

The Use of Bypass Protein

The protein requirements of the modern dairy cow and rapidly growing young stock exceed the maximum supply available from the rumen. This shortfall must be made up otherwise performance will be negatively affected. Additional protein is therefore required which bypasses the rumen – ideally this would be in a form closely matching the cows requirements in terms of quality and digestibility.

The use of bypass protein is essential for the modern dairy ration, a vital necessity ensuring protein requirements are met whilst minimising loss and maximising performance. The challenge faced is determining the correct product for your animal's needs as not all sources of rumen bypass protein are equal. Understanding the differences and considering the impact on cow performance vs feed cost can be critical.

Balancing Protein Supply

The total protein requirement is also referred to as metabolisable protein. Meeting this as efficiently as possible relies upon optimising rumen protein production and the source of rumen-bypass protein (digestible undegraded protein – DUP). Whilst all feeds contain protein which is available in both the rumen (RDP) and DUP, the total amount available in each varies vastly.

As an example, grass silage supplies a large quantity of RDP but a very small amount of DUP. Therefore, it is important that the feed used to supply the required amount of DUP contain as little RDP as possible. This avoids excess nitrogen within the rumen.

Soya Bean Meal is a favourable source of protein however, due to price and global pressures, the need for alternative products which are cost-effective, contain reduced levels of RDP and also have a favourable amino acid profile closely matching the requirements of a cow are increasing in demand.

Main Advantages – Aminopass RAP vs Soya Bean Meal

- * Aminopass RAP currently costs 18.4% less /t. (as at May 21)
- * Rapemeal used is home-grown therefore the carbon footprint is massively reduced.
- * Aminopass RAP enables GMO-free feeding.
- * Recent testing shows that the amount of DUP available is typically 29% higher in Aminopass RAP.
- * Rapemeal contains high levels of methionine which is the first limiting amino acid in dairy cattle.