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## Resistant starch from native wheat starch: Preparation and functional properties

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Amylose and amylopectin were separated from native wheat starch with the method of repeatedly n-butanol re-crystallization. Type 3 resistant starch (RS<sub>3</sub>) was prepared by the combination of microwave and  $\alpha$ -amylase treating on the mixture of isolated amylose and native wheat starch. The physicochemical properties of RS<sub>3</sub> were studied. Compared to the native wheat starch, water-holding capacity of RS<sub>3</sub> increased and its granule structure transformed into irregular pieces. The crystalline structure of RS<sub>3</sub> changed from A-type to a mixture of B and V-type. The physiological functions of RS<sub>3</sub> were studied on the tests of postprandial blood glucose in normal and alloxan-inducing diabetic mice. The results showed that RS<sub>3</sub> could shift the peak load and adjust the blood glucose level of diabetic mice.

### Biography

Qi Yang is pursuing his PhD degree of sugar engineering in Shaanxi University of Science and Technology, China. He got his master degree of food science and engineering in 2016. During the period of postgraduate, with the love for research and great passion, he assisted supervisor in completing two scientific research projects. Now he is focusing on the study of starch structure.

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