Lamb Trial Summary: Spring 2021

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

Trial Sites:	Reaseheath College (Nantwich, England)
Breed	North country mule ewes
Lamb Type	Triplet bearing ewes - largest lamb from each litter was selected leaving 2 equal sized lambs on the ewe
Number of Lambs	59 lambs
Feeder Type	Volac Forster Technik Eco Ad Lib Feeder
Milk Temperature	25°C until all lambs had been trained to suckle. Lambs had between 5 and 16 days at 25°C depending on lambing date. Once all lambs were trained (minimum of 5 days), the temperature was reduced to 20°C for 1 week, and then to 15°C until weaning

Feed:

Colostrum:

- Lambs were left on the ewe to suckle colostrum for 6 to 10 hours (provided lambs were suckling). Ewe colostrum quality was tested at birth.
- At 6 to 10 hours after birth, the largest lamb from each ewe was removed and fed a second feed of colostrum (own ewe or pooled) via a bottle and teat (or a tube) at a rate of 50ml/kg body weight.

Milk Replacer:

- Lamlac® mixed at 200g powder + 800ml water = 1 litre of mixed milk (200g per litre of mixed milk)
- Following a second colostrum feed, lambs were fed Lamlac® via a bottle and teat every 6 hours for the first 24 hours
- At 24 hours, lambs were introduced to the Eco Feeder and fed Lamlac® ad-libitum (maximum of 30 lambs per pen with 4 teats per pen)

Water and Dry Feed:

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

Target Weights

Weaning:

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

Results

Growth Rate:

- All lambs weighed at least 10kg at weaning at 35 days of age, ranging from 10kg to 24kg (Pen 1) and 12kg to 21kg (Pen 2) (Table 3).
- Lambs weighed on average 18.3kg (Pen 1) and 15.4kg (Pen 2) at weaning, with an average daily live weight gain **(DLWG)** up to weaning of 383g/d (Pen 1) and 326g/d (Pen 2) (Table 3).

Table 1. Body weight (kg) from birth to weaning (Pen 1, lambing date 23/02/21 to 01/03/21, n=28)

Body weight, kg (Pen 1, n=28)		
	Mean	Range
Birth	4.4	3.0 - 6.5
4 d (n=3)	4.7	4.5 - 5.0
10 d	6.1	4.0 - 7.8
16 d	8.7	5.8-11.8
20 d	10.1	6.0-13.1
23 d	11.7	6.6-15.4
27 d	13.4	7.5-17.7
30 d	14.8	8.2-19.3
34 d	16.9	9.3-22.3
37 d (n=24)	18.5	10.4-24.3

Table 2. Body weight (kg) from birth to weaning (Pen 2, lambing date 01/03/21 to 25/03/21, n=31)

Body weight, kg (Pen 2, n=31)		
	Mean	Range
Birth	4.1	3.0 – 5.8
4 d (n=20)	4.8	2.6 – 6.5
7 d (n=19)	6.0	4.3 – 8.4
11 d (n=30)	6.8	4.5 – 10.0
14 d (n=25)	7.8	5.4 – 11.4
17 d (n=21)	9.1	5.2 – 13.0
21 d	10.3	6.2 – 14.1
25 d (n=30)	11.8	7.8 – 15.7
30 d	13.4	9.1 – 17.9
36 d (n=27)	15.4	11.7 – 20.7

Table 3. Body weight at weaning, and daily live weight gain from birth to weaning (Pen 1 and 2)

	Pen 1		Pen 2	
	Mean	Range	Mean	Range
Birth weight, kg	4.4	3.0 - 6.5	4.1	3.0 – 5.8
Body weight at weaning, kg	18.3	10.4-24.3	15.4	11.7 – 20.7
Age at weaning, days	36.5	32 - 39	35.0	29 - 38
DLWG birth to weaning, g/d	383	173 - 522	326	214 - 443

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Conclusion:

- Lamb performance was good, with lambs achieving body weights of on average 17kg at weaning (mean age 36 days), and daily live weight gains to weaning of 353g/d.
- With good farm practices, lambs can be successfully reared on Lamlac® in large groups of up to 30 lambs, helping to maximise the number of lambs reared in flocks with a high prolificacy rate.