Day 0 - induction day Day 21 Day 48

## Method

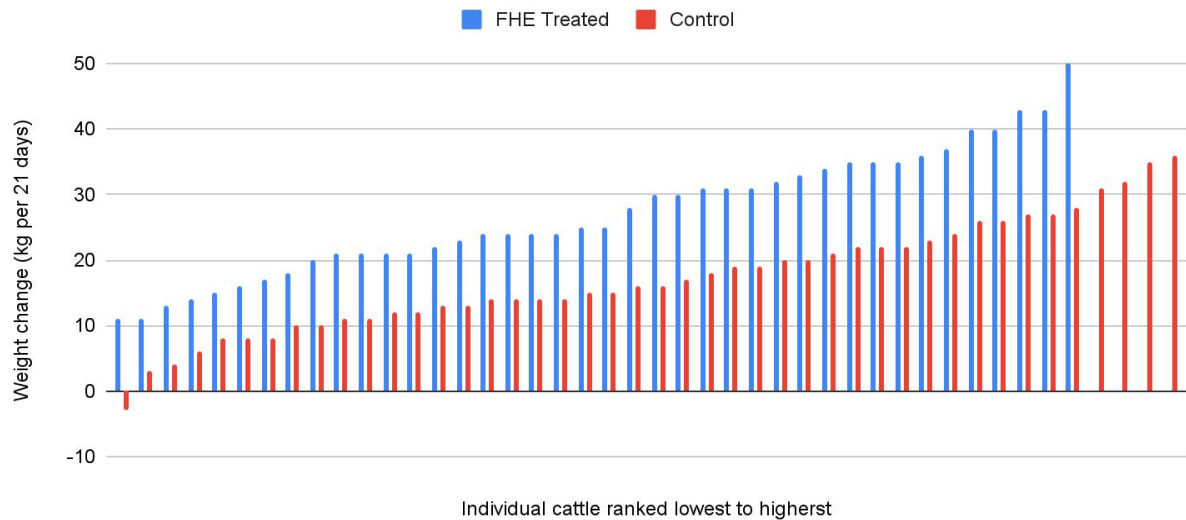
1. A total of 96 cattle, incorporating several lots, were transported to Bell, Qld. Two lots from agistment in Walcha NSW and one lot from the saleyards in Biggenden.
2. Livestock were allowed to settle overnight post transport with access to grass and water.
3. First two lots of cattle were inducted three days post arrival on site. Third lot was inducted the day after.
4. Induction process included recording weights and ear tag numbers.
5. Livestock were split at random into two groups of 48.
6. Both groups were then transferred to individual paddocks of “Drover” oats, 400mm high with secondary root development.
7. FHE was added to the water in treated paddock from induction date.



Image - Control cattle after 21 days

# 21 Day Results

## Weight Gain for Individual Cattle

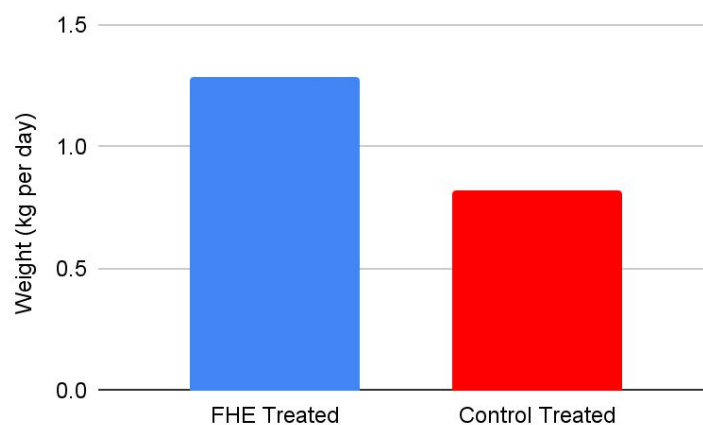


**There was an average weight increase of 10kg/head in the FHE treated cattle compared to the Control cattle in the first 21 days. (FHE treated 27.1kg per head versus the Control 17.3kg per head).**

The two highest and lowest data points in both datasets have been trimmed.

In the FHE treated lot, four head are not included in the data set. This is due to transport sickness prior to FHE for one of the head and ineligible ear tags for the remaining three head of cattle.

## Daily Weight Gain (kg per head)



**Daily weight gain: FHE treated of 1.29kg/head/day versus the Control of 0.82kg/head/day. Resulting in a 57% improvement in weight gain for FHE treated cattle.**

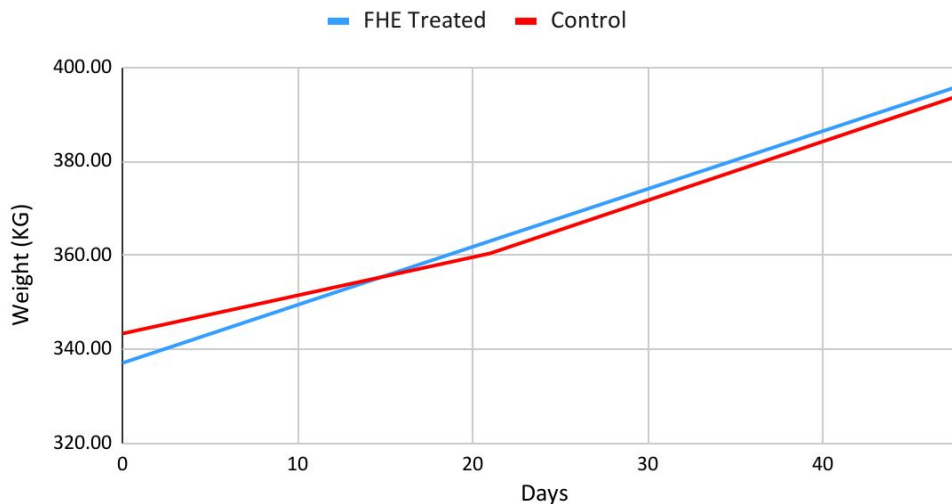
Behavioural differences observed:

- FHE treated cattle were easier to handle
- FHE treated cattle displayed a much lower degree of looseness

\* Observations were noted by Multikraft specialist Scott Reed.

# 48 Day Results

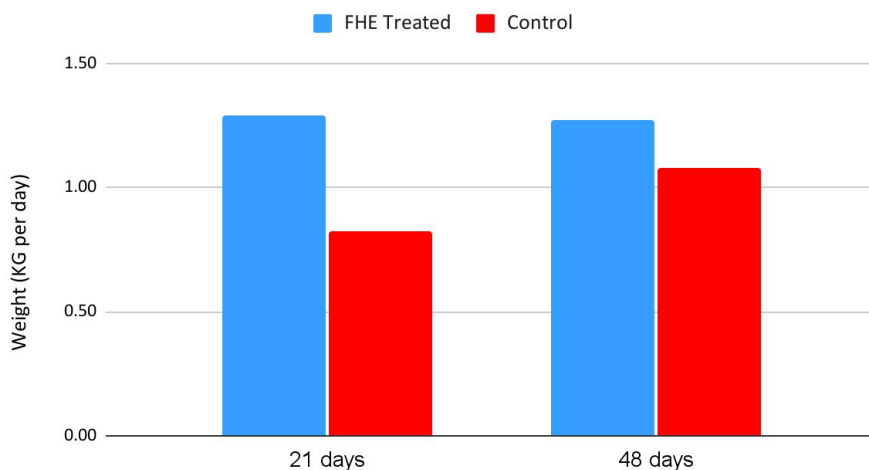
## Average Weight FHE Treated vs Control



**Initial average weights for FHE Treated cattle were 6kg less than the control (337kg FHE treated versus 343kg Control). At 48 days, the FHE treated cattle on average increased by 2kg over the Control cattle (396kg FHE treated versus 394kg Control).**

In the FHE treated lot, four head are not included in the data set and three cattle are not included in the control data. This is due to transport sickness prior to FHE for one of the head and ineligible ear tags for the remaining six head.

## Daily Weight Gain (kg per head)



**48 day daily weight gain: FHE treated of 1.27kg/head/day versus the Control of 1.08kg/head/day. Resulting in a 17% improvement in weight gain for FHE treated cattle.**

Behavioural differences observed:

- FHE treated cattle were easier to handle
- FHE treated cattle displayed a much lower degree of looseness

\* Observations were noted by Multikraft specialist Scott Reed.

### Disclaimer

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