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Extraction of Chia Seed Mucilage and Protein using a Combination of Ultrasonication and Microwave-assisted Hydrolysis

A new extraction method for chia seeds delivers higher yields of mucilage and a more functional, protein-rich chia seed flour, saving time and money in processing for nutritional and pharmaceutical applications.

Researchers at Purdue University have developed an improved extraction method for the separation of mucilage from chia seeds, yielding a protein-rich chia seed flour with improved bioactivity and functionality compared to conventional methods. Current methods for separation of mucilage, such as freeze-drying or oven-drying, are inefficient which can lead to wasted time and product. In comparison, the Purdue method has demonstrated higher mucilage extraction yield (7.65 Â± 0.19%), compared to freeze-drying (4.21 Â± 0.29%) and oven drying (3.65 Â± 0.18%). This improved efficiency can save both time and money for companies processing chia seeds for nutritional, pharmaceutical or other applications.

Advantages:

-More efficient

-Higher yield

Potential Applications:

-Nutrition

-Pharmaceuticals

TRL: 5

Intellectual Property:

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