

**PENGEMBANGAN PROSES PENGOLAHAN COKELAT TAHAN PANAS
DENGAN PENAMBAHAN HIDROGEL BERBASIS KONJAK
GLUKOMANAN DAN PENGGUNAAN GULA SEMUT**

INTISARI

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Cokelat merupakan produk pangan yang populer di berbagai kalangan masyarakat. Namun, cokelat memiliki kelemahan mudah meleleh pada suhu 32-34°C, sehingga menjadi tantangan bagi negara tropis seperti Indonesia. Tujuan penelitian adalah mengembangkan pengolahan cokelat tahan panas dengan penambahan hidrogel berbasis konjak glukomanan dan penggunaan gula semut. Kombinasi dua bahan tersebut ditujukan untuk meningkatkan kadar air agar terjadi peningkatan titik leleh cokelat. Tahapan pembuatan cokelat dimulai dari pencampuran bahan baku, penghalusan, *conching* yang disertai penambahan hidrogel konjak glukomanan dan *tempering*. Perlakuan yang dilakukan adalah variasi kadar konjak glukomanan dalam hidrogel meliputi 3%, 5%, dan 7%. Setiap kadar konjak glukomanan divariasikan pula dengan kadar lemak 32%, 34% dan 36%. Karakteristik hidrogel yang diuji meliputi kadar air, *lightness* dan kekerasan, sedangkan karakteristik cokelat yang diuji meliputi kadar air, warna, kekerasan, titik leleh dan ukuran partikel. Pengaruh lama penyimpanan terhadap kekerasan, titik leleh dan ukuran partikel cokelat dilakukan dengan interval 4 hari selama 13 hari penyimpanan. Hasil karakterisasi hidrogel menunjukkan bahwa peningkatan kadar konjak glukomanan mampu meningkatkan kekerasan dan *lightness* hidrogel. Adapun hasil karakterisasi cokelat menunjukkan bahwa cokelat yang ditambahkan hidrogel dengan kadar konjak glukomanan 3% dan kadar lemak 32% mampu mencapai titik leleh tertinggi sebesar 38,43°C. Penambahan hidrogel konjak glukomanan mampu meningkatkan kadar air, *lightness*, kekerasan, titik leleh dan ukuran partikel cokelat. Selain itu, lama penyimpanan mampu meningkatkan kekerasan, titik leleh dan ukuran partikel cokelat.

Kata kunci: Cokelat tahan panas, konjak glukomanan, hidrogel, gula semut

THE DEVELOPMENT OF HEAT RESISTANT CHOCOLATE PROCESSING WITH THE ADDITION OF KONJAC GLUCOMANNAN- BASED HYDROGEL AND THE USE OF PALM SUGAR

ABSTRACT

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Chocolate is a popular food product in various circles of society. However, chocolate that easily melts at a temperature of 32-34°C becomes a challenge for tropical countries like Indonesia. The research objective was to develop a heat-resistant chocolate processing with the addition of konjac glucomannan-based hydrogel and the use of palm sugar. The combination of the two ingredients is intended to increase the water content so that the melting point of chocolate also increases. The stages of making chocolate start from mixing raw materials, refining, conching which is accompanied by the addition of konjac glucomannan hydrogel and tempering. The treatments carried out were variations of konjac glucomannan level in the hydrogel covering 3%, 5%, and 7%. Each level of konjac glucomannan was also varied with a fat content of 32%, 34%, and 36%. The characteristics of the hydrogel tested included moisture content, lightness, and hardness, while the characteristics of the chocolate tested included moisture content, color, hardness, melting point, and particle size. The effect of storage time on the hardness, melting point and particle size of chocolate was carried out at intervals of 4 days for 13 days of storage. The results of hydrogel characterization showed that a higher concentration of konjac glucomannan increased the hardness and lightness of the hydrogel. The results of chocolate characterization showed that chocolate added with hydrogel with 3% konjac glucomannan content and 32% fat content has the highest melting point of 38.43°C. The addition of konjac glucomannan hydrogel was able to increase the moisture content, lightness, hardness, melting point, and particle size of chocolate. In addition, storage time increased the hardness, melting point, and particle size of chocolate.

Keywords: heat-resistant chocolate, konjac glucomannan, hydrogel, palm sugar