



STIRLINGS TO COAST



FARMERS

## Assessing Economic Benefits of Confinement Feeding

An MLA funded Producer Demonstration Site (PDS) Project

Sheridan Kowald, SCF Project Officer

# Purpose

Demonstrate a range of sheep confinement feeding systems that optimise sheep management and supplementary feeding programs, by achieving appropriate pregnant ewe condition scores and increasing FOO in deferred pastures.



# Project Outline

- Co-contributor Producer Demonstration Site (PDS)
- Funded by Meat & Livestock Australia (MLA) and the MLA Donor Company (MDC)
- Two year project (final year)
- Peer-to-peer learning
- Core group: 10 producers
  - Six site hosts, three in each year
- Observers: all other SCF members



# 2022 results

## Pasture cuts - measured from two paddocks which were used for lambing later in the season

- Producer 1&2 first cuts conducted when ewes were released from confinement and used to rotationally graze cropping paddocks before they were sprayed or seeded.
- Producer 3 first cut completed on a date at which the producer would have grazed that paddock if it wasn't for confinement feeding.
- All second cuts conducted day before ewes were released from confinement onto the deferred pastures

|             | Period confined                 | Total ewes confined | Extra Pasture Growth (FOO increase %) | Days between cuts |
|-------------|---------------------------------|---------------------|---------------------------------------|-------------------|
| Producer 1: | 21/3/22 to 26/4/22<br>(36 days) | 4179                | Pdk 1: 276.66%<br>Pdk 2: 129.62%      | 7                 |
| Producer 2: | 4/4/22 to 29/4/22<br>(25 days)  | 2000                | Pdk 1: 90.62%<br>Pdk 2: 24.22%        | 17                |
| Producer 3: | 18/4/22 to 7/6/22<br>(50 days)  | 4377                | Pdk 1: 68.08%<br>Pdk 2: 175.80%       | 28                |

# 2022 results

|             | Feeding System                                 | Ration Overall   | Condition scores | Deferred pasture production  |
|-------------|--|--|------------------|--|
| Producer 1: | Communal feed trough pen                       | 35T Hay<br>6.7T Loose lick minerals<br>145T of grain mix – 40% lupins and 40% barley, 20% barley/oats/wheat seed - seconds | + 0.2            | + 1383.33kg DM/ha - volunteer barley<br>+ 1166.67kg DM/ha - Clover/ ryegrass pasture   |
| Producer 2: | Halved poly culvert pipes mounted outside pens | 26T oat seconds, 13T lupins, 26T barley (mixed)<br>200 rolls - Ad-lib hay and straw bales on the ground                    | + 0.4            | + 387.5kg DM/ha - chicory, lucerne and serradella mix<br>+ 966.67 kg DM/ha - medic pasture on canola stubble.                    |
| Producer 3: | Trail feeding                                  | 186T home & dry barley/lupin mix<br>250 bales - Ad-lib hay/ straw  | + 0.4            | Increase of 800kg DM/ha on pasture with tall dry grass<br>Increase of 908.22kg DM/ha on wheat regrowth with seeded barley/clover |

# Producer 1



Pdk 2 Pasture cut 26/04/2022



Pdk 2 Pasture cut 05/05/2022

Increase FOO % : 129.6%

# Producer 2



Pdk 1 Pasture cut 29/04/2022



Pdk 1 Pasture cut 16/05/2022

Increase FOO % : 90.6%

# Producer 3



Pasture cut 11/05/2022



Pasture cut 07/06/2022

Increase FOO % : 175.8%



# Performance metrics – Confinement gains

|                    | Labour efficiency gains | Reduced feeding time | Reduced supplement wastage (5%) | Pasture deferment gains (winter grazing ha) | Pasture production gains (dry matter/ha) | Energy Efficiency gains (megajoules) | Reduced mortality rate |
|--------------------|-------------------------|----------------------|---------------------------------|---|--|--------------------------------------|------------------------|
| <b>Producer 1:</b> | 10.75hrs/week           | 35% (63hrs)          | 2.33kg/hd                       | 64kg/WGHa                                   | 64kg DM/ha                               | 0.8mj/d/hd                           | 1%                     |
| <b>Producer 2:</b> | 16.4hrs/week            | 75% (101hrs)         | 4.12kg/ha                       | 67kg/WGHa                                   | 67kg DM/ha                               | 0.76mj/d/hd                          | 0.5%                   |
| <b>Producer 3:</b> | 24hrs/week              | 54% (120hrs)         | 3.55kg/hd                       | 241kg/WGHa                                  | 241kg DM/ha                              | 0.73mj/d/hd                          | nil                    |

# Cost Benefit analysis

| Benefits    | Extra supplements | Pasture deferment | Labour reduction (@\$40/hr in super & wc) | **Mortality reduction | GROSS MARGIN                          |
|-------------|-------------------|-------------------|---|-----------------------|---------------------------------------|
| Producer 1: | \$0.00            | \$19 034          | \$2 520                                   | \$739                 | \$22 293<br>\$3.6/DSE<br>\$23.20/WGHa |
| Producer 2: | \$13 750          | \$19 449          | \$4 040                                   | \$369                 | \$10 108<br>\$3.4/DSE<br>\$5.62/WGHa  |
| Producer 3: | \$30 591          | \$32 376          | \$4 800                                   | \$0.00                | \$6 585<br>\$1.0/DSE<br>\$11.9/WGHa   |

\*\*Mortality calculated as 8% MEI (main economic indicators) for duration of confinement, changed between farm due to TOL, genotype & flock structure

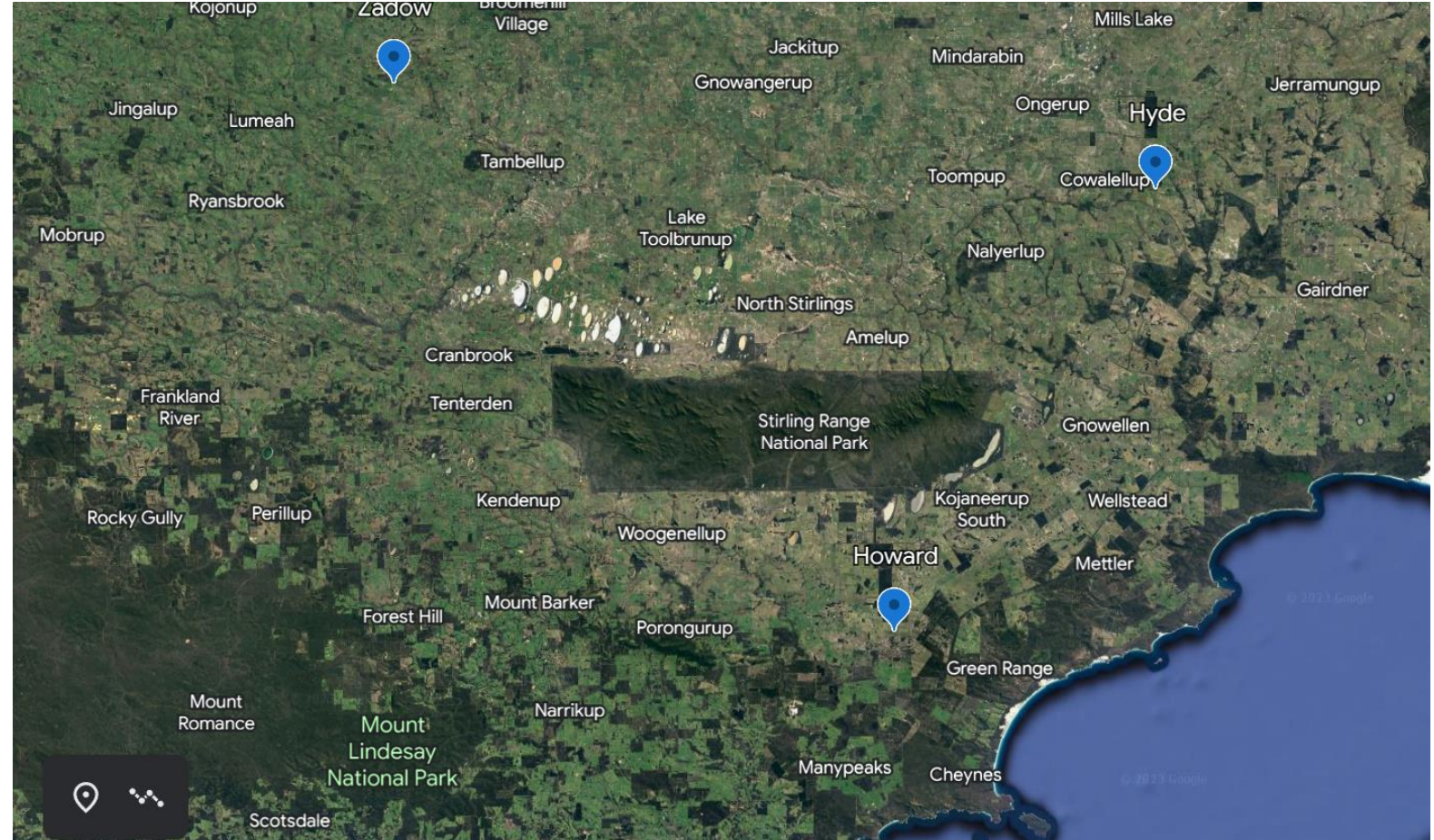
# Why confinement feed?

- Increase or maintain condition of ewes in early pregnancy
- Increase of FOO for lambing ewes
- Labour reductions, efficiency increase
- Deferring pastures - gaining pasture production
- Reduced stock feeding times
- Reduced mortality (in most cases)
- Reduced supplement wastage
- Improved weed management
- Easier monitoring of stock
- Protect valuable soils
- Multiple confinement feeding systems work

# 2023 Host Producers

## Farm Systems

- Located from Kojonup → South Stirlings → Ongerup
- All mixed farming enterprises
- End march-early April CF periods
- June & July lambing



# Going Forward

- Sheep in and sheep out of confinement for 2023.
- Pasture cuts & condition scoring
- Field walk mid CF period to visit sites
- Post confinement debrief workshop
- Video summarising workshop
- Video summarising producer experiences
- 6 case studies
- Final reporting & complete economic analysis



# Thank you

MLA & MDC – Project Funders

Michael Young – Youngs Farm Analysis

Host & core producers

For more information:

[scfarmers.org.au/confinement-feeding](http://scfarmers.org.au/confinement-feeding)

Sheridan Kowald (project co-ordinator)

0455 581 729

[sheridan.kowald@scfarmers.org.au](mailto:sheridan.kowald@scfarmers.org.au)

