ABSTRAK

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APLIKASI PATI GARUT HASIL *HEAT MOISTURE TREATMENT* PADA MI LAKSA DENGAN PENAMBAHAN *XANTHAN GUM*
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(xvii + 84 halaman, 11 tabel, 24 gambar, 17 lampiran)

Mi laksa adalah makanan khas Tangerang yang terbuat dari tepung beras. Mi laksa memiliki kekurangan yaitu *cooking loss* yang tinggi dan teksturnya yang keras dan tidak elastis. Perlakuan modifikasi pati garut dengan *heat moisture treatment* (HMT) dan penambahan *xanthan gum* dalam mi laksa diharapkan dapat mengurangi *cooking loss* mi laksa terkait kadar amilosa yang tinggi hasil modifikasi HMT. Tujuan dari penelitian adalah menentukan perlakuan lama pemanasan dengan suhu tinggi terhadap karakteristik fisikokimia tepung pati garut berdasarkan kadar amilosa tertinggi, menentukan rasio tepung beras dan tepung pati garut hasil HMT serta konsentrasi *xanthan gum* terhadap *cooking loss* mi laksa. Metode HMT dilakukan dengan suhu 100^{o}C, 110^{o}C, dan 120^{o}C masing-masing selama 60, 90, dan 120 menit. Mi laksa dibuat dengan variasi rasio tepung beras dan pati garut hasil modifikasi HMT (100:0, 90:10, 80:20, dan 70:30) serta penambahan *xanthan gum* (1%, 1,5%, dan 2%). Hasil penelitian menunjukkan bahwa metode HMT menghasilkan kadar amilosa tertinggi pada tepung pati garut sebesar 49,40±1,87% suhu 120^{o}C selama 90 menit. Semakin banyak penambahan tepung pati garut HMT pada mi laksa akan menghasilkan mi dengan *cooking loss* dan *hardness* yang rendah. Mi laksa dengan rasio tepung beras dan pati garut HMT 120^{o}C selama 90 menit 70:30 dan penambahan *xanthan gum* 1,5% merupakan formulasi terbaik dengan memiliki *cooking loss* terendah sebesar 2,30±0.15%.

Kata kunci : *cooking loss*, *heat moisture treatment*, kadar amilosa, mi laksa, *xanthan gum*

Referensi : xx (1968 – 2020)

ABSTRACT

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HEAT MOISTURE TREATMENT MODIFIED ARROWROOT STARCH APPLICATION IN MI LAKSA WITH THE ADDITION OF XANTHAN GUM

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(xvii + 84 pages, 11 tables, 24 figures, 17 appendices)

Mi laksa is a typical Tangerang food made from rice flour. It has certain imperfections in terms of high cooking loss and its hard and inelastic texture. The modified treatment of arrowroot starch with heat moisture treatment (HMT) and the addition of xanthan gum in mi laksa are expected to reduce the cooking loss problem of the noodles regarding its high amylose content as a result of HMT modification. The objectives of this study were to determine the length of heating treatment at high suhue on the physicochemical characteristics of arrowroot starch based on the highest amylose content, to ascertain the ratio of rice flour, HMT arrowroot starch and also the concentration of xanthan gum to the cooking loss of mi laksa. The HMT method was conducted at suhues of 100^{o}C, 110^{o}C, and 120^{o}C for the duration of 60, 90, and 120 minutes, respectively. The noodles were made by varying the ratio of rice flour and HMT modified arrowroot starch (100: 0, 90:10, 80:20, and 70) followed by the addition of xanthan gum (1%, 1.5%, and 2%). The results showed that the HMT method produced the highest amylose content in arrowroot starch at 49.40 ± 1.87% at 120^{o}C for 90 minutes. Greater addition of HMT arrowroot starch to the laksa noodles will produce noodles with less cooking loss and hardness. Therefore, noodles made by using the ratio of rice flour and HMT arrowroot starch 120^{o}C for 90 minutes 70:30 with the addition of xanthan gum 1.5% is the best formulation based on the lowest cooking loss (2,30±0.15%).

Key words: amylose content, cooking loss, heat moisture treatment, mi laksa, xanthan gum

Reference: 124 (1968 - 2020)