

Lampiran 1. Hasil determinasi tanaman buah naga



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS DIPONEGORO
FAKULTAS SAINS DAN MATEMATIKA
LAB. EKOLOGI & BIOSISTEMATIK DEPARTEMEN BOLOGI
Jl. Prof. H. Soedarto, SH. Tembalang, Semarang. 024 7474754, 024 76480923

SURAT KETERANGAN

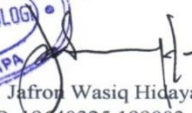
Yang bertanda tangan dibawah ini, menyatakan bahwa mahasiswa sbb :


Nama : Eni Muanniqoh
NIM : 125010831
Fakultas Farmasi : Farmasi
Perguruan Tinggi : Universitas Wahid Hasyim Semarang
Judul Skripsi : Pengaruh Perbandingan Konsentrasi *Carnauba wax* dan *Bess wax* Terhadap Sifat Fisik, Kimia dan Uji Iritasi Lipstik Sari Kulit Buah Naga Merah (*Hylocereus costaricensis*)

Telah mendeterminasikan/mengidentifikasi sampel tumbuhan (satu jenis) di Laboratorium Ekologi dan Biosistemika Departemen Biologi FSM UNDIP. Hasil determinasi/identifikasi terlampir.

Demikian surat keterangan ini dibuat untuk dapat digunakan seperlunya.

Semarang, 2 November 2016

Laboratorium Ekologi & Biosistemik
Koordinator,

Dr. Jafron Wasiq Hidayat, M.Sc.
NIP. 19640325 199003 1001



Lampiran 1. Lanjutan ...



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
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HASIL DETERMINASI

Klasifikasi:

| | |
|--------------|---|
| Kingdom | : Plantae |
| Subkingdom | : Tracheobionta |
| Super Divisi | : Spermatophyta |
| Divisi | : Magnoliophyta (Tumbuhan berbiji) |
| Kelas | : Magnoliopsida (Dicotyledonae) |
| Ordo | : Cactales |
| Famili | : Cactaceae |
| Genus | : <i>Hylocereus</i> |
| Species | : <i>Hylocereus costaricensis</i> (F.A.C.Weber) Britton & Ros |
| Nama lokal | : Buah naga dengan warna buah yang sangat merah |

Kunci Determinasi:

1b-2b-3b-4b-12b-13b-14b-17b-18b-19b-20b-21b-22b-23b-24b-25b-26b-27b-799b-800b-801b-802a-803b-804b-805c-806b-807c-808c-809b-810b-811b-812b-815b-816b-818b-820b-821a-822b-824b-825b-826b-829b-830b-831b-832b-833a-834a-835a-836a-837c-851a-852b-853b-854b-855c-856b-857a-858a-859c-860b-872b-273b-874b-875b-876b-877a-886a-887b-888b-890b-892b-983b-984b-986b-991b-992b-993b-994a-995d-1036b-Famili 78. Cactaceae (Steenis,1972) -1A-2b-4b-6a- (Genus *Hylocereus*)-1 (Species: *Hylocereus costaricensis* (F.A.C.Weber) Britton & Ros

Deskripsi:

Morfologi tanaman buah naga terdiri dari akar, batang, duri, bunga, dan buah. Akar buah naga hanyalah akar serabut yang berkembang dalam tanah pada batang atas sebagai akar gantung. Akar tumbuh di sepanjang batang pada bagian punggung sirip di sudut batang. Batangnya berbentuk segitiga atau menyiku, batang berwarna hijau, mengandung sejumlah air yang berbentuk layaknya lendir dengan lapisan lilin. Bunga berbentuk terompet, dalam bunga ini terdapat putik sekaligus benang sari. Bunga yang tidak rontok berkembang menjadi buah. Buah naga bentuknya bulat agak lonjong, kulit buahnya berwarna merah menyala. Di sekujur kulit dipenuhi dengan jumbai-jumbai yang dianalogikan dengan sisik naga. Biji terdapat di dalam daging buahnya. Bentuknya kecil seperti selasih dengan warna yang juga hitam.

Lampiran 1. Lanjutan ...



Gambar 1: Buah Naga Merah

Pustaka:

1. Backer, C.A & Backhuizen van den Brink. 1968. Flora of Java. Vol. 1& Vol.II. Noordhof N.V. Gronigen. The Netherland
 2. Bhattacharyya, B & B.M. Johri. 1999. Flowering Plants Taxonomy and Phyllogeny. Naresa, Publishing House. New Delhi
 3. MBG [Missouri Botanical Garden]. 2010. The Plant List. <http://www.theplantlist.org/tpl1.1/record/kew-2856853> (31 Mei 2015)
 4. Wikipedia, 2015. Buah naga. http://id.wikipedia.org/wiki/Buah_naga (31 Mei 2015)
 5. USDA Plantdatabase, 2016. *Hylocereus costaricensis* (F.A.C. Weber) Britton & Rose <http://plants.usda.gov/core/profile?symbol=HYCO17> (16 Juni 2016)
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Lampiran 2. Surat keterangan penelitian



UNIVERSITAS WAHID HASYIM
FAKULTAS FARMASI
BAGIAN FARMASETIKA

Jl. Menoreh Tengah X / 22 Sampangan – Semarang 50236 Telp. (024) 8505680 – 8505681 fax. (024) 8505680

SURAT KETERANGAN

No. 07/Lab. Farmasetika/C.05/UWH/VIII/2017

Assalamu'alaikum Wr. Wb.

Yang bertanda tangan dibawah ini, Kepala Bagian Farmasi Fisika & Farmasetika Fakultas Farmasi Universitas Wahid Hasyim Semarang menerangkan bahwa :

Nama : Eni Muanniqoh
NIM : 125010831
Fakultas : Farmasi

Telah melakukan formulasi di Laboratorium Teknologi Farmasi dalam rangka penelitian dengan judul :

“Pengaruh Perbandingan Konsentrasi *Carnauba Wax* dan *Bees Wax* Terhadap Sifat Fisik Lipstik Sari Kulit Buah Naga Merah (*Hylocereus costaricensis*)”.

Demikian surat keterangan ini dibuat untuk dipergunakan semestinya.

Wassalamu'alaikum Wr. Wb.

Semarang, Agustus 2017

Ka. Bag. Farmasi Fisika & Farmasetika



Etya Zulfa, M.Sc, Apt

Lampiran 3. Hasil Perhitungan Data

- **Formula 1**

Carnauba Wax = 6,5

Bees Wax = 6,5

Minyak jarak = 33,3

Setil alcohol = 10

Lanolin = 12

Sari kulit buah naga = 25

Metil paraben = 0,1

Propil paraben = 0,1

Tween = 6,5

- **Formula II**

Carnauba Wax = 4,33

Bees Wax = 8,667

Minyak jarak = 3,33

Setil alcohol = 10

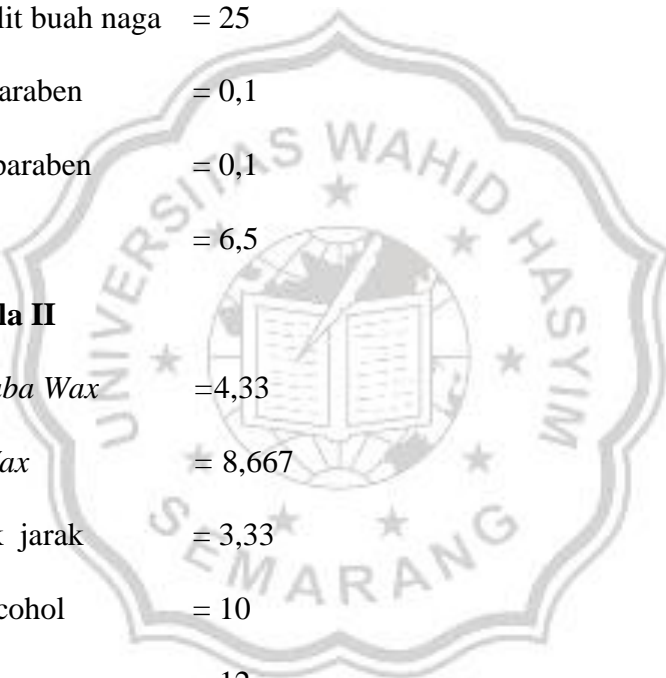
Lanolin = 12

Sari kulit buah naga = 25

Metil paraben = 0,1

Propil paraben = 0,1

Tween = 6,5



Lampiran 3. Lanjutan ...**• Formula III**

| | |
|----------------------|--------|
| <i>Carnauba Wax</i> | =3,25 |
| <i>Bees Wax</i> | = 9,75 |
| Minyak jarak | = 33,3 |
| Setil alcohol | = 10 |
| Lanolin | = 12 |
| Sari kulit buah naga | = 25 |
| Metil paraben | = 0,1 |
| Propil paraben | = 0,1 |
| Tween | = 6,5 |

• Formula IV

| | |
|----------------------|--------|
| <i>Carnauba Wax</i> | =8,66 |
| <i>Bees Wax</i> | = 4,33 |
| Minyak jarak | = 33,3 |
| Setil alcohol | = 10 |
| Lanolin | = 12 |
| Sari kulit buah naga | = 25 |
| Metil paraben | = 0,1 |
| Propil paraben | = 0,1 |
| Tween | = 6,5 |

Lampiran 3. Lanjutan ...**• Formula V**

Carnauba Wax = 9,75

Bees Wax = 3,25

Minyak jarak = 33,3

Setil alcohol = 10

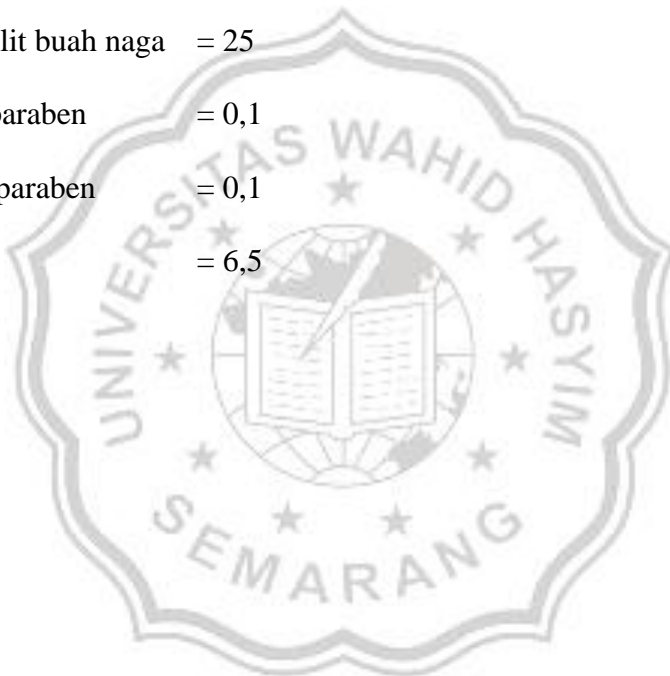
Lanolin = 12

Sari kulit buah naga = 25

Metil paraben = 0,1

Propil paraben = 0,1

Tween = 6,5



Lampiran 4. Rendemen Sari Kulit Buah Naga

Tabel Sari Kulit Buah Naga Merah (*Hylocereus costaricensis*)

| Formula | Buah Naga Merah | |
|---------|-----------------|-----------|
| | Kulit (ml) | Sari (ml) |
| I | 118 | 96 |
| II | 122 | 99 |
| III | 115 | 94 |
| IV | 120 | 98 |
| V | 118 | 96 |

$$\begin{aligned} \text{Rendeman Sari Kulit Buah Naga} &= \frac{w_2}{w_1} \times 100\% \\ &= \frac{483g}{593g} \times 100\% = 81,78\% \end{aligned}$$

Keterangan :

W1 : Berat kulit buah naga basah yang telah dikupas dan dicuci bersih.

W2 : Berat sari buah naga.

Lampiran 5. Tabel Hasil Uji Organoleptis

Table hasil uji organoleptis lipstick sari kulit buah naga merah (*Hylocereus costaricensis*)

| Formula | Organoleptis | | | |
|---------|--------------|------------|--------------|-----------------|
| | Warna | Bau | Rasa | Kilau |
| I | Pink | Khas Lilin | Tidak berasa | Kurang berlikau |
| II | Pink | Khas Lilin | Tidak berasa | Kurang berlikau |
| III | Pink | Khas Lilin | Tidak berasa | Kurang berlikau |
| IV | Pink | Khas Lilin | Tidak berasa | Kurang berlikau |
| V | Pink | Khas Lilin | Tidak berasa | Kurang berlikau |

Keterangan:

FI : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:1

FII : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:2

FIII : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:3

FIV : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 2:1

FV : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 3:1

Lampiran 6. Tabel Hasil Uji Homogenitas

Tabel hasil uji homogenitas lipstik sari kulit buah naga merah (*Hylocereus costaricensis*)

| Formula | Homogenitas | | | |
|---------|-------------|--------------|---------------|------------|
| | Replikasi I | Replikasi II | Replikasi III | Keterangan |
| I | Homogen | Homogen | Homogen | Homogen |
| II | Homogen | Homogen | Homogen | Homogen |
| III | Homogen | Homogen | Homogen | Homogen |
| IV | Homogen | Homogen | Homogen | Homogen |
| V | Homogen | Homogen | Homogen | Homogen |

Keterangan:

- FI** : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:1
FII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:2
FIII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:3
FIV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 2:1
FV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 3:1

Lampiran 7. Tabel Hasil Uji pH

Tabel hasil uji pH lipstick sari kulit buah naga merah (*Hylocereus costaricensis*)

| Formulasi | pH | | | |
|-----------|-------------|--------------|---------------|-----------|
| | Replikasi I | Replikasi II | Replikasi III | Rata-rata |
| I | 5,3 | 5,3 | 5,3 | 5,3 |
| II | 5,3 | 5,3 | 5,3 | 5,3 |
| III | 5,3 | 5,3 | 5,3 | 5,3 |
| IV | 5,3 | 5,3 | 5,3 | 5,3 |
| V | 5,3 | 5,3 | 5,3 | 5,3 |

Keterangan:

- FI** : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:1
FII : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:2
FIII : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:3
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FV : Formula lipstick dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 3:1

Lampiran 8. Tabel Hasil Uji Titik Lebur

Tabel hasil uji titik lebur lipstik sari kulit buah naga merah (*Hylocereus costaricensis*)

| Formulasi | Titik lebur | | | |
|-----------|-------------|--------------|---------------|------------------|
| | Replikasi I | Replikasi II | Replikasi III | Rata-rata ±SD |
| I | 64 | 65 | 64 | 64±0.577 |
| II | 63 | 64 | 63 | 63±0.577 |
| III | 62 | 60 | 61 | 61±1.000 |
| IV | 67 | 65 | 67 | 66±1.155 |
| V | 67 | 68 | 69 | 67±0.707 |

Keterangan:

- FI** : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:1
FII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:2
FIII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:3
FIV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 2:1
FV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 3:1

Lampiran 9. Tabel Hasil Uji Kekerasan

Tabel hasil uji kekerasan lipstik sari kulit buah naga merah (*Hylocereus costaricensis*)

| Formula | Kekerasan | | | |
|---------|-------------|--------------|---------------|------------------|
| | Replikasi I | Replikasi II | Replikasi III | Rata-rata ±SD |
| I | 500 | 550 | 600 | 550±50.00 |
| II | 400 | 450 | 500 | 450±50.00 |
| II | 350 | 400 | 450 | 400±50.00 |
| IV | 550 | 600 | 650 | 600±50.00 |
| V | 650 | 700 | 750 | 700±50.00 |

Keterangan:

FI : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:1

FII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:2

FIII : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 1:3

FIV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 2:1

FV : Formula lipstik dengan perbandingan konstentrasi *Carnauba Wax: Bees Wax* 3:1

Lampiran 10. Hasil uji statistik titik lebur

1. Titik lebur

a. Deskriptif

| Descriptives | | | | | | | | |
|--------------|----|-------|----------------|------------|----------------------------------|-------------|---------|---------|
| Replikasi | | | | | | | | |
| | | | | | 95% Confidence Interval for Mean | | | |
| | N | Mean | Std. Deviation | Std. Error | Lower Bound | Upper Bound | Minimum | Maximum |
| formula1 | 3 | 64.33 | .577 | .333 | 62.90 | 65.77 | 64 | 65 |
| formula2 | 3 | 63.33 | .577 | .333 | 61.90 | 64.77 | 63 | 64 |
| formula3 | 3 | 61.00 | 1.000 | .577 | 58.52 | 63.48 | 60 | 62 |
| formula4 | 3 | 66.33 | 1.155 | .667 | 63.46 | 69.20 | 65 | 67 |
| formula5 | 2 | 67.50 | .707 | .500 | 61.15 | 73.85 | 67 | 68 |
| Total | 14 | 64.29 | 2.400 | .641 | 62.90 | 65.67 | 60 | 68 |

b. Homogenitas

Replikasi

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| .868 | 4 | 9 | .519 |

Lampiran 10. Lanjutan ...

c. Normalitas

Tests of Normality

| titik lebur | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|--------------------|---------------------------------|----|------|--------------|----|-------|
| | Statistic | Df | Sig. | Statistic | Df | Sig. |
| Replikasi formula1 | .385 | 3 | . | .750 | 3 | .000 |
| formula2 | .385 | 3 | . | .750 | 3 | .000 |
| formula3 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| formula4 | .385 | 3 | . | .750 | 3 | .000 |
| formula5 | .175 | 3 | . | 1.000 | 3 | 1.000 |

a. Lilliefors Significance Correction

d. Anova

ANOVA

| Replikasi | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|--------|------|
| Between Groups | 68.357 | 4 | 17.089 | 23.662 | .000 |
| Within Groups | 6.500 | 9 | .722 | | |
| Total | 74.857 | 13 | | | |

Test Statistics^{a,b}

| | Replikasi |
|-------------|-----------|
| Chi-Square | 13.024 |
| Df | 4 |
| Asymp. Sig. | .011 |

a. Kruskal Wallis Test

b. Grouping Variable: titik

lebur

Lampiran 10. Lanjutan ...

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | 1.000 |
| Wilcoxon W | 7.000 |
| Z | -1.650 |
| Asymp. Sig. (2-tailed) | .099 |
| Exact Sig. [2*(1-tailed Sig.)] | .200 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Formula 1.3

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.993 |
| Asymp. Sig. (2-tailed) | .046 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .500 |
| Wilcoxon W | 6.500 |
| Z | -1.826 |
| Asymp. Sig. (2-tailed) | .068 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Lampiran 10. Lanjutan ...

Formula 1.5

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.993 |
| Asymp. Sig. (2-tailed) | .046 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.993 |
| Asymp. Sig. (2-tailed) | .046 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -2.023 |
| Asymp. Sig. (2-tailed) | .043 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Lampiran 10. Lanjutan ...

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.993 |
| Asymp. Sig. (2-tailed) | .046 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.993 |
| Asymp. Sig. (2-tailed) | .046 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | .000 |
| Wilcoxon W | 6.000 |
| Z | -1.964 |
| Asymp. Sig. (2-tailed) | .050 |
| Exact Sig. [2*(1-tailed Sig.)] | .100 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur

Lampiran 10. Lanjutan ...

Test Statistics^b

| | replikasi |
|--------------------------------|-------------------|
| Mann-Whitney U | 1.000 |
| Wilcoxon W | 7.000 |
| Z | -1.623 |
| Asymp. Sig. (2-tailed) | .105 |
| Exact Sig. [2*(1-tailed Sig.)] | .200 ^a |

a. Not corrected for ties.

b. Grouping Variable: titik lebur



Lampiran 11. Hasil uji statistik kekerasan

1. Deskriptif

| formula lipstick | | | Statistic | Std. Error | | |
|-----------------------|-------------|---------------------|-------------|------------|---------|--------|
| kekerasan lipstick | F1 | Mean | 550.00 | 28.868 | | |
| | | 95% Confidence | Lower Bound | | 425.79 | |
| | | Interval for Mean | Upper Bound | | 674.21 | |
| | | 5% Trimmed Mean | | | . | |
| | | Median | | | 550.00 | |
| | | Variance | | | 2.500E3 | |
| | | Std. Deviation | | | 50.000 | |
| | | Minimum | | | 500 | |
| | | Maximum | | | 600 | |
| | | Range | | | 100 | |
| | | Interquartile Range | | | . | |
| | | Skewness | | | .000 | 1.225 |
| | | Kurtosis | | | . | . |
| | | F2 | Mean | | 450.00 | 28.868 |
| | | 95% Confidence | Lower Bound | | 325.79 | |
| Interval for Mean | Upper Bound | 574.21 | | | | |
| 5% Trimmed Mean | | . | | | | |
| Median | | 450.00 | | | | |
| Variance | | 2.500E3 | | | | |
| Std. Deviation | | 50.000 | | | | |
| Minimum | | 400 | | | | |
| Maximum | | 500 | | | | |
| Range | | 100 | | | | |
| Interquartile Range | | . | | | | |
| Skewness | | .000 | 1.225 | | | |
| Kurtosis | | . | . | | | |
| F3 | Mean | 400.00 | 28.868 | | | |
| 95% Confidence | Lower Bound | 275.79 | | | | |

Lampiran 11. Lanjutan ...

| | | | | |
|----|---------------------|-------------|---------|--------|
| | Interval for Mean | Upper Bound | 524.21 | |
| | 5% Trimmed Mean | | . | |
| | Median | | 400.00 | |
| | Variance | | 2.500E3 | |
| | Std. Deviation | | 50.000 | |
| | Minimum | | 350 | |
| | Maximum | | 450 | |
| | Range | | 100 | |
| | Interquartile Range | | . | |
| | Skewness | | .000 | 1.225 |
| | Kurtosis | | . | . |
| F4 | Mean | | 600.00 | 28.868 |
| | 95% Confidence | Lower Bound | 475.79 | |
| | Interval for Mean | Upper Bound | 724.21 | |
| | 5% Trimmed Mean | | . | |
| | Median | | 600.00 | |
| | Variance | | 2.500E3 | |
| | Std. Deviation | | 50.000 | |
| | Minimum | | 550 | |
| | Maximum | | 650 | |
| | Range | | 100 | |
| | Interquartile Range | | . | |
| | Skewness | | .000 | 1.225 |
| | Kurtosis | | . | . |
| F5 | Mean | | 700.00 | 28.868 |
| | 95% Confidence | Lower Bound | 575.79 | |
| | Interval for Mean | Upper Bound | 824.21 | |
| | 5% Trimmed Mean | | . | |
| | Median | | 700.00 | |
| | Variance | | 2.500E3 | |
| | Std. Deviation | | 50.000 | |
| | Minimum | | 650 | |
| | Maximum | | 750 | |
| | Range | | 100 | |

Lampiran 11. Lanjutan ...

| | | |
|---------------------|------|-------|
| Interquartile Range | . | |
| Skewness | .000 | 1.225 |
| Kurtosis | . | . |

2. Normalitas

Tests of Normality

| formula | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | | |
|--------------------|---------------------------------|------|------|--------------|-------|------|-------|
| | Statistic | Df | Sig. | Statistic | df | Sig. | |
| lipstick | | | | | | | |
| kekerasan lipstick | F1 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | F2 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | F3 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | F4 | .175 | 3 | . | 1.000 | 3 | 1.000 |
| | F5 | .175 | 3 | . | 1.000 | 3 | 1.000 |

a. Lilliefors Significance Correction

3. Homogenitas

4. Test of Homogeneity of Variances

kekerasan lipstick

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|-------|
| .000 | 4 | 10 | 1.000 |

5. Anova

6. ANOVA

kekerasan lipstick

| | Sum of Squares | Df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|--------|------|
| Between Groups | 171000.000 | 4 | 42750.000 | 17.100 | .000 |
| Within Groups | 25000.000 | 10 | 2500.000 | | |
| Total | 196000.000 | 14 | | | |

Multiple Comparisons

Lampiran 11. Lanjutan ...

kekerasan lipstick

Tukey HSD

| (I) formula lipstik | (J) formula lipstik | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|---------------------------|---------------------------|--------------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| F1 | F2 | 100.000 | 40.825 | .179 | -34.36 | 234.36 |
| | F3 | 150.000* | 40.825 | .028 | 15.64 | 284.36 |
| | F4 | -50.000 | 40.825 | .738 | -184.36 | 84.36 |
| | F5 | -150.000* | 40.825 | .028 | -284.36 | -15.64 |
| F2 | F1 | -100.000 | 40.825 | .179 | -234.36 | 34.36 |
| | F3 | 50.000 | 40.825 | .738 | -84.36 | 184.36 |
| | F4 | -150.000* | 40.825 | .028 | -284.36 | -15.64 |
| | F5 | -250.000* | 40.825 | .001 | -384.36 | -115.64 |
| F3 | F1 | -150.000* | 40.825 | .028 | -284.36 | -15.64 |
| | F2 | -50.000 | 40.825 | .738 | -184.36 | 84.36 |
| | F4 | -200.000* | 40.825 | .004 | -334.36 | -65.64 |
| | F5 | -300.000* | 40.825 | .000 | -434.36 | -165.64 |
| F4 | F1 | 50.000 | 40.825 | .738 | -84.36 | 184.36 |
| | F2 | 150.000* | 40.825 | .028 | 15.64 | 284.36 |
| | F3 | 200.000* | 40.825 | .004 | 65.64 | 334.36 |
| | F5 | -100.000 | 40.825 | .179 | -234.36 | 34.36 |
| F5 | F1 | 150.000* | 40.825 | .028 | 15.64 | 284.36 |
| | F2 | 250.000* | 40.825 | .001 | 115.64 | 384.36 |
| | F3 | 300.000* | 40.825 | .000 | 165.64 | 434.36 |
| | F4 | 100.000 | 40.825 | .179 | -34.36 | 234.36 |

Lampiran 12. Gambar Proses Penelitian



Sortasi kulit buah naga



Pembuatan sari kulit buah naga



Peleburan basis



Pembuatan lipstick



Pencetakan lipstick



Uji homogenitas

Lampiran 12. Lanjutan ...**Uji pH****Uji titik lebur****Uji oles**