



# LAMB NUTRITION

*Tech guide*



FOCUSING ON LAMB NUTRITION & MANAGEMENT  
BEFORE & AFTER WEANING

**Dugdale**   
**Nutrition**

The introduction of creep feed stimulates the development of the rumen and can reduce post weaning nutritional stress. Creep feeding can be seen as a cost, however, a lamb is more efficient earlier in life so growth rates can be supported/enhanced with supplementation.

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### Why Creep Feeding is Important

Young lambs should have the best start to life. The first few weeks of life is when a young animal will convert the most efficiently if the health and nutritional factors are correct.

If the forage quality is poor or if the grazing is limited then creep feeding is an option to meet the growth rate targets for lambs. There are many advantages to feeding creep to lambs such as finishing faster, receiving a better price and a better transition at weaning.

It is important to feed creep when it is needed otherwise it can be a cost to the business. AHDB Beef & Lamb found that when lambs were on well managed, re-seeded grazing ground, the key performance indicators matched the lambs on creep feed and permanent pasture. Creep feed will not improve performance when sward heights are greater than 4-6cm, but it will be a cost.

### Feed Conversion Efficiency (FCE)

Introducing feed earlier to a lamb is more economical because of the better conversion rate. FCE can vary between 5:1 to 10:1, with 10:1 being more efficient in production and economics.

### Introduction of Creep Feed

Lambs which are introduced to creep feed at 2-3 weeks old can be expected to eat 40-50kg per lamb by the time they come to the point of sale, if offered ad-lib and a sward height of 4cm. If the grazing is restricted but creep is available, lambs are expected to gain 1kg extra for every 5-6kgs of feed.

Introduce creep to older lambs gradually to reduce the risk of lambs gorging and dietary upset.

Allowing lambs into fresh grazing before the ewes by using a creep gate can avoid the need to use creep feed. This is known as forward creep grazing.

### Design of the Creep Feeder

- Easy access for the lambs but not the ewes
- Be sheltered and on dry standing to prevent poaching
- If dirty and poached up, diseases such as coccidiosis are more likely to occur - put lime down to reduce the risk of diseases
- Fresh and clean feed - clean the troughs out regularly



### Importance of 8-week old weight

A lamb's performance is influenced by the ewe's colostrum and milk production. Meeting a ewe's energy and protein requirements pre-lambing and in lactation is key for the lamb to have the best start to life and for the ewe to produce as much milk as possible, especially at 3-4 weeks post lambing when peak lactation occurs. A ewe rearing twins will have a greater nutritional demand than a ewe rearing a single because the twin mother produces 40% more milk.

A lamb's rumen will develop as grass and solid feeds, such as creep feeds are introduced. The time to full development will be dependent on lamb breed and nutrition, so in some scenarios can take longer.

The ewe's lactation ability is indicated by the lamb's 8-week weight. If weighing is postponed until weaning, then the ewe's maternal ability on early lamb growth is missed. If the flock has a compact lambing period then the mid-point of lambing can be used to calculate the 8-week weigh date. Alternatively, if the date of birth is known then an adjusted 8-week weight can be calculated. At the 8-week weighing, the weight and condition score of the ewes can be recorded as an indication of how much of their body reserves have been used to rear the lambs.

### Importance of 8-week old weight

Recording weights of lambs allows the DLWG to be calculated, however, the birthweight should be accounted for. An example is below, assuming the lamb weighed 4kg at birth.

Weight (kg)	DLWG (g/day)
15	200
21	300
26	400
32	500

### Setting Targets

The 8-week weight is classed as a Key Performance Indicator (KPI) which allows targets to be set and performance to be monitored rather than weighing when weaning. Setting realistic targets helps identify lambs which have not met their targets and can be useful. Possible reasons would be if the lamb is a triplet, had a small birthweight or poor milk production from the ewe. Collecting and analysing the data provides information so that plans can be put into place to prevent the same happening year on year.

### Plan for Poor Performing lambs

If lambs are light weights at 8 weeks of age, plans can be implemented so that the lambs are off the farm by the time the next lambing season approaches. These plans could include weaning the lambs early and putting them onto good grazing, introduce creep feeding, sell as stores or sell them to the light lamb market.

It is also important to set targets for the ewe's Body Condition Score (BCS) throughout the year to minimise the number of poor performing lambs. Plans could include supplementing thin ewes post lambing, prioritising triplets to the better grazing ground or creep feeding lambs.

Lambs which have a growth rate of less than 200g/day should be weaned, moved to better grazing and supplementary feed should be considered.



Here are our top tips for successful surplus lamb management:

- Colostrum (210ml/kg bodyweight) is essential within the first 24 hours, first feed should be within 6 hours of life (50ml/ kg LWT)
- Provide a good quality lamb milk replacer:  
  
Day 1-3 = 1 litre in 4-5 feeds  
Day 4-7 = 1 litre in 4 feeds  
Day 7 to weaning = 1.5 litres in 4 feeds reducing to 2 feeds until weaning
- If on ad-lib feeders do not dilute, as this makes lambs drink more. Additionally, do not let the powder run out or the lambs will gorge
- Make sure the hole in a teat is not too big as this can cause bloat. Tip the bottle up and if milk is free flowing, the hole is too big
- Use soft teats, 4cm length = more sucking
- Offer lamb creep from 3 days of age. Ensure the feed is palatable with good levels of starch and quality protein
- Fresh, clean water should always be available
- Straw should be readily available
- Ensure excellent hygiene and cleaning
- Abrupt weaning at 5 weeks or 10kg liveweight, whichever soonest if eating hard feed (250g/day)



### When to Wean

Lambs are usually weaned at 12-14 weeks of age but it is the ewe's BCS and the availability of land that drives the decision when to wean. Once a lamb reaches the age of 8 weeks, the intake from grass provides more energy than the intake of milk so at 8 weeks old the competition for grass increases. Grass growth and management will impact when the competition happens each year. If the ewes are in good condition and there is surplus grass then weaning can be delayed without having a negative effect on lamb growth rates.

If creep feed is available to lambs when they are young the DLWG may not drop after 8 weeks of age, therefore, the weaning decision will be made based on the ewe's BCS and how long before the lambs will be finished.

### Where to Put the Lambs

Ideally, at weaning, move the ewes and leave the lambs in the same place for 48-72 hours. Once the lambs are over the stress of weaning they should be moved to a low parasite burden pasture or a forage crop.

### Growth Rates Post Weaning

To achieve optimum growth rates after weaning, lambs should be turned onto grass with a sward height of 6-8cm if set stocked. On a rotational grazing system, the sward height should be 10-12cm pre grazing and 5-7cm when exiting the pasture. The quality of the grass should be young and leafy which has a ME value of 11.SMJ rather than stem and dead matter (8MJ), however, this is a challenge when grazing aftermaths because they can take 3 weeks to recover.

From weaning to slaughter, the growth rate can be increased by 25% by grazing white clover pastures.



## Nutritional Requirements

A lamb's energy requirements depends on the weight and growth rate.

Lamb weight (kg)	DLWG (g/day)	ME requirement (MJ/day)
20	150	6.8
	200	8.3
	250	10.0
30	150	9.0
	200	10.8
	250	13.0
40	150	11.1
	200	13.4
	250	16.0

The dry matter intake can be calculated. Lambs consume 4% of their body weight so a 30kg lamb would consume 1.2kg DM. If the forage is 11.5 MJ, the lamb will consume 13.8 MJ/day and should gain 250g per day.

## Grazing Forage Crops

If lambs experience forages, such as red clover, chicory or cereals, with their mothers then they will perform better on these crops after weaning. A transition period is advised and take into account that it takes 3 weeks for the rumen to adapt to a new feed.

Key necessities when grazing forage crops to ensure good utilisation of block or strip grazing:

- Run back
- Fresh water
- Effective fibre source - eg. Hay.

Weaning time is very stressful to lambs so routine vaccinations and wormers should be given before or after weaning, because stress can affect the immune response, particularly for vaccines, and make lambs more susceptible to disease.

## Parasites

Avoid lambs grazing pastures which sheep have grazed on this season as this can increase the risk of parasite challenge resulting in a lower growth rate. The main parasites of concern are gut worms which have a major effect on lamb performance. Faecal egg counts should be performed regularly to help to monitor the worm burden, especially if only high risk fields are available. If the faecal egg count result is high, use an effective wormer and dose to the correct weight. (Discuss with your vet and consult your flock health plan).

## Vaccinations

Vaccination against clostridial diseases and Pasteurella should be done before weaning. If the lambs have not been vaccinated earlier in life then give the first vaccine 2 weeks before weaning and give the second vaccine 4 weeks later.

## Trace Mineral Deficiencies

After weaning of lambs some farms can struggle with poor lamb growth weights and losses. This can be related to cobalt deficiency. Cobalt deficiency, or 'Pine' can sometimes be easily solved and sometimes is complicated by other underlying issues. A heavy worm burden can exacerbate the issue. Treatment options include bolus, drench or in feed mineral supplementation. Best responses are seen if supplementation is primed approximately 4 weeks before weaning. Long acting injections of Vitamin B12 can help to support through the weaning period.

Selenium deficiency can also be seen in lambs and shows itself as stiff lambs, or sometimes as heart issues. Again supplementation can be by bolus, drench or in feed mineral. Supplementing ewes prior to lambing can also support the lamb through milk and colostrum.

Farm status can be established by using grass and forage samples as well as blood samples of cohorts of lambs and ewes. Use careful interpretation of the results and discuss with your feed representative and vet.



### Drying Ewes Off

After weaning, ewes should be turned on to a low quality grazing pasture for 2 weeks. Alternatively, ewes can be housed and fed on a low quality forage (straw/hay) for 48 hours to dry the ewes off and reduce the risk of mastitis. The bedding must be clean and dry to reduce the risk of disease.

### 2 Weeks Post Weaning

Gather the ewes up and check teeth, feet and udders. Any ewes found to have issues should be selected to be culled. The ewes should be grouped based on their BCS. Ewes with a BCS above the target should be turned into the lowest quality grazing and be used to clean up the pasture. Ewes which are below the BCS target should have better grazing. On unrestricted grazing it takes 6-8 weeks for a ewe to gain 1 BCS. At tupping, hill ewes should be BCS 2.5 and lowland ewes should be 3.5.

### Hoggs Which Have Lambed

Hoggs (lambd at 1 year old) will need a longer rest period from weaning to tupping so it is recommended that a hoggs ewes are weaned younger.

#### Body Condition Score (BCS)



##### Score 1

The spinous and transverse processes are prominent and sharp. The fingers can be pushed easily below the transverse bone and each process can be felt. The loin is thin with no fat cover.



##### Score 2

The spinous processes are prominent but smooth, individual processes being felt only as corrugations. The transverse processes are smooth and rounded, but it is still possible to press fingers underneath. The loin muscle is a moderate depth but with little fat cover.



##### Score 3

The spinous processes are smooth and rounded; the bone is only felt with pressure. The transverse processes are also smooth and well-covered, hard pressure is required with the fingers to find the ends. The loin muscle is full and with moderate fat cover.



##### Score 4

The spinous processes are only detectable as a line. The ends of the transverse processes can not be felt. The loin muscles are full and rounded and have a thick covering of fat.



##### Score 5

The spinous and transverse processes cannot be detected even with pressure; there is a dimple in the fat layers where the processes should be. The loin muscles are very full and covered with very thick fat.

9.

### Grass and Weaning

Once lambs get to 6 weeks of age, a third of their energy should come from pasture. This rises to 100% by the age of 12 weeks. Wean once the lambs and ewes are competing for grass, giving lambs priority grazing.

Once the ewes BCS and grass requirements are calculated, better grazing may need to be offered to the ewes. It is important to be aware of grass available and required.

Creep feed lambs if grazing is tight.

### Making the Best Use of Grass

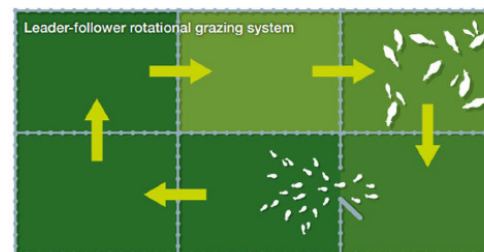
Careful grassland management is essential to ensure quality and quantity. It is needed to avoid lambs eating into the reserves for flushing and overwintering ewes.

The leaf is the most nutritious part of the plant at >11.5MJ ME/kg DM.

For weaned finishing lambs; pre-graze sward height of 10-12cm if rotational grazing; post-graze sward height of 5-7cm. If set stocked 6-8cm. Clover increases the rate of gain by 25%, but needs careful management to achieve good levels from midsummer onward.

### Grazing Systems

- Reduce parasite burdens by grazing with other classes of stock
- Graze a field with sheep one year and cattle the next
- Use fields for conservation
- Graze new reseeds after forage or arable crop
- Ideally do not graze finishing lambs on fields that has had ewes and lambs on in the same season
- Use FECs to monitor worm challenge



■ Grass height 10 - 12 cm



It is important to target bodyweight at weaning, mating and lambing and to target body condition score (BCS) at lambing. Aim to rear one lamb to weaning from ewe lambs. Focus on long-term (lifetime) productivity with a lamb loss target of less than 15% from scanning to weaning.

### Key Nutritional Requirements

- Target LWG 200-250g per day weaning to mating
- Continue 130g per day mating to 6 weeks pre lambing
- Feed for maintenance and pregnancy last 6 weeks pregnancy
- Lactation, feed 20% above mature ewe requirements
- Rear single lamb

### Threats

- Inadequate grass supplies and feeding
- Underfed ewe lambs do not grow well, produce small week lambs and have long term reproductive issues
- Over fed ewe lambs risk excess condition, dystocia and lamb losses
- Low lamb growth rate - feed the group separately, esp. twin rearing shearing.
- Poor performance ewes and lambs

**DON'T FORGET** the nutrition of ewes has an effect on the lifetime performance of her female offspring. The development of her reproductive system and mammary gland starts at the foetal stage.

Female offspring from ewes which are fed optimal levels have greater numbers of follicles, a higher ovulation rate and produce more lambs. Excessive and restricted planes of nutrition in pregnancy have negative impacts.



### Progressive Rumistart

These pellets are designed to feed lambs from 3 days old. Rumistart pellets contain quality protein sources to support growth and development of frame, the overall protein is 18%. These pellets also have a balanced starch and sugar content which aids the development of the rumen. Nustart is included to support rumen development and animal health. Safmannan yeast cell wall supports intestinal health and development of the immune system. These pellets have been designed to flow well through Advantage Feeders.

### Pro-Start Coarse Ration

Coarse ration for young calves and lambs. Pro-start is a 16% protein, coarse mix including micronized flakes, sugar beet, mineralised protein pellet high in soya and molasses for palatability to drive intakes.

### Lamb Finisher

A fully mineralised 3mm pellet with a protein content of 16%. Adequate levels of starch and sugars for energy to encourage efficient growth. Ammonium chloride is included to reduce the risk of calculi in tups.

### Intensive Lamb

A 6mm nut which is 16% protein and fully mineralised. Efficient growth is encouraged from adequate levels of starch and sugar. The risk of calculi in tup is reduced due to the inclusion of ammonium chloride.

### Super Lamb

A 15% protein nut which is fully mineralised. Good starch and sugar content to support efficient finishing. Ammonium chloride is included.

### Alka Finisher

A fully mineralised nut with a protein content of 15%. Includes Alkagrain to allow for higher starch levels whilst supporting rumen function. Very high levels of a range of starch and sugar sources to encourage efficient finish. Ammonium chloride is included.



## DN Tup & Gimmer Products

### Coarse Tup Ration

Perfect for growing tups prior to breeding season and putting condition back on them after tugging. Coarse tup is a 15% protein ration with micronized flakes, high soya mineralised protein pellet and molasses.

### Progressive GT

A 6mm fully mineralised nut with 17% protein. Average levels of a range of starch and sugar sources to encourage efficient lean growth with healthy rumen. Range of protein sources to enable frame growth. Ammonium chloride to reduce risk of calculi in tups. Actisaf to support rumen health.

### 3 in 1 Protein Pellets

A 38% protein pellet which is designed to provide the protein in blends and can be fed in Advantage 3 in 1 feeders. These pellets compromise of good quality protein which will help support a growing lamb as well as a finishing lamb when mixed appropriately with cereals. The pellets contain Ammonium Chloride to reduce the risk of Calculi in tups.

### Pro-Show

Blend of Super Lamb nuts and base mix. 15% protein. High starch and sugars to optimise finishing. Gives good coat condition and cover for show stock.

### Pro-Stock

A coarse mix, ideally suited to growing stock.

### Speedi Starch

A complete blend designed for finishing and ideal for farms without their own barley.





# Dugdale Nutrition



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