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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Artikel Ilmiah : Optimasi Formula MP-ASI Bubuk Sumber Protein dengan Substitusi Hidrolisat Protein Ikan dan Tepung Kacang Hijau menggunakan *Response Surface Methodology*

Penulis Artikel Ilmiah : Yosi Irene Putri, Syaiful Anwar, **Diana Nur Afifah**, Ekowati Chasanah, Yusro Nuri Fawsyah, Pujoyuwono Martosuyono

Status Pengusul : Penulis pertama/penulis anggota/penulis korespondensi

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- c. Edisi (bulan/tahun) : November/2019
- d. Penerbit : Jurnal Aplikasi Teknologi Pangan
- e. Jumlah halaman : 7
- f. DOI artikel (Jika ada) : <https://doi.org/10.17728/jatp.4346>
- g. Alamat web Jurnal : <https://ejournal2.undip.ac.id/index.php/jatp/index>
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Ruang Lingkup dan Kedalaman Pembahasan	: Ruang lingkup penelitian membuat formula MP-ASI bubuk dari Hidrolisat Protein Ikan dan tepung kacang hijau. Pembahasan mendalam dengan referensi 34 pustaka termasuk beberapa SNI terkait MP-ASI
Kecukupan & Kemutakhiran Data & Metodologi	: Penelitian experiment menggunakan Response Surface Methodology
Kelengkapan Unsur dan Kualitas Penerbit	: Terbitan lengkap memuat vol, no, tahun dan daftar isi

Semarang, 10 Januari 2020
 Penilai I



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 NIP 19590527 198603 2 001
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 Bidang Ilmu : Ilmu Kedokteran
 Jabatan/Pangkat : Guru Besar

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d. Kelengkapan unsur dan kualitas penerbit (30%)		7,5		7,4
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KOMENTAR/ULASAN PEER REVIEW

Kelengkapan dan Kesesuaian Unsur	: Jurnal nasional terakreditasi, unsur lengkap dari abstrak, pendahuluan, metode, hasil pembahasan hingga daftar pustaka
Ruang Lingkup dan Kedalaman Pembahasan	: Ruang lingkup penelitian optimasi formula MP-ASI dengan bahan baku Hidrolisat Protein Ikan dan tepung kacang hijau. Pembahasan mendalam dengan referensi > 80% pustaka primer
Kecukupan & Kemutakhiran Data & Metodologi	: Penelitian menggunakan Response Surface Methodology untuk mendapatkan 3 formula terbaik kemudian dilanjutkan pembuatan MP-ASI hingga di ukur kandungan gizinya
Kelengkapan Unsur dan Kualitas Penerbit	: Terbitan lengkap memuat vol, no, tahun dan daftar isi dan terindeks di Sinta 2

Semarang, 7 Januari 2020

Penilai 2

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NIP 19490209 197901 2 001

Unit kerja : Fakultas Kedokteran

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A publication




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i Current issue: Vol 8, No 4 (2019): November 2019
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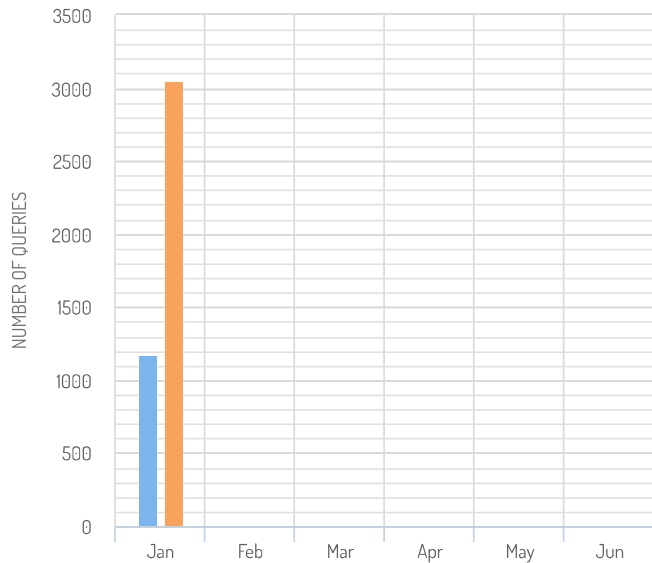
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Yosi Irene Putri, Syaiful Anwar, Diana Nur Afifah, Ekowati Chasanah, Yusro Nuri Fawzya, Pujoyuwono Martosuyono

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Aktivitas Antioksidan dan Sifat Fisikokimia Madu Temulawak (*Curcuma zanthorrhiza* roxb.) yang Ditambah Ekstrak Jahe (*Zingiber officinale* Rosc) (<https://ejournal2.undip.ac.id/index.php/jatp/article/view/4849>)

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Optimasi Formula MP-ASI Bubuk Instan Sumber Protein dengan Subtitusi Hidrolisat Protein Ikan (HPI) dan Tepung Kacang Hijau Menggunakan Response Surface Methodology (RSM)

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Abstract

Abstrak

Penelitian ini bertujuan untuk mengoptimalkan formulasi bahan baku sumber protein pada Makanan Pendamping ASI (MP-ASI) untuk mendapatkan kandungan protein tertinggi. Metode eksperimen yang menggunakan 3-faktor 1-respon dengan menggunakan *Response Surface Methodology* (RSM). Tepung susu skim, bubuk Hidrolisat Protein Ikan (HPI), dan tepung kacang hijau dengan berbagai konsentrasi digunakan sebagai sumber bahan baku dan kandungan protein digunakan sebagai respon. Hasil dari respon dianalisis dengan analisis varians (ANOVA) dan melihat nilai *desirability* (optimasi terbaik). Formula MP-ASI dari hasil optimasi protein terbaik kemudian dilanjutkan dengan analisis proksimat. Hasil penelitian menunjukkan bahwa jenis bahan baku memiliki pengaruh terhadap kandungan protein ($p < 0,05$). Tiga formula MP-ASI bubuk terbaik dari hasil optimasi adalah memiliki nilai *desirability* sebesar 0,714–0,791, kadar protein sebesar 18,72–19,38 g, kadar air berkisar 7,14–7,34 g, kadar abu berkisar 2,95–3,10 g dan kadar lemak berkisar 5,44–5,82 g dalam 100 g bubuk MP-ASI. Kesimpulannya, formula MP-ASI dapat ditentukan berdasarkan kadar protein tertinggi dan rasio bahan baku mempengaruhi kandungan nutrisi pada produknya

Optimization of Formula for High Protein–Complementary Food using Fish Protein Hydrolysate and Mung Bean Flour by Response Surface Methodology

Abstract

This research aims to optimize the formula of material for protein sources to get the optimum response (based on protein content). The method of 3-factor and 1-response was used using Response Surface Methodology (RSM) to analyze the materials of skim milk flour (g, X1), Fish Protein Hydrolysate (FPH) flour (g, X2), and mung bean flour (g, X3) as independent variable/factor, whereas protein (g, Y) was used as dependent variable /response. The results were analyzed with variant analysis (ANOVA) and observed its desirability value to obtain best optimum value. The best of formula was examined its nutrition value using proximate analysis. This research showed that independent variables (X) had significant effect to the dependent variable (Y) ($p < 0.05$). The best three formulas of high–protein complementary food had desirability value starting from 0.714 to 0.791. The proximate test resulted protein content of 18.72–19.38 g, moisture content of 7.14–7.34 g, ash content of 2.95–3.10 g, and fat content of

5.44–5.82 g. In conclusion, the best formula could be determined successfully using combinations of protein sources.

Keywords

protein optimization; complementary food of instant flour; fish protein hydrolyzate (FPH); Response Surface Methodology (RSM)

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