

COMPOUND INNOVATIONS FROM MASSEY FEEDS

A revolutionary approach to protein feeding that offers more milk per kilogram of feed and greater overall efficiency is one key element in a new range of milking and dry cow compounds now available from Massey Feeds. The new range also incorporates innovation in trace mineral supply not previously offered in any mainstream UK dairy compound.

The FiMLAC name will be familiar to Massey Feeds customers, having been the tried and tested brand for the company's premier dairy feeds for the past seven years, but the combined innovations being introduced represent a significant step forward in feeding efficiency.

In terms of protein feeding, the five new FiMLAC compounds break with a longstanding feed industry methodology.

"We are moving away from the universally accepted method of formulating compound feeds according to crude protein level," explains Massey Feeds ruminant nutritionist David Wilde. "Instead we are applying the latest knowledge on protein metabolism and providing rations that match cows' requirements far more accurately.

"This means basing the protein content of the compound feed on Metabolisable Protein (MPE) – this being the protein the cow actually uses - whilst at the same time ensuring that the diet is not overloaded with rumen degradable protein (MPN).

"One of the problems with the crude protein approach is that it can cause gross excesses of MPN and this will cause health problems unless removed. The process of removal places a burden on the liver and takes up valuable energy, reducing the overall efficiency of the diet."

Mr Wilde explained the new approach further by comparing the new FiMLAC 115 compound with a typical compound feed formulated conventionally, both being 18% crude protein according to traditional labelling requirements.

"Crude protein values are actually driven by the MPN component and not the MPE," he explained, "so despite showing identical 18% crude protein values, the actual protein composition of these two products is significantly different.

"FiMLAC 115 contains 115g/kg of the more utilisable MPE and 125g/kg of MPN, whilst the comparative product has only 103g/kg MPE and still has 125g/kg MPN. If 8kg/cow/day is fed, FiMLAC 115 is delivering 96g/day more of the utilisable MPE. Calculated at the known conversion rate of 46gMPE/litre, this equates to an additional 2 litres/cow/day at this same feeding rate.

"In addition to the extra production, there is also the issue of excess MPN. Assuming grass silage is fed (which can typically contribute 140g/day of excess MPN) and the same 8kg/day feeding rate, the FiMLAC protein balance results in an excess MPN figure below the target maximum of 250g/day whereas the typical 18% compound ration contributes well over this figure at 316g/day.

“This excess MPN creates a problem for cows, as it costs energy to remove and places a potentially harmful burden on the liver, leading to problems such as poor fertility.”

Alongside new thinking on protein, the new and improved FiMLAC dairy feeds range will be the first that embraces the concept of totally replacing the traditional inorganic forms of certain essential trace minerals with their organic equivalents.

“There is now sufficient peer-reviewed and published data showing the benefits of feeding zinc, manganese and selenium only in an organic form,” adds David Wilde. “We have therefore formulated the new FiMLAC range with Alltech’s Bioplex Zinc, Bioplex Manganese and Sel-Plex as total replacements for the inorganic mineral equivalents. We also include four different copper sources, including Bioplex Copper, to ensure optimum status of this trace element.

”Overall, these innovations will improve the efficiency of milk production and will have direct benefits for milk quality, health and fertility – all of which lead to greater herd profitability.”

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