

Non-Fibre Carbohydrates

Non-fibre Carbohydrates (NFC) represent feed carbohydrates, including starch, pectin and sugars, which are more rapidly degradable in the rumen relative to the cell wall carbohydrates measured as Neutral Detergent Fibre (NDF). NFC content is not measured directly, but is calculated by difference:

$$\text{NFC} = 100 - \text{Crude Protein} - \text{Crude Fat} - \text{NDF} - \text{Ash}$$

A variation on NFC is Non-structural Carbohydrates (NSC), used in the Cornell Net Carbohydrate and Protein System, where:

$$\begin{aligned} \text{NSC} = & 100 - \text{Crude Protein} - \text{Crude Fat} \\ & - (\text{NDF} - \text{Neutral Detergent Insoluble Protein}) - \text{Ash} \end{aligned}$$

In the NSC equation, the Crude Protein associated with the NDF fraction is subtracted so that it is not accounted for twice; in both CP and NDF fractions.