



Merrick's **TECH BULLETIN**

Hydrolyzed Wheat Gluten

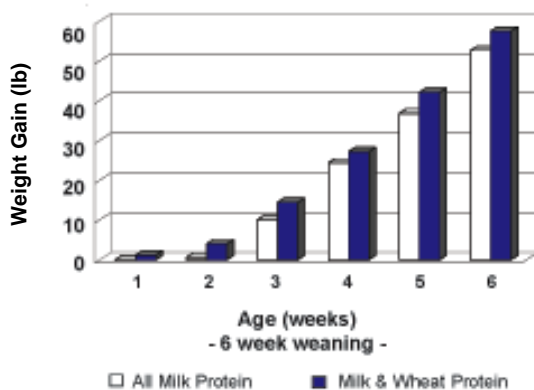
Hydrolyzed wheat gluten is the official feed name of the wheat protein ingredient used in Merrick's wheat protein milk replacers. Hydrolyzed wheat gluten protein is manufactured from wheat flour by separating the gluten protein from wheat starch. This protein is then enzymatically hydrolyzed and transformed to small protein and peptides before drying.

Obviously, hydrolyzed wheat gluten and wheat flour are not the same thing. Whereas wheat flour is an inferior protein source for calf milk replacers, hydrolyzed wheat gluten provides a high quality, economical protein source. The relationship between wheat flour and hydrolyzed wheat protein is similar to that between soy flour and modified soy proteins. Additional processing improves nutritional characteristics. In the case of hydrolyzed wheat gluten, there are no anti-nutritional factors such as those that are common to soy flour and many modified soy proteins that reduce animal performance.

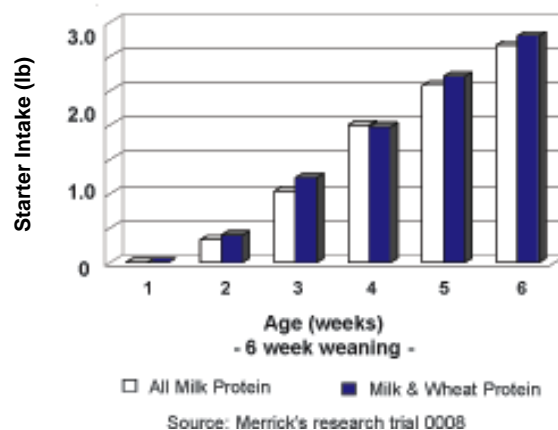
Hydrolyzed wheat gluten is ideally suited for incorporation into calf milk replacers. It is low in fiber and ash and contains a much higher percentage of protein compared to whey protein concentrate (80% protein vs. 34% protein). Digestibility of hydrolyzed wheat gluten dry matter, organic matter and crude protein is very high and is estimated to be 95%.

Research on veal and replacement calves has shown hydrolyzed wheat gluten to be a valuable ingredient in calf milk replacers. Kansas State University (1996) found no difference in calf performance when hydrolyzed wheat gluten was included at 30 and 50% of crude protein. Merrick's research, shown below, provides similar results.

Effect of Wheat Protein on Weight Gain



Effect of Wheat Protein on Starter Intake



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