



Massey University

An accelerated lamb production system in New Zealand: Results from two years

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Lamb production in New Zealand

- 27.3 million breeding ewes
- 24.7 million lambs slaughtered per annum
- 96% exported
 - 55% of world's exports
 - 50% of NZ exports go to the EU



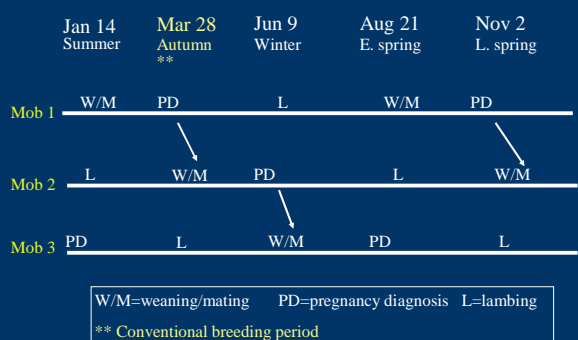
Why adopt an accelerated lamb production system?

- Increase number of lambs born per ewe annually
 - Alternative is to aim for high lambing percentages
- Continuous supply of lamb
- Better utilisation
 - meat processing plants
 - skilled labour
 - pasture

Methods

- Breeds
 - NZ Romney
 - East Friesian Composite
- Pasture based
- Two 20 ha farmlets
 - Control (280 ewes)
 - Accelerated (280 ewes)
 - Based on the "STAR" system (Cornell University, USA)
 - 3 mobs lambing 5 x 3 years

Trial design



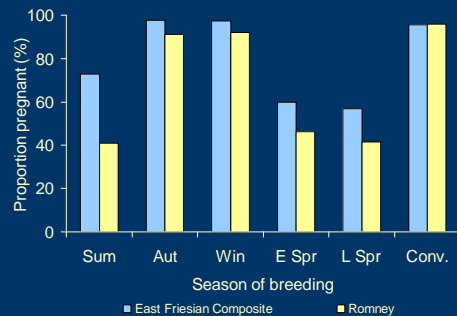
Results

- Pregnancy percentages
- Lamb birth and weaning weights

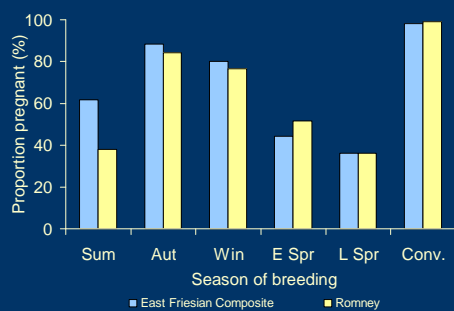
Pregnancy results (%)

System & Yr	East Friesian C.	Romney
Acc. Yr 1	76 ^b	63 ^b
Acc. Yr 2	62 ^a	55 ^a
Acc. Av.	69 ^y	60 ^y
Conv. Yr 1	96	96
Conv. Yr 2	98	99
Conv. Av.	97 ^z	98 ^z

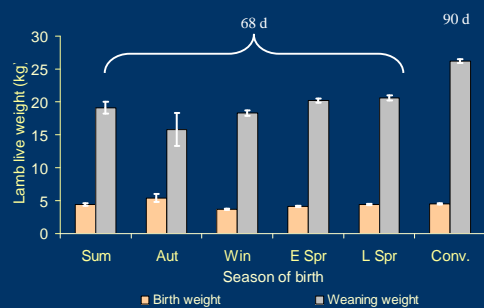
Pregnancy results – Year 1



Pregnancy results – Year 2



Lamb birth and weaning weights



Accelerated vs Conventional

	East Friesian		Romney	
	Convent.	Acc.	Convent.	Acc.
No. lambs weaned	260	427	295	346
Kg lambs sold	7,218	9,080	7,183	7,300
Income from lambs	€7,800	€9,200	€6,100	€7,500

Discussion

- Limiting factors
 - Low out of season pregnancy rates
 - Possible solution
 - Breed change
 - Different reproductive hormone regime
- Other issues
 - Lamb age and live weight at weaning
 - Possible solution
 - Delay weaning, bred lactating ewes
 - Internal parasite challenges (summer & autumn)

Conclusion

- Increased number of
 - ewes mated
 - lambs born
- Earlier weaning age, lower weaning weights
- Increased gross farm profit
 - more kilograms of lamb sold per farmlet

Acknowledgements

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