

## Fibre-Beet: More Than The Sum Of Its Components

Lucerne, whether the whole plant or a silage, has proven to be a very popular fibre source and forage replacer. However, its properties have two drawbacks. Firstly, the protein is highly degradable; this means microbial activity will release high levels of ammonia in the gut and that can have negative effects. Secondly the majority of fibre is secondary cell wall material and that is only slowly degraded by the microbes in the hindgut.

Traditionally people have fed sugar beet pulp alongside Lucerne as the low protein reduces the high protein contribution of Lucerne, and the high levels of primary fibre materials is seen as a balance to the secondary cell wall.

Many researchers have noted that beet pulp appears to give a lift to the degradability of forage and a series of trials were carried out in the last decade to see whether this extended to Lucerne.

Research by JMD Murray et al. 2008\* looked at the digestibility of nutrients of a Lucerne meal substituted with 10-30% beet pulp:

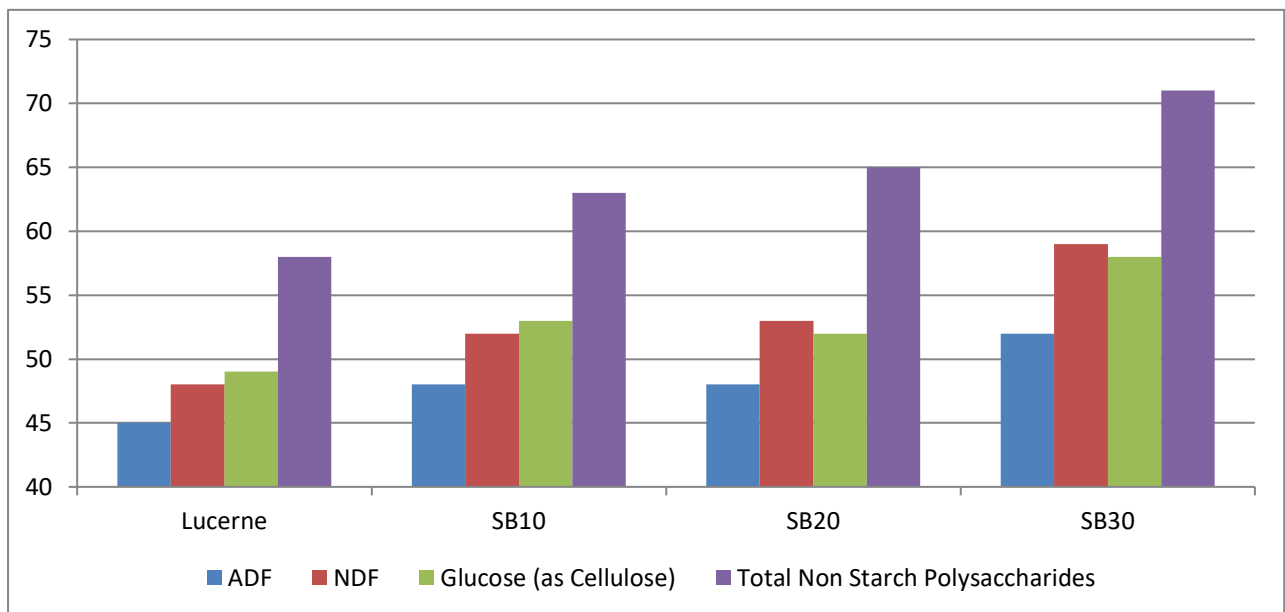


Figure 1. % Apparent Digestibility of Fibre Fractions in Lucerne with Incremental Substitutions with Beet Pulp.

The results showed, substituting Lucerne with up to 30% beet:

- Increased cellulose digestibility by 18%
- Increased total non-starch polysaccharide digestibility by 22%
- Increases in digestibility were over and above those calculated.
- Lucerne fibre profile is enhanced by that of beet pulp, and effective degradability is greater than the sum of the individual components.

Fibre-Beet is a complementary feed including a carefully calculated ratio of Speedi-Beet and Lucerne to optimise these research observations.

\*Murray JMD, Longland A, Hastie PM, Moore-Colyer M, Dunnet C: The nutritive value of sugar beet pulp substituted Lucerne for equids. *Animal Feed Science & Technology*: 140 (2008) 110-124.