# lifetimewool

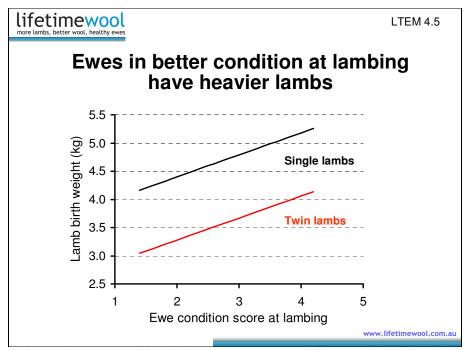
# Improving lamb survival

The first 48 hours of a lamb's life are critical. Around 70% of lamb mortality that occurs between birth and weaning occurs within this period. Lamb survival is related to lamb birthweight. Lamb birth weight is strongly related to the nutrition of the ewe during pregnancy, particularly late pregnancy.

The optimum birth-weight for maximum lamb survival is between 4.5 and 5.5 kg, but lambing environment and whether they are a single or twin affect the response.

## Ewes in better condition at lambing have heavier lambs

Ewes in better condition at lambing produce bigger lambs. A Condition Score (CS) decrease in ewes during pregnancy can reduce lamb birth-weight by 0.4 to 0.5 kg in both single and twin lambs. Birth-weights are most sensitive to changes in ewe condition in late-pregnancy.

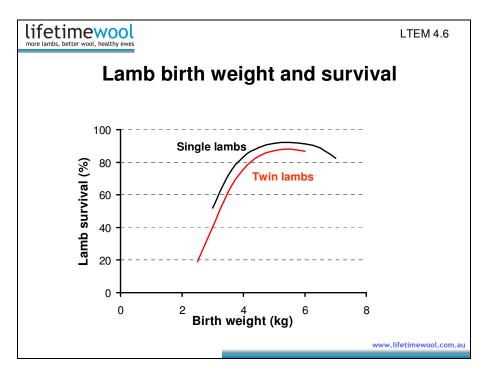


LTEM 4.5 shows that ewe nutrition in late-pregnancy can influence the birth-weight of lambs by up to 0.5 kg per ewe CS for both single and twin lambs.

#### The impact of lamb birth-weight on lamb survival

Lamb survival rate is mostly explained by differences in lamb birth-weight. The optimum birth-weight for lamb survival is between 4.5 and 5.5 kg, but the lambing environment and whether they are a single or twin affects the response.

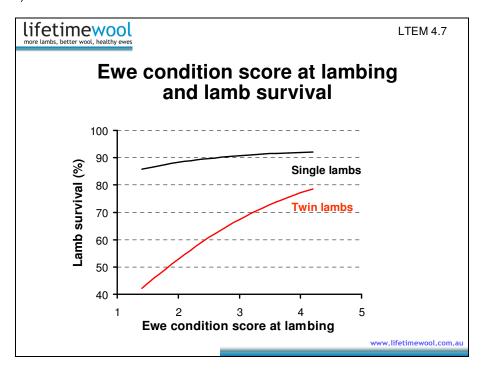
Survival decreases sharply when lamb birth-weight drops below 4.0 kg. A 0.5 kg decrease in birth-weight from the average has less effect on the survival of single lambs than the survival of twin lambs (~10-15% lower).



### Lamb survival is increased with improved ewe nutrition

Lamb birth-weight is determined by ewe nutrition both in early pregnancy (during placental development) and in the last 50 days of pregnancy, which is a period of rapid foetal growth.

Ewe nutrition during late-pregnancy and lambing has a large effect on lamb survival (LTEM4.7).



Single bearing ewes should be in CS 2.8 to 3.0, and twin bearing ewes should be in CS 3.0 to 3.3 by lambing to optimise lamb survival, especially in an environment susceptible to poor lambing conditions.

Poor ewe nutrition and low condition at lambing also has detrimental effects on maternal behaviour and lamb behaviour that contribute to increased mortality. Ideally the ewe and lamb should remain at the birth site for at least 6 hours.

This case study of lamb survival shows that about 15-20% more lambs survive when born to ewes in CS 3 compared to ewes in CS 2.3. Note that twin survival almost doubled (LTEM 4.8).

