Pengaruh kadar amilosa terhadap pengembangan dan kerenyahan tepung pelapis selama penggorengan

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Abstrak

Starch is one of food component that contribute in defining textural properties of carbohydrat base fried food. The difference of amylose and amylopectin content in starch plays an important role in microstructural properties of food and may cause any different expansion and crispness to fried food. This research had studied amylose content effect on batter expansion and crispness during frying. This research aimed to develop expansion and crispness kinetic model as initial volume and frying time function, to develop kinetic model of frying temperature effect on batter expansion and crispness, and to define optimal amylose content and temperature on frying.

Five amylose content levels (21, 25, 29, 33 and 37%) of mixed rice flour and corn starch dough were prepared by ratio flour:water 1:1,2. This flour water suspension were deep fat fried at frying temperature of 170 Â°C.

The result had shown that amylose content were highly correlated to batter expansion and crispness.. High amylose content result in high expansion level and crispness. Batter volume changed during frying was saturated with first order kinetic. Amylose content, 1C,,,â?? was linearly correlated to expansion constant kri, when fried at 170 Â°C. Amylose content and batter crispness (sbreak) when fried at 170Â°C was exponentially correlated. Optimal amylose content on this research design was 37%.