Improved protein availability in legume snack products

Inadequate protein intake is a nutritional problem found in different populations all over the world - from West Africa where most people consume a traditional starchy diet with an insufficient protein level to elderly people with less appetite for food, for example in Denmark. With increasing populations worldwide it is necessary to explore the use of plant proteins to cover future protein needs in a sustainable way.

The market for ready-to-eat products, such as snacks, is forecasted to grow rapidly over the next five years as consumers demand convenient healthy snacks with exciting sensory and textural properties. This trend is also observed in West Africa where Fan Milk operates. Therefore, they wish to expand their current product range with a healthy snack product to be sold via the existing network of 25,000 bicycle vendors. The product should be produced from local raw materials.

Today, snack products are usually cereal based (e.g. corn, rice or wheat) and thus of relatively poor nutritional quality - high in calories and low in protein and dietary fibers.

The aim of this project is to explore local raw materials – in particular legumes – from West Africa and Denmark. Legumes in general are important food crops due to their nutritional attributes such as high protein and essential amino acid content.

Your role will be to examine how the protein availability may be enhanced in the final snack product. This will be done by carrying out different pre-treatments of the raw legumes, such as fermentation and germination, and examining the effect on the protein availability.

Organizations

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