ABSTRAK

PEMBUATAN TEPUNG KOLAGEN DARI KOLANG-KALING *(Arenga pinnata.)* SEBAGAI BAHAN CAMPURAN PEMBUATAN SUSU KEDELAI NABATI

(Allysa Muthia, 2025, 40 Halaman, 10 Tabel, 18 Gambar, 4 Lampiran)

Penelitian ini bertujuan untuk memanfaatkan kolang-kaling *(Arenga pinnata.)* sebagai bahan baku tepung kolagen nabati yang kemudian diformulasikan ke dalam susu kedelai. Fokus penelitian meliputi pengaruh ketebalan irisan (0,5–1,5 cm) dan waktu pengeringan (3,5–6 jam) terhadap rendemen dan sifat fisikokimia tepung, serta efektivitasnya dalam meningkatkan kandungan protein susu nabati. Hasil menunjukkan bahwa ketebalan 1,5 cm dengan waktu pengeringan 6 jam menghasilkan rendemen tertinggi sebesar 6,65%, kadar air 8,67%, dan kadar protein 1,57%. Meskipun penambahan tepung kolang-kaling ke dalam 50 ml susu kedelai (600–1200 mg) tidak menunjukkan peningkatan signifikan terhadap kadar protein (berkisar 2,59–2,63%), produk tetap mengandung senyawa yang mendukung biosintesis kolagen seperti vitamin C dan serat larut. Dengan demikian, tepung kolang-kaling memiliki potensi sebagai bahan fungsional dalam produk minuman berbasis nabati yang ramah lingkungan.

Kata Kunci : *Kolang-kaling, tepung kolagen, susu nabati, protein, pengeringan*

ABSTRACT

PRODUCTION OF COLLAGEN FLOUR FROM KOLANG-KALING (Arenga pinnata.) AS AN AADDITIVE FOR PLANT-BASED COLLAGEN MILK

(Allysa Muthia, 2025, 40 *Pages*, 10 *Table*, 18 *Figures*, 4 *Appendix*)

This study aims to utilize kolang-kaling (Arenga pinnata.) as a raw material for plant-based collagen flour, which is then incorporated into soy milk formulations. The research focuses on evaluating the effects of slice thickness (0.5–1.5 cm) and drying time (3.5–6 hours) on the yield and physicochemical properties of the resulting flour, as well as its effectiveness in enhancing the protein content of the plant-based milk. Results showed that a slice thickness of 1.5 cm with a drying time of 6 hours produced the highest flour yield (6.65%), with a moisture content of 8.67% and protein content of 1.57%. Although the addition of kolang-kaling flour (600–1200 mg per 50 ml soy milk) did not significantly increase protein levels (ranging from 2.59–2.63%), the flour contributed functional compounds such as vitamin C and soluble fiber that support endogenous collagen synthesis. Thus, kolang-kaling flour demonstrates potential as a functional ingredient in environmentally friendly, plant-based collagen beverages.

Keywords : *Kolang-kaling, collagen flour, plant-based milk, protein, drying*