

# Healthy and contented sheep

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# Agenda

- An overall perspective
  - financial impact of animal health
- Focus on management to limit disease
  - Nutrition
  - Strategic treatments
  - Monitoring
  - Genetics
- Less reliance on chemicals
- Prevention: Be proactive not reactive!

# Impact of animal health

- Animal health\*
  - 7% of enterprise costs
  - 3% of total farm cost
  - Cutting health costs has minimal impact profit
- The difference in cost between good and bad management is small
- The difference in income between good and bad management can be massive
- Major issues (wheat sheep zone)<sup>+</sup>

– Worms	\$2.40/head
– Flystrike	\$2.82/head
– Lice	\$1.05/head
– Weaner death rates	\$0.52/head

\* Victorian benchmarking data

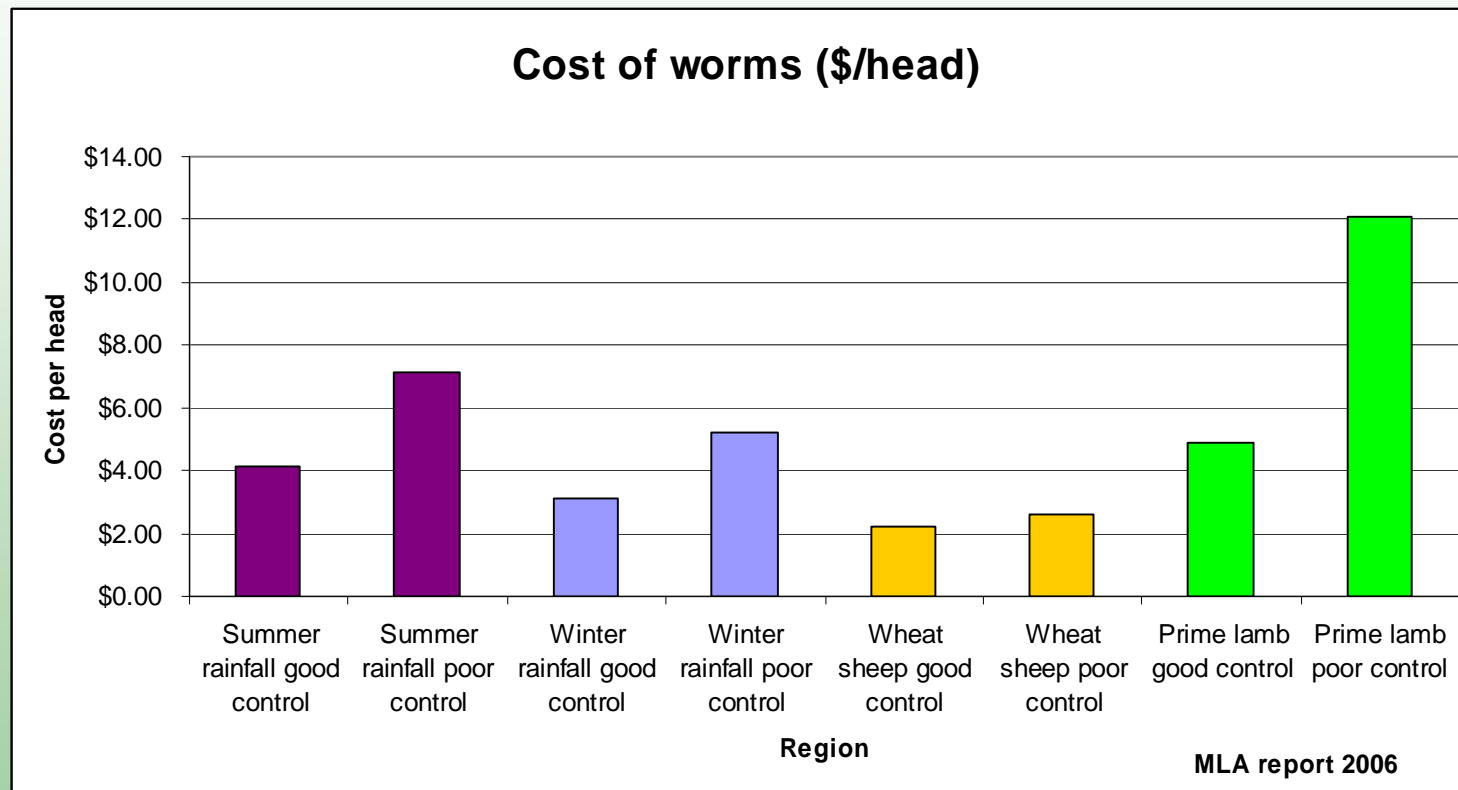
+ MLA cost of disease report

## Nutritional management: know your targets

Adult weight (kg)	birth	Weaning pasture dry	Autumn break	Late winter	Mating/ pasture dry
45	4	20	22.5	27	34-36
50	4.5	22.5	25	30	37-40
55	5	27	27	33	41-44
70	5.5	31.5	35.5	42	52-56
% of adult	8-9%	45%	50%	60%	75-80%

- Poor animal health is an impediment to running a high profit flock
  - Lower body condition: lower conception rates and lamb survival
  - Lower growth rates: less value and fail to meet specifications
  - Lower lamb growth: weaner illthrift and higher death rates
  - Increase disease risk

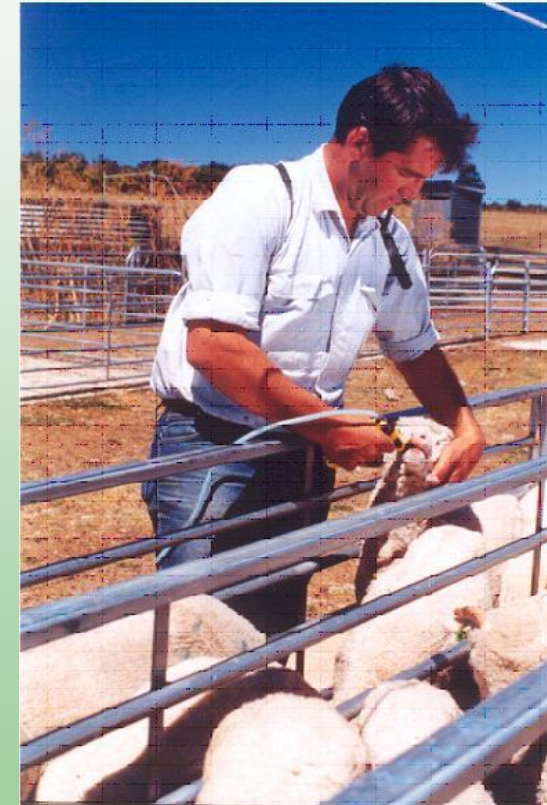
# Worms have a major financial impact



- 80-90% of loss associated with lower production
- Lower liveweight and yield ~ 2 kg carcass weight
- Higher death rate and lower fertility
- Lower fleece values

## Don't rely on drenching: worm control is about management

- **Strategic drenching**
  - Weaning drench ü
  - First summer drench (?)
  - Additional drenching: monitor WEC's
    - Second summer
    - Prelambing
    - weaners
- **Monitoring**
  - Estimated that 5% of local producers monitor WEC's
  - When to drench
  - Significant issues emerged in 2010 with wet summer
  - Drench resistance every 3-4 years
- **Grazing management**
  - Provide high risk young sheep with safe pastures at weaning
    - Crop stubble, new pasture best
    - Cattle for at least 4 months
    - Adult dry sheep higher risk
  - Provide second safe pasture
    - In high risk situations
    - Prepare 6 months ahead





## Managing drench resistance

- Drench resistance is widespread
  - White (BZ): >90%
  - Clear (Levamisole): >80%+
  - Combinations >60%+
  - ML's mectins 30-80% of farms
- < 10% of producers know their drench resistance status



## How important is drench resistance?

	Drench efficacy		
	100%	85%	65%
Scouring in winter (%)	20	46	59
Deaths (%)	2	5	7

### *Compared with 100% drench:*

- lower wool weight (%)	-	2.1	10.6
- lower body weight (%)	-	0.8	10.1
- lower fleece value	-	\$1.98	\$3.30
- lower sale value	-	\$2.24	\$7.72
<b>- Cost of resistance</b>		<b>\$4.22</b>	<b>\$11.02</b>

Median commodity prices – 10 years  
Besier et al. Proc ASVS, 1995



# Management of resistance

- Know your resistance status
- Quarantine drenching
  - triple combination minimum ML/white/clear
- Minimise drench frequency
  - Base on WEC monitoring
  - Sustained release preferably avoid in low risk regions
- Dose rate
  - Weigh sheep and set dose rate accordingly
  - Large frame ewes > 90 kg!
- Rotate effective drenches
  - Seek advice
  - Use narrow spectrum drenches with barbers pole ( i.e. Clear plus Nap)
- Manage worm larvae on pasture and in sheep
  - Refugia (leave small proportion <5% undrenched stubbles etc)

# Lice control

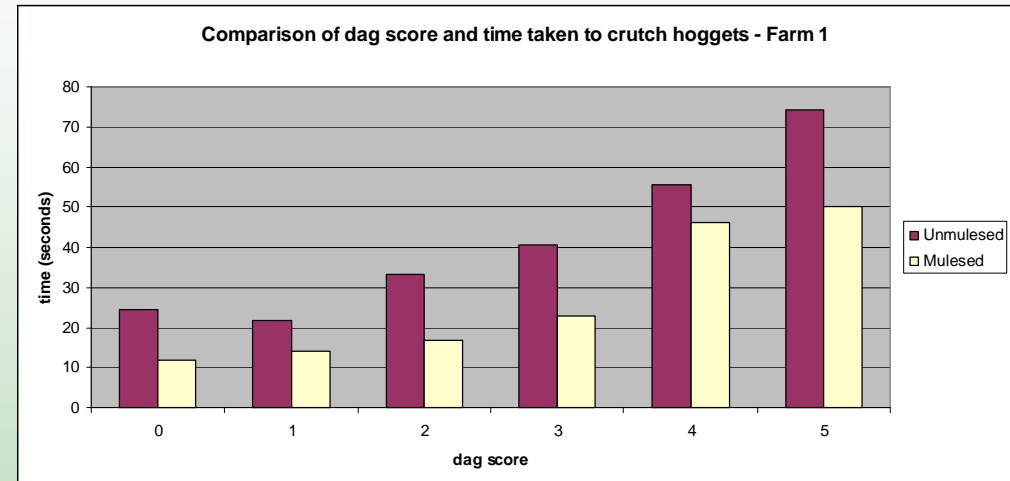
- Widespread issues are emerging
  - More trading
  - Movement away from self replacing flocks
- Lice resistance
  - SP's widespread for many years
  - IGR's field observations rapidly increasing
  - OP's rare
- Lice eradication
  - Application critical
  - Effective chemicals
    - Avenge
    - OP dipping,
- Quarantine



Source: NSW I&I

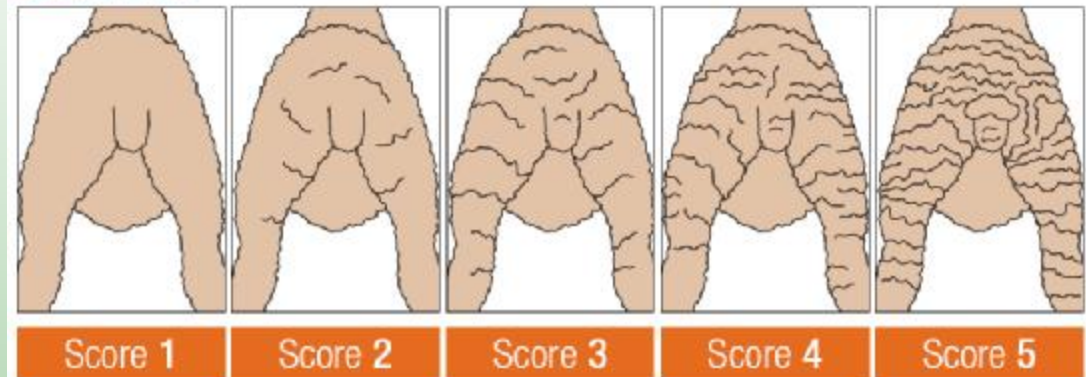
# Flystrike management

- Management of unmulesed sheep
  - Recent surveys wide variety of responses
  - Greater reliance on jetting
  - Additional crutching
- Cost of managing unmulesed sheep
  - Up to \$2.00+/sheep
  - Extra crutching and pre shearing clean up
  - Additional jetting
  - Reducing wrinkle score from 3 to 2 will reduce breech strike
  - Intradermals research continuing

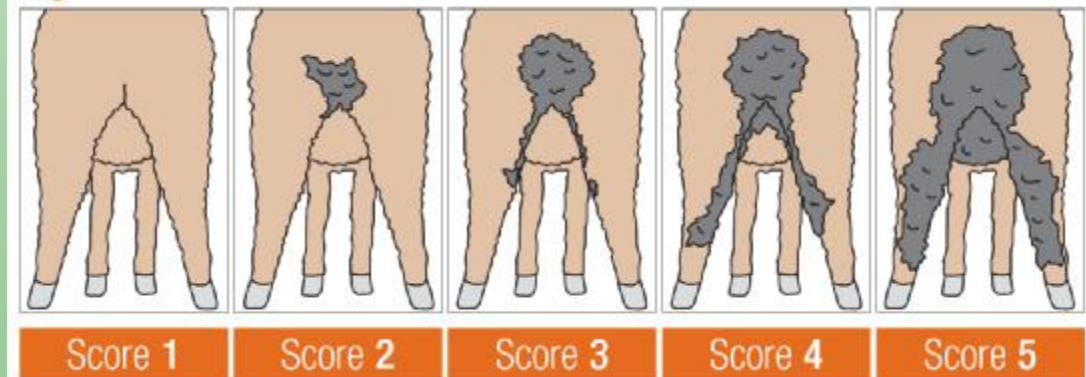


- Worm egg count
  - Lower worm egg counts
  - Less drenching
- Breech wrinkle
  - Reduce below score 2
  - Reduce breech strike
- Dag score
  - Independent of WEC

Breech Wrinkle



Dag



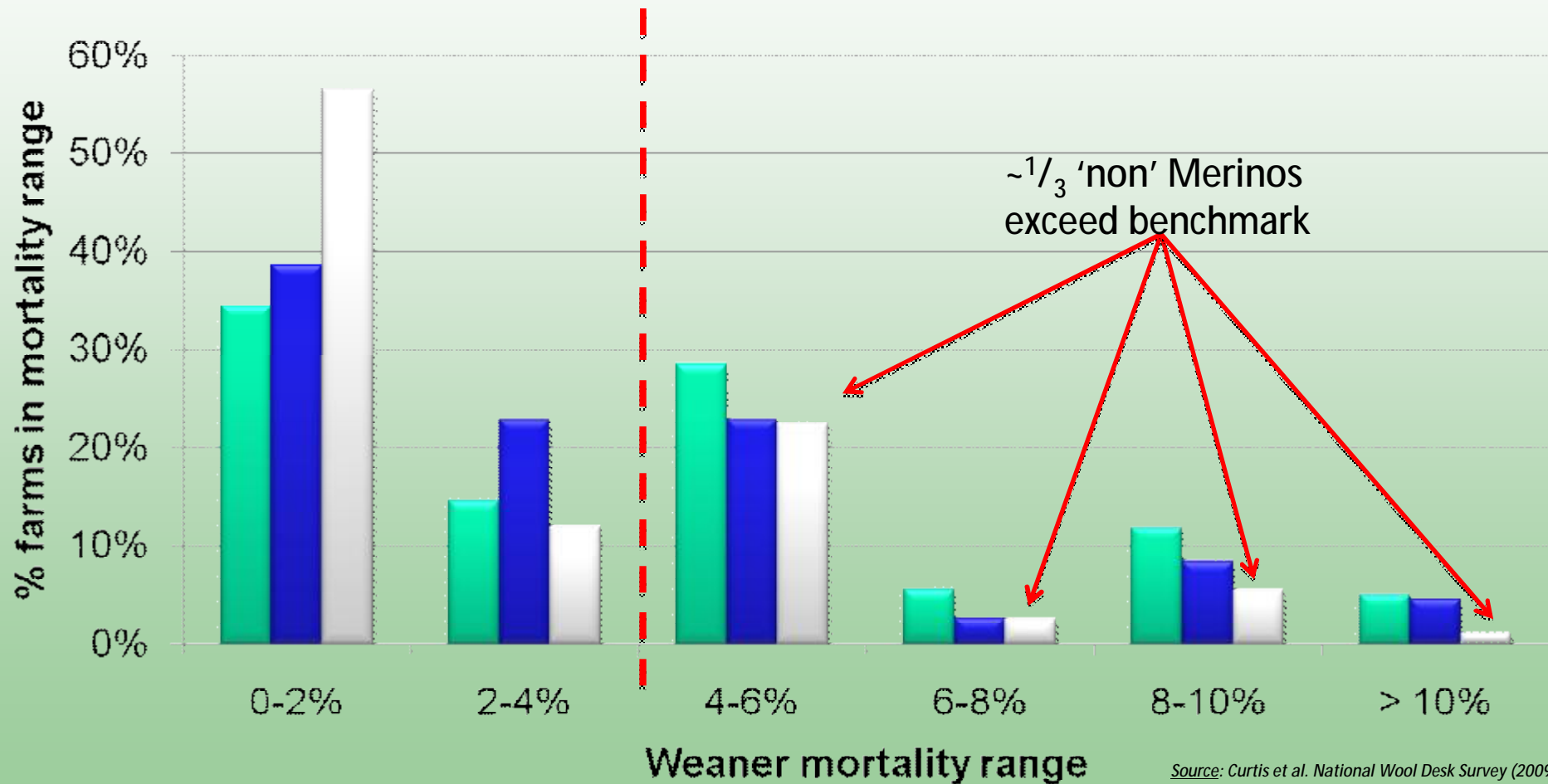
## Long term management: Genetics

- Include as part of your selection criteria
- Slow progress but cumulative gains
- Most progress dependant on ram supplier
- Must balance important economic traits
  - Meat production traits
  - Wool production traits
  - Incorporate in selection index



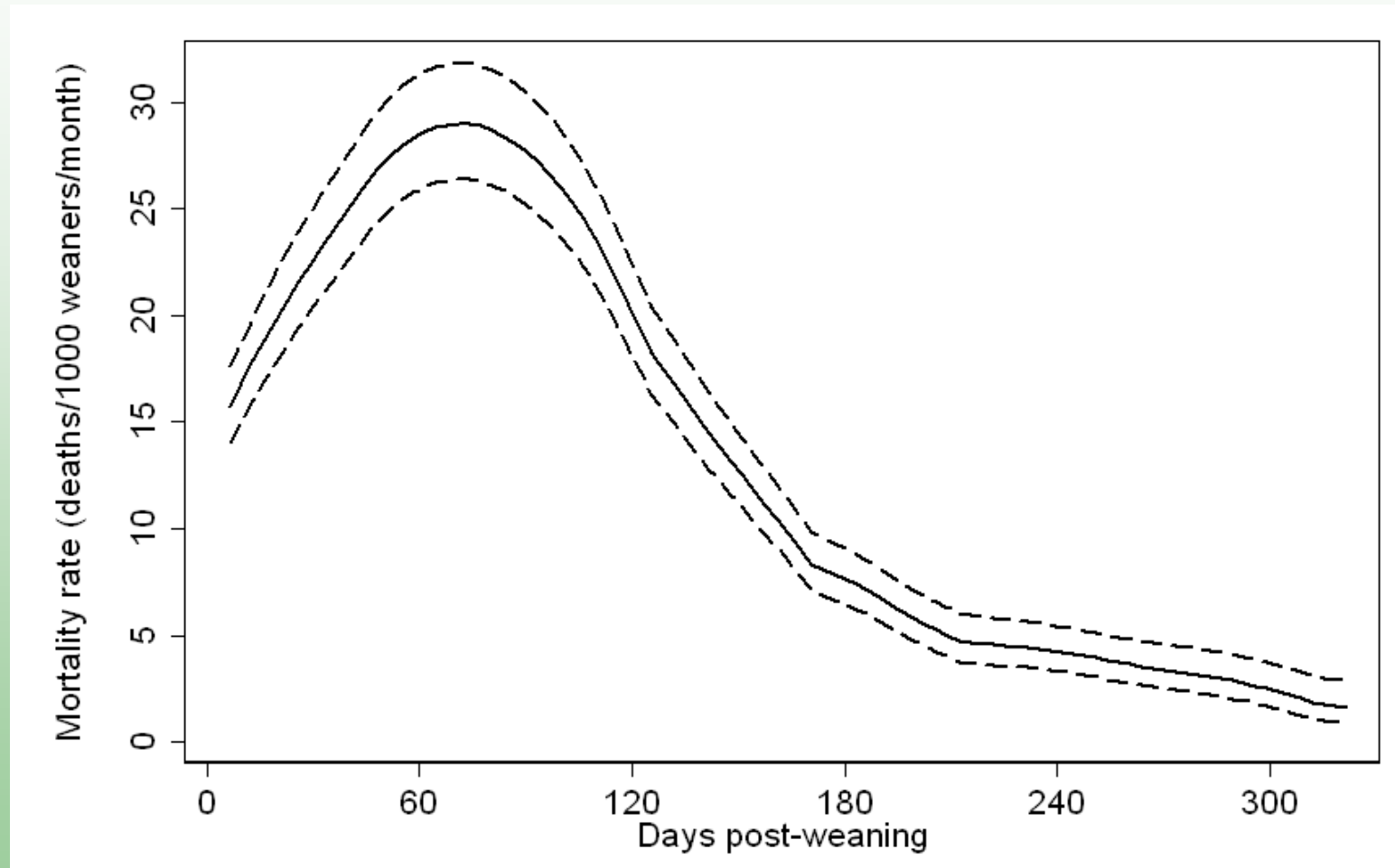


## 40% of farms exceed 4% mortality benchmark



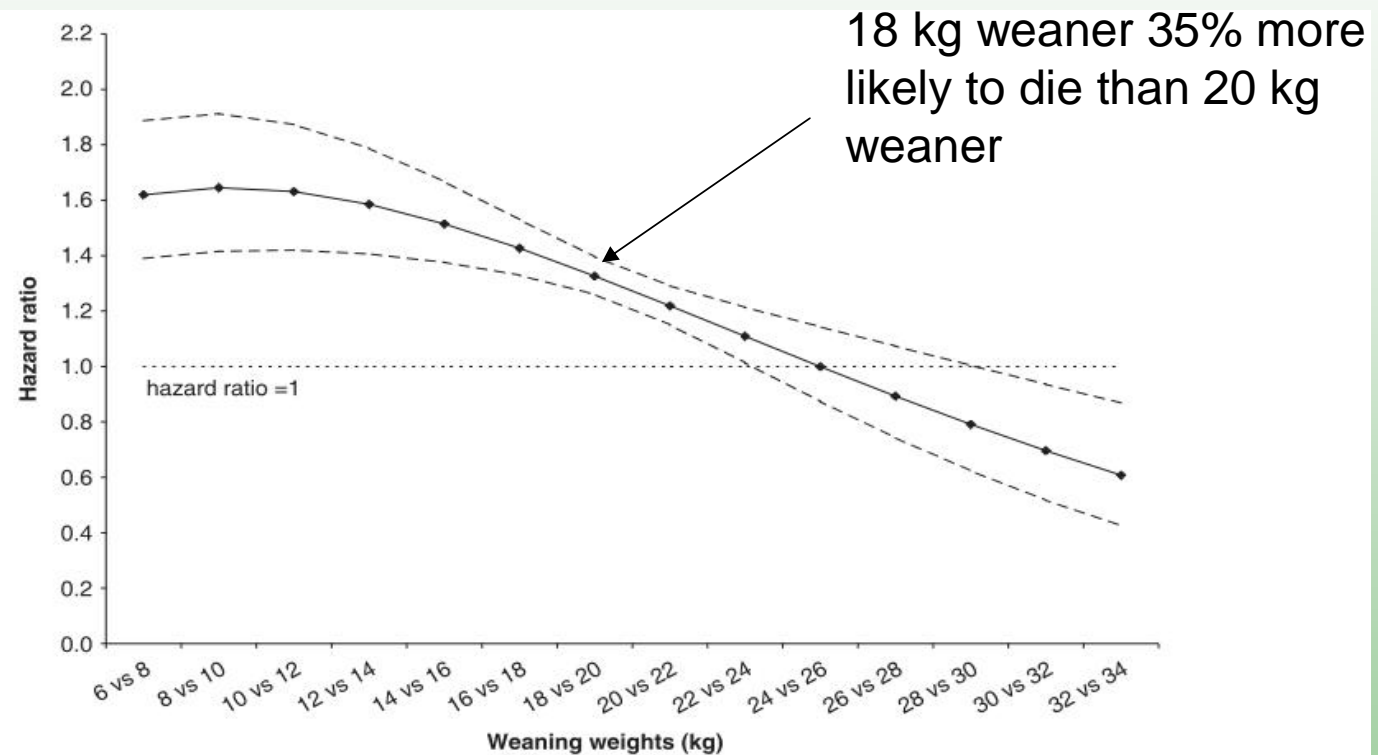
■ Merino x Merino > 2/3   ■ Merino x Merino 1/3-2/3   ■ Merino x Merino < 1/3

## Weaner deaths: Critical first 3 months after weaning

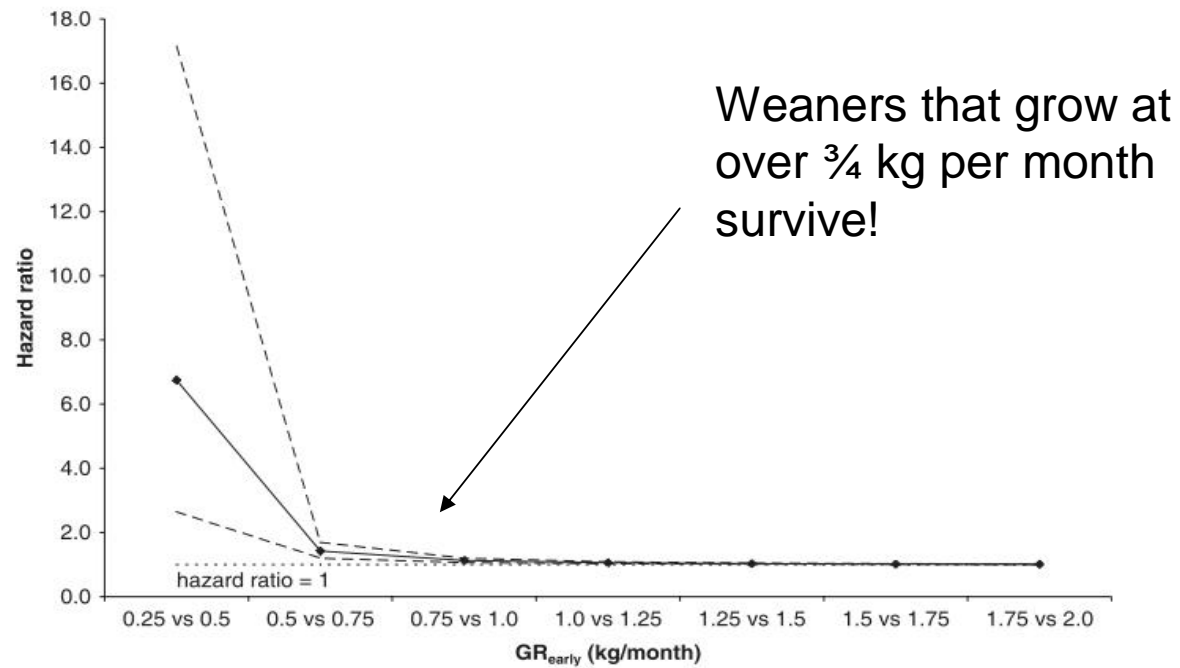




# Effect of Bodyweight on Survival



## Effect of Average Growth Rate on Survival





# Sign posts

- Making More From Sheep
  - Module 11 Healthy and contented sheep
- Wormboss
- Liceboss
- Flyboss
- MLA and I & I websites
- Your network of advisers



## Key points

- Animal health issues have a major impact on profitability
- Change management to an integrated approach
  - Better nutrition
  - Strategic use of chemicals
    - Don't rely on chemicals
  - Monitor
  - Implement improved management systems and genetic improvement
- **Opportunity** - manage the cost of important endemic diseases approximately \$7.00/head