

# Characteristics of neonatal lambs leading to improved lamb survival

## Background

Lamb mortality is typically around 15% in the UK. This rate of mortality is of concern both from an economic and welfare perspective. Most lamb deaths result from a failure in bonding between the ewe and lamb, thus research in ewe and lamb behaviour could help to improve lamb survival.

## Importance of lamb behaviour for survival

The majority of lamb deaths occur within the first three days after birth. Traditionally, lamb mortality has been considered to be due to failures in ewe maternal care. However, we now know that the behaviour of the lamb also contributes to its own survival. Until the newborn lamb has sucked it needs to survive on its own limited body resources. The ability of the lamb to stand and reach the udder quickly is therefore crucial to reduce mortality. Lamb sucking also helps to strengthen the bond between ewe and lamb.



Newborn lamb standing and reaching the udder for the first time

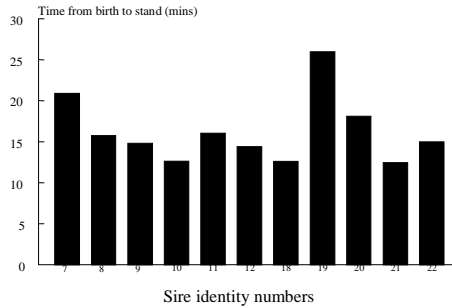
## Achievements

Research at SAC has:

- **Shown that lambs that are quick to stand and suck after birth have better survival** than lambs that are slow to get up and suck. Lambs that died within the first 3 days of birth took 4 times longer to stand, and 6 times longer to attempt to suck than lambs that survived to weaning. Differences in the maternal behaviour shown by ewes did not affect these important behaviours of the lamb, suggesting that these were lamb traits.
- **Shown that lamb behaviours are influenced by lamb genetics** – breed, selection line within breed and sire of the lamb all affected early lamb behaviours. Lamb behaviour immediately after birth is heritable, suggesting that selection for lamb behavioural traits could improve lamb vigour at birth and increase lamb survival.

**Shown that lamb rectal temperatures are correlated with lamb behaviour.** Lambs that had low temperatures in the first 24 hours after birth were slow to stand and suck. These measures are important for lamb survival in their own right, and could provide useful information about lamb vigour, but are quicker and easier to

measure than lamb behaviours. Lamb temperature is also affected by lamb breed and sire, and is known to be heritable.



Mean time taken by the progeny of 11 different sires (of the same breed) to stand for the first time after birth

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