THE USE OF FROZEN PANGIUM (*Pangium edule* Reinw) SEEDS IN FRESH FISH PRESERVATION

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Abstract

Pangium seeds has been used traditionally in fish preservation for many decades and still applied by communities in remote areas, where ice is unavailable. However, still problems still faced by the fish retailers because the seed harvest season is only once a year, while the application of the seed is impractical. Experiment on the freezing of chopped pangium kernel was conducted in order to get more practical in application, while could store in a long time without loss of its preservation activity. Thawed frozen pangium kernel in amount of 3% of fish weight (w/w) were sprinkled over the head, body, and belly cavity of the gutted fish, then stored at ambient (28-32°C) temperature. Analysis on the water content, total volatile base (TVB) content as well as number of total bacteria and the change of organoleptical quality were conducted everyday during two days storage of pangium treated fish. Tests on *E. coli* and *S. aureus* inhibition of 20%, 30%, and 40% of pangium extract compare to 1% of chloramphenicol were also conducted. Result of the experiment revealed that based on the TVB, number of bacteria, and sensory evaluation, the 12-months frozen stored pangium seeds could preserved the fish as effective as the freshly harvested seeds. Extract of the 12-months frozen stored seed could also inhibit the growth of *E.coli* and *S. aureus* strongly. Storage of frozen pangium seed for 12 months did not reduce its activity in fish preservation so this could make the seed available anytime along the annual season.