

# meatup FORUM

For the latest in red meat R&D

# Spring Sown Canola & Forage Brassica

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# Spring Sown Canola & Forage Brassica

- Alternative brassica options
- Spring Sown Canola
  - Why
  - Paddock Prep
  - Establishment
  - Paddock examples – animal performance
  - Insect management
  - Grazing management & nutrition
  - Summary

# Forage Brassica

- Brassica in pasture mixtures
- Journey started trialling Pallaton Raphno
- First trialled in 2018/19
- Success filling summer and autumn feed gaps
- Showed production potential for forage brassica on South Coast



# Alternative Brassica

- Leafy Turnip
- Fits autumn sowing
- Multi graze
- Bulb for dessert
- Good in mixed pasture
- Others include forage rape



# Why a spring sown Canola

- Summer high quality fodder
- Autumn feed gap
- Grain production to complement grazing
- Chasing premium grass fed market
- Hyola 970 CL cheaper per ha seed with grain and graze option.
- Opportunity to renovate kikuyu paddocks
  - Knockdown and post emergence grass selective

# Paddock Preparation

- Knockdown timed to retain full soil moisture profile
- Establishment insect pests
  - African black beetle, DBM & other lepidoptera, Aphids, Earwigs, Vegetable Beetle, Slaters, Snails, Slugs
- Soil fertility
  - Growing season will exceed 12 months...
  - N timing around grazing
  - K, S maintenance in HRZ

# Crop Establishment

- Aim to establish 40 plants/m
- Aim to still have 20 plants/m when season breaks
- Following photos from 2020/21 summer season – 844mm Sept to Aug

TABLE 1: Rainfall recorded at Manypeaks from September 2020 to August 2021.

|               | Sept | Oct | Nov | Dec | Jan | Feb | Mar | April | May | June | July | Aug |
|---------------|------|-----|-----|-----|-----|-----|-----|-------|-----|------|------|-----|
| Rainfall (mm) | 57   | 21  | 89  | 21  | 15  | 47  | 45  | 98    | 239 | 122  | 92   | 88  |

# 'Yabbie' paddock

- 34ha
- Kikuyu and clover for 40 years
- pH 4.0 in worst areas
- Good super potash history
- 2L Roundup + 1L Pyrinex super and ploughed
- Sown on 1st week in October

- Photo 11/10/2020



# 'Yabbie' paddock

- Nov 3 2020
- 1<sup>st</sup> and only Affirm with Clethodim
- 100kg Urea spread.



# 'Yabbie' paddock

- Nov 20 2020
- Early growth exceeded expectations



# 'Yabbie' Paddock

- Dec 21 2020
- Paddock split in half with polywire
- Cattle introduced week prior to Christmas



# 'Yabbie' paddock

- Jan 3 2020



# 'Yabbie' paddock

- Feb 14, 2020
- Cattle out on 23<sup>rd</sup> Feb
- Following 2<sup>nd</sup> death



# 'Yabbie' paddock

- March 6<sup>th</sup> 2020



# Animal Performance – ‘Yabbie’ paddock 34 ha

- First graze 100 350-450kg weaner steers
- Second graze 150 400-500kg steers
- Third graze 150 450-550kg

## Grazing Data

**Date in:** 24/12/2020 **Date out:** 23/02/2021 **Total beef produced from 24 December 2020 to 26 June**

**Days Grazing:** 61 days **2021 = 673.5 kg/ha**

**Livestock Description:** 100 steers

### **Weight gain:**

1kg/day each = 6,100 kg

6,100kg/34 ha = 179 kg/ha

**Date in:** 19/03/2021 **Date out:** 01/05/2021

**Days Grazing:** 43 days

**Livestock Class:** 150 steers

### **Weight gain:**

1.7kg/day each = 10,965 kg

10,965kg/34 ha = 322.5kg/ha

**Date in:** 01/06/2021 **Date out:** 26/06/2021

**Days Grazing:** 26 days

**Livestock Class:** 150 steers

### **Weight gain:**

1.5kg/day each = 5,850 kg

5,850kg/34 ha = 172kg/ha

# Animal Performance 'Yabbie' paddock 34 ha

- Season continued extremely wet after 800mm rain
- Canola waterlogged
- Clover took over
- Decision made to continue grazing instead of grain
- Set stocked 300 weather lambs and 40 cow calf units late August
- Sprayed out November and sorghum established.

# Insect Management

- DBM capable of rapid crop defoliation
- Canola the winter green bridge
- Moth flight in late spring early summer
- Establish crop early Sept
- Effective insecticides available



# DBM Spray

- Following year
- Crop established Nov 2021
- Dec 24 2021
- Second Affirm spray pictured



# DBM Spray

- Jan 12 2023
- Similar location to where sprayer in previous slide
- Yielding 4 t/ha in this good patch
- Paddock averaged 1.7t/ha



# Green Peach Aphids

- Early plant colonisation likely
- Beneficials build up and control
- But not before BWYV is transmitted



# Grazing Management & Nutrition

- High protein, high energy, high digestibility
- Induction very important to reduce adjustment period
- Roughage needed
- Supplements

| Attribute                           | Sample 1.<br>Canola | Sample 2.<br>Plantain/Clover | Sample 3.<br>Raphno |
|-------------------------------------|---------------------|------------------------------|---------------------|
| Dry Matter (% as received)          | 20.4                | 13.8                         | 14.4                |
| Crude Protein (CP, %)               | 21.6                | 23.5                         | 22.7                |
| Acid Detergent Fibre (ADF, %)       | 10.4                | 17.9                         | 14.6                |
| Digestible Dry Matter (DDM, %)      | 84.0                | 78.7                         | 81.1                |
| Metabolisable Energy (ME, MJ/kg)    | 12.8                | 11.9                         | 12.3                |
| Neutral Detergent Fibre (NDF, %)    | 23.0                | 38.9                         | 31.4                |
| Water Soluble Carbohydrates (WSC %) | 17.4                | 10.9                         | 14.7                |

# Grazing mgt & nutrition

- An induction crop mixed brassica & cereal reduces need for induction
- If not inducted well then weight gain stalls for a couple of weeks



# Grazing management & nutrition

- Rotational grazing is better
- Once animals adapted to brassica diet is better to continue (induction)
- Hay or roughage important
  - High digestibility of brassica
  - Sulfur causing B1 deficiency
    - Hay closer to watering points



# In Summary

- 'Yabbie' Paddock
  - Est Oct 2020
  - Beef yield 672.5kg per ha measured
  - 3 grazings to June 2021
  - Grazed again 300 sheep and 40 cow calf units not measured.
  - Canola not harvested.
  
- White lakes paddock
  - Est Nov 2021
  - Estimated beef yield 500kg per ha
  - Grain yield 1.7t/ha fence to fence

# Take home messages

- Canola allows flexibility to graze or grain season dependent
- Allowed successful result in 2 very different years
- Winter canola performs similarly to alternative forage brassica
- Has allowed flexibility to target different market options

# Tools and resources

# Q&A - Poll Everywhere



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