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Quality improvement of thai fresh rice noodle restructured with starch digested enzyme and resistant rice starch type III

Jirapa Pongjanta² and Chutima Lerdluksamee¹¹Pibulsongkram Rajabhat University²Rajamangala University of Technology Lanna, Thailand

Traditional fresh rice noodle (guay-dtieow) is popular food in Thailand which was elastic texture and sweet taste of natural rice without food additive and chemical modified rice starch. The fresh rice noodle have a smoother and more delicate flavor, and its generally convenient for consumers. Currently, fresh rice noodle are produced by machines with 4 major steps ar selecting raw high amylose broken rice, followed by cleaning, soaking, grinding, steaming, sheeting and cutting. The important processing step of fresh rice noodle is broken rice soaking. The purpose of soaking is to allow water to penetrate in to the rice kernel, which results in a high moisture content and less rigid structure with has about 45% moisture content, is suitable for wet grinding. Wet grinding produces a rice slurry with a smooth consistency. Currently, Guay dtieow factory got problem on viscoelasticity texture, shorter shelf-life, staling and less sweet flavor. These problem caused by quality of broken rice that was changed by grnetic and environmental diversity. The staling is attributed to both

amylose and amylopectin of starch. Specifically, amylose re-association is related to the short-term retrogradation during the initial few hours, while amylopectin re-crystallization is associated with product firming in the longer term. Recently, researchers purposed that enzymatic digested starch had been implicated as retarding staling of fresh rice noodle and other noodle (pongjanta et al., 2012). Furthermore, fresh rice noodle are lack of nutritional value expecially on dietary fiber content. According to the current health problem among children and adolecen are obesity that cause by cosume too much of fat and carbohydrate and lack of dietary fiber. Thus, the main objective of this study was to improved the physicochemical and nutritional quality of the treaditional fresh rice noodle with starch digested enzyme and resistant rice starch type III. The developed fresh rice noodle samples were analysis on tension test, color value, cooking lost and sensory evaluation.

Biography

Jirapa Pongjanta has completed her Master degree at the age of 28 years from University Putra Malaysia from the Faculty of Biomedical and Health Science (Nutrion and Community Health) and Ph.D on Food Nutrition from Kasetsart University, Thailand in 2010. She is Assistant Professor within the feild of Food Science and Technology. Her has published about 50 papers in reputed journals and conference proceeding. Her also has been serving as an bind reviewer of academic journal.

jiratawan@gmail.com

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