

Reducing Reliance on Supplementary Feeding – The FEED365 Project

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PROJECT BACKGROUND

Feed365 is part of a portfolio of WA-based projects established under the SheepLinks Program – co-funded by Department of Primary Industries and Regional Development (DPIRD) and Meat & Livestock Australia (MLA) to support the WA sheep industry.

The project is investigating livestock forage systems for grazing all-year-round in Mediterranean environments - environments that are being challenged by climate change with increasingly hotter, drier, and more variable seasons. The goal is to create innovative, resilient, low-risk systems, allowing growers to maintain or increase livestock returns with minimal supplementary feeding, in the face of a variable and drying climate.

STIRLINGS TO COAST INVOLVEMENT – TRIAL ONE

Stirlings to Coast Farmers became involved in the project in February 2023. The Slade family in Mount Barker volunteered to be the first cab off the rank, by comparing lamb growth in autumn on winter canola sown in the previous spring 2022 (as is standard practice) against a winter canola/Maximus barley mix. The barley was over-sown into the canola in early autumn 2023.

The SCF team took pasture cuts for biomass assessment and nutritive value analysis (Feed Test) on the 30 May 2023, just before the paddocks were grazed. The Slade family then weighed and condition scored the two separate mobs of lambs before going in and then coming out of both the winter canola only, and the winter canola/Maximus paddocks.

THE RESULTS

The Canola and Maximus Barley treatment had more biomass (1.375 t/ha) than the control of canola only (0.863 t/ha) prior to grazing. Given the dry May, it took some time for the canola to kick off.

Lamb live weight gain was significantly higher in the paddock containing the mix of canola and barley compared to canola alone (Figure 1).

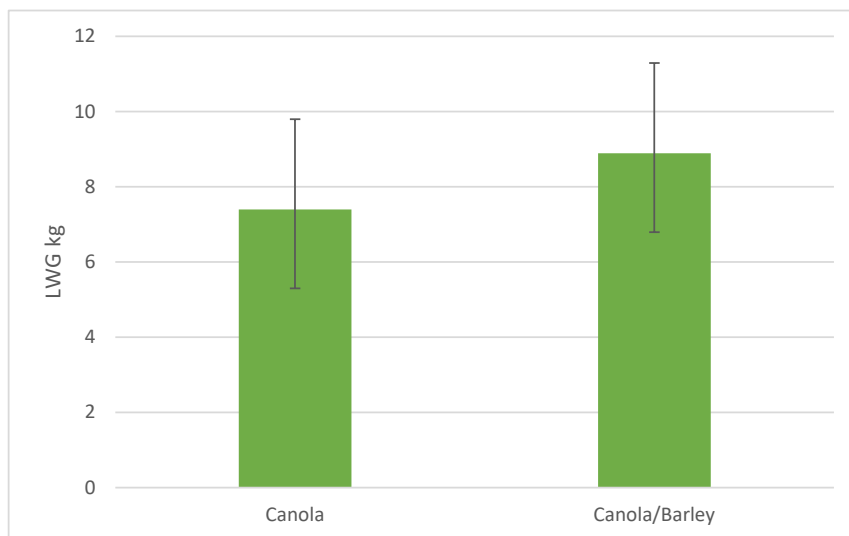


Figure 1 - Site one, Mt Barker - Live weight gain vs treatment



Given there was ample feed available in both scenarios throughout the whole grazing period, it is likely that the addition of the barley was driving the nutritional benefit. The nutrient value analysis (Table 1) shows that the main differences between the two feed sources were crude protein and fibre. The addition of the barley resulted in a better balance of protein and fibre in the feed source, a factor that was likely the driver of the increased productivity on the lambs.

Table 1 - Site one, Mt Barker - Nutritive Value Analysis

Determinant	Control: Canola	Variable: Canola + Maximus
Dry Matter	16.5%	15.9%
Moisture	83.5%	84.1%
Crude Protein	26.0% of dry matter	18.5% of dry matter
Acid Detergent Fibre	12.3% of dry matter	13.3% of dry matter
Neutral Detergent Fibre	19.9% of dry matter	22.7% of dry matter
Digestibility (DMD)	88.9% of dry matter	87.7% of dry matter
Digestibility (DOMD)(Calculated)	82.1% of dry matter	81.1% of dry matter
Est. Metabolised Energy (Calculated)	13.7MJ/kg DM	13.5MJ/kg DM
Fat	6.0% of dry matter	5.8% of dry matter
Ash	11.8% of dry matter	11.6% of dry matter

TRIAL TWO – SHAPING UP

Site two for 2023, hosted by Kim Lester, is located in Green Range, and was sown on the 31 August 2023. For this trial, one 40 ha paddock has been divided and sown with two different 20 ha treatments. The neighbouring 40 ha paddock will be the control.

Treatment one (20 ha) has been sown with:

- ryegrass at 20kg/ha,
- chicory at 1kg/ha
- red clover at 8kg/ha.

Treatment two (20 ha) has been sown with:

- ryegrass at 20kg/ha
- chicory at 1kg/ha
- strawberry clover at 4kg/ha
- white clover at 1kg/ha.

The control paddock (40 ha) treatment is an annual pasture mix of ryegrass and Balansa clover which was over-sown with Illabo wheat on the 24th of April 2023.

The SCF team and Kim Lester will measure biomass production, nutritive value, condition scores and live weight gain for each treatment. A 'Trials Tuesday' is planned for the 26 September at this site – keep a look out.

GOING FORWARD

SCF will be looking for two host farmers in 2024 and again in 2025 to be part of the project. If you are keen on giving something different a go in terms of pasture management to reduce supplementary feeding, we are keen to help you measure the results! Touch base with Sheridan Kowald – 0455 581 729.

