Specialist Nutrition

Moist Feed & Forage Specialists

Forage First Guide

Specialist Nutrition
Moist Feed & Forage Specialists

Taking a structured approach to your forage plan will help identify the feed demands for the year ahead and help you navigate the key forage decisions to be considered in the months ahead.

The seeds you sow, whether grass, herbal ley, or maize throughout the year can influence the performance of your herd and so, taking the time to plan for future needs will influence herd performance.

As moist feed and forage specialists, Specialist Nutrition's aim is to help farmers improve on farm returns through self-sufficiency by optimising the yield and quality of the forage they produce.

Specialist Nutrition

Moist Feed & Forage Specialists

The Grazing Platform

Maximising the feed value of your farm

Specialist Nutrition
Moist Feed & Forage Specialists

Ensuring a grazing platform has the highest quality grass and grazing utilisation is essential to maximise grass as a feed source in economic terms.

Grazed grass is the cheapest feed available to Irish farmers, and during the grazing season, animal performance is achieved almost entirely from grazed grass.

Why target reseeding 25% of your grazing platform each year?

- Productivity – reseeding will give you higher producing swards with superior quality
- Animal Performance – increase daily liveweight gain and milk production
- Nitrogen Efficiency – new swards can use nitrogen more efficiently
- Economics – due to our favourable climate, grazed grass is the least expensive form of feed on Irish farms

Choosing a grass mixture to sow with an excellent combination of high yields, quality, and persistence.

Sowing a grass mixture that produces high yields of quality forage throughout the season is key to maximising grass utilisation on farms.

All Specialist Nutrition grass mixtures offer a consistent and versatile mixture suitable for a variety of growing conditions that will deliver:

- Excellent grazing utilisation
- High yields across the grazing season
- Excellent quality and palatability for excellent animal performance
- Excellent persistence

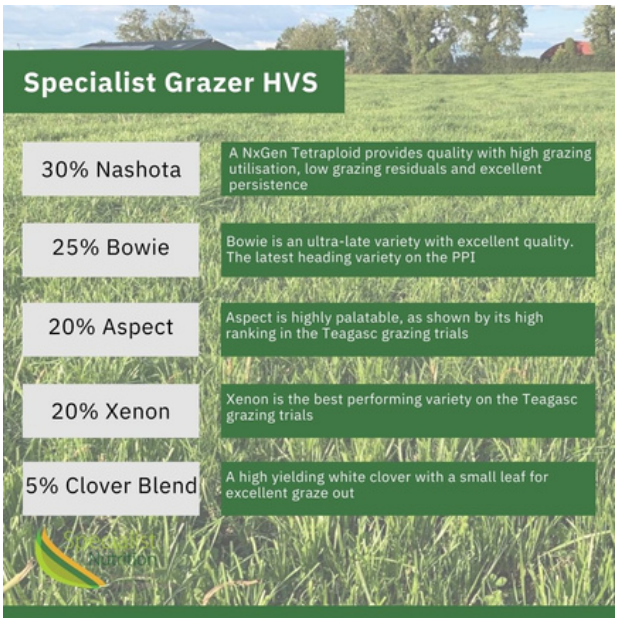
Specialist Nutrition
Moist Feed & Forage Specialists

Research shows that each extra tonne of grass DM utilised is worth €181 and €105/ha per year to dairy and dry stock farmers, respectively.

Specialist Nutrition has the best varieties for palatability and quality and uses Higher Voluntary Standard (HVS) seed in our mixes.

Specialist Grazer is a mixture of the best grazing varieties available, namely Xenon and Aspect, two of only three varieties to achieve a five-star grazing utilisation trait rating on the Teagasc PPI. These are combined with Nashota and Bowie to prolong the period of quality forage production over the grazing season – Nashota has excellent spring growth and quality while Bowie is the latest heading variety on the PPI.

Specialist Grazer HVS has selected the best-in-class grass mixtures proven to help achieve your production goals, whether producing the highest quality milk, beef, or lamb from your herds.



"We used the Specialist Grazer mix when reseeding and overseeding this year. We are extremely impressed with how this mix has grown on our heavy soil farm. The tetraploids in the mix rated very high on the PPI for palatability, and the cows have proven that with excellent graze outs."

Diarmuid Lee, Co. Galway.

Specialist Nutrition
Moist Feed & Forage Specialists

Multi-species sward

Multi-species swards are a sustainable source of high-quality forage. As well as producing high yields of quality forage, sowing multi-species can lead to a significantly reduced Nitrogen fertiliser requirement as well as increased animal performance and health.

Multi-species swards produce large quantities of highly digestible forage rich in minerals and high in protein for grazing. Apart from a couple of small fertiliser applications in spring, multi-species swards are almost totally N self-sufficient.

Many studies have reported multi-species swards receiving little or no nitrogen achieving similar yields to grass swards receiving ~300kg N/ha per year.

Achieving such an outcome on-farm will depend on maintaining a decent proportion (20-30%) of legumes in the sward. Regular grazing will help to encourage and maintain clover in the sward.

Having a mixture of grass and multi species swards on the grazing platform will ensure a steady supply of the highest quality forage through spring, summer, and autumn, buffering against drought and reducing the cost of forage production.

"The light type of soil we have is always a struggle during the summer months with as little as a week without rain putting the farm under pressure. Finding a forage that would withstand these conditions and fit into our intensive farming system proved difficult.

After speaking to Nigel Condell, we selected the multi species 6 Species Herbal Lay mixture as the best fit for my situation. The multi-species sward proved to be a massive hit with my herd! So much so that I am continuing to work with Nigel on a reseeding plan that will incorporate the 6 Species Herbal Lay mixture into the rest of the farm over time."

Tom, Patrick, and Philip Murphy, Co. Kilkenny.

Specialist Nutrition
Moist Feed & Forage Specialists

White Clover

The incorporation of white clover into grass swards has the potential to significantly reduce the reliance on inorganic Nitrogen fertiliser and increase the financial and environmental sustainability of Irish farms.

One of the significant benefits of clover is its ability to fix Nitrogen in the soil in a form that becomes available to grass in the sward. As a forage, white clover is highly digestible, with crude protein content averaging over 20%.

The use of white clover in grass mixtures can offset up to 150kg N/ha per year in inorganic Nitrogen fertiliser. This is equivalent to 7 bags of 18.6.12/acre.

For maximum benefit, a sward should be managed to 20-30% white clover content.

- +800kg DM/ha
- Opportunity to reduce Nitrogen fertiliser
- Dry matter intake +1.5kg/cow per day
- Milk solids +30kg MS/cow per year

Benefits of oversowing high yielding white clover

Supporting intakes
Gaining the most from the grass you have is vital if you're looking to reduce inputs. Proactive management of clover content up to 30% will greatly enhance grazing. The structure of fibre in white clover differs from that of perennial ryegrass and it can be broken down in the rumen more rapidly, driving intakes in grazing livestock.

Seasonality
Providing quality grazing throughout the season is another way of reducing the requirement for bought-in feed. Clovers are a very useful way to support productivity during periods of reduced grass growth.

For example, when grasses begin to decline in both quality and quantity during the summer, clovers flourish. The ME and protein content of clover remains high during this time so it can take the place of supplementary feed resulting in substantial cost savings.

Specialist Nutrition
Moist Feed & Forage Specialists

Drought resistance
Clovers' summer resilience is especially beneficial to farms which become particularly dry during the summer months, ensuring feed availability throughout the season.
Clovers can persevere where grass cannot.

Improved soil health
The root structure of clover helps to enhance soil health providing a noticeable impact on productivity and fertiliser requirements. White clover has been shown to significantly decrease the density of soils and improves the movement of nutrients resulting in greater grass production.

Establishing and managing clover in the sward

Establishing white clover takes time and some specific management.

Specialist Nutrition recommends targeting to establish up to 30% of the farm at a time.

Achieving good white clover content across the farm should be a medium-term goal and should be carried out over a number of years.

A full reseed is the most reliable method of establishing white clover. However, as the options for post-emergence treatment become more limited, many farmers are choosing to over-sow white clover into existing awards.

No matter what sowing method used the 4 key principles of successful establishment and management of white clover should always be considered.

Specialist Nutrition
Moist Feed & Forage Specialists

4 key principles of successful establishment and management of white clover

Soil

- Ensure adequate soil P, K and pH status
- Sow seed no more than 1cm deep
- Roll to ensure soil-seed contact

Timing to introduce clover

- Sow when soil is warm (+10°C), and there is some moisture – ideally April to May

Seed

- Over-sow at a rate of 2 – 2.5kg/acre
- Use small and medium-leaf varieties for grazing and large-leaf for cutting. See mixtures below

Light

- Over-sow after a tight grazing or silage cut so light can stimulate seedling growth
- After sowing, graze at ~1,100kg DM/ha for the following 3 rotations to establish adequate white clover content
- Once established, graze white clover swards at low covers (max 1,600kg DM/ha) down to 4cm to avoid competition from grass and allow light reach the clover plants

Tips to Avoid Bloat

- Introduce animals to high-clover swards slowly
- Make sure animals are full entering high-clover sward
- Do not graze clover with a heavy dew
- The use of bloat oil in water troughs will reduce the risk of bloat

Specialist Nutrition Grass Mixtures contain white clover as standard.

Our White Clover Blends are suitable for oversowing to boost clover content in the sward.
Sow white clover at 2- 2.5kg/acre.

Specialist Nutrition

Moist Feed & Forage Specialists

Silage 2022

Maximising the value of your winter feed

www.specialistnutrition.ie

Specialist Nutrition
Moist Feed & Forage Specialists

Quality silage is the nutritional cornerstone of your forage.

Increasing silage quality will improve forage quality, boost production, reduce waste and improve farm profitability.

Assess the performance of this year's silage and decide if changes need to be made for the coming year.
Approaching this evaluation early will assist with fertiliser budgeting while also making best use of slurry and farmyard manure.

Forward planning will allow you to control the controllable and maximise the quality of your home-produced forages.

Silage quality can be improved by managing to minimise the impact of things, like weather, that are outside our control. We have seen that by taking this approach, farmers are regularly achieving DMD figures in the mid to high -70s with corresponding excellent protein, sugar & fibre levels.

Farmers should aim for first cut silage with as high as possible quality with crops not exceeding 10 tonnes per acre and utilise later cuts to build tonnage on the farm. Cutting a bulky, high tonne/lower quality first cut is a false economy – the cost of ensiling is the same whether good quality or bad!

An integrated approach maximises the quality of your grass silage and overall grass production on farm.

While we can never control the weather and growth conditions, there are some key areas we can focus on to produce better quality grass silage which can increase production from forage and reduce winter feed costs:

Specialist Nutrition
Moist Feed & Forage Specialists

Fertiliser
Less is more regardless of where the price is!

60-70 units of Nitrogen plus 2500-3000 gallons of slurry is right for most farm situations. Heavier fertiliser applications will not counteract subpar growth conditions, so leave it in the bag!

While there is an agronomical benefit to treating slurry, a good slurry treatment will do much more. SlurriN PRO has been proven to increase the total nitrogen available which in turn provides savings on artificial nitrogen requirements

Know what your grass is doing
Pre-cut testing, harvesting, and storage are essential links in the chain to your forage system. An evaluation of the previous year's forage production should be considered when planning the initial and the pre-cut applications.

Specialist Nutrition can pre-cut test your grass for sugars, nitrates, and fibre levels to identify the optimum harvesting window. We utilise both field and laboratory testing where appropriate and use this information to assist farmers across the country in making the highest quality forage possible.

Be proactive and get organised!
Silage additives can preserve the nutritional value of silage and minimise waste through spoilage. Achieving a fast and efficient fermentation is vital if you want to produce high-quality grass silage.

For farmers aiming to make high-quality silage, including an additive can significantly help improve silage fermentation and quality. The controlled microbial fermentation of forages helps preserve their nutritional value all year round.

Specialist Nutrition
Moist Feed & Forage Specialists

If you can increase the ME of your silage by 1 MJ, this can produce up to 4L extra milk, depending on the feeding rate.

First Cut Silage is the foundation of your winter nutrition and controlling feed costs.

When it comes to first cut grass silage, it can never be too high in quality. It is the foundation of your winter nutrition, and the quality plays a huge role in determining the costs of your winter diets.

But in addition, your first cut silage sets the trajectory of the quality of your later grass silage cuts. A heavy first cut that strips the grass will result in lower quality second & third cuts no matter what you do. A higher quality, lighter tonnage first cut will see quicker regrowth and recovery leading to good later cuts. This is also important if the silage platform becomes part of the grazing rotation later in the year and you really want to maximise the grass production on your acreage.

Is there a place for multi-cut grass silage in your system?

Multi-cut grass silage is growing in popularity, and there are many nutritional merits to this format.

In this system the grass is cut earlier – before heading – and while this reduces the tonnage of each cut, it increases the crude protein, digestibility and metabolisable energy (ME).

The aims of the multi-cut system are to:

- Maximise feed quality from the acreage
- Produce more milk from the higher quality forage
- Increased forage dry matter intakes
- Provide a greater window for harvesting and working around weather conditions with an earlier start and later finish than traditional methods
- Flexibility in forage planning, e.g., specific clamp for dry cow feeding

Specialist Nutrition

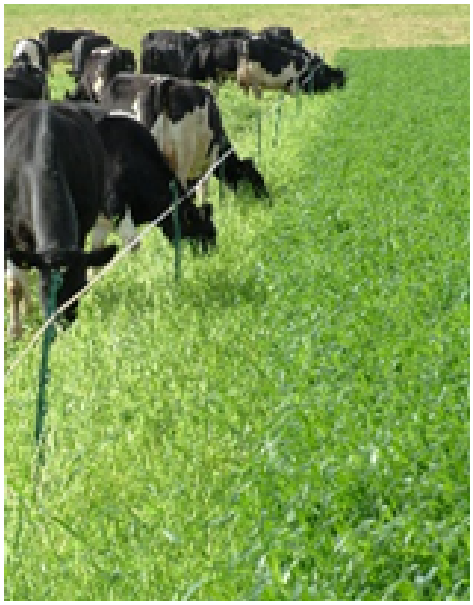
Moist Feed & Forage Specialists

Forage Crops

Maximising the value of your home-grown forage

Specialist Nutrition
Moist Feed & Forage Specialists

Utilising forage crops in your rotation



It is always worth considering growing forage crops. Beet, wholecrop cereals and maize bring flexibility into the feed system as they are high starch forages and help reduce bought-in feeds.

With no specialist feeding machinery required, in situ grazed brassicas can also be an easy addition to your farm system for post calving feeding or buffer feeding when needed.

A key benefit of cereal crops is the flexibility with which they can be utilised and the fact that plans can be altered as the season progresses.

Early planning of these forage crops is essential:

- Choose an appropriate site
- Choose the right variety for your needs and land type
- Utilise slurry and farmyard manure early and as soon as land is fit to work

It is important to remember that home grown forage, whatever the crop will always be cheaper than buying in compound feed.

Specialist Nutrition offers a full range of forage crops from high yielding harvested crops like beet, maize and wholecrop to in-situ grazed brassicas. To determine which option suits best, consider the window for growing the crop, rotation, site and intended use.

Specialist Nutrition
Moist Feed & Forage Specialists

Choosing the right crop

Species	Sowing time	Sowing Rate /ha	Utilization period	Fresh Yield T/ha	Dry Matter T/ha	Crude Protein %	ME MJ /ha	ME kg/ DM
Fodder Beet	March – April	100,000 seeds	Winter	80 – 90	13 – 15	12 – 13	162 – 202	12 – 13
Kale	April – July	4 - 5kg	Autumn/Winter	60 – 65	8 – 10	16 – 17	80 – 110	10 – 11
Stubble turnip	May – Aug	5 – 8kg	Summer – Tyfon Autumn/Winter	38 – 45	3.5 – 5	17 – 18	38 – 44	11
Forage rape	May – Aug	6 – 9kg	Summer/Autumn Winter/Late winter	24 – 35	3.5 – 4	19 – 20	35 – 49	10 – 11
Swedes	April – June	350 – 800g Graded 3 – 5kg Direct	Autumn/early Winter Winter Late winter	70 – 90	7 – 10	10 – 11	89 – 131	12 – 13
Forage Rye	Sept – Oct	185kg	Early Spring Humbolt	20 - 24	5 – 6	11 - 12	50 - 60	10

Conducting a review of current grass silage stocks, you produced allows you to make an informed decision as to whether a cereal crop will bring the most value to you as an additional source of high-quality forage or as a purchased feed replacer.

Wholecrop cereals

Wholecrop cereals are a versatile addition to beef or dairy diets and can either be fed alone for buffering or as part of a TMR. From a nutritional perspective, wholecrop can be included at 25-50% of the forage in the diet and is suited to all groups of animals in a beef or dairy situation.

Cereals can produce a starch rich forage crop that is also a good source of effective fibre, essential for good rumen function. Care must be taken to harvest at the optimum time for best results; however, the wide harvest window across the crops means this can be easily managed.

A flexible crop to grow, wholecrop can be produced from spring or winter crops and can be under-sown with grass seed as part of a reseeding plan. Wheat and barley are the most commonly ensiled cereals for wholecrop, however, it is also possible to use alternative crops such as oats, triticale or protein crops like peas and beans.

Specialist Nutrition
Moist Feed & Forage Specialists

- Flexible crop to grow and wholecrop can be produced from spring or winter crops
- Ideal year-round feed
- Low protein content means wholecrop cereal grains are an excellent and very palatable complementary feed with either grass or good quality grass silage
- Cost effective to produce
- Can be under-sown with grass seed as part of a reseeding plan

Care must be taken to harvest at the optimum time for best results. Crops mature fast at this stage of growth so for best results the crop should be walked regularly to identify the optimum time for harvesting. The ideal time for this is when the grain has reached a “cheddar cheese like” consistency while the straw is still partially green. This enables you to harvest the crop with the straw in its most digestible form.

Wholecrop cereals must be treated with a crop-specific additive. MAGNIVA Platinum Wholecrop contains a patented combination of crop-specific bacteria and enzymes to achieve the best possible fermentation.

Crimp Grains

If harvested forage stocks materialise to be ahead of target to meet the required budget, then crimping cereal grains to produce a rumen friendly energy source that displaces purchased feed may be the better option for your farm.

Crimp grain is a high energy, moist concentrate which can replace purchased feed on the farm. As a fermented feed, crimp can be managed in the diet to increase cereal inclusion rates while managing the risk of ruminal acidosis. Crimp will also allow straw to be harvested for bedding use which can be very attractive in a year when straw prices are high, while also giving an excellent opportunity to establish a follow-on crop and maximise farmland production.

With Crimp grain being harvested at higher moisture (25-40%), it can be combined earlier than most cereals, making it versatile and economical. Treating with MAGNIVA Platinum Crimp is a cost-effective and environmentally friendly option that produces a rumen-friendly fermented starch feed.

Specialist Nutrition
Moist Feed & Forage Specialists

Maize

Maize is one of the best forage options for anaerobic digestion offering much higher DM yields than other commercially grown crops

When included in diets, maize will increase intakes and have a positive effect on overall yields and milk solids in the dairy herd but equally increased intakes improve daily live weight gain, kill out percentage and fat score in a beef production system.

- Ideal all-year-round feed
- Can be used in spring post-calving where cows have a high demand for energy, but equally as a buffer feed where there is a feed deficit situation (drought etc.)
- An excellent break crop in a continuous tillage situation while offering an opportunity for farm to farm sale of a valuable crop
- Requires no specialised feeding equipment
- Makes use of high fertility land as well as capable of using high levels of home produced organic matter (slurry and FYM) to increase the organic matter content on the arable farm

Beet

Fodder beet produces a palatable and quality feed stock, offering flexibility in terms of lift and pitting or strip grazing in situ.

- Huge yields
- Improved milk yields
- Ideal break crop for cereals
- Palatable and nutritious
- High energy feed
- Can be grazed in situ for outwintering systems
- Clamp and store over winter

Specialist Nutrition
Moist Feed & Forage Specialists

Preparing for grazing and striking the nutritional balance at grass turnout

Avoid metabolic issues such as acidosis by balancing the diet

Taking a balanced approach to reintroducing grass to the diet is crucial to preparing the herd for breeding season.

Getting the reintroduction of grass correct is vital to herd fertility and ensuring cows are prepared for the breeding season.

Post calving nutrition is the most significant factor in herd fertility. It is important not to overestimate the DMI a cow has from grazed grass, especially in the early grazing period, as fertility and performance can be compromised.

- While breeding management, disease outbreak, lameness and mineral deficiencies can affect fertility, the foundation of herd fertility is laid through nutrition
- Understand the DMI requirement for your herd and ensure that any shortfall in energy intake is bridged either with ensiled forages, pitted moist feeds or concentrates where necessary
- Palatable energy-dense feeds are a must in early lactation! The diet should be balanced for protein, energy, and fibre
- Concentrates should contain only quality ingredients like wheat, barley, maize, soya, soya hulls and beet pulp
- Consider the nature of the fibre already present in the diet, the grass covers they are grazing, and the fibre sources available for balancing the diet
- Cows should gradually be built-up to full-time grazing as it takes approximately three weeks for the rumen to adapt to the dietary change
- The use of a good quality yeast is recommended to help reduce the risk of acidosis and increase fibre digestion

For every 1% reduction in dry grass matter below 18%, grass intake is reduced by 0.33 kg DM. With this data, we can identify the intake deficit and make up the difference indoors.

Specialist Nutrition
Moist Feed & Forage Specialists

Minimising negative energy balance (NEB) will lead to higher milk solids, reduce BCS loss and enhance fertility performance.

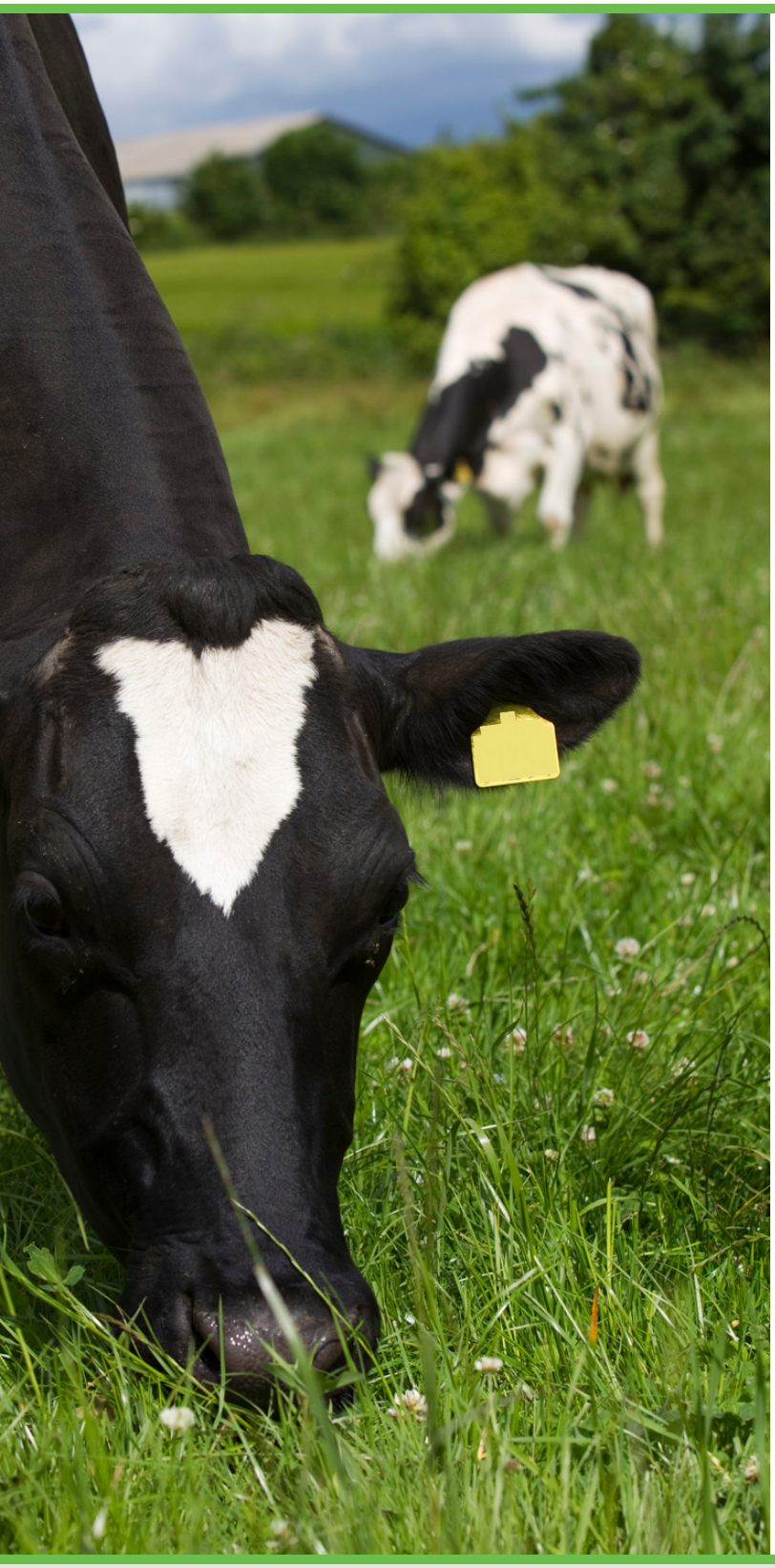
Some body condition score (BCS) loss and negative energy balance (NEB) after calving is inevitable as maximum energy output through milk occurs before maximum dry matter intake (DMI) is reached.

At one-week, post-calving intakes are 65% of max DMI. Dry Matter intake doesn't peak until 9-13 weeks post-calving. Every kg of DM during this period should be energy-dense to encourage intakes and minimise NEB.

For more information about proactive management strategies at turnout to grass to lay the foundation of herd fertility through nutrition, talk to Specialist Nutrition.

Specialist Nutrition

Moist Feed & Forage Specialists



Specialist Nutrition has an experienced nutritional team who are available to advise you on your diet specifications.

If you would like to talk to a member of our team, please contact us.

Specialist Nutrition
Ballymountain,
Ferrybank, Waterford
X91 V6YR

Call **051 833077**