

# How do Kangaroo's thrive and survive in one of the harshest climates on Earth?



What if...

we could get farm animals to do the same?



**ProAgni is an Australian agricultural  
bioscience company.**



**We are committed to decreasing the environmental footprint of  
animal production, without increasing the costs of that production.**

**We develop and commercialise animal nutrition products which  
improve farm economics and address global challenges, such  
as: food security, antimicrobial resistance, and emissions.**

**We aspire to be the future of affordable, abundant & clean food.**

Kangaroo's are the gold standard  
in feed efficiency...And they  
don't have to eat antibiotics to  
do it!



**FACT:** Kangaroos aren't ruminants, but they are fermenters. Some of the most efficient fermenters on Earth.



# We are both foregut fermenters



**300L**  
WATER PER KG MEAT  
**22:1**  
FEED CONVERSION  
**1670KG**  
PER HEAD PER YEAR

**91L**  
WATER PER KG MEAT  
**4:1**  
FEED CONVERSION  
**30KG**  
PER HEAD PER YEAR

**Harnessing the power of the microbiome,  
is the key to deliver the future of clean and  
efficient animal agriculture**

**"Manipulation of diet is regarded as the most convenient and effective measure to optimise rumen function, create feed efficiency, and reduce emissions"<sup>1</sup>.**

<sup>1</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6004689/>

**Why is the timing right for the development of these products?**

***Sustainable Food Production***

**Clean, Affordable and Abundant**

# ProAgni biotechnology has two parts:

## ProTect™

Stability and balance of  
rumen fermentation

Replace  
Antibiotics

Anaerobe  
Probiotic  
Technology

Influencing microbial  
populations

Remove  
waste

Reduce  
emissions



ProAgni

# ProTect™ - optimizing digestion



Antibiotic free supplementation for intensive feeding in market

✓ **Safe**

✓ **Effective**

✓ **Quality**

✓ **Affordable**



SCIENTIFIC  
VALIDATION

**20%**

More efficient production

COMMERCIAL  
VALIDATION

**Zero**

In feed Antibiotics

**>1 Million**

Animals Fed

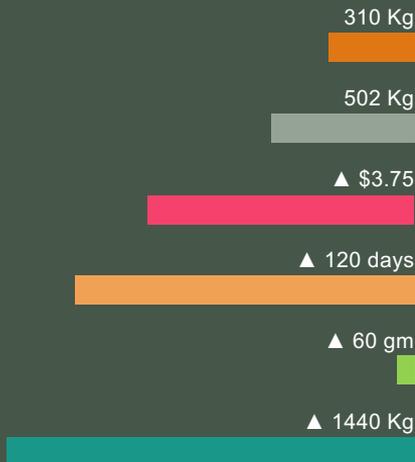
MARKET  
OPTION

**\$2.5 Million**

Sales

# Cattle

## Industry average



## ProAgni ProTect C

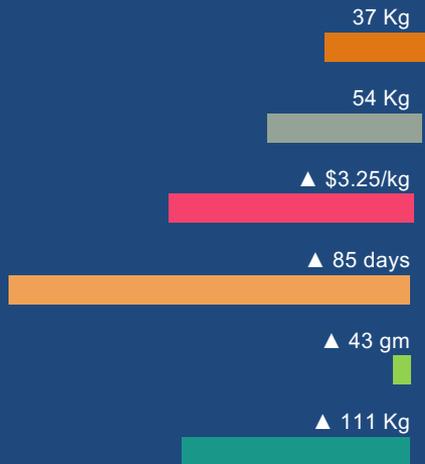


## The ProAgni difference.

- ✓ 20% LOWER COST OF GAIN
- ✓ 20% FASTER GROWTH
- ✓ ZERO ANTIBIOTICS
- ✓ 20% LESS FEED

# Sheep

## Industry average



START WEIGHT

FINISH WEIGHT

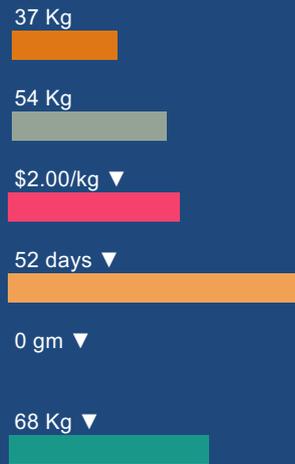
FEED COST/KG GAIN

DAYS ON FEED

ANTIBIOTICS\*

TOTAL FEED

## ProAgni ProTect S



## The ProAgni difference.

- ✓ 38% LOWER COST OF GAIN
- ✓ 38% FASTER GROWTH
- ✓ ZERO ANTIBIOTICS
- ✓ 38% LESS FEED



**“We use ProTect S  
because it works.  
We can produce  
exceptional, healthy  
lambs at low cost  
without using  
antibiotics.”**

**ROB & JUDE COOKE, DILLEDEWONG PASTORAL CO.**

# We continue to innovate... ProAgni® Probiotics



Department of  
Agriculture and  
Fisheries



We have been working on a  
delivery mechanism for dry  
form obligate anaerobes.  
**In 2019 we succeeded.**

# Obligate Anaerobe Probiotics.

## The next frontier in animal nutrition



Most important species, identified for manipulating diets and to improve productivity. Require specialized conditions including the complete exclusion of oxygen.

Aerobic bacteria

ProAgni dried-form delivery probiotics;

- ✓ **Retain the proven efficacy**
- ✓ **Lower the effective dose**
- ✓ **Shelf stable for long periods at room temp**
- ✓ **Potential to be administered in-feed**
- ✓ **Scalable and enabling technology for alt species**

Anaerobic bacteria

>95%

# ProAgni Probiotics



This patented technology allows for the next generation of ground-breaking technology to enhance our food production systems.

- ✓ **Faster transition between diets**
- ✓ **Better utilisation of Feed**
- ✓ **Healthier Animals**
- ✓ **Less time**
- ✓ **Less waste**
- ✓ **Less emissions**
- ✓ **Less antibiotics**

✓  
LACTIC ACID  
UTILISING  
SPECIES

✓  
STARCH  
UTILISING  
SPECIES

NITROUS  
OXIDE  
SPECIES

REDUCTIVE  
ACETOGEN  
SPECIES

KEY  
ENABLING  
TECHNOLOGY

# Market Opportunity

The existing feed additives market is approx. \$40b and growing due to increasing demand for food.

- ▶ Looking at the feedlot market only, and based on current royalty pricing, we estimate our **TAM at \$5.1b with SAM at maturity of \$387m**. This is for the existing product range only with no extensions into dairy or monogastric.
- ▶ For the probiotic, **TAM is \$645m and SAM \$46m**.



# The ProAgni team



**LACHLAN CAMPBELL**

Co-founder and CEO  
Ba. Ag Economics, GAICD

Lachlan drives business development and industry engagement; generating sales and building the reseller & manufacturing network. Lachlan grew up on the family sheep farm in Australia and a consultant to the Sheep & Cattle Industry.



**FIONA SOULSBY**

Co-founder and CFO  
Ba. App. Sc. Nuclear Medicine; MBA  
Prof. Accounting, GAICD

Fiona has 'built' ProAgni operations and is currently responsible for finance, IP protection and administration. Fiona's science and research expertise is invaluable managing R&D partnerships, trials and regulatory requirements.



**ROBERT BELL**

Co-founder and CTO  
Ba. App. Sc. Agriculture

Rob is 'at the coal face' of our nutritional feed supplements. An integral contributor to R&D, & the roadmap for future product development. Rob is a animal production specialist in extensive and intensive livestock systems.



**WARREN LEE**

Commercial Director  
Ba. LLB, Law, Philosophy (Hons), MAICD

Warren, an M&A lawyer, has been responsible for building commercial relationships and instrumental in IP protection. Warren's law and investment banking experience in high growth companies are invaluable.

We don't believe long term sustainability comes at a short-term cost.



BEEF AUSTRALI 2018

WINNER -

PITCH IN THE Paddock

2018 FINALIST BRAND INNOVATION



Thank you



**Improving farm economics today.  
Ensuring farming's sustainability tomorrow**

