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For the latest in red meat R&D

Productive but flexible

Jason Trompf

Lambs Alive

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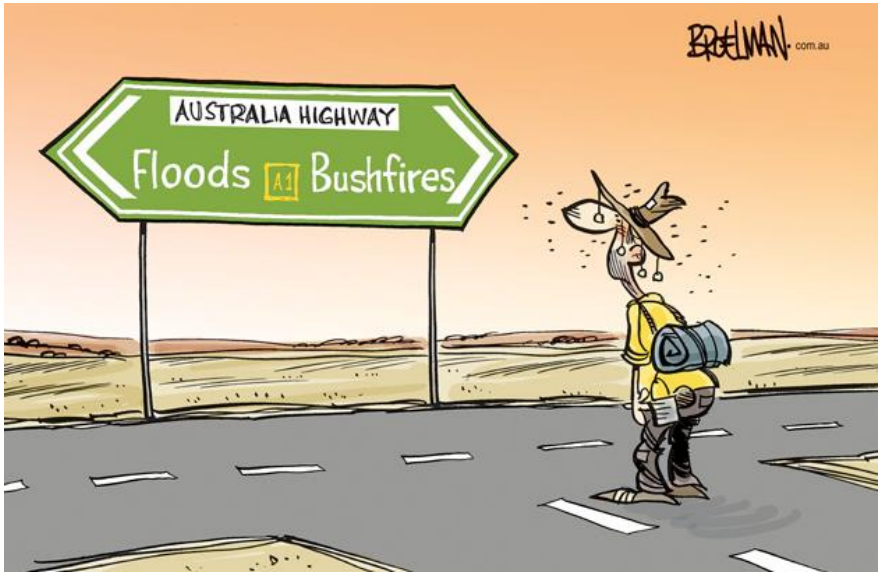

"If we don't get three inches, man, Or four to break this drought, We'll all be rooned," said Hanrahan, "Before the year is out."

And every creek a banker ran, And dams filled overtop; "We'll all be rooned," said Hanrahan, "If this rain doesn't stop."

Bullet proofing your business

In order to adapt to climatic variability you must:

Know your enemy- impact of variability on business

Adjust sights- flexible strategy for varying seasons

Hit your targets- improve the likelihood of success

Dodge a bullet- tactics for tough years

KNOW YOUR ENEMY

Climatic variability and your business

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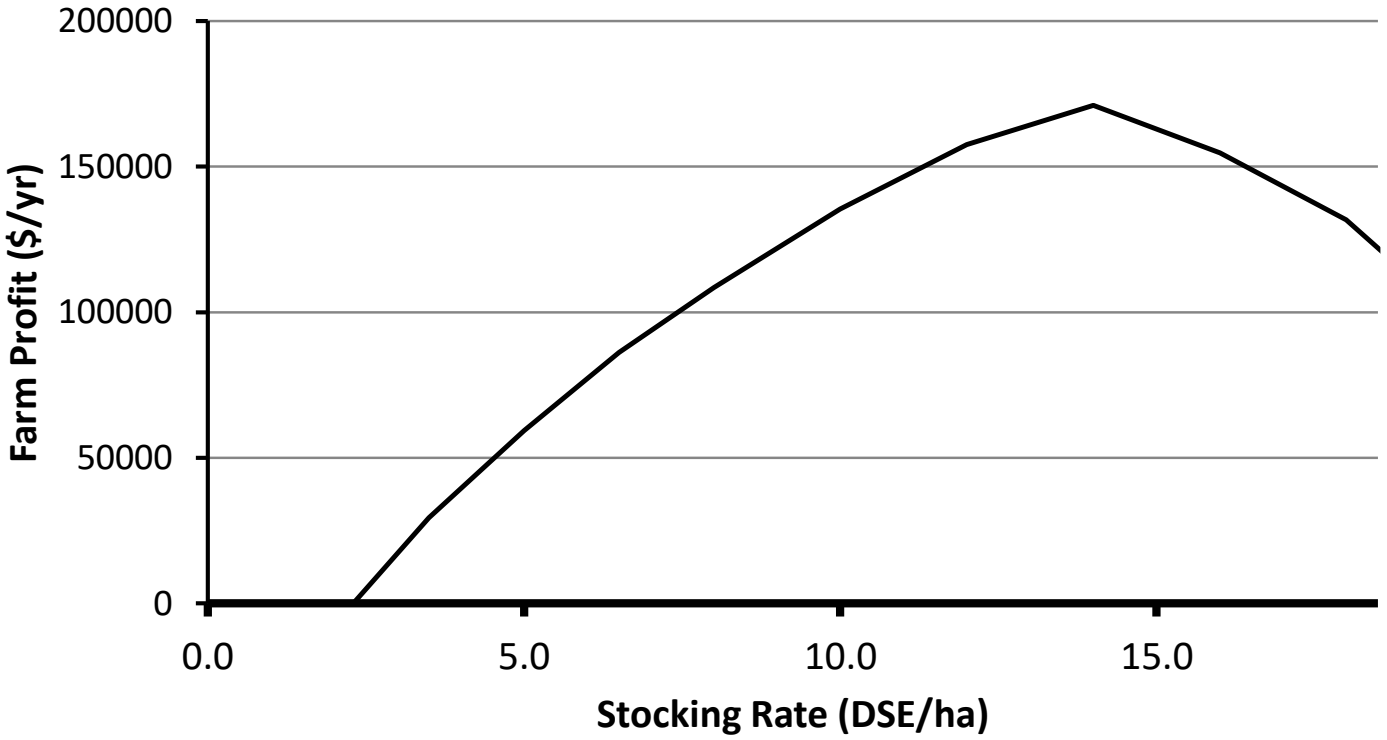
We know there is money in stocking rate



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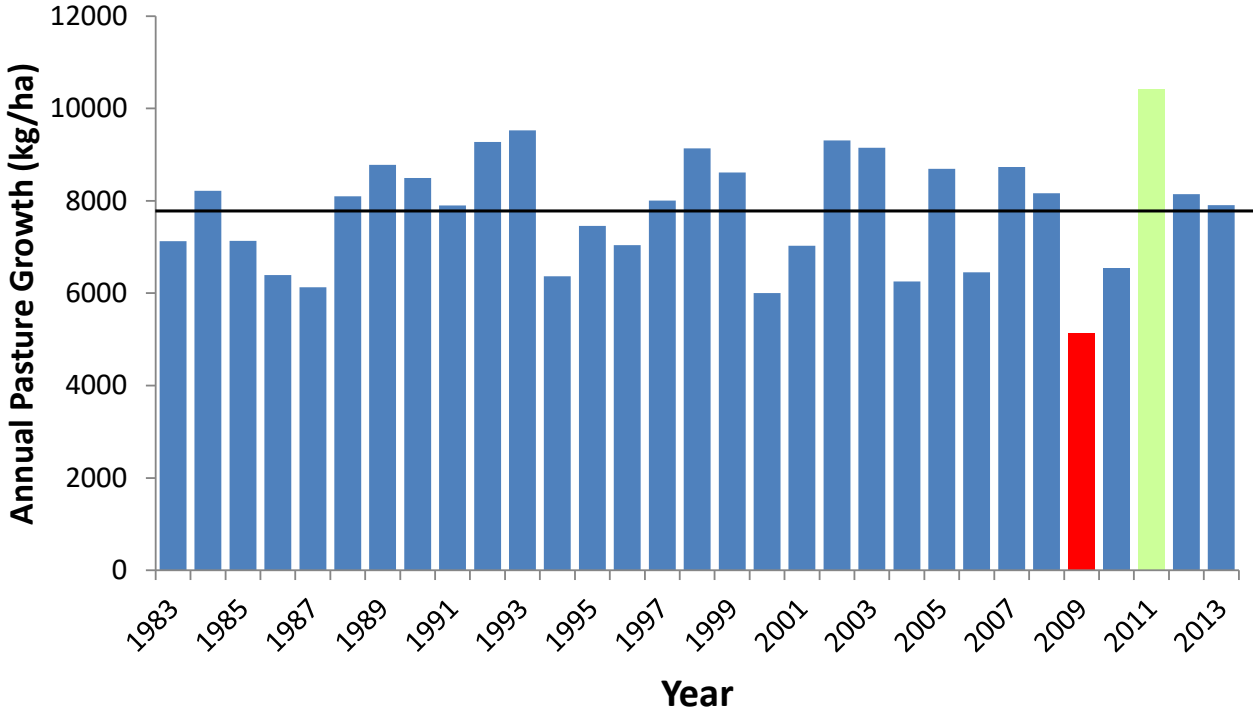
The challenge is to sustain them



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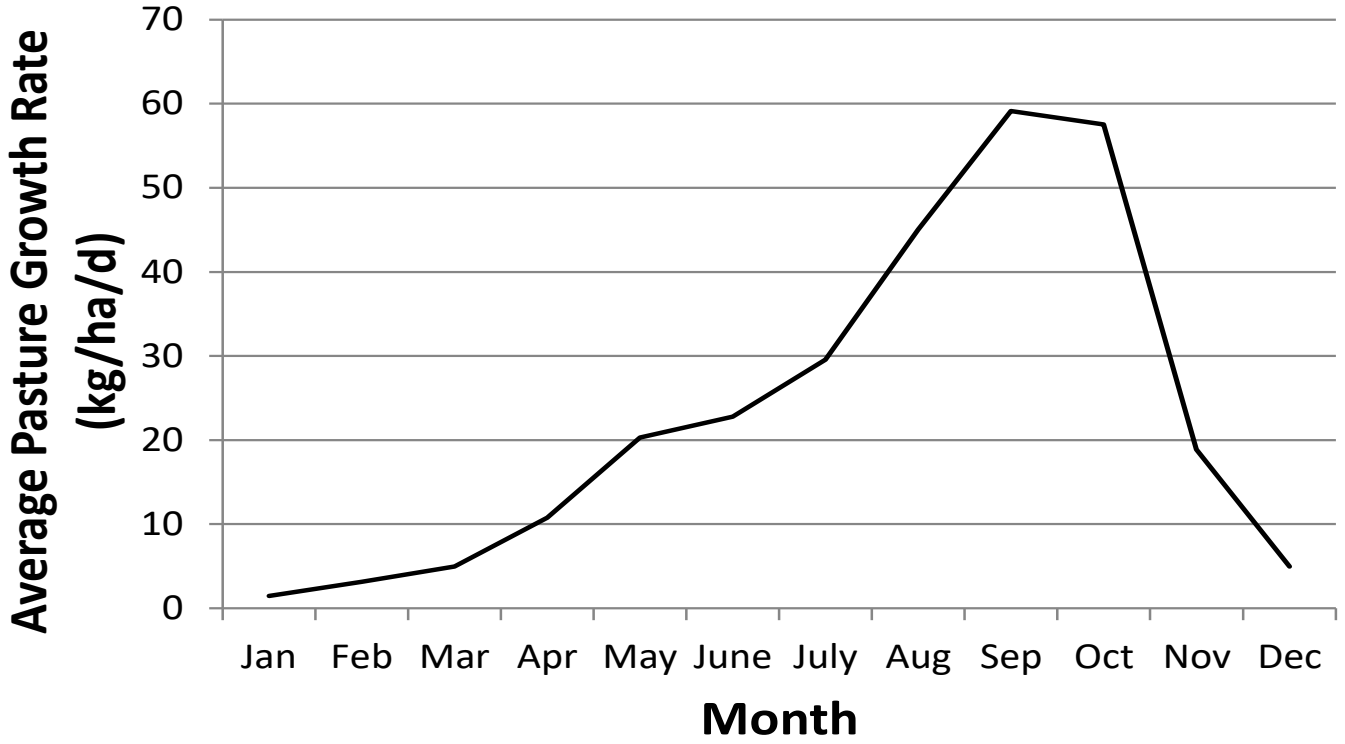
Average monthly pasture growth rate



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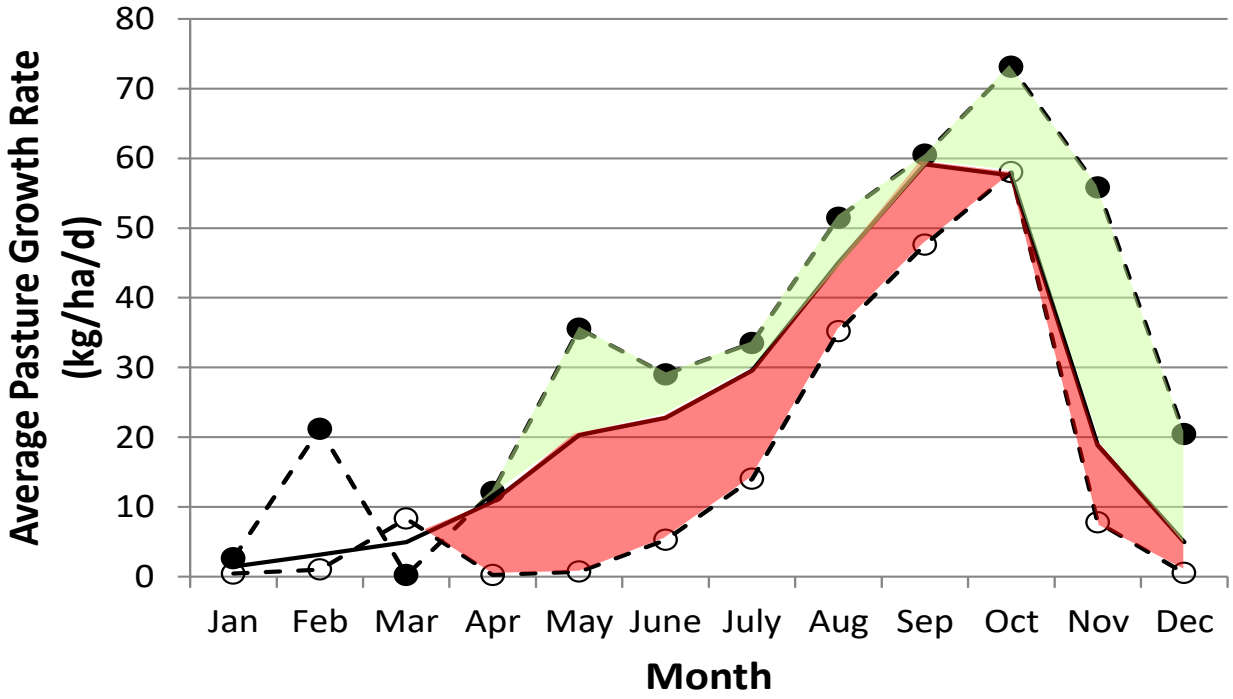
But it is rarely average



Seasonal pasture growth rate curves- the 30 year average (solid line), for 2006 which was a poor year (○) and 2010 which was a good year (●)

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How does this variability impact on stocking rate

	Rainfall (mm)		Pasture production (t DM/ha/yr)		Stocking Rate (DSE/ha)		Profit ($/ha/yr)	
Good year	691	(+40)	10 400	(+34)	19.7	(+35)	401	(+46)
Average year	495		7.8		14.5		275	
Poor year	340	(-31)	5 100	(-34)	5.6	(-62)	39	(-86)

Level of rainfall, pasture growth, stocking rate and profit for an average production year, a good year and a poor year. The variation from the average is expressed as a percentage (in brackets).

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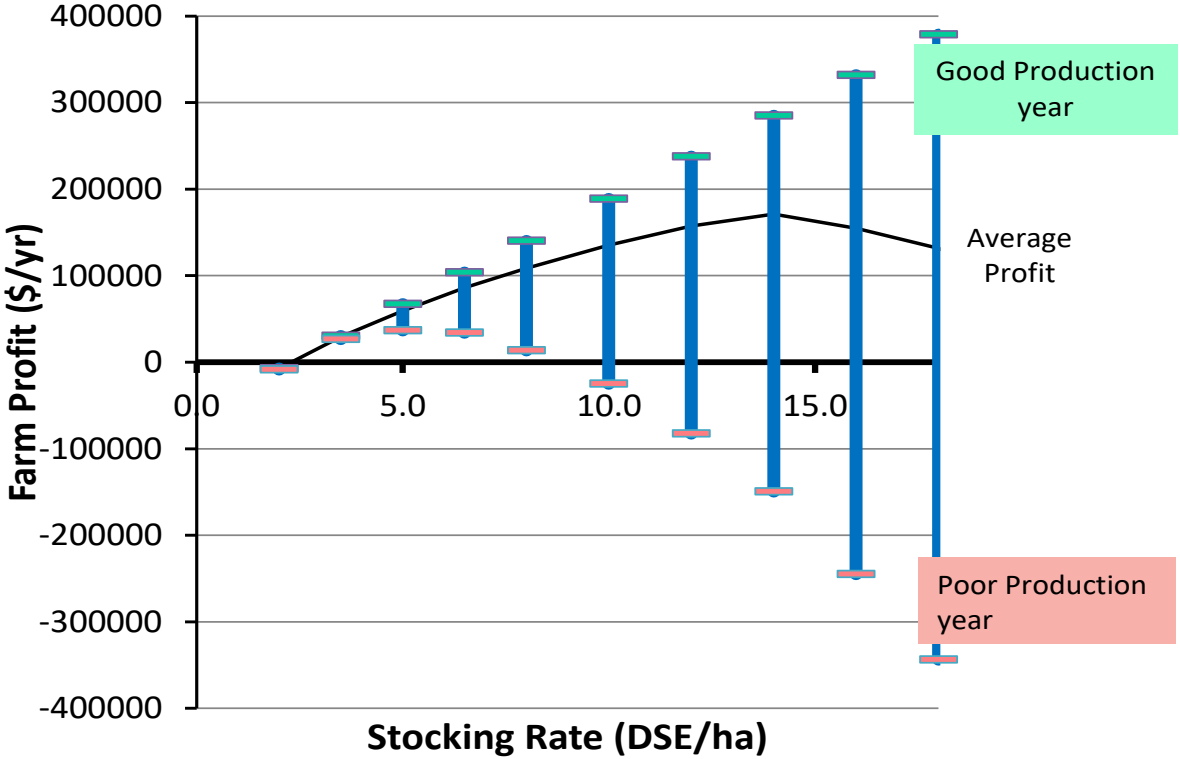
Flexibility of stocking rate

- In reality it is not possible to alter stocking rate to exactly match the season

- However it does highlight that adjusting stocking rate in a timely matter is likely to be profitable

Impact of season on profit



Effect of seasonal variation on profit at a range of stocking rates- blue bar indicates the variation between a good and poor production year. The average profit is indicated as the solid line.

ADJUSTING YOUR SIGHTS

Setting a flexible strategy for variable seasons

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80 mixed farms benchmarked over 5 years- What sets the top performers apart?

- What wasn't different
  - Similar wool price and productivity
- What set them apart
  - Higher stocking rate- **+7%**
  - Higher lambing %- **+10%**
  - Higher price for surplus sheep- **+10%**
  - **Leading to significantly higher livestock trading profit**

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What do the top performers do

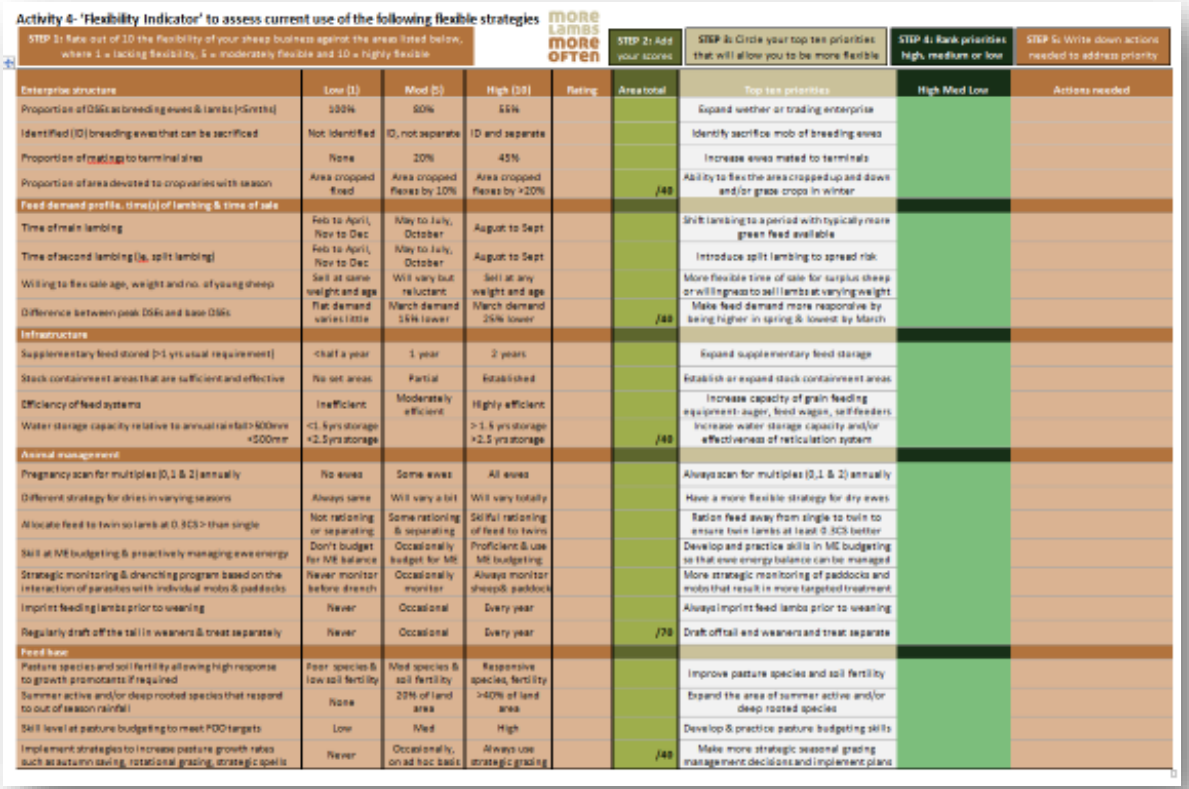
- Have strategic and tactical plans to manage seasonal variation

Strategies	Typical strategies for the top performing sheep enterprises
Later time of lambing	time to manage grazing and manipulate paddocks pre-lambing
Higher reproduction rates	more surplus sheep to sell and quicker recovery from dry years
Feed reserves on hand	Sufficient feed on hand to feed until mid-June,
Higher proportion of farm cropped	higher summer carrying capacity and greater ability to defer grazing over the break
Genotype fitness/robustness	Easy care and Easier to maintain live weights
Time of shearing	A sale sheep shearing at the end of spring/early summer
Sell surplus sheep early	Sell the surplus sheep before they reduce summer feed reserves,

On-farm strategies that enable flexibility

- Flexibility allows greater consistency of profitability
- A system that makes money in MOST years, not just the good ones
- Strategies that allow you to know when things are changing and to quickly adapt to the change

The Flexibility Indicator



Activity 4- 'Flexibility Indicator' to assess current use of the following flexible strategies

more Lambs more often

STEP 1: Rate out of 10 the flexibility of your sheep business against the areas listed below, where 1 = lacking flexibility, 5 = moderately flexible and 10 = highly flexible

STEP 2: Add your scores

STEP 3: Circle your top ten priorities that will allow you to be more flexible

STEP 4: Rank priorities high, medium or low

STEP 5: Write down actions needed to address priority

Enterprise structure	Low (1)	Mod (5)	High (10)	Rating	Area total	Top ten priorities	High Med Low	Actions needed
Proportion of DSEs as breeding ewes & lambs (<5mths)	100%	80%	55%			Expand wether or trading enterprise		
Identified (ID) breeding ewes that can be sacrificed	Not identified	ID, not separate	ID and separate			Identify sacrifice mob of breeding ewes		
Proportion of matings to terminal sires	None	20%	45%			Increase ewes mated to terminals		
Proportion of area devoted to crop varies with season	Area cropped fixed	Area cropped flexes by 10%	Area cropped flexes by >20%		/40	Ability to flex the area cropped up and down and/or graze crops in winter		
Feed demand profile, time(s) of lambing & time of sale								
Time of main lambing	Feb to April, Nov to Dec	May to July, October	August to Sept			Shift lambing to a period with typically more green feed available		
Time of second lambing (ie. split lambing)	Feb to April, Nov to Dec	May to July, October	August to Sept			Introduce split lambing to spread risk		
Willing to flex sale age, weight and no. of young sheep	Sell at same weight and age	Will vary but reluctant	Sell at any weight and age			More flexible time of sale for surplus sheep or willing grass to sell lambs at varying weight		
Difference between peak DSEs and base DSEs	Flat demand varies little	March demand 15% lower	March demand 25% lower		/40	Make feed demand more responsive by being higher in spring & lowest by March		
Infrastructure								
Supplementary feed stored (>1 yrs usual requirement)	<half a year	1 year	2 years			Expand supplementary feed storage		
Stock containment areas that are sufficient and effective	No set areas	Partial	Established			Establish or expand stock containment areas		
Efficiency of feed systems	Inefficient	Moderately efficient	Highly efficient			Increase capacity of grain feeding equipment- auger, feed wagon, self feeders		
Water storage capacity relative to annual rainfall >500mm <500mm	<1.5yrs storage <2.5yrs storage		>1.5 yrs storage >2.5 yrs storage		/40	Increase water storage capacity and/or effectiveness of reticulation system		
Animal management								
Pregnancy scan for multiples (0,1 & 2) annually	No ewes	Some ewes	All ewes			Always scan for multiples (0,1 & 2) annually		
Different strategy for dries in varying seasons	Always same	Will vary a bit	Will vary totally			Have a more flexible strategy for dry ewes		
Allocate feed to twin so lamb at 0.5CS> than single	Not rationing or separating	Some rationing & separating	Skilful rationing of feed to twins			Ration feed away from single to twin to ensure twin lambs at least 0.5CS better		
Skill at ME budgeting & proactively managing ewe energy	Don't budget for ME balance	Occasionally budget for ME	Proficient & use ME budgeting			Develop and practice skills in ME budgeting so that ewe energy balance can be managed		
Strategic monitoring & drenching program based on the interaction of parasites with individual mobs & paddocks	Never monitor before drench	Occasionally monitor	Always monitor sheep& paddock			More strategic monitoring of paddocks and mobs that result in more targeted treatment		
Imprint feeding lambs prior to weaning	Never	Occasional	Every year			Always imprint feed lambs prior to weaning		
Regularly draft off the tail in weaners & treat separately	Never	Occasional	Every year		/70	Draft off tail end weaners and treat separate		
Feed base								
Pasture species and soil fertility allowing high response to growth promotants if required	Poor species & low soil fertility	Mod species & soil fertility	Responsive species, fertility			Improve pasture species and soil fertility		
Summer active and/or deep rooted species that respond to out of season rainfall	None	20% of land area	>40% of land area			Expand the area of summer active and/or deep rooted species		
Skill level at pasture budgeting to meet FDD targets	Low	Mid	High			Develop & practice pasture budgeting skills		
Implement strategies to increase pasture growth rates such as autumn saving, rotational grazing, strategic spells	Never	Occasionally, on ad hoc basis	Always use strategic grazing		/40	Make more strategic seasonal grazing management decisions and implement plans		

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Feed demand profile, time(s) of lambing & time of sale			
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Skill at ME budgeting & proactively managing ewe energy	Don't budget for ME balance	Occasionally budget for ME	Proficient & use ME budgeting
Strategic monitoring & drenching program based on the interaction of parasites with individual mobs & paddocks	Never monitor before drench	Occasionally monitor	Always monitor sheep& paddock
Imprint feeding lambs prior to weaning	Never	Occasional	Every year
Regularly draft off the tail in weaners & treat separately	Never	Occasional	Every year

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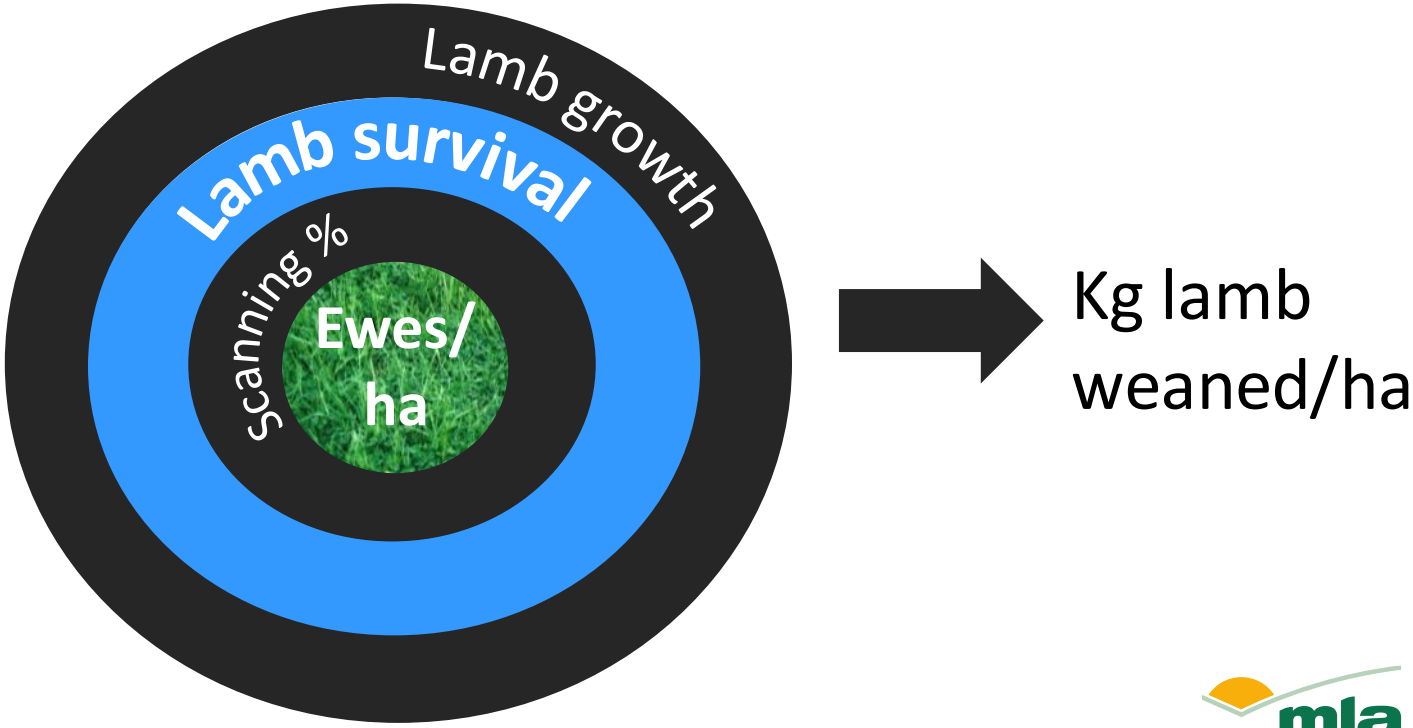
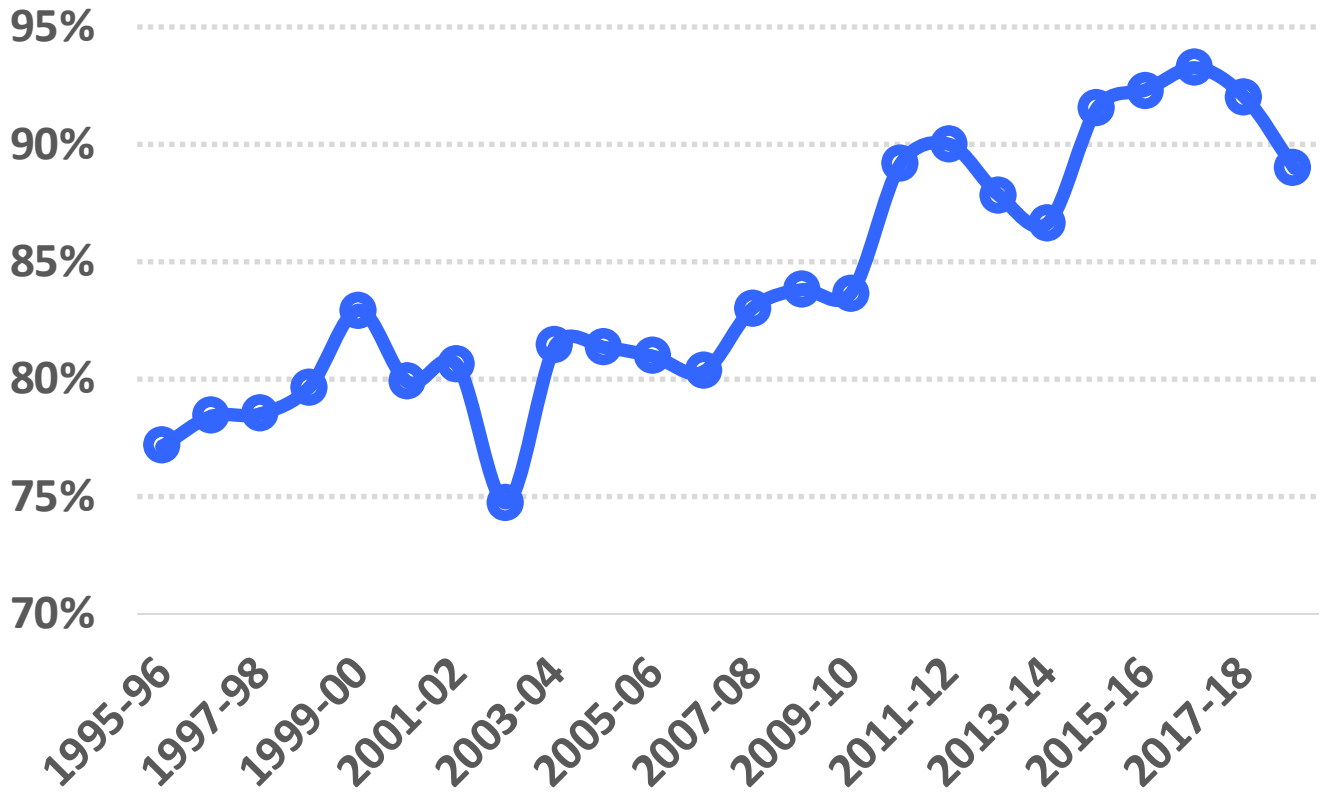
Achieving your target



Australian marking rates (all ewes)



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Source: Based on ABS, ABARES data, analysis by Livestock Dynamics

$1 Billion in profit from saving 8 million lambs

Ewe Breed	Single ($ m)	Twin ($ m)	Triplets ($ m)	Total ($ m)
Merino	190	488	19	697
Maternal	34	259	16	309
	224	747	35	**1006**

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Ewe Performance- annual stocktake

What percentage of the ewes you join rear a lamb (s)?

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Ewe performance stocktake- current

Ewe status- annual stocktake	Ave (%)	Per 1000 ewes
Ewes that scan dry	10%	100
Ewes that die	6%	54
Ewes scanned single that don't rear	15%	83
Ewes scanned multiples that don't rear	18%	82
		(319)
Number of ewes that rear a lamb (s)		681
Percent ewes joined that rear lamb(s)		**68%**

Ewe performance stocktake- potential

Ewe status- annual stocktake	Average (%)	Per 1000 ewes
Ewes that scan dry	3%	30
Ewes that die	2%	20
Ewes scanned single that don't rear	5%	28
Ewes scanned multiples that don't rear	8%	37
		(115)
Number of ewes that rear a lamb (s)		885
Percent ewes joined that rear lamb (s)		**89%**

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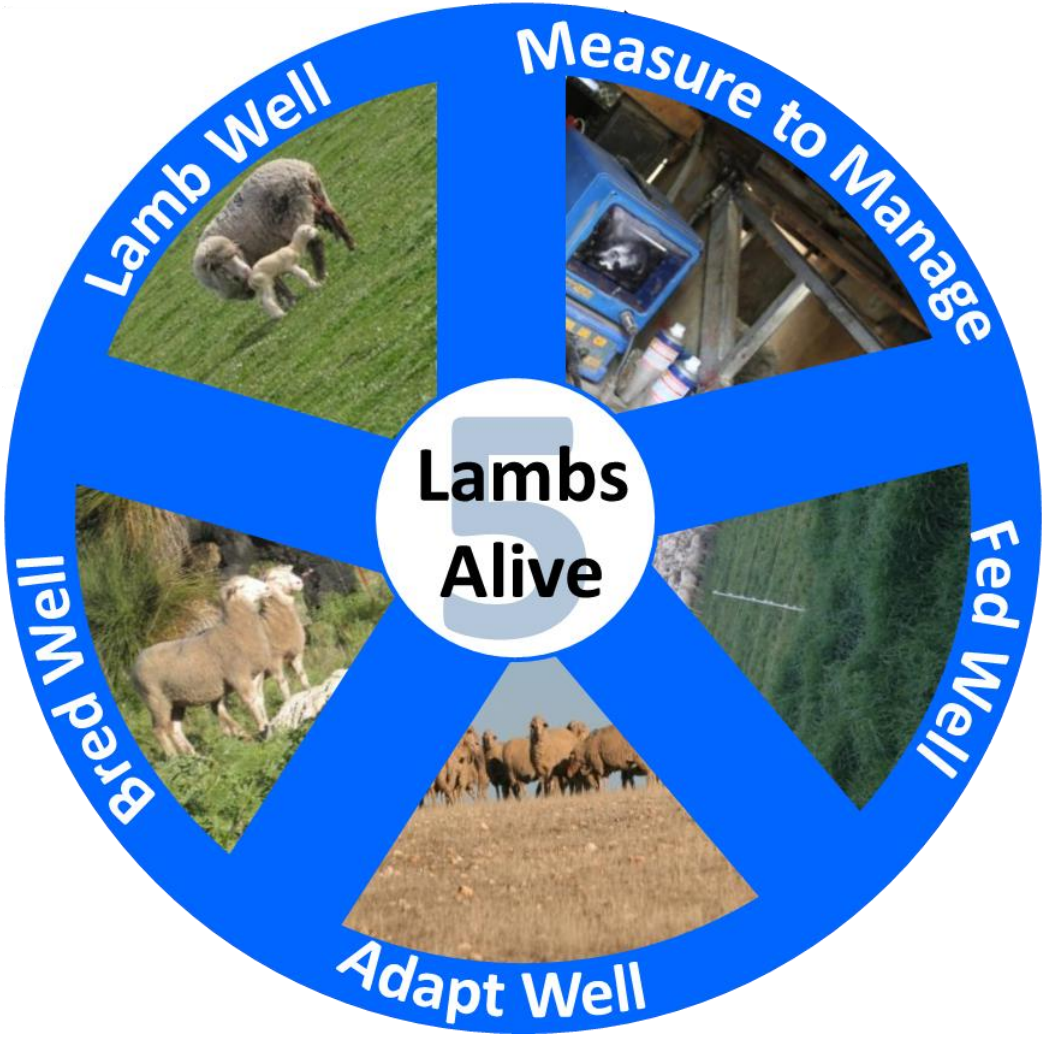

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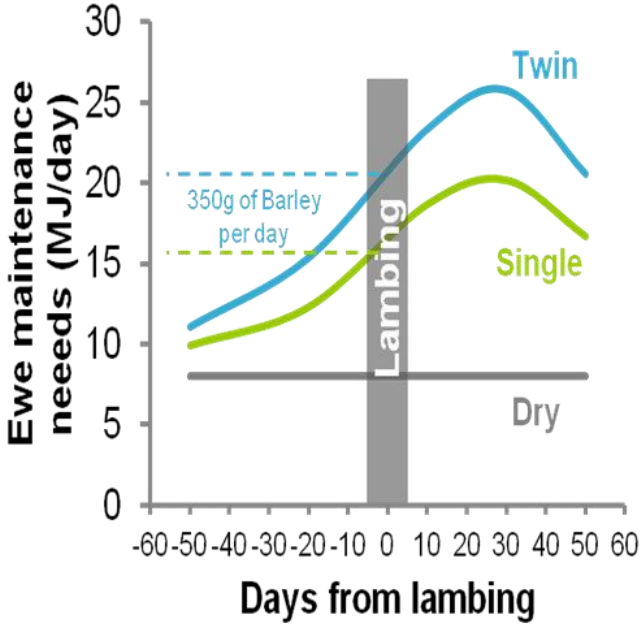
Three MUST do's to grow your flock

Condition score

Scan for multiples

Allocate feed based on energy requirements



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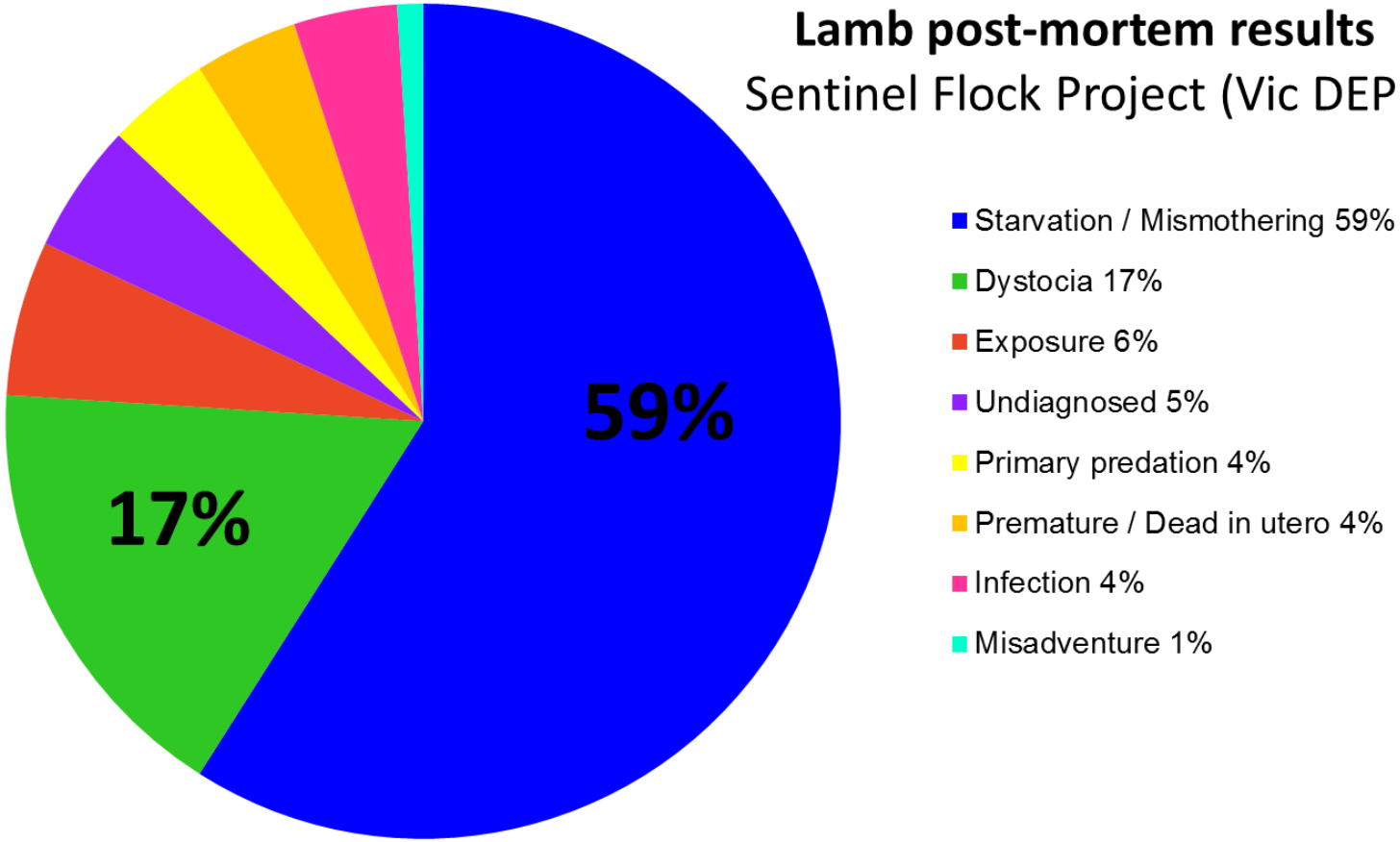
Lamb post-mortem results

Sentinel Flock Project (Vic DEPI)



You will have a high lamb and ewe loss!

Ban the Scan!

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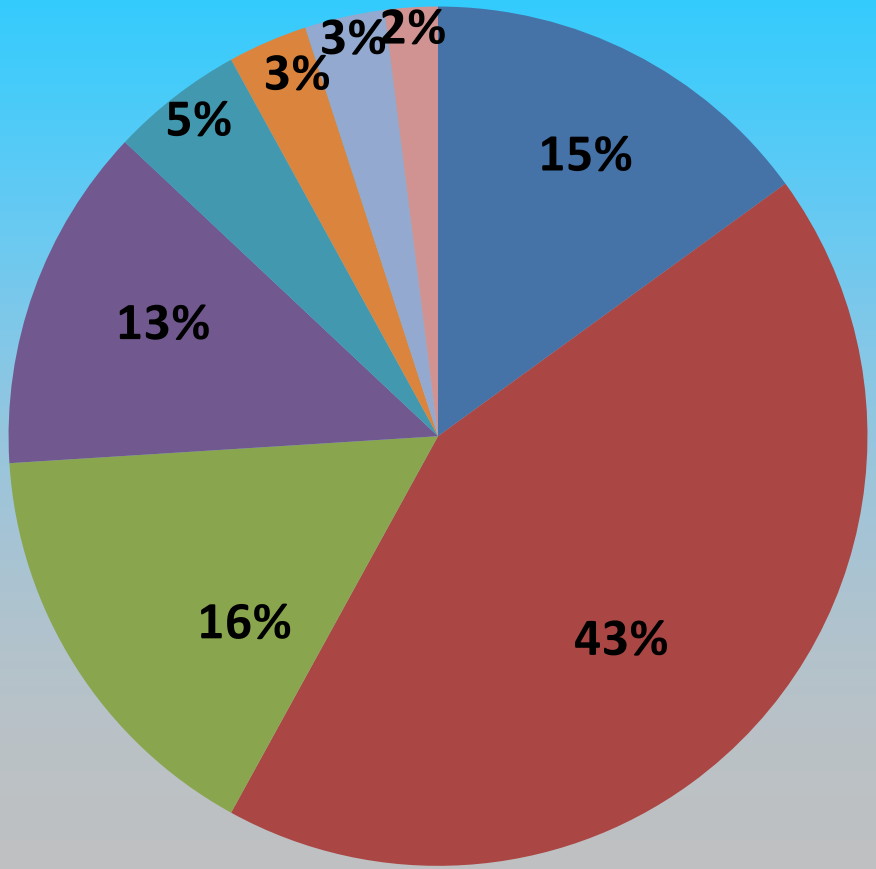
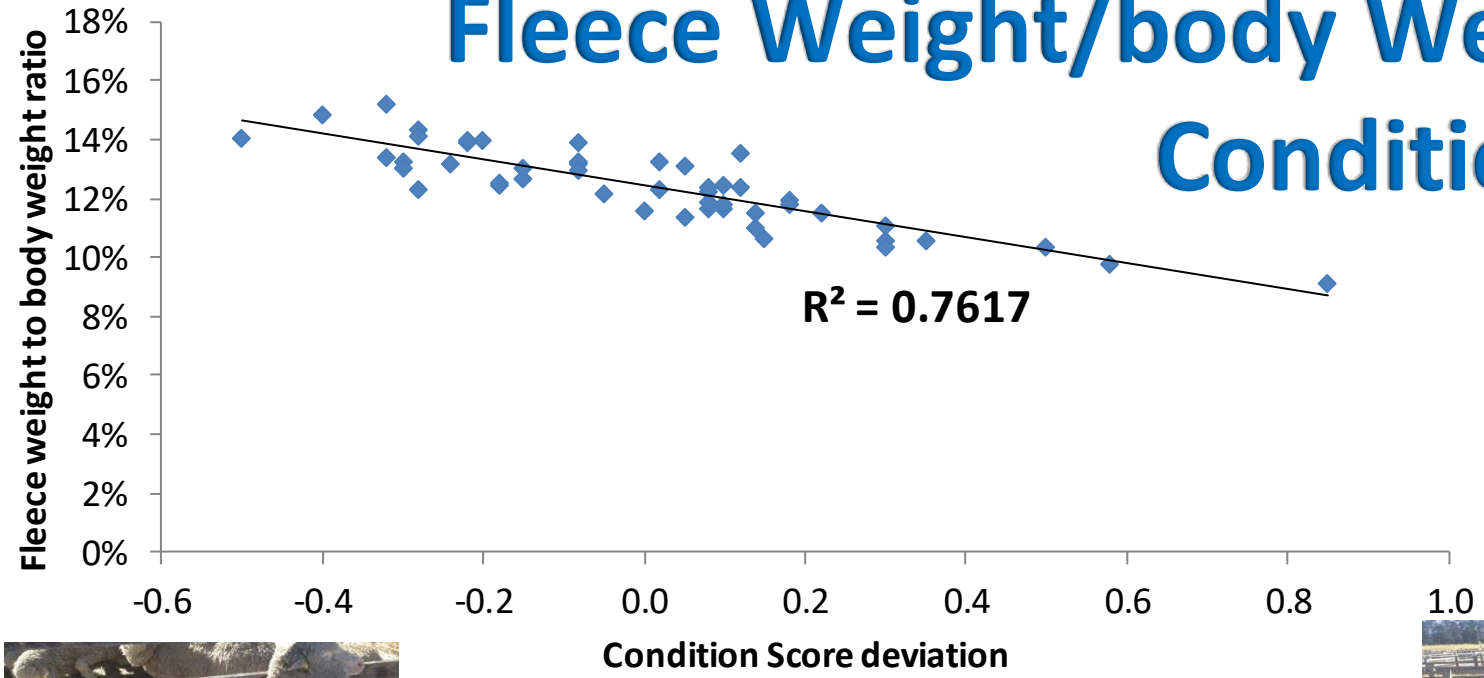
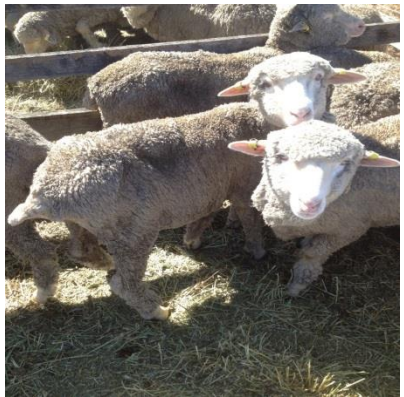
Breeding objective- Merino



Fleece Weight/body Weight v Condition score





Source: Peter Westblade Memorial Merino Challenge 2014-2016

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Tactics used by top performers

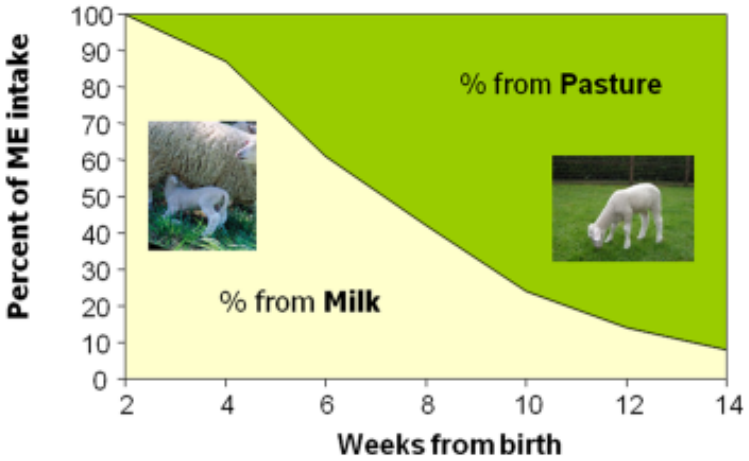
Tactics	Outcome
That increase carrying capacity	
Increase supplementary feeding	Maintain stock condition- sustain flock production, reproduction and sale value
Reduced crop- increase pasture	Reduced winter stocking rate but less stubble area to graze following summer
Put stock in containment areas	Preserve ground cover, protect top soils, defer graze pastures to increase growth
Growth promotants on pastures	Increase winter and spring pasture growth
Control pasture insects	Increase winter and spring pasture growth
Graze crops	Defer graze pastures, reduce sup. feeding
Strip grazing	Increase winter and spring pasture growth
Rotational grazing	Increase winter and spring pasture growth
Early weaning	Maintain ewe condition to reduce the chance of carry over effects to next joining
That reduce feed demand	
Selling dry stock	Reduce stocking rate, maintain core breeders
Agistment off-farm	Reduce stocking rate at home but maintain flock size for when the season breaks
Early stock sales	Ensures surplus sheep don't consume summer feed reserves- more for core flock

Options for a late break

- Nitrogen
- Bring feed forward with Gibberellic Acid (GA)
- Defer grazing to increase leaf area
- Consider grazing some cereal crops
- Start feeding before sheep lose too much weight
- Obtain extra feed early
- Sell scanned dry ewes and any cull sheep
- Seek agistment
- Sell wethers
- Establish feedlot
- Reduce area cropped (particular good pasture paddocks)
- Sell sheep (such as lesser ewes mated to terminals

Options for a failed spring

- Bring forward the sale of sheep - such as cast-for-age ewes or surplus young sheep
- Establish feedlot/containment area to preserve the soil-pasture resource
- Early weaning- lambs can be weaned at 8 to 10 weeks of age
- Obtain extra feed early
- Seek agistment early



Failed spring- 5 key banks

- Pasture Bank
- Animal Bank
- Supplement Bank
- Soil moisture Bank
- Cash Bank

Take home messages

- Know your worst seasonal enemy- late break or failed spring
- Review the flexibility of your enterprise settings in variable seasons
- Ensure implementing key practices that improve the likelihood of success

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Tools and resources

- Lifetime Ewe Management
- MLA Feedbase Hub
- Lambs Alive
- Winning with Weaners

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