

## Ensuring a Protein Claim: Build a Complete Amino Acid Profile

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### Abstract

With the boom in plant-based proteins, the market has become more competitive, and it is therefore more difficult to convince consumers to choose your product. While striving for the ultimate taste and texture profile, numerous manufacturers have also explored providing a more favourable nutritional profile. Additionally, using nutrient content claims such as 'high in protein and dietary fibre' may be a useful tool to drive interest in a product. A protein-related claim seems to be the logical choice, as this is often the main macronutrient in meat. But what are the chances that your plant-based product will meet the criteria for a protein claim?

The Regulations Relating to Labelling and Advertising of Foodstuffs (R. 146/2010) require not only a minimum total protein per 100 g of product, but also a minimum amount of protein per 418 kJ of energy – and a complete amino acid profile. Of these, it is the last requirement that often trips developers up.

Plant ingredients generally have a low biological value as opposed to meat, meaning they do not contain all the essential amino acids. Therefore, when developing plant-based products, protein complementation may be important to ensure that a protein claim can be made. 'Protein complementation' means combining certain plant ingredients with different amino acid profiles in the same product.

As amino acid testing is costly, it can be helpful to use calculations throughout product development to establish a theoretical amino acid profile, to determine whether the product will meet the requirements prior to sending it for testing.

The vegan trend has taken the world by storm and is here to stay, leading to some incredible innovation. Going forward, it is important to consider what is required to provide high-quality products that benefit the consumer nutritionally, while also saving the manufacturers time and money.

### PRESENTER BIOGRAPHY: GABRIELLE STEVENS

Gabrielle is a registered and practicing dietitian who heads up the Regulatory and Nutrition division at FACTS, which includes leadership in nutrition, health and food labelling projects. This diversity in experience allows her a good perspective on how the general public engage with food products and the respective food labels. Regulatory training allows Gabrielle the opportunity to share her knowledge and experience of the South African regulatory framework. Other activities she is involved in include health promotion campaigns and media interactions.