

Effects of wheat bran dietary fiber-gluten protein interactions on dough structure and properties

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Introducton

Wheat bran dietary fiber (WBDF) has been used to enhance the nutritional value of dough products, but its addition usually interacts with gluten protein, which may be an important factor in determining the edible and nutritional properties of dough products.



Results





Structural characterization of WBDF







Dough pasting properties



Dough microstructure



Conclusions

From the perspective of WBDF-gluten protein, effects of WBDF on macro-rheological properties of dough was elucidated, combined with the characterization and quantitative analysis of dough microstructure, the internal relationship between the two was further revealed to provide guidance for the application of WBDF in dough products industry.