

Research title: Consumer acceptability of biopolymer coating : Efficiency trapping of fragrant flavor in low quality cooking rice

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ABSTRACT

Innovation of coated rice with biopolymer is one of method for added value of low quality rice and increasing demandable. The experimental, three levels of synthesizing flavor of pandan were investigated at 1.5, 2.0 and 2.5 %w/v, respectively. The 7 points scale were analyzed , result showed that training panelists were accepted at level of 2.5 %w/v and compromised with a little remaining of bitterness. Five types of biopolymer coatings, which compared between chitosan (CH) and modified starch (MDS) at concentration of 0.5 %w/v, and varied chitosan solution: modified starch solution at different ratio of 70:30, 50:50 and 30:70, respectively. Qualitative Descriptive Analysis (QDA) was analyzed including appearance property of coated cooking rice. It was found that the panelist was accepted only white color rice and expected to natural flavor cooking rice. However, it could be decreased attribution of cohesiveness and softness together. Coated rice with biopolymer, efficiently trapping of synthesizing pandan flavor which contained in aluminum foil bag and belonging shelf life at room temperature (31.5 °C) for 60 days. The result showed that increasing time, chitosan coated rice could be trapped flavor more than those and stickiness property was increased. The optimum coating CH:MDS at 50: 50 showed the best softness texture and had moderately level of pandan flavor with highly score of overall liking (7.98).

Keywords: chitosan, modified starch, pandan, cooking rice