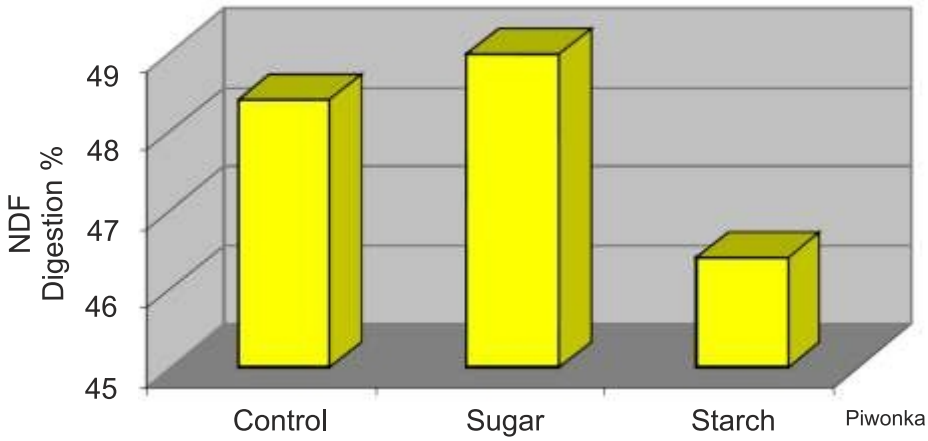
Sugar vs Starch:

Molasses enhances fibre digestion. Research done at Louisiana State University cleary shows the positive impact of molasses (sugar) on rumen function, where cattle on a low quality forage diet received increasing levels of supplemental molasses. However, moderate amounts (> 2 kg) of grain (starch) can inhibit forage utilisation. Starch, unlike sugar, cannot effectively meet the energy needs of the fibre digesting microbes.

This is shown in the table below:

EFFECT OF ADDING SUGAR OR BARLEY TO A HIGH FORAGE DIET



Piwonka et al., 1994

Crude Protein:

Supplemental protein is often the key to improving forage utilisation and overall suckler cow nutrition. In particular, cows receiving forage-based diets have a dietary need for DIP (Degradable Intake Protein); that is, crude protein (ammonia-yielding compounds) that can be readily broken down in the rumen.

As liquid supplements provide this source of ruminal ammonia, microbial fermentation is enhanced. The net results include greater flow of microbial protein to the small intestine, increased forage intake, and increased supply of energy and other nutrients from the roughage portion of the diet.

QLF liquid supplements are high in natural protein derived from Beet Molasses, however where higher protein levels are required QLF uses it's 'Timed Release' Protein. This consists of Urea that is bound with Phosphoric acid so as to degrade in the rumen over a similar time period to soya. Urea is a highly-concentrated, economical source of DIP as it contains 46% nitrogen; the equivalent of 281% crude protein (CP). Using such a concentrated protein source at minimal inclusion rates maximises the use of nutrient-dense base ingredients, thereby providing an economic supply of RDP at a significantly lower cost than other sources, such as soya.