

Pojanee Mod-iam 2008: Effect of Cooling Conditions Prior to Packaging and Packaging Materials on Quality of Croissant. Master of Science (Packaging Technology), Major Field: Packaging Technology, Department of Packaging Technology. Thesis Advisor: Associate Professor Vanee Chonhenchob, Ph.D. 95 pages.

Decreasing of product temperature after baking at different cooling conditions were studied. Different packaging materials (OPP and PS) were tested to compare the product quality. Croissants were freshly baked in the laboratory and product temperatures as well as its weight were recorded in two different cooling conditions (ambient condition room and air condition room). Quality of croissants under cooling times at 5, 17 and 35 minutes before packing were compared. Packed croissants after storage for 1, 2 and 3 days were evaluated for sensory, texture and microbial quality. The results showed that rate of decreasing temperature and weight loss of the croissant products at ambient condition room were less than those at air condition room. The croissant products packed in OPP and PS under the same cooling conditions were significantly different ( $p \leq 0.05$ ) in stickiness and softness. At air condition room the products packed in the same types of bags had crispness higher than those at ambient room condition. Croissants cooled under air condition room maintained the highest crispness than those cooled under ambient condition room. The products packed after 5, 17 and 35 minutes were not significantly different ( $p > 0.05$ ) in sensory quality evaluated. Crispness, stickiness and softness of the croissant products packed in OPP bags had less stickiness with higher shear force than those in PS bags. The microbial test showed that croissants packed in both types of bags had a total count less than 30 CFU/g through out storage.

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