

PENGARUH PENAMBAHAN XANTHAN GUM PADA MINUMAN TINGGI PROTEIN TERHADAP KARAKTERISTIK SENSORIS (*BLIND TEST*) DAN FISIKOKIMIA

INTISARI

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Kekurangan asupan protein akibat konsumsi makanan kurang bergizi masih banyak dialami mahasiswa di Indonesia. Kondisi ini disebabkan karena kecenderungan mahasiswa mengonsumsi makanan instan yang praktis, tetapi rendah protein. *Whey protein isolate* mengandung protein sebanyak 90-92%. *Xanthan gum* adalah pengental yang mampu meningkatkan viskositas dengan baik dan memiliki stabilitas lebih baik dibanding pengental lainnya. Minuman tinggi protein dengan dua bahan dasar tersebut dapat menjadi alternatif produk untuk membantu pemenuhan asupan protein harian yang praktis untuk dikonsumsi oleh mahasiswa dengan mobilitas tinggi. Penelitian ini dilakukan untuk mengetahui pengaruh penambahan *xanthan gum* terhadap karakteristik sensoris secara *blind test* dan fisikokimia pada minuman tinggi protein berbasis *whey protein*, serta pengaruh kekentalan produk akibat penambahan *xanthan gum* terhadap tingkat kekenyangan panelis. Konsentrasi penambahan *xanthan gum* pada penelitian ini adalah 0%; 0,08%; 0,12%; dan 0,16%. Analisis sensoris untuk keempat formulasi tersebut dilakukan dengan pengujian intensitas, dan uji penerimaan hedonik. Sedangkan uji fisikokimia berupa uji viskositas, kadar air, kadar protein, kadar abu, kadar lemak, dan kadar karbohidrat. Hasil penelitian menunjukkan intensitas kekentalan dan kekenyangan meningkat seiring dengan meningkatnya konsentrasi *xanthan gum*. Sedangkan pada uji penerimaan hedonik, panelis cenderung menyukai sampel tanpa *xanthan gum*. Penambahan *xanthan gum* dapat meningkatkan viskositas dan kadar air, tetapi tidak mempengaruhi kadar protein, abu, lemak, dan karbohidrat.

Kata kunci: *whey protein*, *xanthan gum*, sensoris, viskositas, proksimat

THE EFFECT OF ADDING XANTHAN GUM TO HIGH PROTEIN BEVERAGES ON SENSORY (BLIND TEST) AND PHYSICOCHEMICAL CHARACTERISTICS

ABSTRACT

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Deficiency in protein intake due to the consumption of less protein food is still experienced by many college students in Indonesia. This condition is caused by the tendency of college students to consume instant food, which is practical but low in protein. Whey protein isolate contains 90-92% protein. Xanthan gum is a thickener that can increase viscosity and has better stability compared to other thickeners agent. High protein beverage with these two ingredients can be an alternative product to fulfill daily protein intake, that is practical for consumption by highly mobile college student. This research was conducted to determine the effect of adding xanthan gum on the sensory and physicochemical characteristics of high protein beverage, as well as the effect of viscosity resulting from the addition of xanthan gum on the panellist's level of satiety. The concentration of xanthan gum added in this study was 0%; 0,08%; 0,12%; and 0,16%. Sensory analysis for those four formulations was carried out using intensity testing and hedonic acceptance testing (blind test). Meanwhile, physicochemical tests include viscosity, water content, protein content, ash content, fat content, and carbohydrate content tests. The result showed that the intensity of viscosity and fullness increased along with increasing xanthan gum concentration. Meanwhile, in hedonic acceptance test, panellists preferred samples without xanthan gum. The addition of xanthan gum can increased viscosity and water content, but it does not affect the protein content, ash content, fat content, and carbohydrate content.

Keywords: whey protein, xanthan gum, sensory, viscosity, proximate