**Preparation of Modified Starch Nanoparticles from Beneng Taro (*Xanthosoma undipes K. Koch*) as Active Packaging Materials via Nanoprecipitation Method**

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Abstract

The aim of this study was to investigate the production of modified starch nanoparticles for active food packaging materials. Starch nanoparticles were fabricated via nanoprecipitation method and characterized by Particle Size Analyzer (PSA), Scanning Electron Microscopy (SEM), and UV-Vis spectrophotometry. The modification process was conducted by adding lemongrass oil as active ingredient under rapid stirring. The result showed that modified starch nanoparticles exhibited spherical particles with a diameter of approximately 300-400 nm. The present method for modification of starch nanoparticles may provide an alternative approach to increase the usability of starch from Beneng Taro as local produce in Banten Province.

Keywords: starch, nanoparticles, active packaging, Beneng Taro, nanoprecipitation