



# The Dairy Blueprint

3<sup>rd</sup> Edition 2011-12



**Genetics**  
**Nutrition**

**F1 is the intellectual property of TBA & Lakeland Scottish**

## Introduction to the F1 Dairy Blueprint

The F1 Dairy Blue Print is quite unique; it is the product of the best of dairy farming nutrition and management practise from some of the most successful dairy units in the UK today.

The blueprint is constantly updated as best practices develop.

Our UK Dairy industry has evolved rapidly since the Second World War, from many low producing dairy herds to comparatively few large very high yielding herds.

Progressive breeding has increased dairy cow lactation yields around threefold since 1947. In terms of evolution this is nothing short of spectacular, however genetic potential improvements come with a price.

As yields increase, other aspects of performance have been shown to be getting worse.

### • Fertility

- CIS and NMR show that in 2008 UK average calving interval is 427 days. Bristol University Vet School calculated reducing calving interval by 30 days is worth £168 per cow!

### • Feet

- Average costs are calculated at £113.2 per cow for mild lameness.

### • Udder Condition

- Mastitis and high cell count accounts for £201 per infected cow.

### • General health

- It is well accepted that cows will respond better to drug treatments if their immune status is good to start with.

The F1 Blueprint is a ground breaking, flexible nutrition management system that is carefully designed to maximise output and profits by aiming to maintain modern dairy cows at the peak of health and efficiency.

## Why should this approach be better than anything else?

As independent merchants dealing with the best manufacturers, we can select from a much wider resource than that offered by most single companies.

**For our part, we will make sure that no corners are cut on product specification because we are passionate that our products will perform to expectation.**

## Choosing the System

Whilst researching the F1 Dairy Blueprint we looked at many systems of management. The difference in approaches couldn't be wider and it is fair to say that some of the less popular systems have their enthusiasts.

The F1 Dairy Blueprint is designed to be a safe and proven system to maximise production and animal health. We are aware that the split dry cow choice is not always the system that is selected, but it is without doubt the best option for long-term cow profitability.

Have a look at this F1 Dairy Blueprint with an open mind it has been designed in a way that we can adapt to most farm systems. Ultimately you can still reap the benefits even if you don't adopt it as fully as we have described it here.



## How does the F1 Dairy Blueprint work?

This brochure will take you through the lactation cycle of the modern dairy cow. We will detail the key management priorities, the best practise management systems and the products you will need to bring it all together through the key stages of lactation.

- Last 8 weeks of lactation
- Far off dry period and Close up dry period
- Calving
- Freshers (first 21 days of lactation)
- Early lactation (21 days to 120 days)
- Mid lactation 121 days to last 8 weeks of lactation



### Last 8 Weeks of Lactation

#### Management Priorities

This stage of lactation should be reserved for managing cow condition.

In the event that the cow is in the correct condition at this stage there is generally no need for her to enter a conditioning group.

The target at drying off should be 2.75 to 3.25 for a typical Holstein. Perhaps up to 3.5 for an old fashioned Ayrshire or British Friesian.

Thin cows should be given the opportunity to gain weight. This can be simply achieved by cutting dietary protein supply whilst maintaining energy at a good level.

Fat cows should be allowed to lose weight. This can be done by reducing energy supply and maintaining around 17% to 18% crude protein in the diet.



Turning late lactation cows out in spring results in a general over supply of nutrients and they will tend to gain too much weight. Spring grazing therefore should be restricted to these cows.

The diets can be manipulated to cater for the average cows in the group.

Ideally, extreme cows should be singled out and managed separately.

#### Key Products

Note All F1 branded products are fully specified original formulas, and remain the intellectual property of TBA and Lakeland-Scottish.

- **F1 TMR Dairy Mineral** typically fed at 100 grams per cow per day to maintain immune status, cell count, hoof condition and maintenance.
- Good quality **Limestone Flour** where needed to prevent excess losses from skeletal reserves.
- **F1 Absolute Grazing & Fertility Mineral Buckets**. Typically for use when dry cows are left on restricted grazing.

# The Dry Cow

## Management Priorities

The key task at this stage is to maintain cow condition at around 3.

This is not as easy as it sounds, since the cow's intake of energy is usually much greater than it needs to be at the start of the dry period.

Dry cow intakes should therefore be limited to what supplies their energy requirements and no more!

Dry cow diets featuring large intakes of straw or lower energy whole crop are excellent. They are both bulky (helping to keep the rumen big) and low in potassium (the main predisposing cause of milk fever).

During this period the foetus is getting bigger and the rumen is being squashed into a smaller space.

There is a key requirement to keep the rumen as big as possible at this stage. This helps to promote a rapid increase in appetite (Lift) and also helps to avoid the chance of a displaced abomasum at the start of the lactation.

As the dry cow nears her calving date, her requirement for energy starts to rapidly increase just as her intake starts to decrease. This is one key reason for having a close up group.

There is much debate about what feed regime makes the best system for dry cows.

There are three systems currently being used:

- Single dry cow group.  
Dry cow intakes vary from drying off right up to calving, when it drops off rapidly. As a result this system gives poor control of cow condition.
- Short dry period.  
Modern dairy cows can produce high yields even into late lactation. Some farmers believe that there is an advantage to continue milking the cow until 4 weeks before calving. There is still much debate about this system, since it is widely believed that lactations are more productive following a typical 7 to 8 week dry period.
- The split feeding system.  
Currently over two thirds of North American dairy farms use this system. The F1 Blueprint recommends the same management principles be applied here in the UK. The system broadly consists of a 5 week Far Off group and a 3 week Close Up group. This allows for much better control of health, condition and calving success.



## Far Off Dry Cows

These cows should have been dried off in the correct condition. The main objective is to make sure that the rumen space is kept as large as possible by feeding plenty of low energy bulky forages in order to prevent the animal from getting fat and losing rumen fill capacity.

Good wheat straw chopped to about 5 cm (muzzle width) and fed along with silage should form the bulk of the ration. The target dry matter of the ration should be around 45%, this will give great intakes of bulk and keep the rumen big.

Nutritionists should note that the total energy requirement of the far off dry cow is only around 8 to 9 MJ/Kg DM!



### Key Products

- **F 1 Absolute Dry Cow Mineral Buckets**

Typically fed at 1 bucket per 10 cows every 10 days.

- **Extra Magnesium Chloride.**

(50 grams to 150 grams) In situations where the diet is high in Potassium, Magnesium chloride will help to counter the effects of clinical and sub-clinical Milk Fever.

Note autumn grass, molasses and pot ale syrup are usually high in Potassium.

- **F 1 Yeast**

To maintain a healthy rumen microbe population.



# Close Up Calving

## Management Priorities

This close up period is critical in determining the success of both calving itself and the coming lactation. The main priorities of nutrition are to avoid the symptoms of both clinical and sub-clinical milk fever and to ensure liver function is at peak efficiency.

The key tasks are as follows:

- Maintain a physically large rumen by feeding a high straw palatable ration. This will help to avoid displaced abomasums after calving by allowing the unravelling squashed rumen to fill the space left in the body cavity by the calf more rapidly.
- Restrict high in potassium forages to 3 or 4 kilograms of dry matter.
- Where the post calving diet is a TMR, feed 3 or 4 kilograms (DM) / (10 to 12 Kg fresh weight) of this, but make sure the production minerals and any limestone are not included unless you are following a full DCAD regime.
- Feeding yeast helps with microbe population efficiency and transition from the dry cow diet to the production diet.
- As calving approaches intake levels drop to around 1% of body weight, just at a time when the cows requirements for energy are at the peak for the foetus and the act of calving itself. Some of the close up calving supplements now include valuable energy precursors in order to alleviate the problems brought about by naturally low energy intakes at this time.

## Key Products

### ● F 1 Yeast

A Carefully prepared full dose **Yeasacc TS ©** yeast supplement, for optimum rumen conditioning before and after calving. F1 thermally stable yeast is carefully prepared to ensure that the active yeast is presented to the cow undamaged by the carrier mixing process.

### ● F 1 TransOmega

Tried, tested and developed over 7 years this supplement will provide all of the vital minerals and proteins along with glucose needed as a preparation to calving.

### ● F 1 Elevator

This product is a blend of Glycerol and Mono-Propylene Glycol with a unique flavour added. It will provide a significant dose of energy just when the cow needs it. F 1 Elevator also has a major effect on optimising appetite during this critical part of the dairy cow cycle.

### ● F 1 De-Tox

Unique formulation using Protected Choline at full strength and other essential B Vitamins all on a special carrier designed to improve liver function and help to bridge the post calving energy gap. This product will aid fertility and improve immune response by reducing cell counts and incidence of post calving mastitis.

### ● Magnesium Chloride

For use where there is a severe potassium challenge.



## Calving

### Management Priorities.

The point of calving is obviously the major event in the cow's cycle. We recommend that the cow is separated from her group into her own clean calving box, with plenty of straw.

It is important to allow the cow some quiet time to find her most comfortable position. (Usually backed up against a wall!)

She will require a large expenditure of energy for her labour and to expel the calf and the afterbirth.

It is useful to have all of the necessary aids ready to hand in case they are needed. Also a post calving drench preparation is recommended in order to re-inflate the rumen and avoid a displaced abomasum.

Increasing the capacity of the rumen by up to 40 litres at this stage has some very impressive long-term benefits. Effectively, we create a big appetite right from the start of her lactation. This reduces negative energy balance (NEB), and gives a more rapid uplift of milk yield and a significant fertility response later on in the lactation.

### Key products

- The F 1 Blueprint recommends **F 1 Fresh Start** as a voluntary drink of around 20 to 40 litres or as a drench of around 35 litres. This mix of electrolytes, calcium, probiotics and ready energy will help to get the cow back on her feet, licking the calf and get her ready for her first big meal.

## Option 1 Freshers (Early lactation first 21 days)

### Management Priorities.

It is usually about now that the key reason for managing cow condition between 2.75 and 3.25 becomes apparent.

Low appetite just after calving results in excess mobilization of body fat. This is usually the case if the cows calve down too fat (condition score 3.5 plus), although post mortem examinations have shown that it is not only fat cows that have fatty livers.

When the liver is clogged up with fat, the animal's ability to mobilize energy is significantly impaired. In extreme cases the animal shows clinical signs of Ketosis. Hence condition management should be a key function of the whole system.

The routine use of F 1 De-Tox helps to clear the liver of fat in the close up period but there is an extra benefit if it continues to be fed during the fresher phase.

The freshers group gives the manager a chance to ease the cow into a productive lactation. The key management objectives of this group are listed below.

- Maximise feed intakes
- Prepare the cow for her next calf.
- Optimise the health of the developing egg



Having a freshers group is a fairly new management technique within the UK. Minnesota State University Vet school, practice this technique as standard.

This is how it works:

The freshly calved cow is separated from her calf within 30 minutes of calving. She is drenched and milked for colostrum, which is then bottle fed or tubed into the calf. Snatch calving is becoming a vital tool in the war against Johnnes disease.



1. Calves that are removed as soon as they calve stand much less chance of contracting the Johnnes disease via foetal contamination. There is also some evidence that the dams are much less stressed.
2. The cow then enters into a group of cows that are all in the first 21 days of lactation .
3. The main objective in this group is to get intakes off to a really good start. The ration is balanced to an optimum palatability, physical structure and dry matter as well as standard high density nutrient balance. Some recent work has shown that by mixing up to 30% of the close up diet with the fresher diet works well at this stage by not encouraging the cow to achieve a too rapid rise in milk yield at the start of her lactation.
4. The next objective is to settle the cow down into the routine of the cubicle house and the milking regime.
5. Every effort is made to maximize cow comfort, easy trough space with no competition at the barrier. Around 750mm per cow is advised for this group.
6. Feed troughs should be cleaned at least 3 times a week. This avoids build up of mouldy and contaminated feed and helps intakes.
7. Feed should be on offer at all times. Cows should be allowed to refuse some of the feed especially if it is of poor quality.



In most cases the TMR diet is essentially the same as the one fed to the main lactating group with one major exception.

The fresh calved cow has a major energy gap between what she can eat herself and the energy required to generate the amount of milk she is genetically programmed to produce.

Another major factor is that we cannot allow the animal to eat too little forage. In order to keep the Rumen healthy it is sensible to aim for 50% of dry matter intake from forage. The cow becomes more likely to get twisted stomachs and or acidosis as this ratio is reduced.

Solving this conundrum is the key to maintaining a healthy productive animal that can get back in calf around 84 days or when served first time. Target energy density for this group is 12.5 to 12.75 MJ/Kg DM. Hard to achieve with low quality forage.

These cows are often given an ultra high energy supplement designed to bridge negative energy balance caused by a reduced appetite. In the USA and Canada Glycerol is used but it is not as effective as mono-propylene glycol (M-PG).



The use of energy pre-cursors such as mono-propylene glycol at this stage has helped to bridge the energy gap. However M-PG is quite bitter and may reduce intakes. **F1 Elevator** has been developed by mixing the sweetness of Glycerol with the M-PG along with a powerful appetite stimulating flavour in order to boost intake as well as energy during this critical phase.

The F 1 Blueprint also recommends the use of **F 1 Super Fat** or **F 1 Pallafat Elite** to increase energy density and intake together.

**F 1 Yeast** is well proven to increase intake.

### Key Products

- **F 1 OmegaPro X**

Where it is not possible to have a Freshers group, OmegaPro Extra will supply all of the animals Omega 3 requirement along with extra Vitamin E needed to protect the Omega 3 oils from destruction by free radicals before they can do their job.

F1 OmegaPro X also supplies a good level of bi-pass protein and essential amino acids needed for fresh calvers to maintain their high yields of milk.

- **F 1 Yeast**

A carefully prepared full dose of **Yeasacc TS ©** yeast supplement, for optimum rumen conditioning before and after calving.

- **F 1 TMR Dairy Mineral & F 1 TMR Dairy SCC Elite Mineral**

Following a 5 year development program the F 1 TMR Dairy mineral is without doubt the most comprehensive dairy mineral supplement we have ever designed. Its formulation is now protected. F 1 TMR SCC Elite contains all of the major trace elements needed to maintain the immune status, cell count, hoof condition and maintenance. This product is recommended to be fed at 150 to 200 grams per cow per day during early lactation.

- **F 1 Molasses.**

When developing our appetite and energy balance strategy, we felt there was room for a higher energy liquid product. F 1 Molasses retains a high sugar level along with 15% protein and extra energy ingredients. Currently this product is only available in the North of England and Scotland.

- **F 1 Super Fat**

The F1 Blueprint recommends this especially designed fat supplement which has been carefully formulated to effectively supply a large dose of extra energy to cows in early lactation, when needed.

- **Mycosorb ©**

Alltech have had this mycotoxin absorbent on the market for a number of years. The F 1 Blueprint happily endorses Mycosorb for tackling the typical toxin loading from mouldy forages and moist feeds.

If there is any sign of contamination from moulds, it is certain that productivity and herd health will be compromised unless this product is included.





Follicle Development

70 - 90 days



Calving(day 0)

TRANSITION

LATE LACTATION

FAR OFF DRY PERIOD

CLOSE UP DRY PERIOD

Days to calving 60

0

Diet & Management

Manage condition score to dry off at CS 3

'Bulky' low energy density ration to ensure rumen kept large and BCS of 2.5 - 3 maintained

Bulky ration for rumen fill (straw based)

Incorporate similar components to lactating diet for rumen adjustment and stable microbe population

Restricted "green" forages

High magnesium, zero calcium

F1 Fresh Start

TMR Products

F1 OmegaPro X  
F1 Super Fat  
F1 Molasses

F1 TransOmega

F1 TransOmega  
F1 Elevator  
F1 De-Tox

F1 Yeast  
Mycosorb

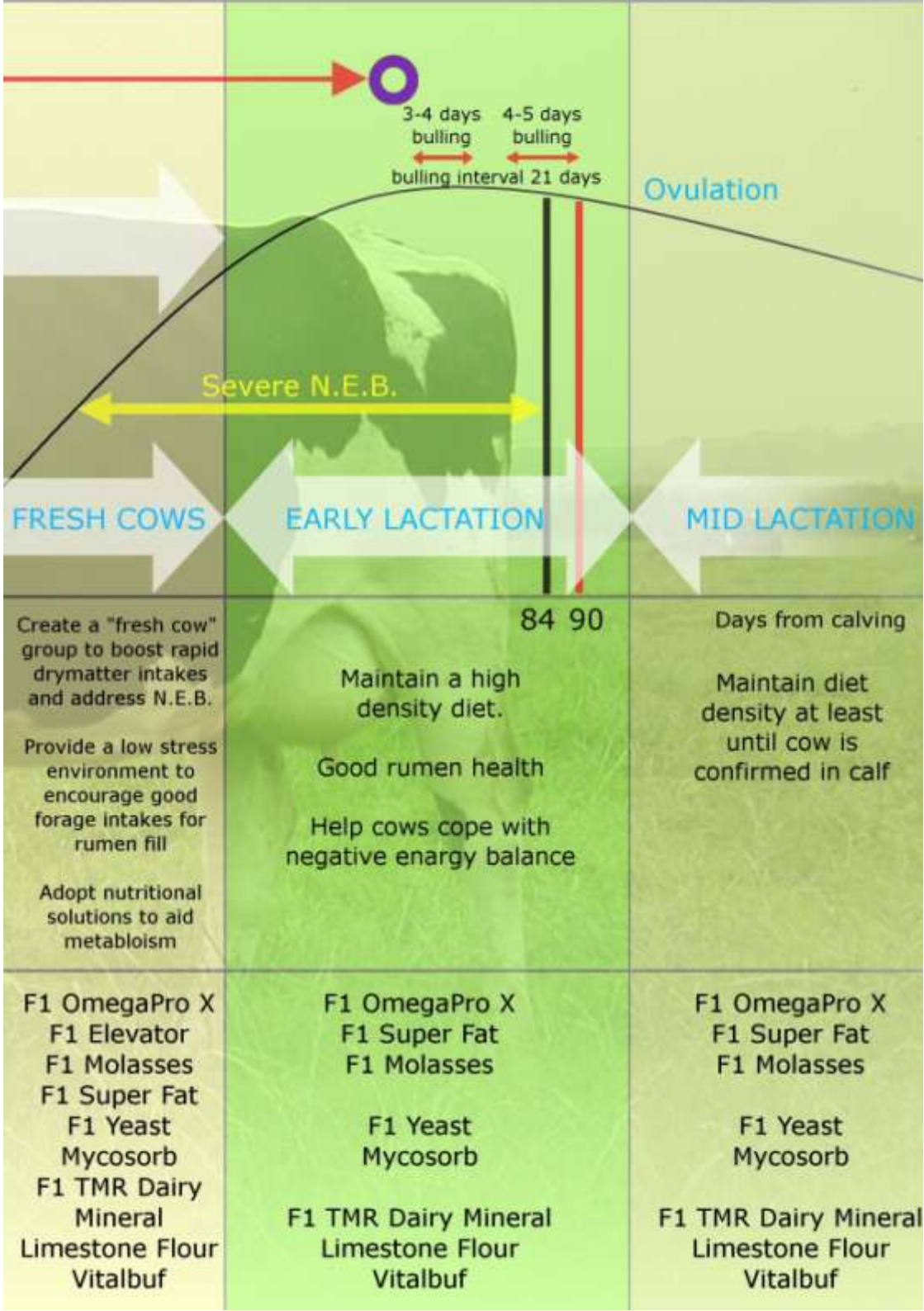
F1 Yeast  
Mycosorb

F1 Yeast  
Mycosorb

F1 TMR Dairy  
Limestone Flour  
Vitalbuf

F1 Absolute Dry  
Magnesium Chloride  
Vitalbuf

F1 Absolute Dry  
Magnesium Chloride  
Vitalbuf



3-4 days  
bulling

4-5 days  
bulling

bulling interval 21 days

Ovulation

Severe N.E.B.

FRESH COWS

EARLY LACTATION

MID LACTATION

84 90

Days from calving

Create a "fresh cow" group to boost rapid drymatter intakes and address N.E.B.

Provide a low stress environment to encourage good forage intakes for rumen fill

Adopt nutritional solutions to aid metabolism

Maintain a high density diet.

Good rumen health

Help cows cope with negative energy balance

Maintain diet density at least until cow is confirmed in calf

F1 OmegaPro X  
F1 Elevator  
F1 Molasses  
F1 Super Fat  
F1 Yeast  
Mycosorb  
F1 TMR Dairy Mineral  
Limestone Flour  
Vitalbuf

F1 OmegaPro X  
F1 Super Fat  
F1 Molasses

F1 Yeast  
Mycosorb

F1 TMR Dairy Mineral  
Limestone Flour  
Vitalbuf

F1 OmegaPro X  
F1 Super Fat  
F1 Molasses

F1 Yeast  
Mycosorb

F1 TMR Dairy Mineral  
Limestone Flour  
Vitalbuf

After much consultation The F1 range has been enhanced by the addition of **F 1 Premier**, which will deliver both F 1 Yeast and Mycosorb via one combined product.

**F1 Super Fat** can also be used as a reliable diet energy status test. This product was developed in order to address the common problem of reductions in dry matter intakes noticed when some other brands of protected fat are fed.

F 1 Super Fat is based on a top quality pure refined fat featuring a high level of both C16 and C18 fatty acids. As a consequence it is both yield and butterfat positive.

- Adding 500 grams of F 1 Super Fat will supply enough energy for 2 kilograms of milk, so if you get a quick response by doing this, it will show that the diet has been underfeeding energy.

No response shows that the diet is about right, or possibly over feeding energy!



## Option 2 (Early Lactation to 120 Days)

### Management Priorities

Many dairy units are unable to handle too many different cow groups so Option 2 allows for a traditional early lactation group.

This choice requires a slightly different approach to bridging the energy gap.

By diluting the high energy concentrate a little, and feeding over a longer period we are still able to gain a similar result.

The use of specifically targeted products like F 1 De-Tox and F 1 Elevator (protected choline complexes and propylene glycol etc) is prohibitive in these diets due to cost efficiency, but it is good practice to maintain a high energy TMR along with a high proportion of bypass protein.

The authors of the F 1 Blueprint are keen to stress that it is well worth while consulting a qualified nutritionist in order to ensure that the diet is well balanced



### Key Products

- **F 1 OmegaPro X**
- **F 1 Elevator**
- **F 1 De-Tox**
- **F 1 Yeast**
- **F 1 TMR Dairy mineral**
- **F 1 Super Fat**
- **F 1 Pallafat Elite**
- **F 1 Molasses**
- **Mycosorb ©**

### Bulling

Following the F 1 Blueprint will undoubtedly prepare the cow for a successful service but it is very worthwhile looking at other management factors.

Stockmanship and environment are major factors to consider at this point in the cycle. Recent research has shown that housed stock are more active and will stand longer if a level soft floored loafing area is available. Large herds are more likely to have more than one cow bulling at the same time, this will also increase activity.



## Mid Lactation (120 days to end of lactation or last 56 days of lactation)

The key management target for this group is to maintain a high yield whilst ensuring that the cow finishes her lactation at her target condition score.

If conception rates are poor many herds will carry cows through very long lactations. These cows tend to accumulate too much condition and are vulnerable to developing Fatty Livers, weak hearts, and have difficult calvings.

A common misconception at this time is that mid-lactation cows can carry on being fed the same diet as the early lactation group but have the level of concentrates cut and the forages increased in order to save money.

This is daft!

The result of this is that cows entering the group drop their yields rapidly and start to put on weight.

One way of ensuring that the cows keep on track is to aim for a higher protein diet than normal. Excess protein will cost energy to metabolise and result in higher yields in to late lactation and cows in the correct condition.

When this is the case, she need not enter a late lactation conditioning group. Instead she can be dried off and progress to the far off dry group.

It is best to try retain a high density TMR using the F 1 minerals at 100 to 150 gram rate. If possible try to replace some of the main pre mix with an equal quantity of Rape seed meal/Hi-Pro Soya bean meal particularly if the cows are gaining too much weight.

Maintaining the inclusion of F 1 OmegaPro X and F 1 Yeast will also sustain the lactation.

Diluting the ration at this point will reduce intakes and accelerate the rate of drop in yield.

### Minerals.

Mineral nutrition is considered by some, to be a distinct area of specialisation. Farmers and vets alike are well aware of the consequences of major mineral imbalances causing metabolic diseases like Milk Fever or Grass Staggers.

In fact mineral imbalances, deficiencies and excesses cause much more sub-clinical (unseen) problems than clinical cases.

The mineral supply industry has had a terrible reputation in the past for two key reasons:

- They play a numbers game. "Our product is better because it's got more of element X and vitamin Y."
- They are negative pressure sellers "If you don't buy this bad things will happen!"

On the next page we show a list of all the bad things that can happen and how they are linked to individual elements and mineral / vitamin complexes.

There is no doubt that all of these effects are well researched and are quite genuine. However, as we all know using a well balanced supplement can keep everything on track.



Our modern high output cow needs a more professional approach to her mineral nutrition than “Our product is better because it’s got more of element X and vitamin Y.”

The F 1 Blueprint recommends a comprehensive balancing service based on multiple forage assays, and intelligent use of protected trace elements and vitamins in order to accurately supplement the cow within the recommended and legal limits.

This approach is both nutritionally and cost effective.



Mineral & Vitamin	Effect	Deficiency
Calcium	Development of bones and teeth, muscle function, blood clotting, milk production.	Difficult calving, milk fever, rickets
Phosphorus	Development of bones and teeth, milk production carbohydrate & energy metabolism.	Rickets, infertility, milk fever.
Magnesium	Bone development, nerve function. carbohydrate metabolism.	Grass staggers milk fever.
Salt	Osmosis, food digestion, palatability.	Poor growth & feed use.
Vitamin A	Skin & hair formation, mucus membrane protection.	Night blindness, Infertility, weak & blind young stock.
Vitamin D3	Controls absorption of calcium	Retarded growth rickets.
Vitamin E	Anti-oxidant, immune system	White Muscle disease, stiff lamb, muscular dystrophy, Mastitis.
Vitamin B12	Mobilisation of fats, synthesis of fatty acids, enzyme systems.	Poor milk quality, pine, and poor appetite.
Iron	Blood production, enzymes.	Retarded growth, Anaemia.
Cobalt	Vitamin B12 production, enzymes.	Pine in sheep, poor appetite.
Manganese	Skeleton growth, metabolic management, enzymes.	Poor growth, Infertility.
Copper	Blood production, enzyme systems, hair and wool colour	Anaemia ,hair pigments, poor growth, swayback in lambs
Zinc	Production of skin, hair and wool enzyme systems, immune system.	Mastitis, somatic cell count, hoof hardness.
Iodine	Thyroid hormone synthesis.	Goitre, infertility, abortion.
Selenium	Anti-oxidant.	Fertility, mastitis, Immunity, muscular dystrophy, white muscle disease.



## EXPERTISE

World leading nutritional advice to help our customers meet their business objectives.



## PREMIX

Supplying bespoke premixes based on decades of innovation & field experience.



## SAFETY

Leading the world in hygiene and quality management, providing complete confidence in our products.





Using Research and Innovation to provide natural solutions to:

Improve the performance of the **Animal** while being beneficial to the **Consumer** and safe for the **Environment**

## MYCOSORB

- Features:**
- Nature's own defence against the hidden threat of mycotoxins
  - The lowest feeding rate but the highest ability to capture mycotoxins.
  - Proven efficacy across a wide range of mycotoxins in all animal species.
- Benefits:**
- ✓ Rapid elimination of mycotoxins from the rumen and intestine, maintaining a healthy gut.
  - ✓ Fast recovery from symptoms of a mycotoxin challenge, such as inconsistent intakes and manure, sudden milk yield drops, increase in diseases.
  - ✓ Maintains cow performance and profits

## Yea-Sacc

- Features**
- The most researched live yeast in the world, backed by over 27 years of experience
  - Rumen specific - stimulates more beneficial bacteria than any other yeast.
  - Provides the platform for optimal fermentation and digestion.
- Benefits**
- ✓ Confidence in a yeast that is proven to perform, time and time again.
  - ✓ Average increase in milk of 1.6 litres, with additional fertility and milk quality improvements.
  - ✓ Gives your cows greater efficiency, without compromise

## SEL-PLEX

- Features**
- The only organic selenium to undergo FDA and EU review and the first to receive US and EU registration.
  - Greatest uptake of any selenium source and, crucially, retained in the body for times when needed most.
  - Nature's own form of selenium that animals have evolved to use.
- Benefits**
- ✓ Selenium reserves, essential for the immune system, are built up with Sel-Plex
  - ✓ Maintenance of a healthy immune system is crucial for preventing problems such as mastitis, metritis, retained placenta and poor fertility.
  - ✓ Colostrum & milk selenium levels also rise, indicating a better selenium status of the cow and providing the calf with the best start in life

## BIOPLEX

- Features**
- Provides trace minerals (copper, zinc and manganese) in the most available form for your animals
  - Bound to protein carriers, taken straight to the gut wall for absorption, unimpeded by other nutrients
  - Backed by worldwide university and field trials in all species
- Benefits**
- ✓ Greater uptake and utilisation of trace minerals by the animal.
  - ✓ Improved health status, leading to lower SCC, less mastitis, better fertility.
  - ✓ Lower levels can be fed, reducing environmental loading whilst maintaining performance.





# THE ANIMAL FEED SPECIALISTS

## ABSOLUTE Nutritional Licks

The ideal supplement range.

- ✓ Specially formulated
- ✓ High in Minerals and Vitamins
- ✓ Highly Palatable



- GRAZING AND FERTILITY • MAGNESIUM
- PRECALVER • CALF/BEEF

## ELEVATOR

A high energy liquid blend for  
close-up dry cows and fresh calvers

- ✓ Contains glucose precursors
  - ✓ Helps overcome negative energy balance
  - ✓ Reduces risk of fatty liver and ketosis
  - ✓ Supports fertility responses in early lactation
  - ✓ Palatable – helping maintain dry matter intakes

Available from

Lakeland Scottish: Jerry mobile : 07711 034141

email : [jerry@lakelandscottish.co.uk](mailto:jerry@lakelandscottish.co.uk)

TBA ltd Office. 01963 824440

email : [enquiries@tbagri.co.uk](mailto:enquiries@tbagri.co.uk)

# Trident protected fats

**GoldenFlake**  
Protected energy

**ButterfatExtra**  
High C14 butterfat booster



tel 01733 422 214

[www.tridentfeeds.co.uk](http://www.tridentfeeds.co.uk)

Trident, 64 Innovation Way, Peterborough Business Park,  
Lynch Wood, Peterborough, PE2 6FL



# Cost effective solutions!

## CANE MOLASSES BLENDS: THE ESSENTIAL INGREDIENT

### Why choose ED&F Man Liquid Products?

ED&F Man Liquid Products is the UK's leading supplier of cane molasses liquid blends to farmers, blenders and feed compounders. We pride ourselves on providing high quality, cost effective liquid solutions to our customers. With full technical and nutritional support available as well as practical advice and guidance to ensure that our customers get the very best from our products and their overall ration. We can supply product in quantities ranging from 1000 litres to 29 tonnes.

### Range of Products

**FI Molasses:** A high energy mid protein molasses blend for enhancing palatability of all TMR's (only available in the North).

**Cost Effective Liquid Blends:** Cane molasses blends offer a cost effective balance of sugar and protein to stimulate dry matter intake and performance, available with added magnesium, vitamins and minerals. Ideal for TMR and buffer feeding.

**Regulated Release, bonded protein:** Proven to balance low rumen degradable protein rations whilst providing readily available energy.

**De dusting non molassed liquids, DB range:** Non sticky, high protein liquids, kill dust, balance cereals, kind on your mixer.

**Magnesium:** - All bulk products from ED&F Man Liquid Products are available with added magnesium at a level to suit the individual feeding situation.

**Transition Cow Liquid:** Specialist liquid feed for dry cows - helps eliminate cases of milk fever whilst increasing dry matter intake post calving.



For further information contact:

North: Jerry on 07711 034141, [jerry@lakelandscottish.co.uk](mailto:jerry@lakelandscottish.co.uk)

South: Trevor on 01963 824440, [www.tbagri.com](http://www.tbagri.com)



# F1 Key Paks

## “Getting cows back on track”

The F1 Key Paks have been developed to help combat the serious health and performance challenges that UK dairy cows face.

The F1 Key Pak Lac has been designed for feeding to lactating dairy cows to help combat high somatic cells counts and mastitis problems. Extra high levels of antioxidants including vitamin E and selenium yeast, along with biotin and bio-available zinc help optimise udder health and reduce the risk of problems such as high somatic cell counts and mastitis.

The F1 Key Pak Dry follows the same concept, but is specifically designed for dry cows with a zero added calcium formulation.

The benefits of the inclusions of these antioxidants and bio-available elements will also help promote hoof condition and optimal fertility as part of a well balance diet.

## Support & Backup Services

**TBA Ltd** is a specialist company in the dairy and livestock industry. Established in 1995. Now based near Wincanton to service the South and West of England, TBA Ltd is managed by **Trevor Birchall**

**LSFS Ltd** was set up in 1997 by ex ABN consultant **Jerry Trowbridge**. Based at Penrith in Cumbria the company services a wide area of Scotland and the North of England.

We are now able to cover the whole of the UK due to recent expansion.

Both companies have succeeded in staying at the forefront of ruminant nutrition by readily adapting up to date research into products and services designed to keep their customers ahead of the rest. They both offer all of the feedstuffs and associated products you could need

Both Trevor and Jerry been actively working in the ruminant feed industry for around 30 years.

### How do you make this F1 Blueprint work for you?

TBA and LSFS (Lakeland-Scottish Feeds & Services) offer the full range of nutritional support services. We use the most up to date version of Ultramix, the best nutrition software available.

We suggest that you meet with one of our qualified nutritionists before you start on the blueprint. We will help you to assess the best ways of making the group strategies work properly on your farm.

We can balance the rations you will need according to the types of forages that you are using.

Finally, we will set up regular visits to help you make sure that it all works according to plan .

Contact Trevor on 01963 824440 or via [www.tbagri.co.uk](http://www.tbagri.co.uk)

Contact Jerry on 07711 034141 or 'e'mail to [jerry@lakelandscottish.co.uk](mailto:jerry@lakelandscottish.co.uk)

