

Kusnadi, M.Pd
Purdiyanti, M.Farm
Prof. Dr. Andri Cahyo Kumoro, M.T
Prof. Anang M. Legowo, PhD
M. Taufik Qurohman, M.Pd



BISKUIT BERBAHAN ROSELLA (*Hibiscus sabdariffa* L.) dan KITOSAN SEBAGAI ANTIHIPERKOLESTEROLEMIA serta PENGEMBANGANNYA



BISKUIT BERBAHAN ROSELLA (*Hibiscus sabdariffa* L.) dan KITOSAN SEBAGAI ANTIHIPERKOLESTEROLEMIA dan PENGEMBANGANNYA

Kusnadi, M.Pd.

kusnadi.adi87@gmail.com

Departemen Farmasi, Politeknik Harapan Bersama
Kimia dan Food science

Purgiyanti, M.Farm.

ipunkfalih@gmail.com

Departemen Farmasi, Politeknik Harapan Bersama
Farmasi

Prof. Dr. Andri Cahyo Kumoro, M.T.

andrewkomoro@che.undip.ac.id

Departemen Teknik Kimia, Universitas Diponegoro
Teknik Kimia dan Food science

Prof. Anang Mohamad Legowo, Ph.D.

anang_mL@yahoo.com

Departemen Teknologi Pangan, Universitas Diponegoro
Teknologi Pangan dan Food science

M. Taufik Qurohman, M.Pd.

taufik.qurohman@poltektegal.com

Departemen Teknik Mesin, Politeknik Harapan Bersama
Matematika

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(Hibiscus sabdariffa L.)
DAN KITOSAN SEBAGAI
ANTIHIPERKOLESTEROLEMIA SERTA
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PENERBIT CV.EUREKA MEDIA AKSARA

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Penulis : Kusnadi, M.Pd.
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Prof. Anang M. Legowo, PhD
M. Taufik Qurohman, M.Pd.

Editor : Darmawan Edi Winoto, S.Pd.,M.Pd.

Desain Sampul : Satria Panji Pradana

Tata Letak : Endar Widi Sugiyo

ISBN : 978-623-487-366-5

Diterbitkan oleh : **EUREKA MEDIA AKSARA, NOVEMBER 2022**
ANGGOTA IKAPI JAWA TENGAH
NO. 225/JTE/2021

Redaksi:

Jalan Banjaran, Desa Banjaran RT 20 RW 10 Kecamatan Bojongsari
Kabupaten Purbalingga Telp. 0858-5343-1992

Surel : eurekaediaaksara@gmail.com

Cetakan Pertama : 2022

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KATA PENGANTAR

Puji syukur saya panjatkan kepada Tuhan Yang Maha Esa, karena atas berkat dan rahmat-Nya, saya dapat menyelesaikan buku ini. Penulisan buku merupakan buah karya dari pemikiran penulis yang diberi judul “**Biskuit Berbahan Rosella (*Hibiscus sabdariffa* L.) dan Kitosan Sebagai Antihiperkolesterolemia serta Pengembangannya**”. Saya menyadari bahwa tanpa bantuan dan bimbingan dari berbagai pihak sangatlah sulit bagi saya untuk menyelesaikan karya ini. Oleh karena itu, saya mengucapkan banyak terima kasih pada semua pihak yang telah membantu penyusunan buku ini. Sehingga buku ini bisa hadir di hadapan pembaca.

Monograf Biskuit Berbahan Ekstrak Rosella (*Hibiscus Sabdariffa* L.) dan Kitosan yang Berpotensi Sebagai Antihiperkolesterolemia dan Pengembangannya adalah wujud memperkuat diversifikasi pangan lokal guna meningkatkan ketahanan pangan nasional. Sejuta manfaat dari kitosan dan bunga rosella menjadi fokus pengembangan.

Penulis menyadari bahwa buku ini masih jauh dari kesempurnaan. Oleh karena itu kritik dan saran yang membangun sangat dibutuhkan guna penyempurnaan buku ini. Akhir kata saya berharap Tuhan Yang Maha Esa berkenan membalas segala kebaikan semua pihak yang telah membantu. Semoga buku ini akan membawa manfaat bagi pengembangan ilmu pengetahuan.

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(*Hibiscus sabdariffa* L.) DAN
KITOSAN SEBAGAI
ANTIHIPERKOLESTEROLEMIA
SERTA PENGEMBANGANNYA**



BAB

1

PENDAHULUAN

Salah satu kebiasaan masyarakat dalam mengonsumsi jajanan yang tinggi kolesterol dan rendah serat namun tidak diimbangi dengan aktivitas yang cukup. Salah satu jenis jajanan manis kecil yang dapat dinikmati oleh semua tingkat usia manusia adalah biskuit (Singh et al. 2015). Selain itu, secara fisik siap untuk dikonsumsi, memiliki daya simpan lebih lama, memiliki komposisi rapat yang baik, dan memiliki variasi rasa (Mahloko et al. 2019). Bahan utama yang digunakan untuk membuat biskuit masih serialia dari biji-bijian, yang terus mendominasi pasar (Adedara and Taylor 2021). Namun, karena hanya sedikit bahan non-serial yang digunakan, jumlah serat makanan dalam biskuit menjadi minimal. Upaya memvariasikan produk biskuit berperan penting dalam meningkatkan nilai serat pangan dan rendah kolesterol. Roselle dapat digunakan sebagai komponen dalam pembuatan biskuit selain serialia yang mengandung serat dan dibentuk menjadi tepung atau ekstrak.

Rosella (*Hibiscus Sabdariffa* L.) selama ini dikenal sebagai tanaman penghasil serat dan mengandung senyawa biokatif metabolit sekunder. Kelopak bunga rosella merupakan salah satu bagian yang penting sebagai sumber mineral, vitamin, dan

BAB

2

BISKUIT BERBAHAN TEPUNG ROSELLA DAN KITOSAN SEBAGAI ANTIHIPERKOLESTEROLEMIA

A. Konsep Biskuit Berbahan Tepung Rosella dan Kitosan Sebagai Antihiperkolesterolemia

Salah satu kebiasaan masyarakat dalam mengonsumsi jajanan yang tinggi kolesterol dan rendah serat namun tidak diimbangi dengan aktivitas yang cukup. Salah satu jenis jajanan manis kecil yang dapat dinikmati oleh semua tingkat usia manusia adalah biskuit (Singh et al. 2015). Selain itu, secara fisik siap untuk dikonsumsi, memiliki daya simpan lebih lama, memiliki komposisi rapat yang baik, dan memiliki variasi rasa (Mahloko et al. 2019). Bahan utama yang digunakan untuk membuat biskuit masih serialia dari biji-bijian, yang terus mendominasi pasar (Adedara and Taylor 2021). Namun, karena hanya sedikit bahan non-serial yang digunakan, jumlah serat makanan dalam biskuit menjadi minimal. Upaya memvariasikan produk biskuit berperan penting dalam meningkatkan nilai serat pangan dan rendah kolesterol. Roselle dapat digunakan sebagai komponen dalam pembuatan biskuit selain serialia yang mengandung serat dan dibentuk menjadi tepung atau ekstrak.

Kelopak rosella segar atau kering banyak digunakan dalam pembuatan minuman herbal, minuman fermentasi,

BAB 3

TEPUNG IKAN GABUS DENGAN PENAMBAHAN EKSTRAK ROSELLA UNTUK ANTIOKSIDAN BISKUIT PENDAMPING ASI

A. Konsep MPASI

Makanan Pendamping Air Susu Ibu (MPASI) adalah makanan atau minuman kaya gizi yang diberikan kepada anak kecil atau bayi antara usia 6 dan 24 bulan untuk memenuhi kebutuhan gizinya selain ASI (Virera et al. 2018). Untuk memberikan energi bagi pertumbuhan dan perkembangan bayi, dosis susu harus ditingkatkan seiring bertambahnya usia bayi karena ASI hanya menyediakan hingga 60% dari kebutuhan nutrisi bayi. Bahan makanan lain yang berlimpah jumlahnya dan bergizi harus digunakan untuk mengisi sisanya. Oleh karena itu, MP-ASI seringkali dibuat dari beberapa bahan makanan yang memiliki nilai gizi tinggi dengan perbandingan formulasi tertentu (Mufida et al. 2015).

Widodo et al. (2016) melaporkan dalam pembuatan biskuit bayi dengan substitusi tepung blondo dan tepung ikan Gabus berdasarkan SNI 01-7111.2-2005 sudah memenuhi standar kandungan gizi. Biskuit bayi dengan substitusi tepung blondo dan tepung ikan gabus mengandung kadar protein 16,32 g, lemak 11,5 g, abu 3,48 g, air 3,8 g dan serat 3,48 g dalam 100 g biskuit. Ikan gabus juga diaplikasikan dalam pembuatan cookies dengan penambahan labu kuning (Cucurbita

BAB 4

KITOSAN DALAM PEMBUATAN BISKUIT TERHADAP ANTIOKSIDAN PADA SUHU PEMANGGANGAN

A. Konsep Pembuatan Biskuit Berdasarkan Suhu Pemanggangan Berbahan Kitosan

Biskuit merupakan salah satu makanan ringan atau snack yang renyah dan banyak dikonsumsi oleh masyarakat. Biskuit dikonsumsi oleh seluruh kalangan usia, baik bayi hingga kalangan dewasa tetapi dengan jenis yang berbeda-beda (Mahloko et al., 2019). Sifat fisiknya juga siap untuk dimakan, memiliki umur simpan yang lebih lama dan kualitas nutrisi yang baik serta memiliki berbagai jenis rasa (Cervini et al., 2021). Namun, biskuit komersial yang beredar di pasaran memiliki kandungan gizi yang kurang seimbang. Kebanyakan biskuit memiliki kandungan karbohidrat dan lemak yang tinggi, sedangkan kandungan antioksidan relatif rendah (Adedara & Taylor, 2021). Untuk itu disini penulis membuat biskuit kaya antioksidan. Peningkatan kadar antioksidan di dalam produk pangan sangat penting, karena antioksidan sangat dibutuhkan bagi tubuh. Untuk meningkatkan kadar antioksidan, maka formula biskuit dapat ditambahkan menggunakan turunan senyawa oligosakarida seperti kitosan.

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TENTANG PENULIS

Kusnadi, M.Pd.

kusnadi.adi87@gmail.com

Departemen Farmasi, Politeknik Harapan Bersama
Kimia dan Food science

Google Cendekia

Purgiyanti, M.Farm.

ipunkfalih@gmail.com

Departemen Farmasi, Politeknik Harapan Bersama
Farmasi

Google Cendekia

Prof. Dr. Andri Cahyo Kumoro, M.T.

andrewkomoro@che.undip.ac.id

Departemen Teknik Kimia, Universitas Diponegoro
Teknik Kimia dan Food science

Google Cendekia

Prof. Anang Mohamad Legowo, Ph.D.

anang_mL@yahoo.com

Departemen Teknologi Pangan, Universitas Diponegoro
Teknologi Pangan dan Food science

Google Cendekia

M. Taufik Qurohman, M.Pd.

taufik.qurohman@poltektegal.com

Departemen Teknik Mesin, Politeknik Harapan Bersama
Matematika

Google Cendekia