

CALF NUTRITION

Birth to 18 Weeks

Days 0-7	Colostrum & Milk
Days 7-14	Cooked, highly palatable coarse calf ration should be offered from day 7. Very small amounts (hand fulls) of an 18-20% crude protein should be offered and changed daily to begin calf interest in feed.
Days 14-63	Continue on a good quality cooked calf ration. It is critical calves continue to increase their daily intake right up to weaning when they should be consuming a minimum of 1kg/hd/day for three consecutive days. Keep the crude protein of the concentrate feed @ 18% to ensure maximum growth potential.
Day 63-126	After weaning and up to 18 weeks of age, the calf should be offered ad lib concentrates where they will consume up to 3kg/hd/day. During this period the calf has the ability to consume up to 3.5% of its body weight in Dry Matter therefore its crucial to pack the diet with quality concentrates to help maximise on weight gain. The crude protein can be reduced to 16% for this period as intakes will be higher.

REMEMBER: During this period the calf has the ability to gain over 1kg live weight per day which as a % of its total weight is over 1%, this can never be achieved again for the remainder of the animals life.



Levucell SC Ruminant Specific Yeast

Maintaining rumen health is key to animal performance whether it is dairy, beef or young stock.



Levucell SC (I-1077), the rumen specific live yeast from **Lallemand Animal Nutrition** has been selected from over 1000 strains for its ability to stabilise rumen pH, oxygen scavenging and improve digestion. This leads to significantly better growth performance and a higher return on your investment.

In high starch diets, recent beef trials in Ireland have shown consistent performance improvements of up to 200g per head per day of daily live weight gain versus control when Levucell SC is fed.

In trials last winter on forage based diets Levucell SC consistently delivered higher intake and performance by stimulating the growth of fibre digesting bacteria and fungi in the rumen.

Using Levucell SC ensures young stock reach their growth targets while maintaining good rumen health and better intakes for adult stock.

Weanling Creep Ration

Weanling Creep Ration is designed for stronger calves generally on grass and can be used as part of our follow on system.



It is a 16% protein ration high in energy, allowing your animals to thrive consistently and maintain daily live-weight gain even if grass supplies are in decline. The Weanling Creep unlike most others on the market is a partially cooked mix containing Flaked Barley and Maize. This is balanced with excellent protein and fibre sources, alongside a well-established mineral and vitamin package. In turn this leads to a crunchy coarse ration even the shyest eaters will take to.

Opti-Creep Cube

Opti-Creep is the latest entrant to our premium range.



It is a 16% protein cube which is more than sufficient for calves when they hit grass. This cube is in a league of its own and is ideal for those calves that need that extra push. It boasts of maize and native cereals for energy and is blended with quality protein sources together with pulps to give sufficient fibre. It also includes our **exclusive Opti-Thrive Calf Mineral** ensuring your calves reach their full potential with minimal issues. The inclusion of **Vitamin B1** also provides a real insurance against **Cerebrocortical Necrosis (CCN)**.

What is Cerebrocortical Necrosis (CCN)?

Cattle don't ingest Vitamin B1, but instead it is produced in the rumen by their animals own microflora.

If these microflora gets killed or changes then the amount of B1 available to the animal actually drops and deficiency occurs. Lush fast growing grass contains high levels of starch and sugars. When calves are put onto this grass the fast build-up of sugars can cause a sudden drop in rumen pH, which alters or kills the rumen microflora. Affected calves will show signs similar to 'meningitis' due to the brain cells being destroyed by the lack of Vitamin B1. This condition if not treated can lead to permanent blindness. Having high levels of B1 available to the calf through its feed will act as a preventative from CCN occurring, thus giving you peace of mind especially in mid-season grazing.



Pedigree Ration

Liffey Mills Pedigree Ration is tailor made for a high genetic merit animal.



It contains a broad spectrum of only high quality ingredients including flaked barley, flaked maize and toasted soya. This formulation combined with a range of specialist additives guarantees optimum growth rates and muscle development. This ratio is 17% protein and is designed to encourage frame size and growth early on in the animal's life. With the carefully selected ingredients used in the mix, it leads to a crunchy coarse ration which is highly palatable and allows for consistently high consumption from an early age. It also contains **Levucell SC Rumen Specific Live Yeast** aiding higher feed intake with minimal risk of digestive upsets. The inclusion of our select pedigree mineral, complimented with Liffey Mills **Optigest** is essential to assist and sustain superior performance and health.

The mineral pre-mix contains:

- Rumen Protected Methionine**
- ▶ Methionine is the first limiting amino acid for ruminants.
 - ▶ Improves feed intake.
 - ▶ Role in improving skin and hair condition.

Chelated Zinc

- ▶ Improves hoof condition and makes the hoof harder.
- ▶ Important when animals are fed a large amount of concentrate.
- ▶ High concentrate feeding tends to soften feet thus increasing the risk of injury.

Lactose

- ▶ Feeding lactose provides a better rumen environment for the rumen bugs.
- ▶ Helps reduce risk of acidosis.
- ▶ Improves feed intake.

Enhanced B-Vitamins

- ▶ Improve rumen function.
- ▶ Improve coat condition.

Aspergillus Orzae

- ▶ A pro-biotic organism used to raise the rumen pH.
- ▶ Improves feed conversion efficiency.

Slow Release Buffer

- ▶ Animals fed high levels of concentrate often suffer from clinical or sub-clinical acidosis.
- ▶ Feeding a buffer reduces the risk of both.

Side effects of clinical or sub-clinical acidosis are:

- ▶ Lameness.
- ▶ Reduced feed intake.
- ▶ Digestibility of the diet is reduced.
- ▶ Poor Coat.
- ▶ Poor thrive.

LIFFEY MILLS

Fuelling Efficient Farming

Progress with CALF AND WEANLING FEEDS



TOASTED FLAKED INGREDIENTS

Liffey Mills are one of the few agri-merchants that have unique facilities of Toasting (Cooking) our own ingredients.

The process involves the cleaning and screening of locally sourced ingredients followed by steeping, cooking at high temperatures for a short period and rolled while still hot.

We have a wide range of toasted ingredients which include Flaked Barley, Maize, Wheat, Full Fat Soya, Peas and Beans. The benefits are two fold:

Nutrition:

The application of heat and pressure on a raw material causes the gelatinisation of starch which leads to improved digestibility in the rumen for the young animal.

- ▶ US Trials have shown an 8% increase in average daily weight gain over rolled products.
- ▶ At Liffey Mills tests on Starch Gelatinisation in Flaked Maize is in excess of 92% leading to a more digestible ration.
- ▶ This in turn gives you higher returns for every euro spent on our feed when compared to unprocessed raw materials and those of other suppliers who dry roll maize.
- ▶ Ultimately the Toasting and Flaking process of cereals and proteins leads to increased Daily Live Weight Gain in animals, but more specifically in young stock.

Appearance:

- ▶ Flaked ingredients not only provide an excellent source of highly available nutrients but contribute aesthetically to the products appearance.
- ▶ A clean durable flake is produced which gives an attractive palatable ingredient for a coarse ration with minimum dust particles.



Liffey Mills CALF	Unit	Calf 20	Calf 18% Starter Ration & Cube	Wean 'n' Rear	Weanling Creep	Opti-Creep Cube	Pedigree Ration
Protein	%	20	18	16	16	16	17
Oil	%	3.5	3.0	3.0	2.7	2.7	3.5
Ash	%	6.0	6.0	6.0	8.0	8.0	6.0
Fibre	%	7.0	7.0	7.0	9.0	9.0	7.0
Vitamin A	iu/kg	10000	4800	8000	10000	10000	8000
Vitamin D3	iu/kg	2000	1200	2000	2000	2000	2000
Vitamin E	iu/kg	10	6	15	10	10	15

Calf 20%

Calf 20 has been described by some farmers as the Rolls Royce of calf rations.

It's a top quality starter ration suitable for calves from one week of age. It's packed with top quality ingredients such as Soya, Flaked Barley, Peas, Maize and **Levucell SC** Rumen Specific Live Yeast aiding continuous rumen development. Minerals are in pelleted form to guarantee consistency of consumption and support good bone development. Calf 20 is generously coated with molasses resulting in a coarse non dusty palatable ration. Calf 20 gives your calf the best possible start in life and is essential if you are aiming for early advanced growth.



Calf 18%

Liffey Mills Calf 18 coarse ration is over 35 years in production.

Formulated with native toasted and flaked ingredients. Calf 18 has grown to become the **best-selling calf ration in Ireland**. Calf 18 can be used as a starter ration or as a follow on ration to our Calf 20. Like its counterpart it is highly nutritious containing excellent sources of digestible energy and a high protein content of 18%. Key ingredients include flaked maize, flaked toasted soya, flaked full-fat soya, flaked peas and beans. A comprehensive mineral package is also included with pelleted minerals and fine proteins are added to ensure they are consumed by the calf. Vitamin B1, enhanced levels of vitamin E and phosphorus are also added to ensure adequate protection against CCN (Cerebrocortical Necrosis). This exclusive mineral and vitamin package will help reduce the likelihood of any setbacks, either nutritional or pathological, in the early stages of a calf's life. In addition to this Calf 18 also contains **Levucell SC-Ruminant Specific Live Yeast**. This allows for smooth digestive function, which will stimulate higher intakes by stabilising rumen PH. Calf 18 can be used from 1 week of age up to 12 weeks of age or can be used as part of our follow on system from Calf 20.



Calf 18% Starter Cube

Like our Calf 18 ration our starter cube is also 18% protein which boasts of native cereals and maize as the top ingredients.

The starter cube caters for those with a preference for cubes over ration. Our cube also contains Levucell SC-Rumen Specific Live Yeast. To give this Cube a leading edge we have included our **Opti Thrive Calf Mineral**. This mineral contains extra Vitamin B1, selenium, protected copper and up to 5% phosphorus, all vital ingredients that support metabolism and growth and the additional Vitamin B1 which helps prevent Cerebrocortical Necrosis (CCN), a condition that affects the brain and can lead to permanent blindness and in some cases calf mortality. This cube can be fed as a starter feed right up to twelve weeks of age.



Wean N' Rear

Wean N' Rear has become a mainstay of our range of Calf Feed.

It has a major role to play in any type of calves you are rearing be it a Dairy or Beef enterprise. It can and should be used as a follow on from Calf 18 most commonly at weaning stage and can be fed right up to one years of age. Like its counterpart Calf 18 it contains native cooked ingredients and a top spec mineral ensuring continued growth and development. It has a slightly lower protein of 16% balancing the calves overall daily protein intake. Wean N' Rear also contains **Levucell SC-Ruminant Specific Live Yeast** ensuring young stock reach their growth targets while maintaining good rumen health. It also includes our exclusive Opti Thrive Calf Mineral which includes Vitamin B1 to aid in the prevention of Cerebrocortical Necrosis (CCN). This product can be purchased in **coarse or cube** form for your convenience.



Feed for profit with superior feeds for Calves and Weanlings

Liffey Mills have prided themselves on their Calf Rations for over 30 years.

In the early years of Liffey Mills Coarse Rations were the mainstay of the business. As time has moved on, so has technology and so have we. We have established ourselves as one of the leading manufacturers and suppliers of Calf Feed across the country.

All our Calf Feed is designed to precision to give your calves the best start in life. This is done by carefully selecting only the best ingredients, toasting these and adding components such as yeast to the mix to increase daily live-weight gain, and produce a healthier looking calf.

The high protein content in our feed is formulated to assist in muscle and rumen development, bone structure and accelerated growth at an early age.

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