

## **Effects of leavening agents in batter system on quality of deep-fried chicken breast meat**

### **ABSTRACT**

The crispiness is an important parameter of battered chicken meat products and could be improved by adding leavening agents such as baking powder and dried yeast. This work was aimed to study the effect of different leavening agents added on the quality characteristics of battered chicken meat. Chicken breast meat strips were dipped into batters using different type of leavening agent; control (without a leavening agent); 4% baking powder (1), 4% dried yeast (2) and 2% baking powder + 2% dried yeast (3). The batter was kept in room temperature (RT) and cold temperature (CT) for one hour after coating. Moisture content, fat content, the viscosity of batter formulation, color, texture and sensory of fried battered chicken meat strips were evaluated. Moisture contents of RT3 and CT3 were significantly higher compared to other treatments while the fat content and viscosity of RT3 and CT3 were among the lowest. The RT2 and CT2 resulted in the lightest color. Compared to control samples, the addition of baking powder and yeast increased crispiness (fracturability and hardness) which was higher when used in combination than alone. Sensory evaluation of quality attributes showed crispiness and overall acceptability for RT3 and CT3 were among the highest. From the experiment, formulation 3 displayed the best effect of the leavening agents (a combination of baking powder and dried yeast) in batter system which produced lower fat, high moisture content, and crispier deep-fried chicken breast meat.

**Keyword:** Leavening agent; Frying; Yeast; Baking powder; Crispiness