

RHEOLOGICAL PROPERTIES OF WHEAT DOUGH AND CRUMB OF BREAD WITH INULIN

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Wheat and rye grain contains inulin which is lost by manufacture of baking flour. Therefore inulin using by manufacture of bakery food is fully natural. Addition of inulin in a formulation of bakery products allows receiving a product with the set functional properties and the certain consumer quality parameters.

In the research we determined influence of inulin additives BeneoTMHP and BeneoTMHPX (Orafti, Belgium) on changing of dough rheological properties and physical-chemical and organoleptic quality parameters of bakery products from wheat top-grade flour.

In the research we used three information-measuring systems based on the following devices:

- «Do-Corder DCE-330», allowing to define a complex rheological characteristics of the mixing dough;
- «Rheofermentometer F3», allowing to optimize process of dough fermentation with rational splitting this process into operations of maturing and final proofing dough pieces;
- «Structurometr ST-2», allowing to define a complex rheological characteristics of dough after mixing and bread crumb.

On the basis of these experiments were determined optimal quantity of BeneoTMHP and BeneoTMHPX according to daily physiological requirement of human health in soluble food fibers and including dough rheological behavior in a process of its preparation.

References:

1. Maximov A., Chernykh V., Rheology of food. - St. Petersburg: GIORD, 2006.