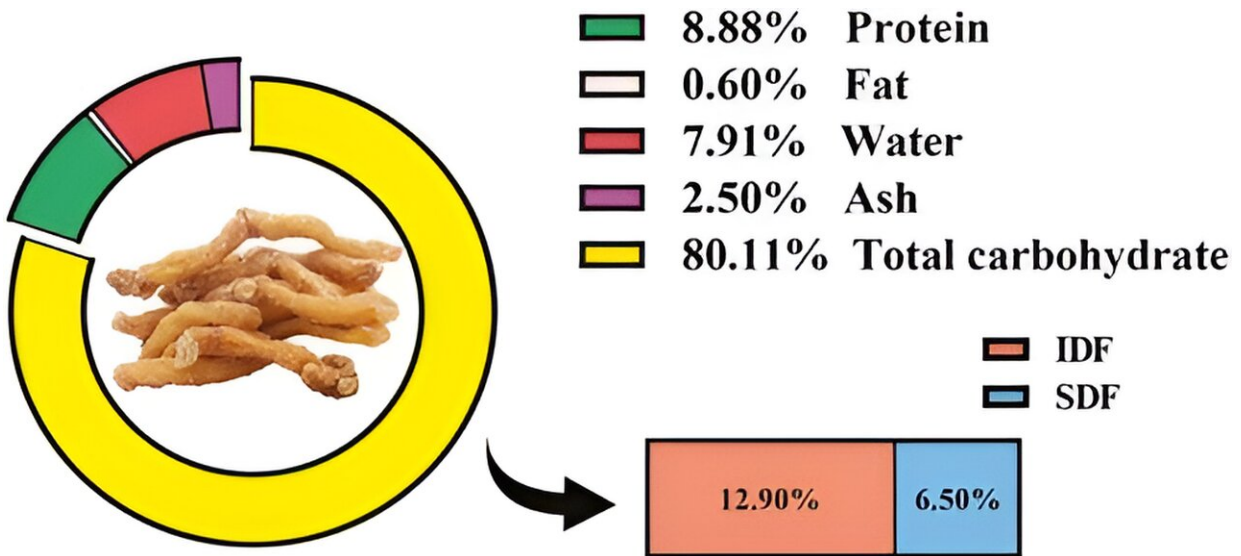


Studying the specific carbohydrates in *Polygonatum sibiricum*

August 21 2023



Nutrient contents (as a percentage of raw powder weight). Credit: *Food Quality and Safety* (2023). DOI: 10.1093/fqsafe/fyad029

In a study published in the journal *Food Quality and Safety*, researchers from Zhejiang University have unveiled significant findings about the carbohydrate composition of *Polygonatum sibiricum*, a renowned traditional Chinese herb and a popular dietary component.

Firstly, the study verified the conclusion that *Polygonatum* doesn't contain significant starch. The research team employed a battery of

techniques including thin-layer chromatography, gel permeation chromatography, and hydrophilic interaction [chromatography](#) –electrospray tandem mass spectrometry to further investigate.

They found the rhizome of *Polygonatum sibiricum* is devoid of noticeable starch. Instead, the researchers uncovered a significant presence of fructo-oligosaccharides, approximately 30% of the dry rhizome, particularly those with a degree of polymerization above 10. This discovery could revolutionize our understanding of *Polygonatum*'s [nutritional value](#) and its [product development](#) in the future. Fructo-oligosaccharides are known prebiotics, substances that promote gut health by fostering the growth of beneficial bacteria.

In conclusion, this research opens the door for new health products enriched with natural prebiotics. As we continue to understand the importance of gut health in overall human wellness, sources like *Polygonatum sibiricum*, rich in fructo-oligosaccharides, could become invaluable in dietary and [health science](#).

More information: Jiabei Xia et al, Identification of carbohydrate in *Polygonatum sibiricum*: fructo-oligosaccharide was a major component, *Food Quality and Safety* (2023). [DOI: 10.1093/fqsafe/fyad029](https://doi.org/10.1093/fqsafe/fyad029)

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