

## Effect of Sodium Chloride on the Formation of Wheat Gluten

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### Summary

The influence of sodium chloride on the formation of wheat gluten and the baking was investigated. A gluten ball used for this experiment was prepared from commercial wheat flour by a precipitation with 0.2 M NaCl solution. Little protein was eluted with more strong solution than 0.01M NaCl. However protein was eluted gradually and gluten ball got to be breakable with distilled water. Regardless to times of the extraction procedure, all SDS-PAGE patterns of proteins extracted from the gluten ball with water were the same. These results suggested that the ionic interaction of proteins is important for the formation of wheat gluten and the moleculars interact irrespective of the kind of proteins. The firmness of bread crumb was evaluated by measuring compression force and stress relaxation after 2 minutes on 5mm strain by using a rheometer (Fudo, model 2002J). The Firmness values between bread with and without NaCl differed significantly .