

BAB V

KESIMPULAN DAN SARAN

A. Kesimpulan

Pertama, ekstrak daun stroberi (*Fragaria x ananassa var duchesne*) dapat dibuat menjadi sediaan krim dengan mutu fisik yang baik.

Kedua, krim ekstrak daun stroberi (*Fragaria x ananassa var duchesne*) dapat menangkal radiasi yang disebabkan oleh sinar UV B baik secara *in vivo* maupun *in vitro*.

Ketiga, nilai SPF sediaan krim ekstrak daun stroberi (*Fragaria x ananassa var duchesne*) dengan seri konsentrasi 0,125% ; 0,250% dan 0,500% yaitu $21,32 \pm 0,30$; $36,06 \pm 0,02$ dan $41,20 \pm 0,072$. Nilai SPF yang paling tinggi adalah formulasi krim dengan konsentrasi ekstrak 0,500 % atau formula ke-3 dengan nilai SPF sebesar 41,20.

B. Saran

Pertama, perlu dilakukan penelitian formulasi krim tabir surya ekstrak daun stroberi dengan perbandingan *emulsifying agent* untuk mendapatkan formula krim yang lebih baik lagi.

Kedua, perlu dilakukan penelitian yang lebih lanjut mengenai uji *in vivo* pada produk tabir surya sehingga dapat menghasilkan hasil yang lebih spesifik.

Ketiga, perlu dilakukan penentuan metode potensi tabir surya yang lain seperti persen eritema dan pigmentasi untuk mengetahui kategori sediaan tabir surya.

Keempat, perlu dilakukan penelitian dengan bahan pembanding yang memiliki struktur yang hampir mirip dengan flavonoid dan tanin misalnya PABA.

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L

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Lampiran 1. Hasil Determinasi Tumbuhan



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
BADAN PENELITIAN DAN PENGEMBANGAN KESEHATAN
BALAI BESAR PENELITIAN DAN PENGEMBANGAN
TANAMAN OBAT DAN OBAT TRADISIONAL

Jalan Raya Lawu No. 11 Tawangmangu, Karanganyar, Jawa Tengah 57792
 Telepon (0271) 697010 Faksimile (0271) 697451

Laman www.b2p2toot.litbang.kemkes.go.id Surat Elektronik b2p2to2t@litbang.kemkes.go.id

Nomor : YK.01.03/2/ 1291 /2019 21 Maret 2019
 Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi
 Universitas Setia Budi
 Jalan Let. Jend. Sutoyo
 Solo

Merujuk surat Saudara nomor: 4237/A10 – 4/19.12.2018 tanggal 19 Desember 2018 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

| | |
|-------------------------------|--|
| Nama Sampel | : Stroberi |
| Sampel | : Sampel segar |
| Spesies | : <i>Fragaria x ananassa</i> (Duchesne ex Weston) Duchesne ex Rozier cf. |
| Sinonim | : <i>Fragaria bathonica</i> Poit. & Turpin; <i>Fragaria caroliniana</i> Poit. & Turpin |
| Familia | : Rosaceae |
| Nama Pemohon | : May Angraini Dewanti Putri |
| Penanggung Jawab Identifikasi | : Nur Rahmawati Wijaya, S.Si. |

Hasil determinasi tersebut hanya mencakup sampel tumbuhan yang telah dikirimkan ke B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian dan Pengembangan Tanaman Obat dan Obat Tradisional,



Akhmad Saikhul, M.Sc.PH.
 NIP 196805251992031004

Lampiran 2. Hasil surat keterangan hewan

"ABIMANYU FARM"

√ Mencit putih jantan √ Tikus Wistar √ Swis Webster √ Cacing
 √ Mencit Balb/C √ Kelinci New Zealand

Ngampon RT 04 / RW 04. Mojosongo Kec. Jebres Surakarta. Phone 085 629 994 33 / Lab USB Ska

Yang bertanda tangan di bawah ini:

Nama : Sigit Pramono

Selaku pengelola Abimanyu Farm, menerangkan bahwa hewan uji yang digunakan untuk penelitian, oleh:

Nama : May Anggraini Dewanti Putri

Nim : 21154557A

Institusi : Universitas Setia Budi Surakarta

Merupakan hewan uji dengan spesifikasi sebagai berikut:

Jenis hewan : Kelinci New Zealand

Umur : 5-6 bulan

Jumlah : 5 ekor

Jenis kelamin : Betina

Keterangan : Sehat

Asal-usul : Unit Pengembangan Hewan Percobaan Boyolali

Yang pengembangan dan pengelolaannya disesuaikan standar baku penelitian. Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Surakarta, 4 Juli 2019

Hormat kami

Sigit Pramono

"ABIMANYU FARM"

Lampiran 3. Etichal clearence

7/2/2019



KEPK-RSDM

**HEALTH RESEARCH ETHICS COMMITTEE
KOMISI ETIK PENELITIAN KESEHATAN**

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 858 / VII / HREC / 2019

The Health Research Ethics Committee Dr. Moewardi
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi

after reviewing the proposal design, herewith to certify
setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

That the research proposal with topic :
Bahwa usulan penelitian dengan judul

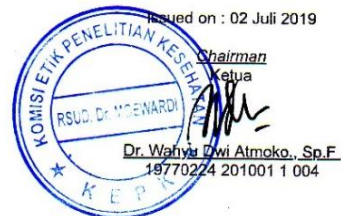
UJI AKTIVITAS SEDIAAN KRIM EKSTRAK ETANOL DAUN STROBERI (*Fragaria x ananassa var duchesne*) SECARA IN VITRO DAN IN VIVO SEBAGAI TABIR SURYA

Principal investigator : May Anggraini Dewanti Putri
Peneliti Utama 21154557A

Location of research : Sragen
Lokasi Tempat Penelitian

Is ethically approved
Dinyatakan layak etik

Issued on : 02 Juli 2019



Chairman
Ketua

Dr. Wahyu Dwi Atmoko, Sp.F
18770224 201001 1 004

Lampiran 4. Tanaman daun stroberi dan proses maserasi

Daun stroberi



Pengeringan daun stroberi



Serbuk halus daun stroberi



Proses penyaringan



Rotary evaporator



Ekstrak kental daun stroberi

Lampiran 5. Gambar pengujian kadar lembab serbuk dan ekstrak



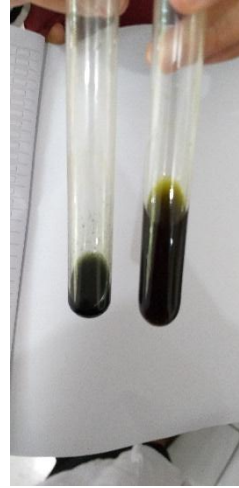
Pengujian kadar lembab serbuk



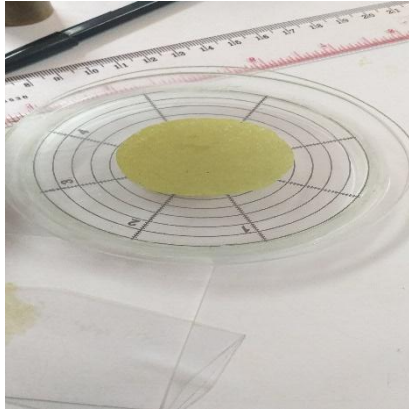
Pengujian kadar lembab ekstrak

Lampiran 6. Gambar Identifikasi Kandungan Tanaman

Uji flavonoid



Uji tanin

Lampiran 7. Gambar pengujian sediaan krim

Uji daya sebar



Uji daya lekat



Uji sentrifugasi



Uji pH



Formula sediaan krim



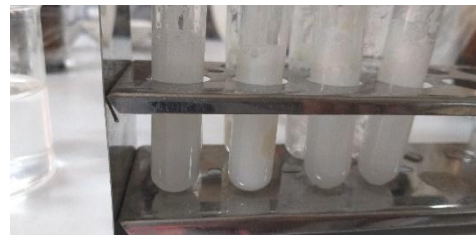
Viscometer



Uji homogenitas



Metode pewarnaan



metode pengenceran

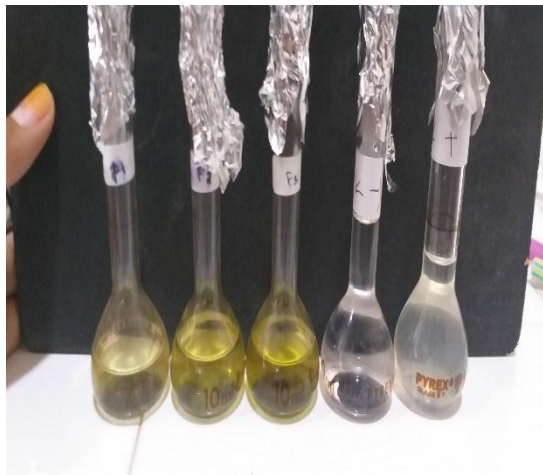
Lampiran 8. Metode pengujian secara *in vitro* menggunakan spektrofotometri uv-vis



Alat spektrofotometri UV-Vis



Alat ultrasonofokasi



Larutan uji sampel

Lampiran 9. Pengujian secara *in vivo* menggunakan kelinci *new zealand*



Proses pencukuran



proses pengolesan



Hasil pengujian



Proses penyinaran



Lampu exotera

Lampiran 10. Perhitungan rendemen daun stroberi

Daun stroberi kering yang diperoleh dari daun stroberi yang masih basah seberat 5000 gram adalah 3000 gram. Rendemen yang didapatkan sebesar :

Persentase rendemen daun stroberi

$$\begin{aligned}\text{Rumus} &= \frac{\text{bobot kering (gram)}}{\text{bobot basah (gram)}} \times 100\% \\ &= \frac{3000 \text{ gram}}{5000 \text{ gram}} \times 100\% \\ &= 60 \%\end{aligned}$$

Lampiran 11. Perhitungan rendemen serbuk terhadap daun kering

Serbuk daun stroberi yang diperoleh dari daun stroberi kering seberat 3000 gram adalah 1500 gram. Rendemen yang didapatkan sebesar :

$$\text{Rumus} = \frac{\text{bobot serbuk (gram)}}{\text{bobot kering (gram)}} \times 100\%$$

$$= \frac{1500 \text{ gram}}{3000 \text{ gram}} \times 100\%$$

$$= 50\%$$

Lampiran 12. Perhitungan rendemen ekstrak terhadap serbuk

ekstrak daun stroberi yang diperoleh dari serbuk daun stroberi seberat gram 500 adalah 115,004 gram. Rendemen yang didapatkan sebesar :

$$\text{Rumus} = \frac{\text{bobot ekstrak (gram)}}{\text{bobot serbuk (gram)}} \times 100\%$$

$$= \frac{115,004 \text{ gram}}{500 \text{ gram}} \times 100\%$$

$$= 23,008 \%$$

Lampiran 13. Data uji statistik viskositas krim ekstrak etanol daun stroberi
Data viskositas

Minggu 0

| | | | |
|----------|----------|----------|----------|
| 300 | 300 | 310 | 250 |
| 310 | 300 | 300 | 260 |
| 300 | 310 | 300 | 250 |
| 303,3333 | 303,3333 | 303,3333 | 253,3333 |
| 5,773503 | 5,773503 | 5,773503 | 5,773503 |

Minggu 3

| F1 | F2 | F3 | F4 | sd |
|-----|-----|-----|-----|----------|
| 250 | 250 | 250 | 200 | 25 |
| 260 | 250 | 250 | 200 | 27,08013 |
| 250 | 240 | 260 | 210 | 21,60247 |
| | | | | 22,34373 |

Uji analisis Komogrov-smirnov, analisis anova dua jalan viskositas krim ekstrak etanol daun stroberi

One-Sample Kolmogorov-Smirnov Test

| | | viskositas |
|----------------------------------|----------------|------------|
| N | | 24 |
| Normal Parameters ^{a,b} | Mean | 265,0000 |
| | Std. Deviation | 34,51528 |
| | Absolute | ,220 |
| Most Extreme Differences | Positive | ,183 |
| | Negative | -,220 |
| Kolmogorov-Smirnov Z | | 1,076 |
| Asymp. Sig. (2-tailed) | | ,197 |

a. Test distribution is Normal.

b. Calculated from data.

Kesimpulan : sig 0,197 > 0,05 terdistribusi normal

Descriptive Statistics

Dependent Variable: dayasebar

| kelompok | minggu | Mean | Std. Deviation | N |
|----------|--------|--------|----------------|----|
| F1 | 0 | 3,6475 | ,53201 | 4 |
| | 3 | 3,5108 | ,55177 | 4 |
| | Total | 3,5792 | ,50707 | 8 |
| F2 | 0 | 3,5600 | ,51135 | 4 |
| | 3 | 3,4258 | ,53691 | 4 |
| | Total | 3,4929 | ,49067 | 8 |
| F3 | 0 | 3,8867 | ,63706 | 4 |
| | 3 | 3,7150 | ,67037 | 4 |
| | Total | 3,8008 | ,61233 | 8 |
| F4 (K-) | 0 | 4,2667 | ,84546 | 4 |
| | 3 | 4,1092 | ,83067 | 4 |
| | Total | 4,1879 | ,78048 | 8 |
| Total | 0 | 3,8402 | ,64261 | 16 |
| | 3 | 3,6902 | ,64855 | 16 |
| Total | Total | 3,7652 | ,63964 | 32 |

Levene's Test of Equality of Error Variances^a

Dependent Variable: viskositas

| F | df1 | df2 | Sig. |
|------|-----|-----|-------|
| ,000 | 7 | 16 | 1,000 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + kelompok + minggu + kelompok * minggu

Kesimpulan : sig 1,00 > 0,05 terdistribusi homogen

Between-Subjects Factors

| | Value Label | N | |
|----------|-------------|--------|----|
| kelompok | 1 | F1 | 6 |
| | 2 | F2 | 6 |
| | 3 | F3 | 6 |
| | 4 | F4(K-) | 6 |
| minggu | 0 | | 12 |
| | 3 | | 12 |

Tests of Between-Subjects Effects

Dependent Variable: viskositas

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------------|----|-------------|-----------|------|
| Corrected Model | 26866,667 ^a | 7 | 3838,095 | 115,143 | ,000 |
| Intercept | 1685400,000 | 1 | 1685400,000 | 50562,000 | ,000 |
| kelompok | 10800,000 | 3 | 3600,000 | 108,000 | ,000 |
| minggu | 16016,667 | 1 | 16016,667 | 480,500 | ,000 |
| kelompok * minggu | 50,000 | 3 | 16,667 | ,500 | ,688 |
| Error | 533,333 | 16 | 33,333 | | |
| Total | 1712800,000 | 24 | | | |
| Corrected Total | 27400,000 | 23 | | | |

a. R Squared = ,981 (Adjusted R Squared = ,972)

Multiple Comparisons

Dependent Variable: viskositas

Tukey HSD

| (I) kelompok | (J) kelompok | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------|--------------|-----------------------|------------|-------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| F1 | F2 | 3,3333 | 3,33333 | ,752 | -6,2034 | 12,8701 |
| | F3 | ,0000 | 3,33333 | 1,000 | -9,5367 | 9,5367 |
| | F4(K-) | 50,0000* | 3,33333 | ,000 | 40,4633 | 59,5367 |
| F2 | F1 | -3,3333 | 3,33333 | ,752 | -12,8701 | 6,2034 |
| | F3 | -3,3333 | 3,33333 | ,752 | -12,8701 | 6,2034 |
| | F4(K-) | 46,6667* | 3,33333 | ,000 | 37,1299 | 56,2034 |
| F3 | F1 | ,0000 | 3,33333 | 1,000 | -9,5367 | 9,5367 |
| | F2 | 3,3333 | 3,33333 | ,752 | -6,2034 | 12,8701 |
| | F4(K-) | 50,0000* | 3,33333 | ,000 | 40,4633 | 59,5367 |
| F4(K-) | F1 | -50,0000* | 3,33333 | ,000 | -59,5367 | -40,4633 |
| | F2 | -46,6667* | 3,33333 | ,000 | -56,2034 | -37,1299 |
| | F3 | -50,0000* | 3,33333 | ,000 | -59,5367 | -40,4633 |

Based on observed means.

The error term is Mean Square(Error) = 33,333.

*. The mean difference is significant at the 0,05 level.

viskositasTukey HSD^{a,b}

| kelompok | N | Subset | |
|----------|---|----------|----------|
| | | 1 | 2 |
| F4(K-) | 6 | 228,3333 | |
| F2 | 6 | | 275,0000 |
| F1 | 6 | | 278,3333 |
| F3 | 6 | | 278,3333 |
| Sig. | | 1,000 | ,752 |

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 33,333.

a. Uses Harmonic Mean Sample Size = 6,000.

b. $\alpha = 0,05$.

Lampiran 14. Data uji satatistik daya sebar krim ekstrak etanol daun stroberi

Uji analisis Komogrov-smirnov, analisis anova dua jalan daya sebar krim ekstrak etanol daun stroberi

One-Sample Kolmogorov-Smirnov Test

| | | dayasebar |
|----------------------------------|----------------|-----------|
| N | | 32 |
| Normal Parameters ^{a,b} | Mean | 3,7652 |
| | Std. Deviation | ,63964 |
| Most Extreme Differences | Absolute | ,113 |
| | Positive | ,113 |
| | Negative | -,071 |
| Kolmogorov-Smirnov Z | | ,637 |
| Asymp. Sig. (2-tailed) | | ,812 |

a. Test distribution is Normal.

b. Calculated from data.

Kesimpulan : sig 0,812 > 0,05 terdistribusi normal

Between-Subjects Factors

| | | Value Label | N |
|----------|---|-------------|----|
| kelompok | 1 | F1 | 8 |
| | 2 | F2 | 8 |
| | 3 | F3 | 8 |
| | 4 | F4 (K-) | 8 |
| minggu | 0 | | 16 |
| | 3 | | 16 |

Descriptive Statistics

Dependent Variable: dayasebar

| kelompok | minggu | Mean | Std. Deviation | N |
|----------|--------|--------|----------------|----|
| F1 | 0 | 3,6475 | ,53201 | 4 |
| | 3 | 3,5108 | ,55177 | 4 |
| | Total | 3,5792 | ,50707 | 8 |
| F2 | 0 | 3,5600 | ,51135 | 4 |
| | 3 | 3,4258 | ,53691 | 4 |
| | Total | 3,4929 | ,49067 | 8 |
| F3 | 0 | 3,8867 | ,63706 | 4 |
| | 3 | 3,7150 | ,67037 | 4 |
| | Total | 3,8008 | ,61233 | 8 |
| F4 (K-) | 0 | 4,2667 | ,84546 | 4 |
| | 3 | 4,1092 | ,83067 | 4 |
| | Total | 4,1879 | ,78048 | 8 |
| Total | 0 | 3,8402 | ,64261 | 16 |
| | 3 | 3,6902 | ,64855 | 16 |
| | Total | 3,7652 | ,63964 | 32 |

Levene's Test of Equality of Error Variances^a

Dependent Variable: dayasebar

| F | df1 | df2 | Sig. |
|------|-----|-----|------|
| ,511 | 7 | 24 | ,817 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + kelompok + minggu + kelompok * minggu

Tests of Between-Subjects Effects

Dependent Variable: dayasebar

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------------|----|-------------|----------|-------|
| Corrected Model | 2,492 ^a | 7 | ,356 | ,838 | ,567 |
| Intercept | 453,657 | 1 | 453,657 | 1068,274 | ,000 |
| Kelompok | 2,310 | 3 | ,770 | 1,813 | ,172 |
| Minggu | ,180 | 1 | ,180 | ,424 | ,521 |
| kelompok * minggu | ,002 | 3 | ,001 | ,001 | 1,000 |
| Error | 10,192 | 24 | ,425 | | |
| Total | 466,341 | 32 | | | |
| Corrected Total | 12,683 | 31 | | | |

a. R Squared = ,196 (Adjusted R Squared = -,038)

Grand Mean

Dependent Variable: dayasebar

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 3,765 | ,115 | 3,527 | 4,003 |

Multiple Comparisons

Dependent Variable: dayasebar

Tukey HSD

| (I) kelompok | (J) kelompok | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------|--------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| F1 | F2 | ,0863 | ,32583 | ,993 | -,8126 | ,9851 |
| | F3 | -,2217 | ,32583 | ,904 | -1,1205 | ,6772 |
| | F4 (K-) | -,6088 | ,32583 | ,268 | -1,5076 | ,2901 |
| F2 | F1 | -,0863 | ,32583 | ,993 | -,9851 | ,8126 |
| | F3 | -,3079 | ,32583 | ,781 | -1,2068 | ,5909 |
| | F4 (K-) | -,6950 | ,32583 | ,171 | -1,5938 | ,2038 |
| F3 | F1 | ,2217 | ,32583 | ,904 | -,6772 | 1,1205 |
| | F2 | ,3079 | ,32583 | ,781 | -,5909 | 1,2068 |
| | F4 (K-) | -,3871 | ,32583 | ,640 | -1,2859 | ,5118 |
| F4 (K-) | F1 | ,6088 | ,32583 | ,268 | -,2901 | 1,5076 |
| | F2 | ,6950 | ,32583 | ,171 | -,2038 | 1,5938 |
| | F3 | ,3871 | ,32583 | ,640 | -,5118 | 1,2859 |

Based on observed means.

The error term is Mean Square(Error) = ,425.

dayasebar

Tukey HSD^{a,b}

| kelompok | N | Subset |
|----------|---|--------|
| | | 1 |
| F2 | 8 | 3,4929 |
| F1 | 8 | 3,5792 |
| F3 | 8 | 3,8008 |
| F4 (K-) | 8 | 4,1879 |
| Sig. | | ,171 |

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,425.

a. Uses Harmonic Mean Sample Size = 8,000.

b. Alpha = ,05.

Lampiran 15. Data uji satatistik daya lekat krim ekstrak etanol daun stroberi Data daya lekat

Minggu 0

| F1 | F2 | F3 | F4 |
|----------|----------|----------|----------|
| 2,3 | 2,29 | 2,3 | 2,27 |
| 2,33 | 2,3 | 2,3 | 2,26 |
| 2,32 | 2,3 | 2,29 | 2,26 |
| 2,316667 | 2,296667 | 2,296667 | 2,263333 |
| 0,015275 | 0,005774 | 0,005774 | 0,005774 |

Minggu 3

| F1 | F2 | F3 | F4 |
|----------|------|-------------|------|
| 2,28 | 2,3 | 2,32 | 2,28 |
| 2,28 | 2,28 | 2,29 | 2,29 |
| 2,3 | 2,29 | 2,3 | 2,3 |
| 2,286667 | 2,29 | 2,303333333 | 2,29 |
| 0,011547 | 0,01 | 0,015275252 | 0,01 |

Uji analisis Komogrov-smirnov, analisis anova dua jalan daya lekat krim ekstrak etanol daun stroberi

One-Sample Kolmogorov-Smirnov Test

| | | dayalekat |
|----------------------------------|----------------|-----------|
| N | | 24 |
| Normal Parameters ^{a,b} | Mean | 2,2929 |
| | Std. Deviation | ,01706 |
| | Absolute | ,214 |
| Most Extreme Differences | Positive | ,214 |
| | Negative | -,161 |
| Kolmogorov-Smirnov Z | | 1,048 |
| Asymp. Sig. (2-tailed) | | ,222 |

a. Test distribution is Normal.

b. Calculated from data.

Kesimpulan : sig 0,22 > 0,05 data terdistribusi normal

Between-Subjects Factors

| | | N |
|----------|---|----|
| minggu | 0 | 12 |
| | 3 | 12 |
| | 1 | 6 |
| kelompok | 2 | 6 |
| | 3 | 6 |
| | 4 | 6 |
| | | |

Descriptive Statistics

Dependent Variable: dayalekat

| minggu | kelompok | Mean | Std. Deviation | N |
|--------|----------|--------|----------------|----|
| 0 | 1 | 2,2867 | ,01155 | 3 |
| | 2 | 2,2900 | ,01000 | 3 |
| | 3 | 2,3033 | ,01528 | 3 |
| | 4 | 2,2900 | ,01000 | 3 |
| | Total | 2,2925 | ,01215 | 12 |
| 3 | 1 | 2,3167 | ,01528 | 3 |
| | 2 | 2,2967 | ,00577 | 3 |
| | 3 | 2,2967 | ,00577 | 3 |
| | 4 | 2,2633 | ,00577 | 3 |
| | Total | 2,2933 | ,02146 | 12 |
| Total | 1 | 2,3017 | ,02041 | 6 |
| | 2 | 2,2933 | ,00816 | 6 |
| | 3 | 2,3000 | ,01095 | 6 |
| | 4 | 2,2767 | ,01633 | 6 |
| | Total | 2,2929 | ,01706 | 24 |

Levene's Test of Equality of Error Variances^a

Dependent Variable: dayalekat

| F | df1 | df2 | Sig. |
|-------|-----|-----|------|
| 1,031 | 7 | 16 | ,448 |

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + minggu + kelompok + minggu * kelompok

Kesimpulan : sig 0,448 > 0,05 data terdistribusi homogen

Tests of Between-Subjects Effects

Dependent Variable: dayalekat

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------------|----|-------------|-------------|------|
| Corrected Model | ,005 ^a | 7 | ,001 | 6,217 | ,001 |
| Intercept | 126,179 | 1 | 126,179 | 1121592,926 | ,000 |
| minggu | 4,167E-006 | 1 | 4,167E-006 | ,037 | ,850 |
| kelompok | ,002 | 3 | ,001 | 6,951 | ,003 |
| minggu * kelompok | ,003 | 3 | ,001 | 7,543 | ,002 |
| Error | ,002 | 16 | ,000 | | |
| Total | 126,186 | 24 | | | |
| Corrected Total | ,007 | 23 | | | |

a. R Squared = ,731 (Adjusted R Squared = ,614)

Grand Mean

Dependent Variable: dayalekat

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 2,293 | ,002 | 2,288 | 2,298 |

Multiple Comparisons

Dependent Variable: dayalekat

Tukey HSD

| (I) kelompok | (J) kelompok | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------|--------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | ,0083 | ,00612 | ,540 | -,0092 | ,0259 |
| | 3 | ,0017 | ,00612 | ,993 | -,0159 | ,0192 |
| | 4 | ,0250* | ,00612 | ,004 | ,0075 | ,0425 |
| 2 | 1 | -,0083 | ,00612 | ,540 | -,0259 | ,0092 |
| | 3 | -,0067 | ,00612 | ,701 | -,0242 | ,0109 |
| | 4 | ,0167 | ,00612 | ,065 | -,0009 | ,0342 |
| 3 | 1 | -,0017 | ,00612 | ,993 | -,0192 | ,0159 |
| | 2 | ,0067 | ,00612 | ,701 | -,0109 | ,0242 |
| | 4 | ,0233* | ,00612 | ,008 | ,0058 | ,0409 |
| 4 | 1 | -,0250* | ,00612 | ,004 | -,0425 | -,0075 |
| | 2 | -,0167 | ,00612 | ,065 | -,0342 | ,0009 |
| | 3 | -,0233* | ,00612 | ,008 | -,0409 | -,0058 |

Based on observed means.

The error term is Mean Square(Error) = ,000.

*. The mean difference is significant at the ,05 level.

dayalekat

Tukey HSD^{a,b}

| kelompok | N | Subset | |
|----------|---|--------|--------|
| | | 1 | 2 |
| 4 | 6 | 2,2767 | |
| 2 | 6 | 2,2933 | 2,2933 |
| 3 | 6 | | 2,3000 |
| 1 | 6 | | 2,3017 |
| Sig. | | ,065 | ,540 |

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = ,000.

a. Uses Harmonic Mean Sample Size = 6,000.

b. Alpha = ,05.

Lampiran 16. Data uji satatistik *pH* krim ekstrak etanol daun stroberi Data *pH*

Minggu 0

| | | | | |
|----------|-------------|-------------|----------|----------|
| 8,06 | 8,06 | 8,09 | 8,16 | 7,98 |
| 8,07 | 8,06 | 8,08 | 8,15 | 8,01 |
| 8,06 | 8,07 | 8,08 | 8,15 | 7,99 |
| 8,063333 | 8,063333333 | 8,083333333 | 8,153333 | 7,993333 |
| 0,005774 | 0,005773503 | 0,005773503 | 0,005774 | 0,015275 |

Minggu 3

| F1 | F2 | F3 | F4 | K+ |
|----------|----------|----------|----------|----------|
| 8,05 | 8,06 | 8,08 | 8,18 | 7,97 |
| 8,06 | 8,07 | 8,07 | 8,16 | 7,99 |
| 8,06 | 8,06 | 8,08 | 8,18 | 7,99 |
| 8,056667 | 8,063333 | 8,076667 | 8,173333 | 7,983333 |
| 0,005774 | 0,005774 | 0,005774 | 0,011547 | 0,011547 |

Stabilitas

| F1 | F2 | F3 | F4 |
|----------|------|------------|----------|
| 8,08 | 8,08 | 8,08 | 8,1 |
| 8,07 | 8,07 | 8,06 | 8,09 |
| 8,08 | 8,06 | 8,08 | 8,1 |
| 8,076667 | 8,07 | 8,07333333 | 8,096667 |
| 0,005774 | 0,01 | 0,01154701 | 0,005774 |

Uji analisis Komogrov-smirnov, analisis anova dua jalan *pH* krim ekstrak etanol daun stroberi

One-Sample Kolmogorov-Smirnov Test

| | | <i>pH</i> |
|----------------------------------|----------------|-----------|
| N | | 30 |
| Normal Parameters ^{a,b} | Mean | 8,0710 |
| | Std. Deviation | ,05756 |
| | Absolute | ,205 |
| Most Extreme Differences | Positive | ,205 |
| | Negative | -,191 |
| Kolmogorov-Smirnov Z | | 1,120 |
| Asymp. Sig. (2-tailed) | | ,162 |

a. Test distribution is Normal.

b. Calculated from data.

Between-Subjects Factors

| | | N |
|----------|---|----|
| | 1 | 6 |
| | 2 | 6 |
| kelompok | 3 | 6 |
| | 4 | 6 |
| | 5 | 6 |
| Minggu | 0 | 15 |
| | 3 | 15 |

Descriptive StatisticsDependent Variable: *pH*

| kelompok | minggu | Mean | Std. Deviation | N |
|----------|--------|--------|----------------|----|
| | 0 | 8,0567 | ,00577 | 3 |
| 1 | 3 | 8,0633 | ,00577 | 3 |
| | Total | 8,0600 | ,00632 | 6 |
| | 0 | 8,0633 | ,00577 | 3 |
| 2 | 3 | 8,0633 | ,00577 | 3 |
| | Total | 8,0633 | ,00516 | 6 |
| | 0 | 8,0767 | ,00577 | 3 |
| 3 | 3 | 8,0833 | ,00577 | 3 |
| | Total | 8,0800 | ,00632 | 6 |
| | 0 | 8,1733 | ,01155 | 3 |
| 4 | 3 | 8,1533 | ,00577 | 3 |
| | Total | 8,1633 | ,01366 | 6 |
| | 0 | 7,9933 | ,01528 | 3 |
| 5 | 3 | 7,9833 | ,01155 | 3 |
| | Total | 7,9883 | ,01329 | 6 |
| | 0 | 8,0727 | ,06053 | 15 |
| Total | 3 | 8,0693 | ,05650 | 15 |
| | Total | 8,0710 | ,05756 | 30 |

Descriptive StatisticsDependent Variable: *pH*

| kelompok | minggu | Mean | Std. Deviation | N |
|----------|--------|--------|----------------|----|
| | 0 | 8,0567 | ,00577 | 3 |
| 1 | 3 | 8,0633 | ,00577 | 3 |
| | Total | 8,0600 | ,00632 | 6 |
| | 0 | 8,0633 | ,00577 | 3 |
| 2 | 3 | 8,0633 | ,00577 | 3 |
| | Total | 8,0633 | ,00516 | 6 |
| | 0 | 8,0767 | ,00577 | 3 |
| 3 | 3 | 8,0833 | ,00577 | 3 |
| | Total | 8,0800 | ,00632 | 6 |
| | 0 | 8,1733 | ,01155 | 3 |
| 4 | 3 | 8,1533 | ,00577 | 3 |
| | Total | 8,1633 | ,01366 | 6 |
| | 0 | 7,9933 | ,01528 | 3 |
| 5 | 3 | 7,9833 | ,01155 | 3 |
| | Total | 7,9883 | ,01329 | 6 |
| | 0 | 8,0727 | ,06053 | 15 |
| Total | 3 | 8,0693 | ,05650 | 15 |
| | Total | 8,0710 | ,05756 | 30 |

Tests of Between-Subjects Effects

Dependent Variable: *pH*

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-------------------|-------------------------|----|-------------|--------------|------|
| Corrected Model | ,095 ^a | 9 | ,011 | 143,338 | ,000 |
| Intercept | 1954,231 | 1 | 1954,231 | 26648607,682 | ,000 |
| kelompok | ,094 | 4 | ,023 | 319,500 | ,000 |
| Minggu | 8,333E-005 | 1 | 8,333E-005 | 1,136 | ,299 |
| kelompok * minggu | ,001 | 4 | ,000 | 2,727 | ,058 |
| Error | ,001 | 20 | 7,333E-005 | | |
| Total | 1954,327 | 30 | | | |
| Corrected Total | ,096 | 29 | | | |

a. R Squared = ,985 (Adjusted R Squared = ,978)

Grand Mean

Dependent Variable: *pH*

| Mean | Std. Error | 95% Confidence Interval | |
|-------|------------|-------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 8,071 | ,002 | 8,068 | 8,074 |

Multiple Comparisons

Dependent Variable: *pH*

Tukey HSD

| (I) kelompok | (J) kelompok | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|--------------|--------------|-----------------------|------------|------|-------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| 1 | 2 | -,0033 | ,00494 | ,960 | -,0181 | ,0115 |
| | 3 | -,0200 [*] | ,00494 | ,005 | -,0348 | -,0052 |
| | 4 | -,1033 [*] | ,00494 | ,000 | -,1181 | -,0885 |
| | 5 | ,0717 [*] | ,00494 | ,000 | ,0569 | ,0865 |
| 2 | 1 | ,0033 | ,00494 | ,960 | -,0115 | ,0181 |
| | 3 | -,0167 [*] | ,00494 | ,023 | -,0315 | -,0019 |
| | 4 | -,1000 [*] | ,00494 | ,000 | -,1148 | -,0852 |
| 3 | 5 | ,0750 [*] | ,00494 | ,000 | ,0602 | ,0898 |
| | 1 | ,0200 [*] | ,00494 | ,005 | ,0052 | ,0348 |
| | 2 | ,0167 [*] | ,00494 | ,023 | ,0019 | ,0315 |
| 4 | 3 | -,0833 [*] | ,00494 | ,000 | -,0981 | -,0685 |
| | 5 | ,0917 [*] | ,00494 | ,000 | ,0769 | ,1065 |
| | 1 | ,1033 [*] | ,00494 | ,000 | ,0885 | ,1181 |
| 5 | 2 | ,1000 [*] | ,00494 | ,000 | ,0852 | ,1148 |
| | 3 | ,0833 [*] | ,00494 | ,000 | ,0685 | ,0981 |
| | 4 | ,1750 [*] | ,00494 | ,000 | ,1602 | ,1898 |
| 5 | 1 | -,0717 [*] | ,00494 | ,000 | -,0865 | -,0569 |
| | 2 | -,0750 [*] | ,00494 | ,000 | -,0898 | -,0602 |
| | 3 | -,0917 [*] | ,00494 | ,000 | -,1065 | -,0769 |
| | 4 | -,1750 [*] | ,00494 | ,000 | -,1898 | -,1602 |

Based on observed means.

The error term is Mean Square(Error) = 7,33E-005.

*. The mean difference is significant at the ,05 level.

*pH*Tukey HSD^{a,b}

| kelompok | N | Subset | | | |
|----------|---|--------|--------|--------|--------|
| | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7,9883 | | | |
| 1 | 6 | | 8,0600 | | |
| 2 | 6 | | 8,0633 | | |
| 3 | 6 | | | 8,0800 | |
| 4 | 6 | | | | 8,1633 |
| Sig. | | 1,000 | ,960 | 1,000 | 1,000 |

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 7,33E-005.

a. Uses Harmonic Mean Sample Size = 6,000.

b. Alpha = ,05.

**Lampiran 17 Data uji satatistik nilai SPF krim ekstrak etanol daun stroberi
Data nilai SPF**

Formula 1

| | | | |
|-------------------|------------|--------|-----------------|
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 0,5876 | 0,015 | 0,008814 |
| 295 | 0,5233 | 0,0817 | 0,042754 |
| 300 | 0,4653 | 0,2874 | 0,133727 |
| 305 | 0,4096 | 0,3278 | 0,134267 |
| 310 | 0,3685 | 0,1864 | 0,068688 |
| 315 | 0,3432 | 0,0839 | 0,028794 |
| 320 | 0,3255 | 0,018 | 0,005859 |
| | | | 0,422904 |
| | | | 21,14518 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 0,5883 | 0,015 | 0,008825 |
| 295 | 0,5237 | 0,0817 | 0,042786 |
| 300 | 0,4657 | 0,2874 | 0,133842 |
| 305 | 0,4092 | 0,3278 | 0,134136 |
| 310 | 0,3683 | 0,1864 | 0,068651 |
| 315 | 0,3431 | 0,0839 | 0,028786 |
| 320 | 0,3244 | 0,018 | 0,005839 |
| | | | 0,422865 |
| | | | 21,14326 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 0,5972 | 0,015 | 0,008958 |
| 295 | 0,5335 | 0,0817 | 0,043587 |
| 300 | 0,4754 | 0,2874 | 0,13663 |
| 305 | 0,4203 | 0,3278 | 0,137774 |
| 310 | 0,3799 | 0,1864 | 0,070813 |
| 315 | 0,3529 | 0,0839 | 0,029608 |
| 320 | 0,3335 | 0,018 | 0,006003 |
| | | | 0,433374 |
| | | | 21,6687 |

Formula 2

| panjang gelombang | absorbansi | EE X I | SPF |
|-------------------|------------|--------|-----------------|
| 290 | 1,3363 | 0,015 | 0,0200445 |
| 295 | 1,0931 | 0,0817 | 0,0893063 |
| 300 | 0,872 | 0,2874 | 0,2506128 |
| 305 | 0,6632 | 0,3278 | 0,217397 |
| 310 | 0,5229 | 0,1864 | 0,0974686 |
| 315 | 0,4593 | 0,0839 | 0,0385353 |
| 320 | 0,4353 | 0,018 | 0,0078354 |
| | | | 0,7211998 |
| | | | 36,05999 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,335 | 0,015 | 0,020025 |
| 295 | 1,0938 | 0,0817 | 0,0893635 |
| 300 | 0,8726 | 0,2874 | 0,2507852 |
| 305 | 0,6647 | 0,3278 | 0,2178887 |
| 310 | 0,5223 | 0,1864 | 0,0973567 |
| 315 | 0,4588 | 0,0839 | 0,0384933 |
| 320 | 0,4344 | 0,018 | 0,0078192 |
| | | | 0,7217316 |
| | | | 36,08658 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,3331 | 0,015 | 0,0199965 |
| 295 | 1,0945 | 0,0817 | 0,0894207 |
| 300 | 0,8717 | 0,2874 | 0,2505266 |
| 305 | 0,6633 | 0,3278 | 0,2174297 |
| 310 | 0,5218 | 0,1864 | 0,0972635 |
| 315 | 0,458 | 0,0839 | 0,0384262 |
| 320 | 0,4329 | 0,018 | 0,0077922 |
| | | | 0,7208554 |
| | | | 36,04277 |

Formula 3

| panjang gelombang | absorbansi | EE X I | SPF |
|-------------------|------------|--------|-----------------|
| 290 | 1,1669 | 0,015 | 0,0175035 |
| 295 | 1,0262 | 0,0817 | 0,0838405 |
| 300 | 0,9061 | 0,2874 | 0,2604131 |
| 305 | 0,797 | 0,3278 | 0,2612566 |
| 310 | 0,7128 | 0,1864 | 0,1328659 |
| 315 | 0,6698 | 0,0839 | 0,0561962 |
| 320 | 0,6502 | 0,018 | 0,0117036 |
| | | | 0,8237795 |
| | | | 41,18898 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,1549 | 0,015 | 0,0173235 |
| 295 | 1,0187 | 0,0817 | 0,0832278 |
| 300 | 0,904 | 0,2874 | 0,2598096 |
| 305 | 0,7947 | 0,3278 | 0,2605027 |
| 310 | 0,7151 | 0,1864 | 0,1332946 |
| 315 | 0,6746 | 0,0839 | 0,0565989 |
| 320 | 0,6562 | 0,018 | 0,0118116 |
| | | | 0,8225687 |
| | | | 41,12844 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,1591 | 0,015 | 0,0173865 |
| 295 | 1,0239 | 0,0817 | 0,0836526 |
| 300 | 0,9079 | 0,2874 | 0,2609305 |
| 305 | 0,7973 | 0,3278 | 0,2613549 |
| 310 | 0,7166 | 0,1864 | 0,1335742 |
| 315 | 0,6762 | 0,0839 | 0,0567332 |
| 320 | 0,6555 | 0,018 | 0,011799 |
| | | | 0,825431 |
| | | | 41,27155 |

Formula 4

| panjang gelombang | Absorbansi | EE X I | SPF |
|-------------------|------------|--------|-----------------|
| 290 | 0,386 | 0,015 | 0,00579 |
| 295 | 0,1222 | 0,0817 | 0,009984 |
| 300 | 0,0827 | 0,2874 | 0,023768 |
| 305 | 0,077 | 0,3278 | 0,025241 |
| 310 | 0,0707 | 0,1864 | 0,013178 |
| 315 | 0,0637 | 0,0839 | 0,005344 |
| 320 | 0,0593 | 0,018 | 0,001067 |
| | | | 0,084373 |
| | | | 0,843726 |
| panjang gelombang | Absorbansi | EE X I | SPF |
| 290 | 0,3858 | 0,015 | 0,005787 |
| 295 | 0,122 | 0,0817 | 0,009967 |
| 300 | 0,0823 | 0,2874 | 0,023653 |
| 305 | 0,0765 | 0,3278 | 0,025077 |
| 310 | 0,0698 | 0,1864 | 0,013011 |
| 315 | 0,063 | 0,0839 | 0,005286 |
| 320 | 0,0577 | 0,018 | 0,001039 |
| | | | 0,083819 |
| | | | 0,838191 |
| panjang gelombang | Absorbansi | EE X I | SPF |
| 290 | 0,383 | 0,015 | 0,005745 |
| 295 | 0,1198 | 0,0817 | 0,009788 |
| 300 | 0,08 | 0,2874 | 0,022992 |
| 305 | 0,0746 | 0,3278 | 0,024454 |
| 310 | 0,0675 | 0,1864 | 0,012582 |
| 315 | 0,0605 | 0,0839 | 0,005076 |
| 320 | 0,0554 | 0,018 | 0,000997 |
| | | | 0,081634 |
| | | | 0,816337 |

Kontrol positif

| panjang gelombang | absorbansi | EE X I | SPF |
|-------------------|------------|--------|-----------------|
| 290 | 1,1158 | 0,015 | 0,016737 |
| 295 | 0,9808 | 0,0817 | 0,0801314 |
| 300 | 0,8671 | 0,2874 | 0,2492045 |
| 305 | 0,7555 | 0,3278 | 0,2476529 |
| 310 | 0,6753 | 0,1864 | 0,1258759 |
| 315 | 0,6353 | 0,0839 | 0,0533017 |
| 320 | 0,6158 | 0,018 | 0,0110844 |
| | | | 0,7839878 |
| | | | 39,19939 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,1186 | 0,015 | 0,016779 |
| 295 | 0,9807 | 0,0817 | 0,0801232 |
| 300 | 0,8564 | 0,2874 | 0,2461294 |
| 305 | 0,7533 | 0,3278 | 0,2469317 |
| 310 | 0,6738 | 0,1864 | 0,1255963 |
| 315 | 0,6337 | 0,0839 | 0,0531674 |
| 320 | 0,6136 | 0,018 | 0,0110448 |
| | | | 0,7797718 |
| | | | 38,98859 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,1185 | 0,015 | 0,0167775 |
| 295 | 0,982 | 0,0817 | 0,0802294 |
| 300 | 0,867 | 0,2874 | 0,2491758 |
| 305 | 0,756 | 0,3278 | 0,2478168 |
| 310 | 0,6753 | 0,1864 | 0,1258759 |
| 315 | 0,6351 | 0,0839 | 0,0532849 |
| 320 | 0,6149 | 0,018 | 0,0110682 |
| | | | 0,7842285 |
| | | | 39,21143 |

Ekstrak

| panjang gelombang | absorbansi | EE X I | SPF |
|-------------------|------------|--------|-----------------|
| 290 | 1,1654 | 0,015 | 0,017481 |
| 295 | 1,2899 | 0,0817 | 0,1053848 |
| 300 | 1,0985 | 0,2874 | 0,3157089 |
| 305 | 1,0031 | 0,3278 | 0,3288162 |
| 310 | 0,9685 | 0,1864 | 0,1805284 |
| 315 | 0,9432 | 0,0839 | 0,0791345 |
| 320 | 0,8755 | 0,018 | 0,015759 |
| | | | 1,0428128 |
| | | | 52,14064 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,16751 | 0,015 | 0,0175127 |
| 295 | 1,2902 | 0,0817 | 0,1054093 |
| 300 | 1,1009 | 0,2874 | 0,3163987 |
| 305 | 1,0116 | 0,3278 | 0,3316025 |
| 310 | 0,9683 | 0,1864 | 0,1804911 |
| 315 | 0,9431 | 0,0839 | 0,0791261 |
| 320 | 0,8844 | 0,018 | 0,0159192 |
| | | | 1,0464595 |
| | | | 52,32298 |
| panjang gelombang | absorbansi | EE X I | SPF |
| 290 | 1,6693 | 0,015 | 0,0250395 |
| 295 | 1,2901 | 0,0817 | 0,1054012 |
| 300 | 1,0992 | 0,2874 | 0,3159101 |
| 305 | 1,0078 | 0,3278 | 0,3303568 |
| 310 | 0,9799 | 0,1864 | 0,1826534 |
| 315 | 0,9529 | 0,0839 | 0,0799483 |
| 320 | 0,8335 | 0,018 | 0,015003 |
| | | | 1,0543123 |
| | | | 52,71561 |

Uji analisis Komogrov-smirnov, analisis one way anova nilai SPF krim ekstrak etanol daun stroberi

One-Sample Kolmogorov-Smirnov Test

| | | SPF |
|----------------------------------|----------------|------------|
| N | | 18 |
| Normal Parameters ^{a,b} | Mean | 31,822908 |
| | Std. Deviation | 17,0807710 |
| | Absolute | ,264 |
| Most Extreme Differences | Positive | ,132 |
| | Negative | -,264 |
| Kolmogorov-Smirnov Z | | 1,121 |
| Asymp. Sig. (2-tailed) | | ,162 |

a. Test distribution is Normal.

b. Calculated from data.

ANOVA

SPF

| | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|----|-------------|-----------|------|
| Between Groups | 4959,397 | 5 | 991,879 | 29817,394 | ,000 |
| Within Groups | ,399 | 12 | ,033 | | |
| Total | 4959,797 | 17 | | | |

SPF

Tukey HSD^a

| Formula | N | Subset for $\alpha = 0.05$ | | | | | |
|-----------------------------|---|----------------------------|-----------|-----------|-----------|-----------|-----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| F4(K-) | 3 | ,832751 | | | | | |
| F1 | 3 | | 21,319047 | | | | |
| F2 | 3 | | | 36,063113 | | | |
| K+ (EMINA) | 3 | | | | 39,133137 | | |
| F3 | 3 | | | | | 41,196323 | |
| EKSTRAK DAUN STROBERI | 3 | | | | | | 52,393077 |
| Sig. | | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3,000.

Multiple Comparisons

Dependent Variable: SPF
Tukey HSD

| (I) Formula | (J) Formula | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval | |
|------------------------|-----------------------|--------------------------|------------|------|-------------------------|----------------|
| | | | | | Lower Bound | Upper Bound |
| F1 | F2 | -14,7440667* | ,1489186 | ,000 | -15,244273 | -14,243861 |
| | F3 | -19,8772767* | ,1489186 | ,000 | -20,377483 | -19,377071 |
| | F4(K-) | 20,4862953* | ,1489186 | ,000 | 19,986089 | 20,986501 |
| | K+ (EMINA) | -17,8140900* | ,1489186 | ,000 | -18,314296 | -17,313884 |
| | EKSTRAK DAUN STROBERI | -31,0740300* | ,1489186 | ,000 | -31,574236 | -30,573824 |
| F2 | F1 | 14,7440667* | ,1489186 | ,000 | 14,243861 | 15,244273 |
| | F3 | -5,1332100* | ,1489186 | ,000 | -5,633416 | -4,633004 |
| | F4(K-) | 35,2303620* | ,1489186 | ,000 | 34,730156 | 35,730568 |
| | K+ (EMINA) | -3,0700233* | ,1489186 | ,000 | -3,570229 | -2,569817 |
| | EKSTRAK DAUN STROBERI | -16,3299633* | ,1489186 | ,000 | -16,830169 | -15,829757 |
| F3 | F1 | 19,8772767* | ,1489186 | ,000 | 19,377071 | 20,377483 |
| | F2 | 5,1332100* | ,1489186 | ,000 | 4,633004 | 5,633416 |
| | F4(K-) | 40,3635720* | ,1489186 | ,000 | 39,863366 | 40,863778 |
| | K+ (EMINA) | 2,0631867* | ,1489186 | ,000 | 1,562981 | 2,563393 |
| | EKSTRAK DAUN STROBERI | -11,1967533* | ,1489186 | ,000 | -11,696959 | -10,696547 |
| F4(K-) | F1 | -20,4862953* | ,1489186 | ,000 | -20,986501 | -19,986089 |
| | F2 | -35,2303620* | ,1489186 | ,000 | -35,730568 | -34,730156 |
| | F3 | -40,3635720* | ,1489186 | ,000 | -40,863778 | -39,863366 |
| | K+ (EMINA) | -38,3003853* | ,1489186 | ,000 | -38,800591 | -37,800179 |
| | EKSTRAK DAUN STROBERI | -51,5603253* | ,1489186 | ,000 | -52,060531 | -51,060119 |
| K+ (EMINA) | F1 | 17,8140900* | ,1489186 | ,000 | 17,313884 | 18,314296 |
| | F2 | 3,0700233* | ,1489186 | ,000 | 2,569817 | 3,570229 |
| | F3 | -2,0631867* | ,1489186 | ,000 | -2,563393 | -1,562981 |
| | F4(K-) | 38,3003853* | ,1489186 | ,000 | 37,800179 | 38,800591 |
| | EKSTRAK DAUN STROBERI | -13,2599400* | ,1489186 | ,000 | -13,760146 | -12,759734 |
| EKSTRAK DAUN STROBE RI | F1 | 31,0740300* | ,1489186 | ,000 | 30,573824 | 31,574236 |
| | F2 | 16,3299633* | ,1489186 | ,000 | 15,829757 | 16,830169 |
| | F3 | 11,1967533* | ,1489186 | ,000 | 10,696547 | 11,696959 |
| | F4(K-) | 51,5603253* | ,1489186 | ,000 | 51,060119 | 52,060531 |
| | K+ (EMINA) | 13,2599400* | ,1489186 | ,000 | 12,759734 | 13,760146 |

*. The mean difference is significant at the 0.05 level.

Lampiran 18. Data uji *in vivo* krim ekstrak etanol daun stroberi

| Kelinci | Kelompok | Hasil (cm) | |
|---------|----------|------------|--------|
| | | 24 jam | 48 jam |
| 1 | 1 | 0 | 0 |
| | 2 | 0 | 0 |
| | 3 | 0 | 0 |
| | 4 | 0 | 0 |
| | 5 | 0 | 0 |
| | 6 | 1 | 1 |
| 2 | 1 | 0 | 0 |
| | 2 | 0 | 0 |
| | 3 | 0 | 0 |
| | 4 | 0 | 0 |
| | 5 | 0 | 0 |
| | 6 | 0,5 | 0,4 |
| 3 | 1 | 0 | 0 |
| | 2 | 0 | 0 |
| | 3 | 0 | 0 |
| | 4 | 0 | 0 |
| | 5 | 0 | 0 |
| | 6 | 1 | 1 |
| 4 | 1 | 0 | 0 |
| | 2 | 0 | 0 |
| | 3 | 0 | 0 |
| | 4 | 0 | 0 |
| | 5 | 0 | 0 |
| | 6 | 1 | 0,8 |
| 5 | 1 | 0 | 0 |
| | 2 | 0 | 0 |
| | 3 | 0 | 0 |
| | 4 | 0 | 0 |
| | 5 | 0 | 0 |
| | 6 | 0,1 | 0,2 |