



# Next Gen. Global Sheep Forum Australia

---

---

Adelaide, South Australia

Isaac Matchett

# Next Generation Global Sheep Forum

- Farm tours
- Lamb Ex.
  - Educational Conference
  - Trade show
- Virtual research project
- Global Network
  - 14-member producer network from across the globe



A very big thank you to the American Lamb Board for their commitment to creating a world-wide network of sheep producers to share knowledge and overcome industry challenges

## Next Gen Sponsors

American Lamb Board, Beef + Lamb New Zealand, British National Sheep Association, Canadian Sheep Federation, National Wool Growers' Association of South Africa and Sheep Producers Australia

# Sheep Population, Exports, Imports

## USA

- 5.03 million sheep
- Approx 70% of lamb available in the USA is imported product
- Market share opportunity for growth within USA sheep industry



## Australia

- 70 million sheep
- USA is AU #1 export market in both volume and value



# Farm Tours

Ella Matta Pastoral – Kangaroo Island, SA

- Progressive genetic advancement
  - ASBVs
  - Genomics

Iverbrakie Boarder Leicester Stud – Finnis, SA

- Developing artificial intelligence for selection of phenotypical traits



# Farm Tours

## Thronby Feed Lot - Sanderston, SA

- Grain finishing lambs



## Collinsville Stud – Hallett, SA

- Merino Stud
- Phenotype selection



# Tours Continued

Albany Station – Albany, SA

- Direct marketing
- Agritourism

Michell Wool Pty Ltd – Adelaide SA

- Largest exporter of Australian wool
- Processing facilities in both Australia and China
- Australian Wool Value
  - Value approx.. \$4/ lb
  - Average Merino shears approx. 16 lbs





# Lamb Ex

## Education

- Talks from industry experts
- Latest research and technology
- Environmental stewardship and sustainability
- Producer mental health
- Producer networking

## Trade Show

- Animal breeders
- Meat processors
- Handling and husbandry equipment
- Flock and farm management software
- Seed representatives
- Animal health products

# Genetics

- Merino – wool and maternal most ewes had high level of Merino influence
- Polled Dorset – terminal
- White Suffolk – terminal
- Texel – terminal
- Ultrawhite – hair sheep
- ASBVs offer many more selection indexes than USA EBVs
  - Offers value to wide range of producers

## ASBVs for liveweight traits

### Example liveweight ASBVs

Trait abbreviation	BWT (kg)	MWWT (kg)	WWT (kg)	PWT (kg)	YWT (kg)	HWT (kg)	AWT (kg)
ASBV	0.28	2.20	5.94	9.09	10.95	11.60	11.27
Accuracy (%)	84	84	88	88	88	87	85
Compared to a ram with an ASBV of 0, this ram's progeny will be:	0.14kg heavier at birth	Produce daughters who wean lambs that are 1.1kg heavier	2.97kg heavier at weaning	4.55kg heavier at post-weaning	5.48kg heavier at yearling	5.8kg heavier at hogget	5.64kg heavier as adults



### Liveweight ASBV definitions

#### **BWT: Birth weight (kg)**

Rams with more negative BWT ASBVs produce lambs which are lighter at birth.

**What it estimates:** The genetic difference between animals in liveweight at birth.

#### **WT: Weight (kg)**

Rams with a more positive ASBV for weight (WT) will produce lambs that grow faster and therefore reach target weights in a shorter period of time. WT ASBVs are reported at weaning (WWT), post-weaning (PWT), yearling (YWT), hogget (HWT) and adult (AWT) ages.

**What it estimates:** The genetic difference between animals in liveweight at a given age.

#### **MWWT: Maternal weaning weight (kg)**

Rams with more positive MWWT ASBVs will produce daughters that wean heavier lambs.

**What it estimates:** The daughter's ability to milk and provide a good maternal environment.



# Export Market Efforts

- Australia is a meat exporter
- Aware of consumer interest
- Focused on improving meat traits – suite of ASBVs
  - Carcass traits
    - Muscle
    - Fat
  - Eating Quality
    - Lean meat yield
    - Intramuscular fat
    - Shear force
- Committed to improving eating experience



# Productivity and Environment

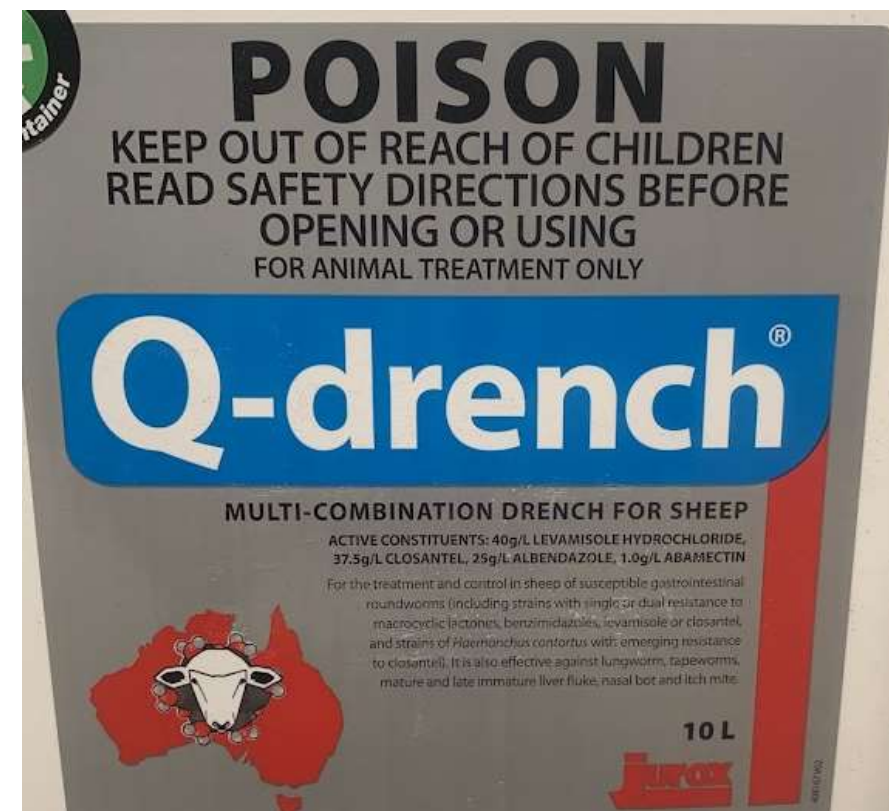
- Highly variable
- Toured farms with annual rainfall ranging from 11-25 in.
  - Range from 20 acres/ ewe to 5 ewes/ acre
- NLB
  - Traditional Merino 110%
  - Maternal and terminal stud breeds 180 - 190%
- Parasites
  - Less prolific parasite species
  - Broader spectrum of parasite control products
  - Selection for low fecal egg count SBVs widely adopted
  - Barbervax against barber pole worm
- No predators



# Collaboration to Overcome International Internal Parasite Drug Resistance

Four-person group representing Canada, NZ, UK, and USA

- Anthelmintic resistance is a world wide problem
- Solutions
  - Increase FEC and FECRT (worm load and drug efficacy monitoring)
  - Sharing of informational resources and technologies – WormBoss (AU), Wormwise (NZ), SCOPS (UK), WormX (USA)
  - Non-Drug solutions (Cu boluses, genetics, grazing management, vaccines)
- Is there a streamlined process that can be used to gain FDA approval of new products when studies and testing have already been preformed?
- Generated a strong long-term network





# Questions

