# LAMPIRAN

FAKULTAS ILMU KESEHATAN DAN TEKNOLOGI
'AISYIYAH PALEMBANG
PROGRAM STUDI S1 FARMASI
Jl. Kol. H. Burlian –Lr. M. Husin No. 907 RT. 12/RW. 04 Kel. Karya Baru
Kec. Alang-alang LebarKM. 7,5 Palembang 30152 Telp. 0711 -421981
www.unisa-palembang.ac.id farmasi.aisyiyah@gmail.com

بسم الله الرحمن الرحيم

**FORMULIR**
**PERNYATAAN SELESAI REVISI SKRIPSI*)**
**(S-06)**

Yang bertandatangan dibawah ini, tim penguji Skripsi 1/ Skripsi 2*):

| | |
|---|---|
| Nama Mahasiswa | : Jessica Wahyu Pratiwi |
| NIM | : 214820103014 |
| Judul Penelitian | : Formula *Jelly Candy* Dari Umbi Bit (*Beta Vulgaris*) Dan Buah Naga (*Hylocereus Polyrhizus*) Sebagai Pendamping Pencegahan Anemia Pada Remaja Putri |

| | |
|---|---|
| Pembimbing 1 | : Intan Trisakti, M.Farm |
| Pembimbing 2 | : Dr. Eduan Effendi., DCN., M. Sc., PH |
| Tanggal Ujian | : 30 Agustus 2025 |

Menerangkan bahwa naskah Proposal/ Skripsi*) telah **selesai** direvisi oleh tim penguji.

| Nama | Tanda Tangan | Tanggal |
|---|---|---|
| 1. Intan Trisakti, M.Farm | 2/09/2025 | |
| 2. Dr. Eduan Effendi., DCN., M. Sc., PH | 2/09/2025 | |
| 3. apt. Galih Pratiwi M.Pharm, Sci | 3/09/2025 | |
| 4. Tri Oktariani, S.Farm., M.Farm | 3/09/2025 | |

*) : Coret yang tidak perlu.

| | SURAT | No Dokumen | Form-A1 |
|---|---|---|---|
| | PERMOHONAN IZIN PENELITIAN PROGRAM STUDI S-1 FARMASI UNIVERSITAS AISYIYAH PALEMBANG | Berlaku Sejak | |
| | | Revisi | 000 |

Hal : Permohonan Izin Penelitian

| | |
|---|---|
| 1 | Skripsi |
| 2 | PKM/LKTI |
| 3 | Penelitian Dosen |
| 4 | Luar |

Kepada Yth
Kabag Laboratorium Terpadu
Universitas 'Aisyiyah Palembang

Assalamualaikum Wr. Wb.
Sehubungan dengan penelitian kami dalam bidang.....,
dengan:
Judul Penelitian : Formula *Jelly Candy* Dari Umbi Bit (*Beta Vulgaris*) Dan Buah Naga (*Hylocereus Polyrhizus*) Sebagai Pendamping Pencegahan Anemia Pada Remaja Putri

Nama Pembimbing : 1. Intan Trisakti., S. Farm., M. Farm.
2. Dr. Eduan Effendi., DCN., M. Sc., PH.

| No | Nama | NIM/NIP/NIK | No. HP |
|---|---|---|---|
| 1 | Jessica Wahyu Pratiwi | 214820103014 | 083869742107 |

Bermaksud mengajukan izin penelitian di Laboratorium*): **Farmasetika Dasar / Teknologi Farmasi / Kimia Farmasi / Biologi Farmasi / Farmakologi / Mikrobiologi / Komputasi** Prodi S1 Farmasi Universitas 'Aisyiyah Palembang.

Penelitian tersebut akan laksanakan selama: 21 | 04 | 2025 s.d 21 | 07 | 2025 kami 4 bulan,
yang terhitung dari :

Sebagai bahan pertimbangan, bersama ini dilampirkan lembar pengesahan proposal penelitian.
Demikian permohonan kami, atas perhatiannya diucapkan terima kasih.

Palembang, 16 April 2025

Mengetahui,
Dosen Pembimbing

Intan Trisakti, S. Farm., M. Farm

Pemohon

Jessica Wahyu Pratiwi

Menyetujui,
Kabag Laboratorium Terpadu

Heni Rilyanti, SFM., M.Kes

Kaprodi S1 Farmasi

apt. Anny Indriani, M. Farm

UNISA
UNIVERSITAS 'AISYIYAH PALEMBANG
FAKULTAS KESEHATAN DAN TEKNOLOGI (FKesT)
PROGRAM STUDI :
S1 FARMASI
Jl. Kol. H. Burlian – Lr. M. Husin KM. 7,5 No. 907 Kota Palembang, Kode Pos 30152, Telp (0711) 417135
Email: farmasi@unisa-palembang.ac.id

# FORMULIR BIMBINGAN SKRIPSI

Nama : Jessica Wahyu Pratiwi
NIM : 214820103014
Nama Pembimbing : Intan Trisakti., S. Farm., M. Farm
Judul Skripsi : Formula *Jelly Candy* Dari Umbi Bit (*Beta Vulgaris*) Dan Buah Naga (*Hylocereus Polyrhizus*) Sebagai Pendamping Pencegahan Anemia Pada Remaja Putri

| No. | Tanggal Konsultasi | Keterangan | Paraf Pembimbing |
|---|---|---|---|
| 1. | 6 Mei 2025 | Revisi BAB IV | |
| 2. | 20 Mai 2025 | Revisi BAB IV dan Pembahasan | |
| 3. | 13 Juni 2025 | Konsultasi Hasil Penelitian | |
| 4. | 21 Juli 2025 | Revisi Hasil Penelitian | |
| 5. | 25 Juli 2025 | Revisi BAB IV dan V | |
| 6. | 15 Agustus 2025 | Revisi BAB IV | |
| 7. | 19 Agustus 2025 | Revisi BAB V | |
| 8. | 25 Agustus 2025 | Revisi BAB I-V | |
| 9. | 27 Agustus 2025 | Bimbingan Draf Skripsi | |
| 10. | 28 Agustus 2025 | Fiksasi Draf Skripsi | |

UNISA
UNIVERSITAS 'AISYIYAH PALEMBANG
FAKULTAS KESEHATAN DAN TEKNOLOGI (FKesT)
PROGRAM STUDI :
S1 FARMASI
Jl. Kol. H. Burlian – Lr. M. Husin KM. 7,5 No. 907 Kota Palembang, Kode Pos 30152, Telp (0711) 417135
Email: farmasi@unisa-palembang.ac.id

## FORMULIR BIMBINGAN SKRIPSI

Nama : Jessica Wahyu Pratiwi

NIM : 214820103014

Nama Pembimbing : Dr. Eduan Effendi., DCN., M. Sc., PH.

Judul Skripsi : Formula *Jelly Candy* Dari Umbi Bit (*Beta Vulgaris*) Dan Buah Naga (*Hylocereus Polyrhizus*) Sebagai Pendamping Pencegahan Anemia Pada Remaja Putri

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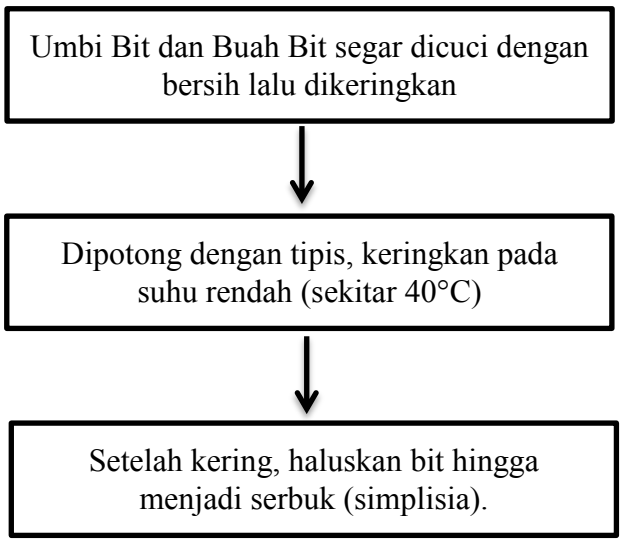
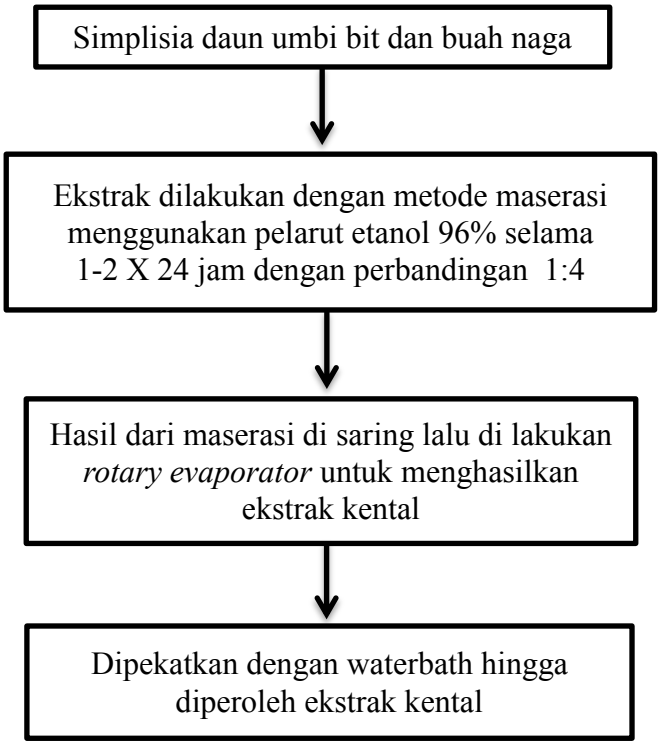
| 9. | 27 Agustus 2025 | Bimbingan Draf Skripsi | |
| 10. | 28 Agustus 2025 | Fiksasi Draf Skripsi | |

**Lampiran 1. Skema kerja pembuatan simplisia**



**Lampiran 2. Skema Kerja Ekstraksi**



**Lampiran 3. Perhitungan Ekstrak Kental**

**Rumus Perhitungan Rendemen Ekstrak Umbi Bit (%)**

$$\text{Rendemen (\%)} = \frac{\text{Berat ekstrak kering}}{\text{Berat simplisia kering}} \times 100\%$$

$$\text{Rendemen (\%)} = \frac{28{,}25}{250} \times 100\%$$

$$\text{Rendemen (\%)} = 11{,}30\%$$

**Rumus Perhitungan Rendemen Ekstrak Buah Naga (%)**

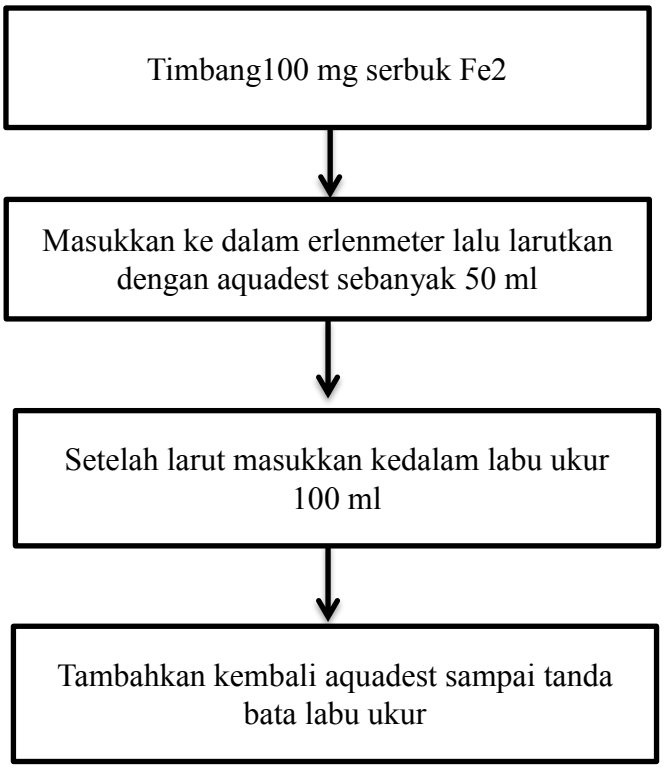
$$\text{Rendemen (\%)} = \frac{\text{Berat ekstrak kering}}{\text{Berat simplisia kering}} \times 100\%$$

$$\text{Rendemen (\%)} = \frac{27{,}25}{250} \times 100\%$$

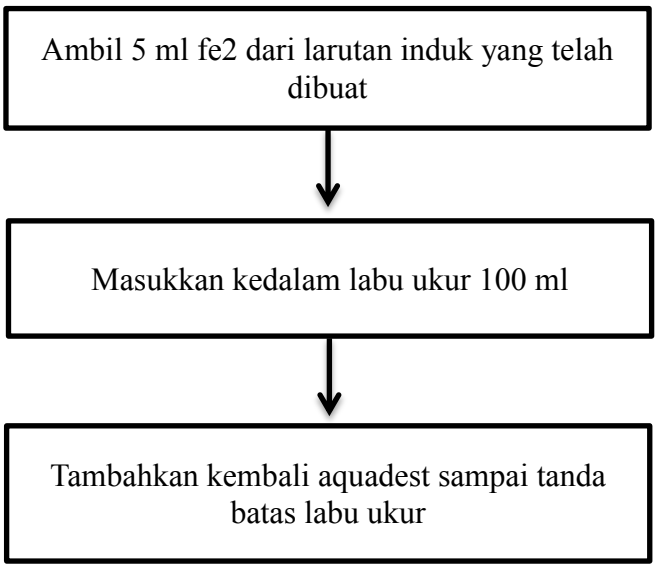
$$\text{Rendemen (\%)} = 10{,}90\%$$

**Lampiran 4. Pembuatan Larutan PPM**

**Larutan Induk Fe2  Konsentrasi  1000 ppm**



**Larutan Seri Fe2 untuk Spektrofotometri UV-Vis**



**Lampiran 5. Perhitungan Larutan Seri**

**Rumus Perhitungan Larutan Seri ppm**

**Konsentrasi 5 ppm**

Larutan seri 5 ppm = v1 x m1 = v2 x m2

Larutan seri 5 ppm = 100 = 100 x 5 ppm

$$\text{Larutan seri 5 ppm} = \frac{500}{100} = 5 \text{ ml}$$

**Konsentrasi 10 ppm**

Larutan seri 10 ppm = v1 x m1 = v2 x m2

Larutan seri 10 ppm = 100 = 100 x 10 ppm

$$\text{Larutan seri 10 ppm} = \frac{1000}{100} = 10 \text{ ml}$$

**Konsentrasi 15 ppm**

Larutan seri 15 ppm = v1 x m1 = v2 x m2

Larutan seri 15 ppm = 100 = 100 x 15 ppm

$$\text{Larutan seri 15 ppm} = \frac{1500}{100} = 15 \text{ ml}$$

**Konsentrasi 20 ppm**

Larutan seri 20 ppm = v1 x m1 = v2 x m2

Larutan seri 20 ppm = 100 = 100 x 20 ppm

$$\text{Larutan seri 20 ppm} = \frac{2000}{100} = 20 \text{ ml}$$

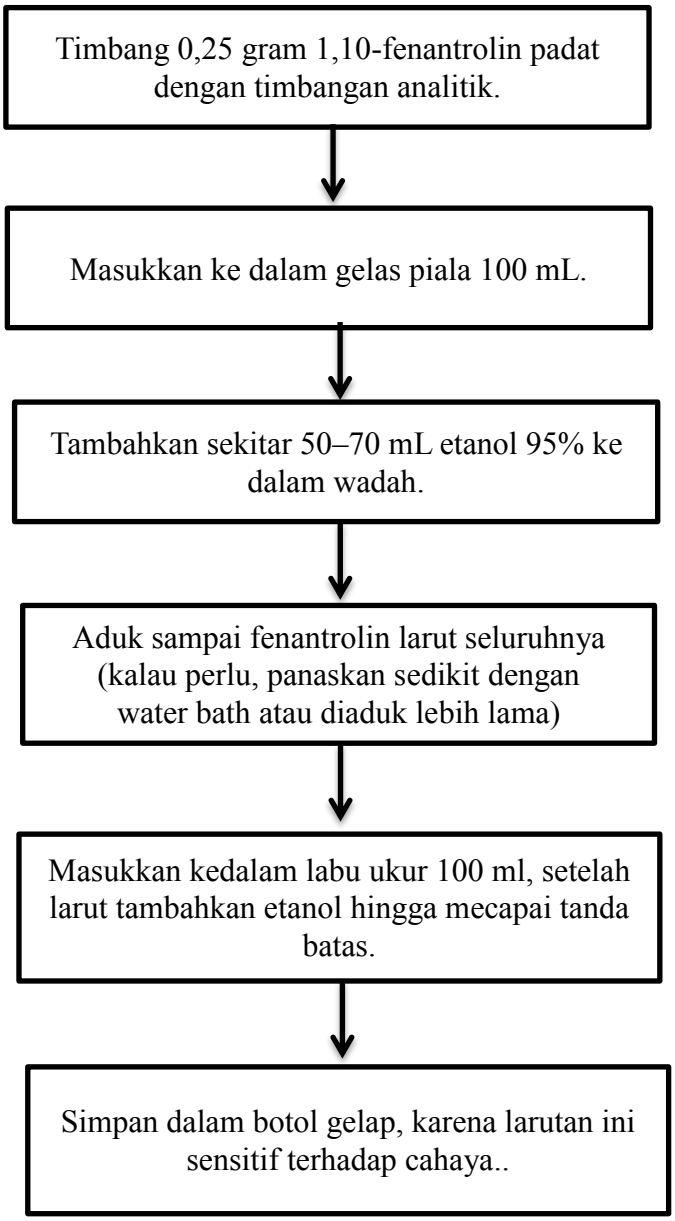
**Konsentrasi 25 ppm**

Larutan seri 25 ppm = v1 x m1 = v2 x m2

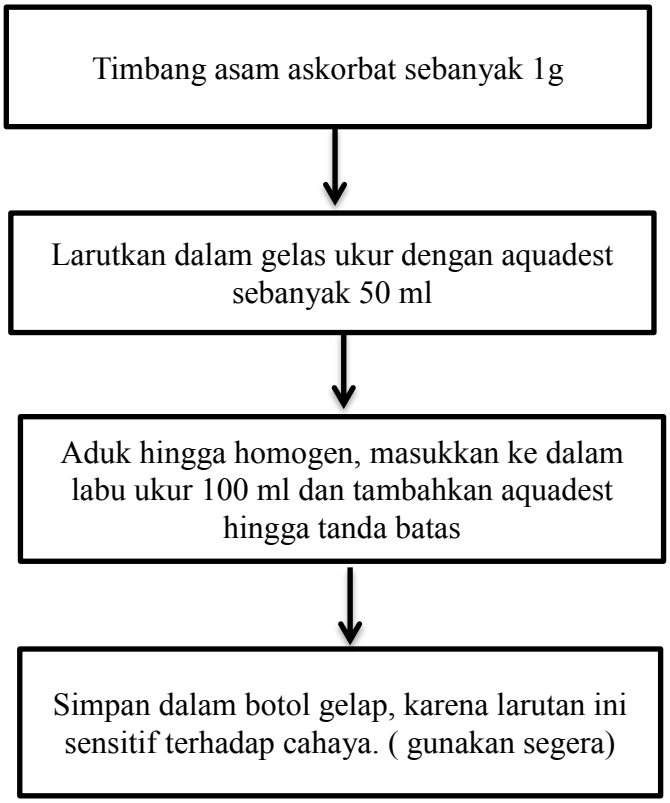
Larutan seri 25 ppm = 100 = 100 x 25 ppm

$$\text{Larutan seri 25 ppm} = \frac{2500}{100} = 25 \text{ ml}$$

**Lampiran 6. Pembuatan Reagen 1,10-fenantrolin 0,25%**

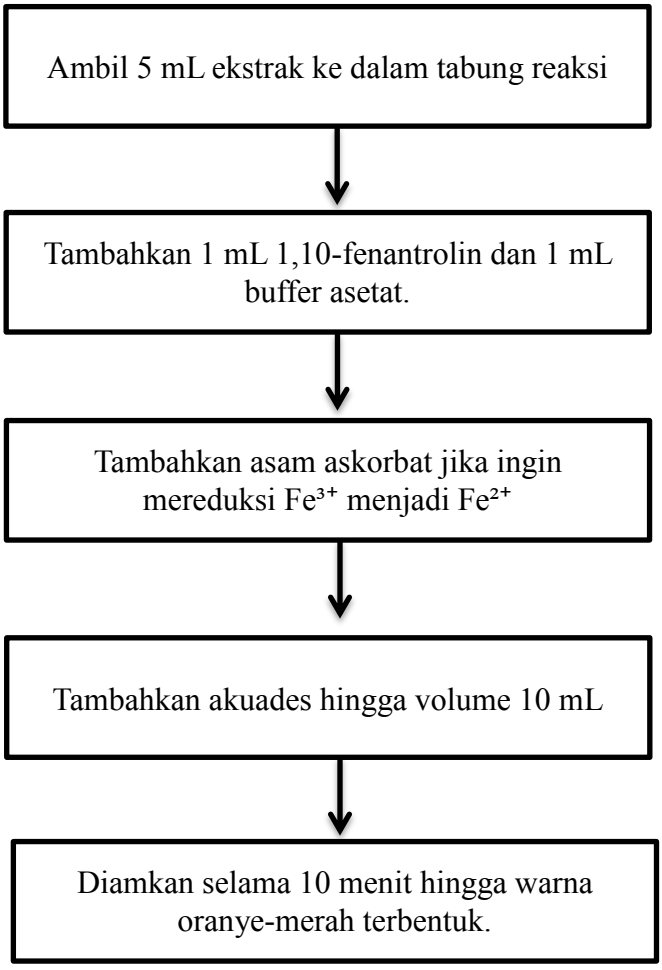


**Lampiran 7. Pembuatan Asam Askorbat**

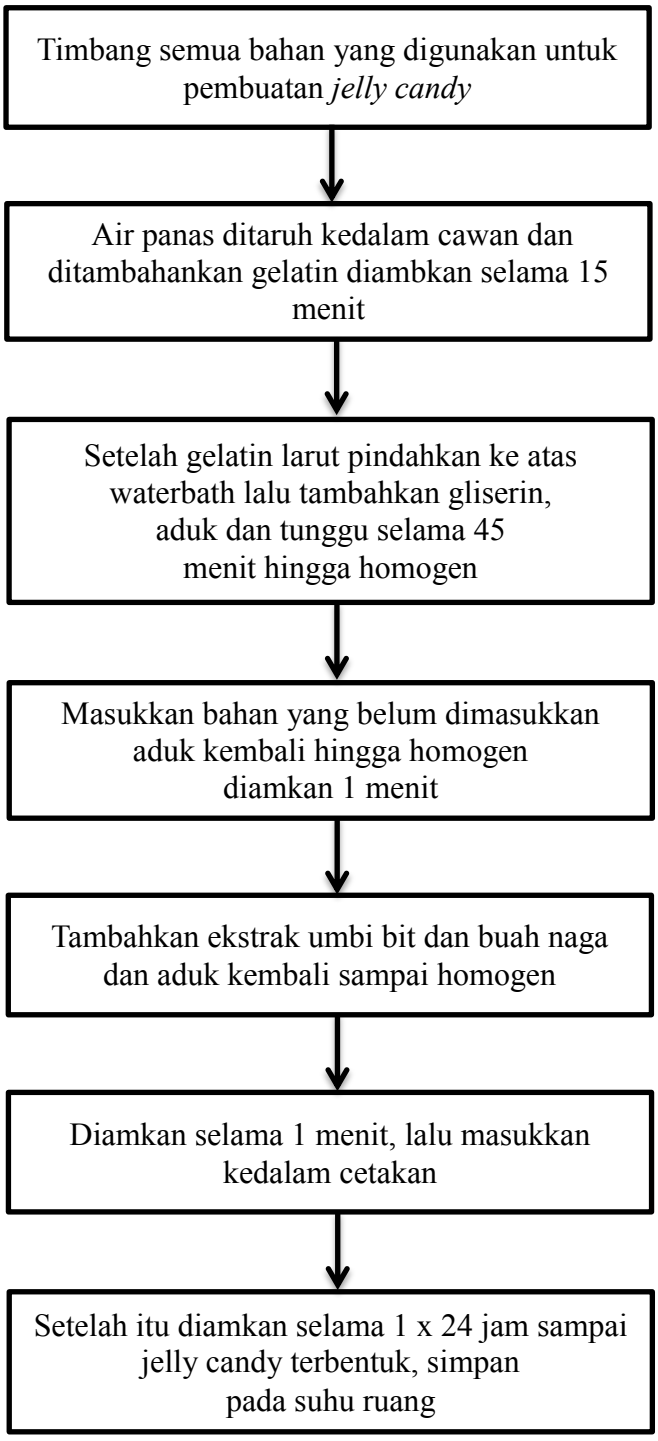


**Lampiran 8. Ekstraksi Zat Besi dari Ekstrak Umbi Bit dan Buah Naga**

**Lampiran 9. Pembuatan larutan sampe zat besi dengan ekstrak umbi bit dan buah naga**



**Lampiran 10. Skema Kerja Pembuatan *Jelly Candy***



**Lampiran 11. Surat Hasil Pegecekan *Jelly Candy***

**LABORATORIUM**
**KIMIA PENGOLAHAN DAN SENSORIS HASIL PERTANIAN**
**JURUSAN TEKNOLOGI PERTANIAN**
**FAKULTAS PERTANIAN**
Jl. Palembang – Prabumulih Km. 32 Indralaya (OI) Telp. (0711) 580664

**LAPORAN ANALISA**
**No. 50/LABKHP/2025**

Nama Pemesan : Jessica Wahnyu Pratiwi
Tanggal Terima : 20 Mei 2025
Tanggal Selesai : 22 Mei 2025
Jumlah Sampel : 3
Jenis Analisa : Tekstur (Texture Analyzer Brookfield), Warna (Color Reader), Aw (Aw Meter)
Jenis Sampel : Jelly Candy

Formulasi 1

| No | Kode | Kekerasan (gF) | | Warna | | | Aw |
|---|---|---|---|---|---|---|---|
| | | Peak Load | Final Load | L | a | b | |
| 1 | P1 | 264,8 | 103,8 | 61,07 | 4,62 | 22,94 | 0,78 |
| 2 | P2 | 264,5 | 103,4 | 61,04 | 4,60 | 22,90 | 0,79 |
| 3 | P3 | 264,2 | 103,1 | 60,09 | 4,58 | 22,87 | 0,79 |

Palembang, 22 Mei 2025
Koordinator Teknis Laboratorium,

JURUSAN TEKNOLOGI PERTANIAN
LABORATORIUM KIMIA DAN MIKROBIOLOGI HASIL PERTANIAN
FAKULTAS PERTANIAN UNSRI

Hafsah, ST.,M.T
NIP. 198006202001122001

**LABORATORIUM**
**KIMIA PENGOLAHAN DAN SENSORIS HASIL PERTANIAN**
**JURUSAN TEKNOLOGI PERTANIAN**
**FAKULTAS PERTANIAN**
Jl. Palembang – Prabumulih Km. 32 Indralaya (OI) Telp. (0711) 580664

## LAPORAN ANALISA
## No. 50/LABKHP/2025

Nama Pemesan : Jessica Wahyu Pratiwi
Tanggal Terima : 20 Mei 2025
Tanggal Selesai : 22 Mei 2025
Jumlah Sampel : 3
Jenis Analisa : Tekstur (Texture Analyzer Brookfield), Warna (Color Reader), Aw (Aw Meter)
Jenis Sampel : Jelly Candy

Formulasi 2

| No | Kode | Kekerasan (gF) | | Warna | | | Aw |
|---|---|---|---|---|---|---|---|
| | | Peak Load | Final Load | L | a | b | |
| 1 | P1 | 548,0 | 238,6 | 60,83 | 5.67 | 22,66 | 0,79 |
| 2 | P2 | 548,2 | 238,3 | 60,79 | 5.64 | 22,62 | 0,78 |
| 3 | P3 | 548,5 | 238,7 | 60,75 | 5.60 | 22,58 | 0,78 |

Palembang, 22 Mei 2025
Koordinator Teknis Laboratorium,

JURUSAN TEKNOLOGI PERTANIAN
LABORATORIUM KIMIA DAN MIKROBIOLOGI HASIL PERTANIAN
FAKULTAS PERTANIAN UNSRI

Hafsah, ST.,M.T
NIP. 198006202001122001

**LABORATORIUM**
**KIMIA PENGOLAHAN DAN SENSORIS HASIL PERTANIAN**
**JURUSAN TEKNOLOGI PERTANIAN**
**FAKULTAS PERTANIAN**
Jl. Palembang – Prabumulih Km. 32 Indralaya (OI) Telp. (0711) 580664

**LAPORAN ANALISA**
**No. 50/LABKHP/2025**

Nama Pemesan : Jessica Wahyu Pratiwi
Tanggal Terima : 20 Mei 2025
Tanggal Selesai : 22 Mei 2025
Jumlah Sampel : 3
Jenis Analisa : Tekstur (Texture Analyzer Brookfield), Warna (Color Reader), Aw (Aw Meter)
Jenis Sampel : Jelly Candy

Formulasi 3

| No | Kode | Kekerasan (gF) | | Warna | | | Aw |
|---|---|---|---|---|---|---|---|
| | | Peak Load | Final Load | L | a | b | |
| 1 | P1 | 350,8 | 131,8 | 61,07 | 3,30 | 21,54 | 0,79 |
| 2 | P2 | 350,6 | 131,5 | 61,03 | 3,32 | 21,50 | 0,80 |
| 3 | P3 | 350,1 | 131,3 | 60,97 | 3,29 | 21,48 | 0,80 |

Palembang, 22 Mei 2025
Koordinator Teknis Laboratorium,

JURUSAN TEKNOLOGI PERTANIAN
LABORATORIUM KIMIA DAN MIKROBIOLOGI HASIL PERTANIAN
FAKULTAS PERTANIAN UNSRI

Hafsah, ST.,M.T
NIP. 198006202001122001

## Global Capsules Limited

Office: 37, Segun Bagicha, Dhaka-1000
Factory: Rigatoli, Barisal

| | | | |
|---|---|---|---|
| **Product Name :** Gelatin 150 Bloom | | | **Type :** B |
| **Batch No.:** GLK004 | **Quantity :** 12000 KG | **Mfg. Date :** 22 - NOV - 2024 | **Exp. Date :** 22 - OCT - 2029 |
| **Mesh Size :** 10 | **Release Date:** 24 - NOV - 2024 | | |

| | Test Items | Specification | Units | Reference | Results |
|---|---|---|---|---|---|
| **Character** | | | | | |
| 1.0 | Appearance | Light yellowish and translucent in the form of sheets, flakes, and shreds or coarse – fine powder | --- | BP | Comply |
| 2.0 | Solubility | Insoluble in cold water but soluble in hot water | --- | BP | Comply |
| 3.0 | Identification | Must comply with the Identification test of Gelatin | --- | BP | Comply |
| **Performance** | | | | | |
| 4.0 | pH | 3.8-7.6 as 1% solution with carbon dioxide free water at 55°C | --- | BP | 5.96 |
| 5.0 | Conductivity | Maximum 1 mS.cm$^{-1}$ as 1% solution of carbon dioxide free water at 20 ± 1.0°C | mS.cm$^{-1}$ | BP | 0.103 |
| 6.0 | Bloom Strength of 6.67%w/w solution at 10 ± 0.1 °C | 150 ± 5 | gm | BP | 153 |
| 7.0 | Viscosity of 6.67%w/w solution at 60 ± 0.2 °C | 4.0 - 5.0 | cP | MFG | 4.50 |
| 8.0 | Transmittance of 1% w/w solution at 510 nm | Not less than 90.0 | % | MFG | 91.82 |
| 9.0 | Loss on drying | Not more than 15.0 | % | BP | 11.10 |
| **Safety** | | | | | |
| 10.0 | Sulfur dioxide Content | Not more than 50 | ppm | BP | 9.86 |
| 11.0 | Peroxides | Not more than 10 | ppm | BP | Nil |
| 12.0 | Iron | Not more than 30 | ppm | BP | Less than 30 |
| 13.0 | Chromium | Not more than 10 | ppm | BP | Less than 10 |
| 14.0 | Zinc | Not more than 30 | ppm | BP | Less than 30 |
| **Microbial Limits** | | | | | |
| 15.0 | Total Aerobic Microbial Count | Not more than 1000 | cfu/g | BP | 190 |
| 16.0 | Total Yeast and Mold Count | Not more than 100 | cfu/g | BP | 20 |
| 17.0 | *Escherichia coli* | Absent | -- | BP | Absent |
| 18.0 | *Salmonella Spp.* | Absent | -- | BP | Absent |

**Storage Condition:** Recommend temperature between 12°C to 30°C and relative humidity in between 45% to 65%.

# Certificate of Analysis

**1.03965.1000** Iron(II) sulfate heptahydrate for analysis EMSURE® ACS,ISO,Reag. Ph Eur
**Batch** A2032365

| | Spec. Values | | Batch Values | |
|---|---|---|---|---|
| Assay (manganometric) | 99.5 - 102.0 | % | 100.2 | % |
| Identity | passes test | | passes test | |
| Appearance of solution | passes test | | passes test | |
| Insoluble matter | ≤ 0.01 | % | ≤ 0.01 | % |
| pH-value (5 %; water) | 3.0 - 4.0 | | 3.4 | |
| Chloride (Cl) | ≤ 0.0005 | % | ≤ 0.0005 | % |
| Phosphate ($PO_4$) | ≤ 0.001 | % | ≤ 0.001 | % |
| Total nitrogen (N) | ≤ 0.001 | % | ≤ 0.001 | % |
| Heavy metals as Pb | ≤ 0.005 | % | ≤ 0.005 | % |
| As (Arsenic) | ≤ 0.0002 | % | ≤ 0.0002 | % |
| Ca (Calcium) | ≤ 0.005 | % | ≤ 0.005 | % |
| Cr (Chromium) | ≤ 0.0050 | % | ≤ 0.0050 | % |
| Co (Cobalt) | ≤ 0.0025 | % | ≤ 0.0025 | % |
| Cu (Copper) | ≤ 0.001 | % | ≤ 0.001 | % |
| Fe III (Iron III) | ≤ 0.02 | % | ≤ 0.02 | % |
| K (Potassium) | ≤ 0.002 | % | ≤ 0.002 | % |
| Mg (Magnesium) | ≤ 0.002 | % | ≤ 0.002 | % |
| Mn (Manganese) | ≤ 0.05 | % | ≤ 0.05 | % |
| Na (Sodium) | ≤ 0.02 | % | ≤ 0.02 | % |
| Ni (Nickel) | ≤ 0.0050 | % | ≤ 0.0050 | % |
| Pb (Lead) | ≤ 0.0005 | % | ≤ 0.0005 | % |
| Zn (Zinc) | ≤ 0.0050 | % | ≤ 0.0050 | % |
| Substance not precipitated by ammonium hydroxide | ≤ 0.1 | % | ≤ 0.1 | % |

Corresponds to ACS,ISO,Reag. Ph Eur

Date of release (DD.MM.YYYY) 09.02.2024
Minimum shelf life (DD.MM.YYYY) 15.02.2027

Kristin Haufschildt
Responsible laboratory manager quality control

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Merck KGaA
Corporation with General Partners
Frankfurter Straße 250
64293 Darmstadt, Germany

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the U.S. and Canada.



BALBA Version 1370280/900001081085// Date: 09.02.2024

SIG SARASWANTI

28.1/F-PP Revisi 5

**IV. Result / Hasil Uji**

| No | Parameter | Unit | Simplo | Duplo | Limit Of Detection | Method |
|---|---|---|---|---|---|---|
| 1 | Seng (Zn) | mg / 100 g | 0.32 | 0.32 | - | 18-13-1/MU (ICP-OES) |
| 2 | Besi (Fe) | mg / 100 g | 0.55 | 0.56 | - | 18-13-1/MU (ICP-OES) |
| 3 | Kalsium (Ca) | mg / 100 g | 8.25 | 8.25 | - | 18-13-1/MU (ICP-OES) |
| 4 | Kadar Abu | % | 0.47 | 0.46 | - | SNI 01-2891-1992 butir 6.1 |
| 5 | Energi Dari Lemak | Kcal/100 g | 1.89 | 1.80 | - | 18-8-9/MU/SMM-SIG (perhitungan) |
| 6 | Kadar Lemak Total | % | 0.21 | 0.20 | - | 18-8-5/MU (Gravimetri) |
| 7 | Kadar Air | % | 56.70 | 56.50 | - | SNI 01-2891-1992 butir 5.1 |
| 8 | Energi Total | Kcal/100 g | 172.37 | 173.16 | - | 18-8-9/MU/SMM-SIG (perhitungan) |
| 9 | Karbohidrat (By Difference) | % | 29.86 | 29.86 | - | 18-8-9/MU (perhitungan) |
| 10 | Kadar Protein | % | 12.76 | 12.98 | - | 18-8-31/MU (Titrimetri) |
| 11 | pH | - | 5.00 | 5.00 | - | SNI 01-2891-1992 butir 16 |

Bogor, 08 Juli 2025
PT. Saraswanti Indo Genetech

**Dwi Yulianto Laksono, S.Si**
General Laboratory Manager

*scan for original*

SIG Laboratory (1st Location)
Graha SIG Jl. Rasamala No. 20 Taman Yasmin Bogor 16113
Phone. +62 251 7532 348

SIG Laboratory (2nd Location)
Jl. Semeru B Ruko No.21
Menteng Bogor 16111,
Phone : +62 251 8570078

SIG Laboratory (3rd Location)
Jl. Raya Cifor RT 03 RW 08
Bubulak Bogor 16115,
Phone : +62 251 8471696

SIG Laboratory (4th Location)
Jl. Kanfer Raya Blok R No. 4 Pedalangan, Kec. Banyumanik, Semarang, Jawa Tengah 50268,
Phone : +62 24 70040541



The results of these tests relate only to the sample(s) submitted.
This report shall not be reproduced except in full context,
without the written approval of PT. Saraswanti Indo Genetech

**Lampiran 12. Kuesioner Kesukaan Responden**

**Tingkat Kesukaan Konsumen Terhadap Jelly Candy**

| | | | | | | |
|---|---|---|---|---|---|---|
| **Warna** | Formula 1 | 1 | 2 | 3 | 4 | 5 |
| | Formula 2 | 1 | 2 | 3 | 4 | 5 |
| | Formula 3 | 1 | 2 | 3 | 4 | 5 |
| **Rasa** | Formula 1 | 1 | 2 | 3 | 4 | 5 |
| | Formula 2 | 1 | 2 | 3 | 4 | 5 |
| | Formula 3 | 1 | 2 | 3 | 4 | 5 |
| **Aroma** | Formula 1 | 1 | 2 | 3 | 4 | 5 |
| | Formula 2 | 1 | 2 | 3 | 4 | 5 |
| | Formula 3 | 1 | 2 | 3 | 4 | 5 |
| **Tekstur** | Formula 1 | 1 | 2 | 3 | 4 | 5 |
| | Formula 2 | 1 | 2 | 3 | 4 | 5 |
| | Formula 3 | 1 | 2 | 3 | 4 | 5 |

**Keterangan :** 1 (Tidak Suka)
2 (Kurang Suka)
3 (Suka)
4 (Cukup Suka)
5 (Sangat Suka)

**Lampiran 13. Pengolahan Data Hasil Responden**

| Responden | Warna | | | Aroma | | | Tekstur | | | Rasa | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F1 | F2 | F3 | F1 | F2 | F3 | F1 | F2 | F3 | F1 | F2 | F3 |
| R1 | 3 | 5 | 5 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 5 | 4 |
| R2 | 3 | 5 | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 3 | 3 |
| R3 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 5 | 4 | 4 | 4 | 4 |
| R4 | 4 | 5 | 3 | 4 | 4 | 4 | 2 | 5 | 4 | 4 | 5 | 4 |
| R5 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 |
| R6 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 5 | 4 | 3 | 5 | 4 |
| R7 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 5 | 3 | 4 | 3 | 3 |
| R8 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 3 | 3 | 4 | 3 |
| R9 | 4 | 5 | 5 | 4 | 4 | 4 | 3 | 5 | 3 | 3 | 5 | 4 |
| R10 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 3 | 4 | 5 | 4 |
| R11 | 4 | 5 | 4 | 3 | 5 | 3 | 5 | 5 | 3 | 4 | 3 | 4 |
| R12 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 4 |
| R13 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 |
| R14 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| R15 | 5 | 4 | 5 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 4 |
| R16 | 4 | 3 | 5 | 3 | 5 | 3 | 3 | 4 | 4 | 4 | 5 | 4 |
| R17 | 4 | 4 | 5 | 4 | 5 | 3 | 4 | 5 | 5 | 4 | 4 | 3 |
| R18 | 3 | 5 | 4 | 3 | 5 | 3 | 3 | 4 | 4 | 4 | 5 | 4 |
| R19 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 |
| R20 | 4 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 |
| R21 | 4 | 5 | 4 | 4 | 4 | 4 | 5 | 3 | 3 | 3 | 5 | 4 |
| R22 | 4 | 4 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 4 | 5 | 4 |
| R23 | 4 | 4 | 4 | 4 | 5 | 4 | 5 | 4 | 4 | 4 | 4 | 4 |
| R24 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 3 | 4 |
| R25 | 4 | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 4 |
| R26 | 4 | 5 | 4 | 5 | 5 | 5 | 4 | 3 | 4 | 4 | 3 | 3 |
| R27 | 5 | 5 | 3 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 5 | 4 |
| R28 | 4 | 5 | 4 | 5 | 4 | 4 | 3 | 3 | 4 | 4 | 5 | 3 |
| R29 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| R30 | 4 | 5 | 4 | 4 | 4 | 3 | 4 | 3 | 4 | 3 | 5 | 2 |
| R31 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 3 | 4 | 5 | 5 | 3 |
| R32 | 4 | 5 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |
| R33 | 4 | 5 | 3 | 4 | 5 | 4 | 4 | 4 | 4 | 3 | 5 | 3 |
| R34 | 3 | 5 | 5 | 4 | 4 | 5 | 4 | 3 | 4 | 4 | 5 | 2 |
| R35 | 4 | 5 | 5 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| R36 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 3 | 4 | 4 | 5 | 4 |
| R37 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 4 |
| R38 | 4 | 4 | 3 | 4 | 5 | 4 | 4 | 3 | 4 | 5 | 4 | 4 |
| R39 | 4 | 5 | 5 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 5 | 4 |
| R40 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 5 | 4 | 4 | 5 | 4 |
| rata-rata | 4 | 4.48 | 4 | 4 | 4.35 | 4 | 3.8 | 4.15 | 3.88 | 3.95 | 4.38 | 4 |
| SD | 0.274241378 | | | 0.202072594 | | | 0.18427787 | | | 0.232289331 | | |

**Lampiran 14. Hasil Tabel Anova**

**Normalitas kekerasan peak load**

**Tests of Normality**

| | Formula | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|---|
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Kekerasan | 1 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | 2 | .276 | 3 | . | .942 | 3 | .537 |
| | 3 | .219 | 3 | . | .987 | 3 | .780 |

a. Lilliefors Significance Correction

**Homogenitas Kekerasan peak load**

| **Test of Homogeneity of Variances** | | | |
|---|---|---|---|
| Kekerasan | | | |
| Levene Statistic | df1 | df2 | Sig. |
| .278 | 2 | 6 | .766 |

**Anova Peak Load**

| **ANOVA** | | | | | |
|---|---|---|---|---|---|
| Kekerasan | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 126999.076 | 2 | 63499.538 | 6.723E5 | .000 |
| Within Groups | .567 | 6 | .094 | | |
| Total | 126999.642 | 8 | | | |

**Normalitas Kekerasan Final Load**

| Tests of Normality | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Formula | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Kekerasan | 1 | .204 | 3 | . | .993 | 3 | .843 |
| | 2 | .219 | 3 | . | .987 | 3 | .780 |
| | 3 | .292 | 3 | . | .923 | 3 | .463 |
| a. Lilliefors Significance Correction | | | | | | | |

**Homogenitas Kekerasan Final Load**

| Test of Homogeneity of Variances | | | |
|---|---|---|---|
| Kekerasan | | | |
| Levene Statistic | df1 | df2 | Sig. |
| .340 | 2 | 6 | .725 |

**ANOVA Kekerasan Final Load**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Kekerasan | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 30490.620 | 2 | 15245.310 | 1.989E5 | .000 |
| Within Groups | .460 | 6 | .077 | | |
| Total | 30491.080 | 8 | | | |

**Normalitas Warna L**

| Tests of Normality | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Formula | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Warna | 1 | .376 | 3 | . | .773 | 3 | .051 |
| | 2 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | 3 | .219 | 3 | . | .987 | 3 | .780 |
| a. Lilliefors Significance Correction | | | | | | | |

**Homogenitas**

| Test of Homogeneity of Variances | | | |
|---|---|---|---|
| Warna | | | |
| Levene Statistic | df1 | df2 | Sig. |
| 13.233 | 2 | 6 | .006 |

**ANOVA**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Warna | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .142 | 2 | .071 | .676 | .544 |
| Within Groups | .630 | 6 | .105 | | |
| Total | .771 | 8 | | | |

**One Sample**

| One-Sample Kolmogorov-Smirnov Test | | |
|---|---|---|
| | | Warna |
| N | | 9 |
| Normal Parameters[a] | Mean | 60.8489 |
| | Std. Deviation | .31050 |
| Most Extreme Differences | Absolute | .264 |
| | Positive | .238 |
| | Negative | -.264 |
| Kolmogorov-Smirnov Z | | .792 |
| Asymp. Sig. (2-tailed) | | .557 |
| a. Test distribution is Normal. | | |
| | | |

**Normalitas Warna a**

| Tests of Normality | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Formula | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Warna | 1 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | 2 | .204 | 3 | . | .993 | 3 | .843 |
| | 3 | .253 | 3 | . | .964 | 3 | .637 |
| a. Lilliefors Significance Correction | | | | | | | |

**Homogenitas Warna a**

| Test of Homogeneity of Variances | | | |
|---|---|---|---|
| Warna | | | |
| Levene Statistic | df1 | df2 | Sig. |
| .886 | 2 | 6 | .460 |

**ANOVA Warna a**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Warna | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 8.200 | 2 | 4.100 | 6.590E3 | .000 |
| Within Groups | .004 | 6 | .001 | | |
| Total | 8.204 | 8 | | | |

**Normalitas Warna b**

| Tests of Normality | | | | | | | |
|---|---|---|---|---|---|---|---|
| | For mula | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | | Statistic | df | Sig. | Statistic | df | Sig. |
| Warn a | 1 | .376 | 3 | . | .773 | 3 | .051 |
| | 2 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | 3 | .219 | 3 | . | .987 | 3 | .780 |
| a. Lilliefors Significance Correction | | | | | | | |

**Homogenitas Warna b**

| Test of Homogeneity of Variances | | | |
|---|---|---|---|
| Warna | | | |
| Levene Statistic | df1 | df2 | Sig. |
| 13.233 | 2 | 6 | .006 |

**ANOVA Warna b**

| ANOVA | | | | | |
|---|---|---|---|---|---|
| Warna | | | | | |
| | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | .142 | 2 | .071 | .676 | .544 |
| Within Groups | .630 | 6 | .105 | | |
| Total | .771 | 8 | | | |

**Lampiran 15. Dokumentasi**

| | |
|---|---|
|  |  |
| **Maserasi Buah Naga Selama 1x24 Jam** | **Maserasi Umbi Bit Selama 1x24 Jam** |
|  |  |
| **Proses Rotary Buah Naga** | **Proses Rotary Umbi Bit** |

| | |
|---|---|
|  |  |
| **Ekstrak Kental Buah Naga** | **Ekstrak Kental Umbi Bit** |
|  |  |
| **Hasil Pembuatan Asam Askorbat dan Phenompenalin** | **Hasil Pengenceran Sample Umbi Bit dan Buah Naga** |

| | |
|---|---|
|  |  |
| **Proses Pembuatan *Jelly Candy*** | **Formula I *Jelly Candy*** |
|  |  |
| **Formula II *Jelly Candy*** | **Formula III *Jelly Candy*** |