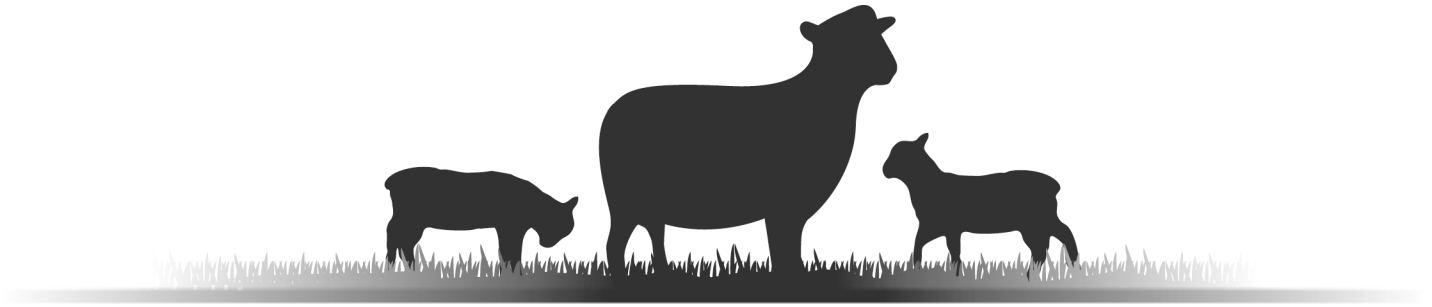
Breeding ewe lambs

Associate Professor Paul Kenyon



INTERNATIONAL SHEEPRESEARCH CENTRE

C. Alma Baker Trust

Forever discovering

MEAT & WOOL NZ
Sheep & Beef Council

Te Kunenga ki Pūrehuroa

MASSEY UNIVERSITY

Potential reasons for breeding ewe lambs

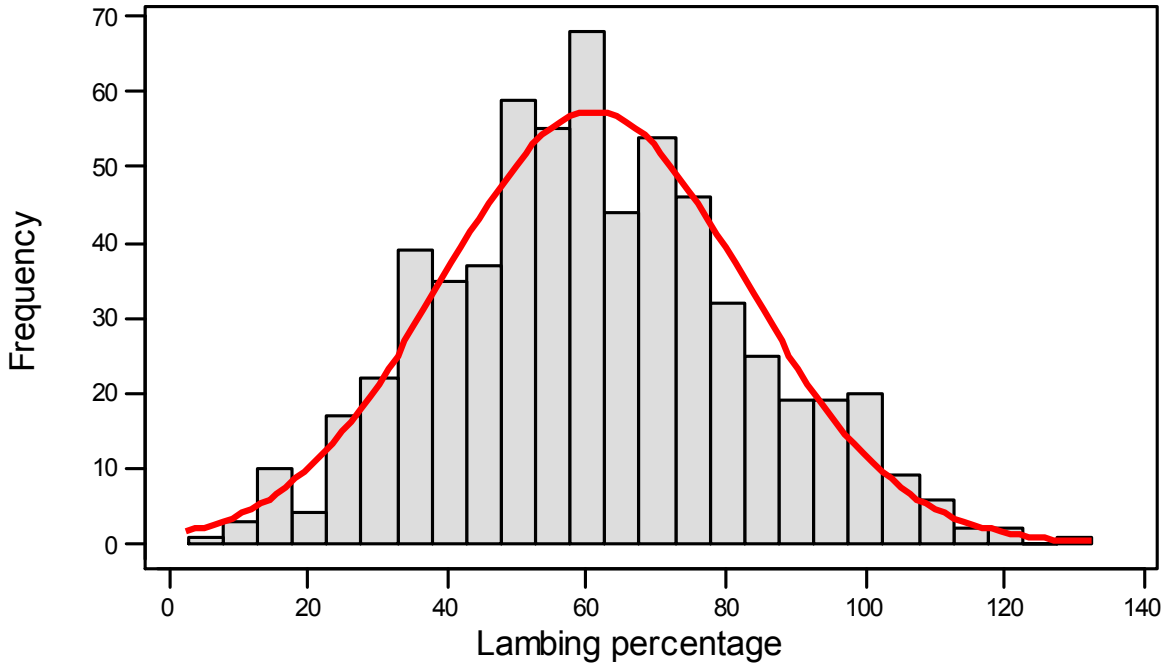
- the production of a lamb within the first year of life
- more efficient use of herbage in spring
- more lambs produced on farm within a given year
- an increase in lifetime performance

- an early selection/screening tool
- more progeny born on farm therefore potentially more selection pressure
- potential reduction in the generation interval if progeny born to ewe lambs are selected as replacements

Potential limitations of breeding ewe lambs

- low and variable reproductive performance
- increased feed requirements during their first year of life
- the need for adequately sized ewe lambs at 8 months of age
- potential for reduced 2-year-old live weight and reproductive performance and decreased longevity in the flock
- progeny born to ewe lambs are often smaller at weaning and of lower value
- ewe lamb breeding is often associated with extra costs
- increased workload

What is actually being achieved in NZ?



Can Merino ewe lambs be bred successfully?

- The survey data in NZ suggests Merino ewe lambs can achieve the similar performance levels as Romneys

- This indicates they have the potential to be bred successfully **if** managed correctly and **if** the environmental conditions allow for it

The 'optimal' ewe lamb breeding system

- Pre-breeding (bred at 8 – 9 months of age)
  - vaccinations if necessary
  - shorn at least a month pre-breeding
  - expose ewe lambs to vasectomised rams 17-days prior to breeding

The 'optimal' ewe lamb breeding system

- Minimum live weight
  - ideally 40 kg (mature weight 65 kg)

- Ideal condition score of 2.5
  - CS effect still present after correction for live weight
    - so it is not just driven by live weight

The 'optimal' ewe lamb breeding system

- Management in the breeding period
  - Ewe lambs are shy breeders – so ram to ewe lamb ratio is important during the breeding period
    - surveys and field studies suggest optimal ram:ewe lamb ratio is in the range of 1:50 to 1:75
  - Avoid the use of ram lambs during the breeding period

The 'optimal' ewe lamb breeding system

- Management in pregnancy
  - To maximise the weight of the ewe lamb and her offspring at weaning she needs to be gaining 150 g/d in total live weight **throughout** pregnancy

    - this live weight gain **needs** to start during the breeding period
      - gains in early pregnancy have the biggest impact

    - this either requires a reduction in other classes of stock or an increase in alternative feed sources

The ‘optimal’ ewe lamb breeding system

- Management during/prior to lambing
  - paddocks should ideally provide shelter
  - herbage (green) minimum covers of 1200 kgDM/ha
  - advantages from separating multiple- and single-bearing ewe lambs

The ‘optimal’ ewe lamb breeding system

- Management at weaning
  - herbage (green) minimum covers of 1200 kgDM/ha
  - weaning lambs early (10 weeks) maximises the time the young ewe has to recover before rebreeding at 18 – 19 months of age
    - if this occurs the lambs require optimal nutrition post weaning

What is likely to be the main limiting factor for breeding Merino ewes lambs in a relatively dry environment?

- Being able to provide enough nutrition in a cost effective manner to;
  - achieve suitable breeding weights at 8 – 9 months
  - ensure the ewe lamb keeps growing in pregnancy
  - ensure the weight of the ewe lamb and her offspring at weaning reach their respective targets

Conclusion

- Ewe lamb breeding has the potential to improve on farm productivity

- The are no magic bullets
  - but getting the feeding and live weights correct are the major drivers of success

Lifetime effects of ewe lamb breeding

- Our data matches the work undertaken in the past both in New Zealand and overseas

- Which indicates ….
  - yes there can be a check as a two-year-old lambing ewe
  - but it is not permanent and it does not negatively affect their lifetime performance
  - in fact those that lamb as a ewe lamb produce more lambs over their lifetime