



B+LNZ GENETICS
SHEEP BREEDER FORUM

2016

Ewe weight prediction: What's happening with adult size?

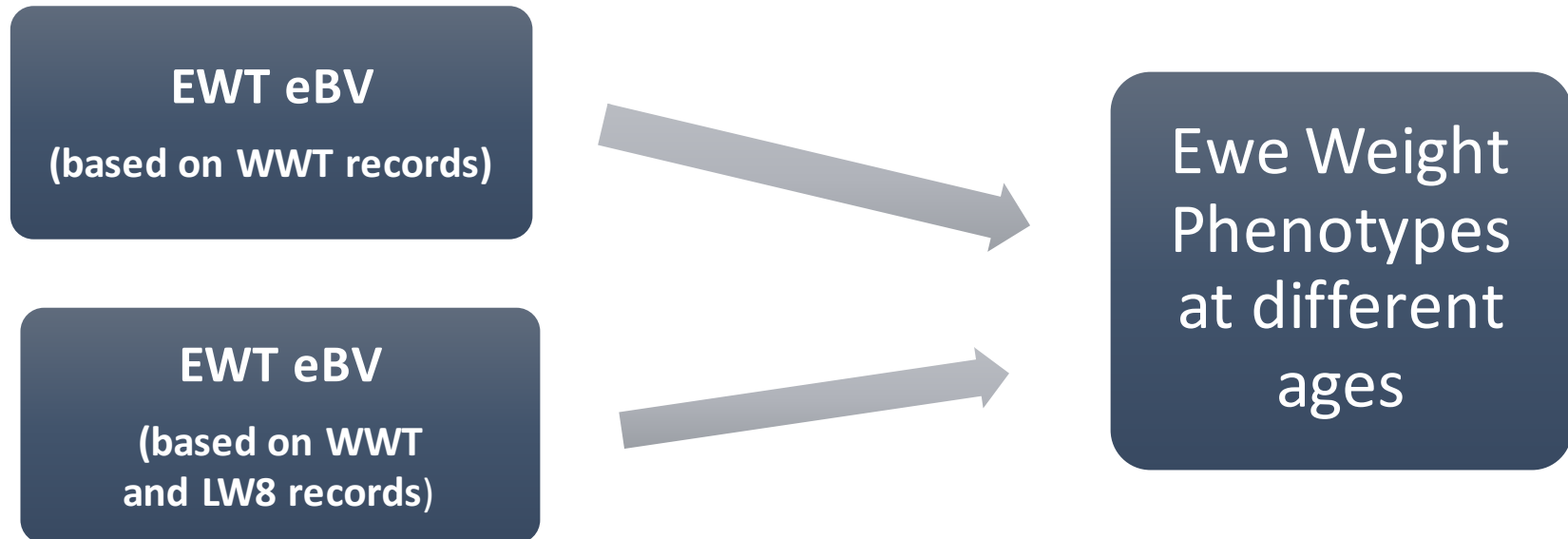
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Introduction

- Disquiet among some breeders about EWT penalty
- EWT impacting on DPA and therefore rankings
- Economics review completed (presented at last forum) but no major flaws identified
- **Aim of this study: Analyse how well EWT eBV's predict adult ewe weights**

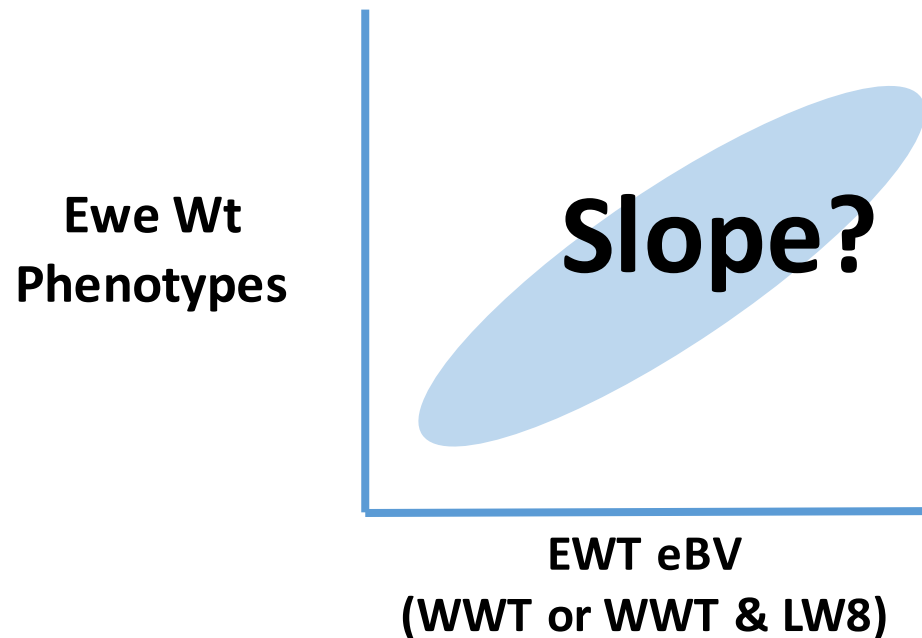
Methods

- 41 flocks – recording ewe live weight
- Romney, Perendale, Coopworth and composite
- Birth cohorts 2007 – 2013
- 246,000 records

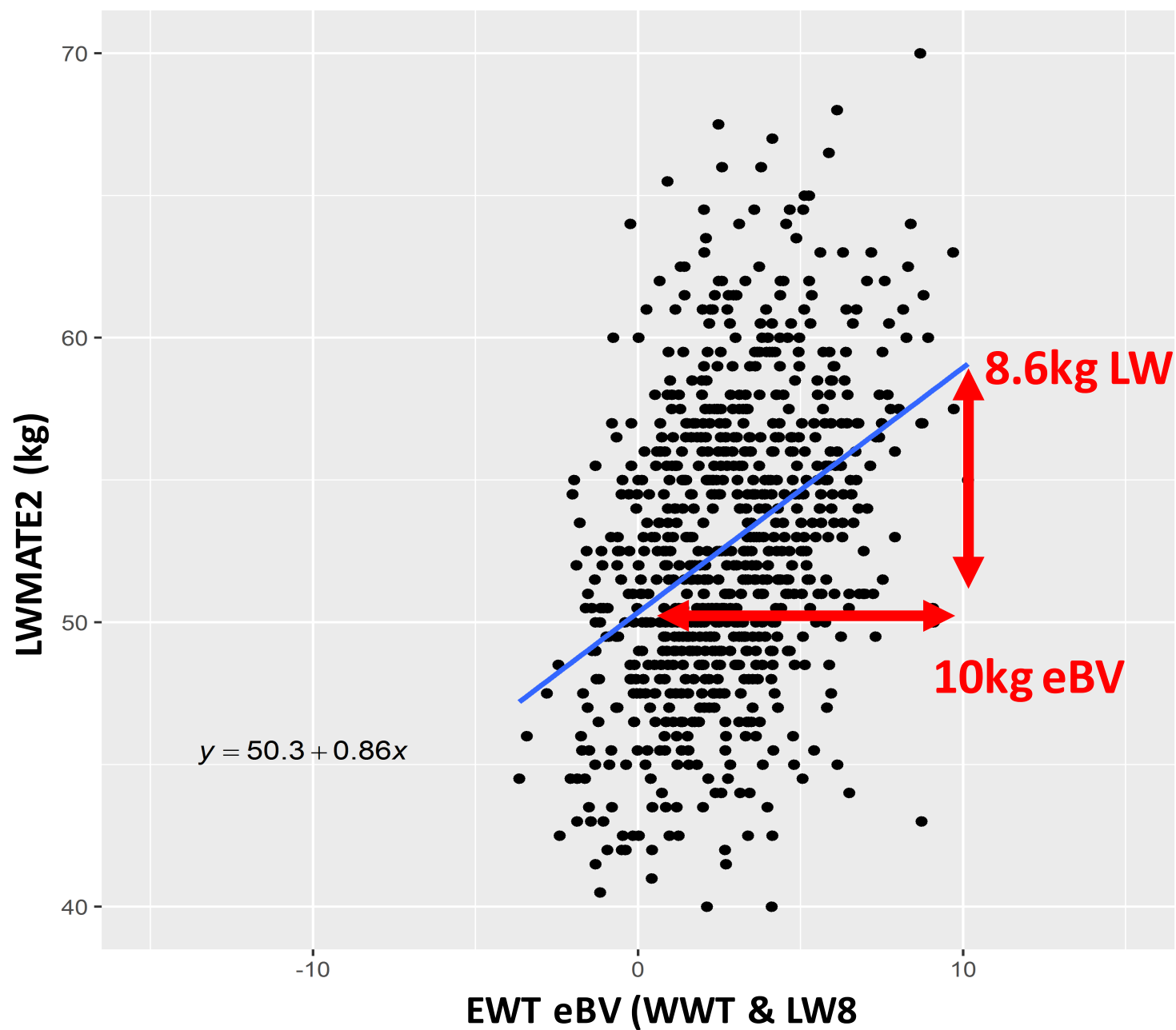


Methods

- Expectation is slope will be 1
- Greater than 1 = EWT eBVs predicting more difference than we see in actual live weight
- Less than 1 = EWT eBVs predicting less difference than seen we see in actual live weight



Methods



Methods

- Slope estimated for every flock and year
- Weighted average – more ewes in a flock year = bigger impact on final result.
- Adjustment for flock structure – combine estimates for different ages into one estimate

Results

Phenotype record	Weighted Mean (EWT eBV based on WWT only)	Weighted Mean (EWT eBV based on WWT & LW8)
LWMATE2	0.81	0.90
LWMATE3	0.84	0.90
LWMATE4	0.88	0.96
LWMATE5	0.88	0.96
LWMATE6	0.87	0.92
Adj. Flock Structure	0.848	0.924

**EWT eBVs predicting more difference than we see in
actual live weight at different times**

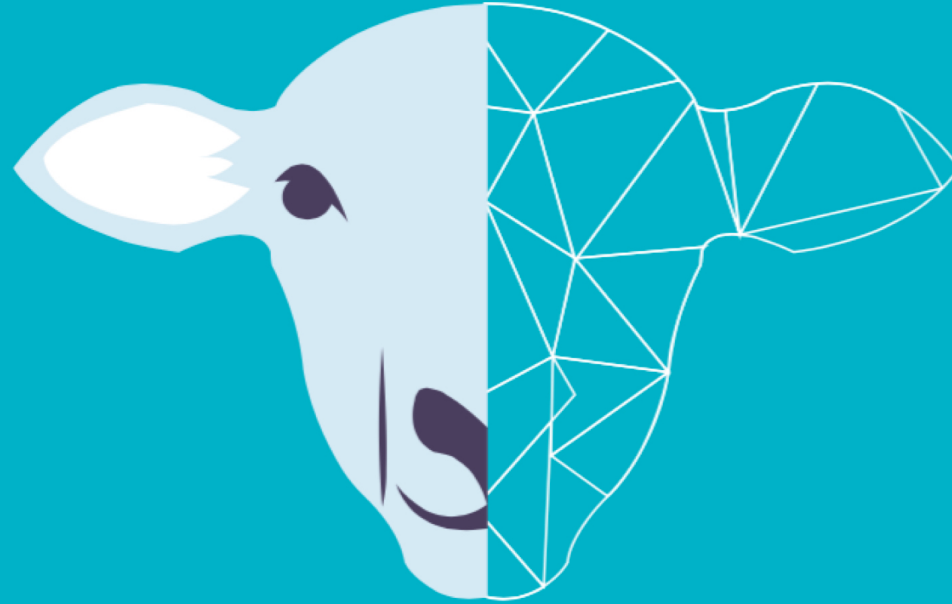
Results

	Perendale	Romney	Coopworth	Composite
EWT eBV based on WWT only	0.84	0.86	0.81	0.84
EWT eBV based on WWT & LW8	0.93	0.92	0.84	0.95

EWT eBV's predicting more difference than we see in actual live weight in different breeds

Implications

- EWT eBV's currently over predicting by 15.2% (after WWT) and 7.6% (after LW8)
- Adjustments need to be made
- Reduce EWT penalty by 10%?
- Plan to re-estimate genetic parameters for both early and late growth traits



THANK YOU