

Lamb Trial Summary: Spring 2020

Objective: To generate lamb performance data for lambs reared on Lamlac milk replacer (24% crude protein, 24% fat).

Trial Sites:	Site 1 – Harper Adams University (Newport, England)	Site 2 – Commercial unit (Lancashire, England)
Breed	Suffolk Mule ewe x Texel tup	Aberfield/Mule Cross ewes
Number of Lambs	13 lambs fed & weighed	100 lambs fed - 51 lambs weighed
Feeder Type	Ewe2 Feeder	Eco Feeder
Body Weight Measurements	Weekly	Birth, 2 weeks & 5 weeks
Milk Temperature	Started at 25°C – when lambs had learnt to suckle reduced to 20°C for 1 week, then reduced to 15°C through to weaning	Started at 37°C - when lambs had learnt to suckle reduced to 20-22° C through to weaning

Feed:

Milk Replacer:

- Lamlac mixed at 200g powder + 800ml water = 1 litre of mixed milk
- Lambs fed on restricted milk from 24 hours of age until trained to feed from either Ewe 2 feeder or Eco feeder
- Once trained onto the feeder, Lamlac milk replacer provided ad-libitum via the feeder

Water and Dry Feed:

- Fresh water, creep and forage (straw) feed was available ad-libitum (once in group pens on feeder).

Weaning:

- Lambs weaned abruptly at **35 days** of age
- At weaning, target weight was a minimum of 10kg, and eating at least 250g creep per day

Results:

Growth Rate - Lambs on both sites weighed a minimum of 10kg at weaning at 35 days of age, ranging from 10kg to 23kg (Table 1).

- On site 1 (HAU), lambs weighed on average 17.8kg at weaning, with an average daily live weight gain (DLWG) up to weaning of 0.38kg/d.
- On site 2 (commercial unit), lambs weighed on average 15.0kg at weaning, with an average DLWG up to weaning of 0.31kg/d

Milk Intake - On site 1 (HAU) milk intake was good, with lambs consuming approximately 1 litre of milk per day during the first week of life, increasing to 2.5 litres per day at weaning.

Table 1. Lamb body weight (kg) from birth to weaning at 5 weeks of age on site 1 (HAU, n=13) and site 2 (commercial unit, n=51)

	Site 1 (HAU)			Site 2 (commercial unit)		
	Mean	Min	Max	Mean	Min	Max
Birth	4.37	3.20	5.60	4.23	3.00	6.00
Week 1	6.25	4.50	8.40	-	-	-
Week 2	8.68	6.80	11.70	8.75	6.00	12.90
Week 3	11.85	9.50	15.50	-	-	-
Week 4	15.32	11.70	19.70	-	-	-
Week 5	17.78	13.30	23.00	14.96	10.40	21.60

Table 2. Daily live weight gain (kg/d) from birth to weaning at 5 weeks of age on site 1 (HAU, n=13)

	Site 1 (HAU)		
	Mean	Min	Max
Birth – wk 1	0.27	0.13	0.40
wk 1 – wk 2	0.35	0.20	0.50
wk 2 – wk 3	0.45	0.31	0.63
wk 3 – wk 4	0.50	0.31	0.66
wk 4 – wk 5	0.35	0.11	0.47
Birth to weaning, kg/d	0.38	0.28	0.51

Table 3. Daily live weight gain (kg/d) from birth to weaning at 5 weeks of age on site 1 (HAU, n=13) and site 2 (commercial unit, n=51)

	Site 1 (HAU)			Site 2 (commercial unit)		
	Mean	Min	Max	Mean	Min	Max
Birth – wk 2	0.31	0.21	0.44	0.31	0.17	0.49
wk 2 – weaning	0.43	0.30	0.55	0.31	0.18	0.45
Birth to weaning, kg/d	0.38	0.28	0.51	0.31	0.21	0.46

Conclusion:

Lamb performance was good across the 2 sites demonstrating that with good farm practices, lambs can be successfully reared artificially on Lamlac, helping to maximise the number of lambs reared in flocks with a high prolificacy rate.

