

Due to on-going copper challenges in the region we continue to use four different copper sources, including Bioplex® Copper to optimise the copper status in the cow and calf.

By ensuring all FiMLAC feeds are formulated to exacting standards we can provide a range that balances everyday summer grazing situations. Whether you are on grazing alone or buffer feeding through the summer, we have a product to meet your cows' needs.

## The FiMLAC Range

### Grazing 105/85

The lowest protein and reverse ratio feed to minimise excess MPN. The ideal parlour nut for intensive paddock systems.

### Grazing 110/95

A low and reverse ratio protein feed, ideal with predominantly grazing situations with or without small amounts of buffer feed.

### Grazing 115/105

The reverse ratio protein diet, perfect for feeding alongside grass and cereal silage buffer feeding systems.

### Grazing 120/120

This product can be used in lower protein situations where the MPE and MPN are balanced.



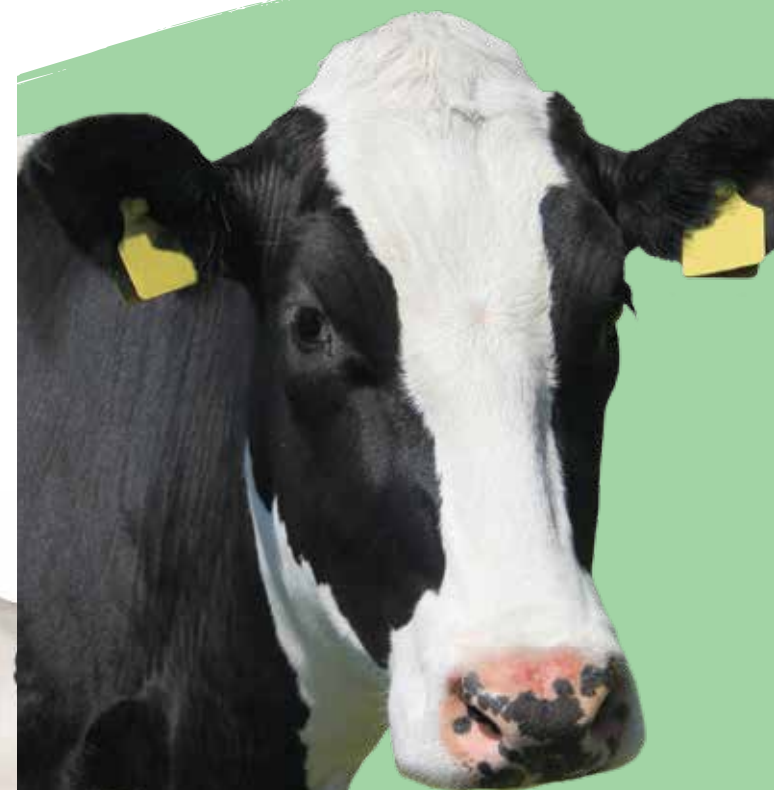
### ...your first choice

Combining exceptional local knowledge, the customer service and attention you expect from a business based on family values and the outstanding technical expertise you would demand from a leading manufacturer of quality animal feeds, Harpers Feeds are trusted by farmers across the South West.

We know all farms have different requirements so pride ourselves on having products to suit all systems and for all species, whether ruminant or monogastric. We manufacture compounds and blends and supply straights, supplements and speciality feeds as well as forage seeds and additives. Feeds are available in an extensive range of physical forms and pack sizes to give exceptional choice.

All manufactured feeds are supplied as fixed formulations so you know the next load will be the same as the last, ensuring consistent performance.

Whatever your requirements, Harpers Feeds can provide feeding solutions to deliver outstanding performance.



FiMLAC



#### Harpers Feeds Ltd.

Waldon Way, Holsworthy Industrial Estate, Holsworthy, Devon EX22 6ER

T: 01409 254 300 • E: [harpers@harpersfeeds.co.uk](mailto:harpers@harpersfeeds.co.uk)

 @harpersfeeds • [www.harpersfeeds.co.uk](http://www.harpersfeeds.co.uk)

Orders: 01409 255 333

FiMLAC dairy  
feeds

# Focused on profitable dairy nutrition

**Today's high yielding dairy cows need precise feeding to deliver to their potential, producing high yields of quality milk accompanied with good levels of fertility and excellent utilisation of forage.**

A new approach to dairy feed formulation, the Harpers Feeds FiMLAC range of summer dairy feeds has been produced based on the latest research to deliver exceptional performance by making optimum use of grazing. By targeting specific challenges in grazing situations they have been proven to:

- Increase milk quality
- Improve health and fertility
- Raise efficiency of production
- Improve profits

## FiMLAC Protein Technology

### The challenge

Well-managed grazing provides high quantities of rumen degradable protein (MPN), usually in excess of the cows' requirements. The nitrogen is converted to ammonia which the rumen microbes use, but when the rumen is unable to utilise all the ammonia it has to be excreted, leading to high levels in the rumen, high plasma ammonia and urea levels. Getting rid of surplus MPN by the liver takes energy which means less energy is available for the immune system and milk production.

The overload of MPN in the summer is often linked to reduced conception rates, partly due to the effects of raised plasma ammonia levels in the uterus and partly a result of reduced energy availability.

Many compound feeds can make the situation worse as they also tend to contain high levels of MPN. To effectively supplement grazing, feeds need to deliver the protein cows need for production (MPE) while limiting MPN.

### The solution

Harpers FiMLAC Feeds are the first on the market formulated to have a 'reverse protein ration' which means they have more MPE than MPN and so help reduce the negative impacts of excess MPN in forages.

In addition they contain Novatan, a blend of essential oils which has a direct effect on protein digestion in the rumen. It reduces the rate of protein breakdown which means there is less ammonia in the rumen and also that more protein bypasses the rumen. Secondly, it stimulates protein syntheses by rumen micro-organisms which reduces the rate of ammonia production.

Higher levels of starch and digestible fibres are included to improve rumen health and to balance energy supply.

## FiMLAC Total Mineral Technology

### The challenge

The mineral content of grass is very variable and in most cases will fail to supply the mineral demands of dairy cows. Mineral shortages can have a direct impact on health, increasing cell counts and compromising fertility.

### The solution

The FiMLAC summer range contains the latest trace element technology and is designed to optimise cow mineral status from the dry period and throughout lactation.

Trace elements are supplied in the most bio-available form for maximum availability and effectiveness with zinc, manganese and selenium supplied in the organic forms BIOPLEX and SELPLEX.

