The Effects of Spray-Dried Sourdough on Flour Characteristics and Rheological Properties of Wheat Dough

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ABSTRACT

The effect of incorporating different levels of spray-dried sourdough (3%, 6%, 9% and 15% (w/w) on flour characteristics and dough properties of two wheat flours was studied. As the spray-dried sourdough level in the blends increased, the pH values significantly (P<0.05) decreased. Wet gluten content and Zeleny sedimentation values were decreased in the flours containing spray-dried sourdough compared to those of control. Water absorption significantly increased compared to that of the control. However, dough development time was not affected with sourdough powder addition. Degree of softening significantly increased with an increase in
sourdough level but dough stability was significantly reduced. Doughs incorporating sourdough powder showed higher resistance to extension and lower dough extensibility than control doughs.

**Keywords:** Sourdough; Dough; Rheology, Spray-dried