LAMPIRAN

Lampiran 1. Surat keterangan hasil determinasi daun sirih

UNIVERSITAS SETIA BUDI

UPT-LABORATORIUM

Jl. Letjen Sutoyo, Mojosongo-Solo 57127 Telp. 0271-852518, Fax. 0271-853275

Nomor : 008/DET/UPT-LAB/25.04.2022
Hal : Hasil determinasi tumbuhan
Lamp. : -

Nama : Salsabila Mellia Putri Wicaksono
NIM : 24185593A
Alamat : Program Studi S-1 Farmasi,
Universitas Setia Budi, Surakarta
Nama sampel : *Piper betle* L./ Sirih

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae
Super Divisi : Spermatophyta
Divisi : Magnoliophyta
Kelas : Magnoliopsida
Ordo : Piperales
Famili : Piperaceae
Genus : Piper
Species : *Piper betle* L.

Hasil Determinasi menurut Steenis, C.G.G.J.V, Bloembergen, H, Eyma, P.J. 1992 : 1a – 2b – 3b – 4b – 6b – 7b – 9a. golongan 4. 41b – 42b – 43b – 54b – 59b – 61b – 62b – 63a – 64a. familia 37. 1a. *Piper betle* L.

Deskripsi :

Habitus : Herba, tumbuh memanjat.
Akar : Akar serabut.
Batang : Batang segitiga, beralur.
Daun : Daun tunggal, duduk daun berseling atau tersebar, herbaceus, daun penumpu cepat rontok dan meninggalkan tanda bekas berbentuk cincin. Helaian daun

bulat telur sampai memanjang, pangkal bentuk jantung, ujung meruncing, tulang daun menjari, panjang 4,5 – 5,7 cm, permukaan atas berwarna hijau tua, permukaan bawah hijau muda, berbau aromatis.

Bunga : Bunga berkelamin 1, berumah 1 atau 2. Bulir berdiri sendiri, di ujung dan berhadapan dengan daun. Daun pelindung bentuk lingkaran, bulat telur terbalik atau bulat telur memanjang, panjang lk 1 mm.

Buah : Buah buni dengan ujung bebas dan membulat.

Surakarta, 25 April 2022

Kepala UPT-LAB	Penanggung jawab
Universitas Setia Budi	Determinasi Tumbuhan
Asik Gunawan, Amdk	Dra. Dewi Sulistyawati. M.Sc.

Lampiran 2. Surat keterangan *ethical clearance*

HEALTH RESEARCH ETHICS COMITTE
KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 474 IV / HREC / 2022

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

FORMULASI DAN UJI AKTIVITAS KRIM ANTI AGING EKSTRAK DAUN SIRIH (Piper betle L.) DENGAN VARIASI KONSENTRASI GLISERIN DAN PROPILEN GLIKOL PADA KULIT PUNGGUNG KELINCI PUTIH NEW ZEALAND

Principal investigator
Peneliti Utama : Salsabila Mellia Putri Wicaksono
24185593A

Location of research
Lokasi Tempat Penelitian : Laboratorium Farmakologi dan Laboratorium Farmasetik Universitas Setia Budi Surakarta

Is ethically approved
Dinyatakan layak etik

Issued on : 11 April 2022

Chairman
Ketua

Dr. Wahyu Dwi Atmoko., Sp.F
19770224 201001 1 004

Lampiran 3. Surat keterangan hewan uji

"ABIMANYU FARM"

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

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	: Salsabila Mellia Putri Wicaksono
NIM	: 24185593A
Institusi	: Universitas Setia Budi Surakarta

Merupakan hewan uji dengan spesifikasi sebagai berikut:

Jenis hewan	: Kelinci New Zealand
Umur	: 2-3 bulan
Jenis kelamin	: Jantan
Jumlah	: 5 ekor
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, 09 Juni 2022
Hormat kami

Sigit Pramono
"ABIMANYU FARM"

Lampiran 4. Foto pengolahan simplisia dan perhitungan rendemen simplisia

Daun sirih

Serbuk daun sirih

Ekstrak daun sirih

Perhitungan rendemen daun sirih

1. Rendemen daun sirih kering terhadap daun sirih basah

   % rendemen kering terhadap bobot basah = $\frac{bobot\ simplisa}{bobot\ simplisia\ segar}$ x 100%

   = $\frac{1983}{\text{ubah}}$ x 100%

   = 19,83%

2. Rendemen ekstrak etanol terhadap serbuk kering

   % rendemen ekstrak daun sirih = $\frac{bobot\ simplisa}{bobot\ simplisia\ segar}$ x 100%

   = $\frac{124\ gram}{1000\ gram}$ x 100%

   = 12,4%

Lampiran 5. Foto kadar air simplisia dan perhitungan dengan metode *sterling bidwell*

Alat uji kadar air destilasi

Hasil uji kadar air replikasi I

Hasil uji kadar air Replikasi II

Hasil uji kadar air replikasi III

Kadar air simplisia dengan metode sterling bidwell

$$\% \text{ kadar air} = \frac{volume\ air\ terbaca}{bobot\ sampel} \times 100\%$$

$$\text{Replikasi I} = \frac{1{,}7\ ml}{20{,}875\ g} \times 100\%$$

$$= 8{,}14\%$$

$$\text{Replikasi II} = \frac{1{,}9\ ml}{20{,}931\ g} \times 100\%$$

$$= 9{,}07\%$$

$$\text{Replikasi III} = \frac{1{,}5\ ml}{20{,}7054\ g} \times 100\%$$

$$= 7{,}24\%$$

$$\text{Rata-rata kadar air} = \frac{8{,}14\% + 9{,}07\% + 7{,}24\%}{3}$$

$$= 8{,}15\%$$

Lampiran 6. Hasil identifikasi skrining fitokimia

Hasil skrining fitokimia

Alkaloid

Flavonoid

Saponin

Tanin

Steroid

Lampiran 7. Uji sifat fisik dan stabilitas sediaan krim ekstrak daun sirih

Uji Organoleptis

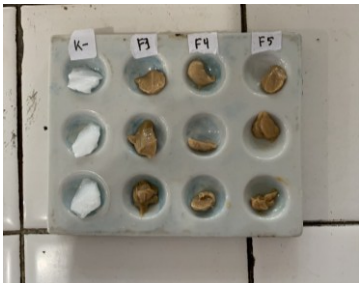
Uji Homogenitas

Uji pH

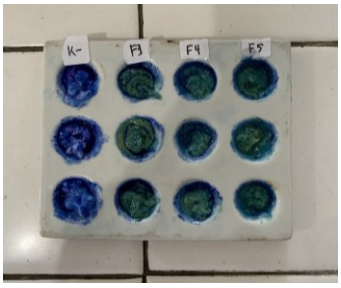
Uji daya lekat

Uji daya sebar

Uji viskositas



Uji tipe krim



Pewarnaan dengan *methilen blue*

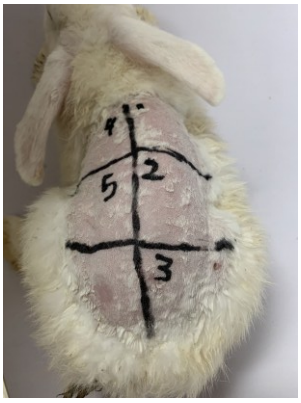
Pengenceran dengan air

Daya hantar listrik

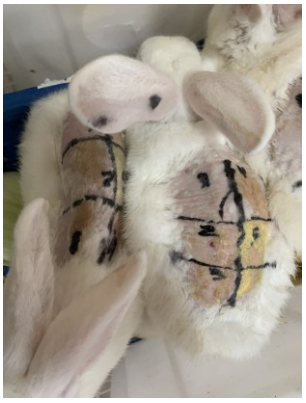
Lampiran 8. Hasil uji aktivitas anti-aging sediaan krim ekstrak daun sirih terhadap hewan uji

Skin Analyzer

Proses induksi sinar UV-A



Setelah pencukuran hewan uji



Pengolesan krim

Proses pengukuran parameter kerutan

Uji iritasi primer terhadap hewan uji

Uji iritasi okuler terhadap hewan uji

Lampiran 9. Hasil SPSS uji mutu fisik

1. pH sediaan krim

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	pH	Statistic	df	Sig.	Statistic	df	Sig.
Formula	Kontrol negatif	.192	3	.	.997	3	.896
	F1	.282	3	.	.936	3	.510
	F2	.343	3	.	.842	3	.220
	F3	.196	3	.	.996	3	.878
a. Lilliefors Significance Correction							

Oneway

Test of Homogeneity of Variances			
Formula			
Levene Statistic	df1	df2	Sig.
2.491	3	8	.134

ANOVA					
Formula					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.265	3	1.088	42.073	.000
Within Groups	.207	8	.026		
Total	3.472	11			

Homogeneous Subsets

Formula			
Tukey HSD[a]			
		Subset for alpha = 0.05	
pH	N	1	2
F3	3	5.7133	
F2	3	5.7300	
F1	3	6.0700	
Kontrol negatif	3		6.9967
Sig.		.099	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 3.000.			

2. Hasil SPSS uji mutu fisik Viskositas

Tests of Normality

		Shapiro-Wilk		
	Viskositas	Statistic	df	Sig.
Formula	Kontrol negatif	.993	3	.843
	F1	.987	3	.780
	F2	.902	3	.391
	F3	.987	3	.780

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

Formula

Levene Statistic	df1	df2	Sig.
5.155	3	8	.028

ANOVA

Formula

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3336.849	3	1112.283	10.896	.003
Within Groups	816.667	8	102.083		
Total	4153.516	11			

Multiple Comparisons

Dependent Variable: Formula

Dunnett T3

(I) Viskositas	(J) Viskositas	Mean Difference (I-J)	Std. Error	Sig.
Kontrol negatif	F1	22.08333*	3.11805	.012
	F2	-9.16667	10.93700	.921
	F3	32.50000*	4.42923	.012
F1	Kontrol negatif	-22.08333*	3.11805	.012
	F2	-31.25000	10.79319	.275
	F3	10.41667	4.06116	.279
F2	Kontrol negatif	9.16667	10.93700	.921
	F1	31.25000	10.79319	.275
	F3	41.66667	11.24228	.153
F3	Kontrol negatif	-32.50000*	4.42923	.012
	F1	-10.41667	4.06116	.279
	F2	-41.66667	11.24228	.153

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

3. Uji mutu fisik daya sebar

Tests of Normality				
		Shapiro-Wilk		
	Daya_sebar	Statistic	df	Sig.
F1	Beban 0 gram	.964	3	.637
	Beban 50 gram	.995	3	.862
	Beban 100 gram	.993	3	.843
	Beban 200 gram	.991	3	.817
F2	Beban 0 gram	.886	3	.342
	Beban 50 gram	.947	3	.554
	Beban 100 gram	.850	3	.241
	Beban 200 gram	.964	3	.637
F3	Beban 0 gram	.887	3	.344
	Beban 50 gram	.789	3	.089
	Beban 100 gram	.964	3	.637
	Beban 200 gram	.902	3	.391
F4	Beban 0 gram	.893	3	.363
	Beban 50 gram	.871	3	.298
	Beban 100 gram	.938	3	.520
	Beban 200 gram	.984	3	.762
a. Lilliefors Significance Correction				

Oneway

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
F1	.514	3	8	.684
F2	2.173	3	8	.169
F3	10.017	3	8	.004
F4	1.562	3	8	.272

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
F1	Between Groups	4.263	3	1.421	378.114	.000
	Within Groups	.030	8	.004		
	Total	4.293	11			
F2	Between Groups	8.008	3	2.669	160.960	.000
	Within Groups	.133	8	.017		
	Total	8.140	11			
F3	Between Groups	4.618	3	1.539	19.891	.000
	Within Groups	.619	8	.077		
	Total	5.237	11			
F4	Between Groups	4.148	3	1.383	213.563	.000
	Within Groups	.052	8	.006		
	Total	4.200	11			

Post Hoc Tests

Multiple Comparisons

Dunnett T3

Dependent Variable	(I) Daya_sebar	(J) Daya_sebar	Mean Difference (I-J)	Std. Error	Sig.
F1	Beban 0 gram	Beban 50 gram	-.66333*	.05821	.002
		Beban 100 gram	-1.28000*	.04069	.000
		Beban 200 gram	-1.54333*	.04955	.000
	Beban 50 gram	Beban 0 gram	.66333*	.05821	.002
		Beban 100 gram	-.61667*	.05055	.007
		Beban 200 gram	-.88000*	.05793	.001
	Beban 100 gram	Beban 0 gram	1.28000*	.04069	.000
		Beban 50 gram	.61667*	.05055	.007
		Beban 200 gram	-.26333*	.04028	.023
	Beban 200 gram	Beban 0 gram	1.54333*	.04955	.000
		Beban 50 gram	.88000*	.05793	.001
		Beban 100 gram	.26333*	.04028	.023
F2	Beban 0 gram	Beban 50 gram	-1.35000*	.12419	.009
		Beban 100 gram	-1.89333*	.13275	.002
		Beban 200 gram	-2.09333*	.12175	.003
	Beban 50 gram	Beban 0 gram	1.35000*	.12419	.009
		Beban 100 gram	-.54333*	.08537	.017
		Beban 200 gram	-.74333*	.06700	.002
	Beban 100 gram	Beban 0 gram	1.89333*	.13275	.002
		Beban 50 gram	.54333*	.08537	.017
		Beban 200 gram	-.20000	.08179	.285
	Beban 200 gram	Beban 0 gram	2.09333*	.12175	.003
		Beban 50 gram	.74333*	.06700	.002
		Beban 100 gram	.20000	.08179	.285
F3	Beban 0 gram	Beban 50 gram	-.58333	.31531	.520
		Beban 100 gram	-1.05333*	.07803	.001
		Beban 200 gram	-1.69000*	.07717	.000
	Beban 50 gram	Beban 0 gram	.58333	.31531	.520
		Beban 100 gram	-.47000	.31180	.652
		Beban 200 gram	-1.10667	.31159	.197
	Beban 100 gram	Beban 0 gram	1.05333*	.07803	.001
		Beban 50 gram	.47000	.31180	.652
		Beban 200 gram	-.63667*	.06128	.002
	Beban 200 gram	Beban 0 gram	1.69000*	.07717	.000
		Beban 50 gram	1.10667	.31159	.197
		Beban 100 gram	.63667*	.06128	.002
F4	Beban 0 gram	Beban 50 gram	-.55667*	.03575	.001
		Beban 100 gram	-.98333*	.06173	.002
		Beban 200 gram	-1.60667*	.07356	.001
	Beban 50 gram	Beban 0 gram	.55667*	.03575	.001
		Beban 100 gram	-.42667*	.05676	.031
		Beban 200 gram	-1.05000*	.06944	.008

	Beban 100 gram	Beban 0 gram	.98333*	.06173	.002
		Beban 50 gram	.42667*	.05676	.031
		Beban 200 gram	-.62333*	.08576	.010
	Beban 200 gram	Beban 0 gram	1.60667*	.07356	.001
		Beban 50 gram	1.05000*	.06944	.008
		Beban 100 gram	.62333*	.08576	.010
*. The mean difference is significant at the 0.05 level.					

4. Uji mutu fisik daya lekat

Tests of Normality[b,c,d,e]

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Kontrol_ negatif	Kontrol negatif	.184	3	.	.999	3	.927
F1	Kontrol negatif	.318	3	.	.887	3	.344
F2	Kontrol negatif	.178	3	.	1.000	3	.959
F3	Kontrol negatif	.304	3	.	.907	3	.407

a. Lilliefors Significance Correction

b. There are no valid cases for Kontrol_negatif when Formula = 2.000. Statistics cannot be computed for this level.

c. There are no valid cases for F1 when Formula = 2.000. Statistics cannot be computed for this level.

Oneway

Test of Homogeneity of Variances

Daya_lekat

Levene Statistic	df1	df2	Sig.
.353	3	8	.789

ANOVA

Daya_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.324	3	.108	9.545	.005
Within Groups	.090	8	.011		
Total	.414	11			

Homogeneous Subsets

Daya_lekat			
Tukey HSD[a]			
		Subset for alpha = 0.05	
Formula	N	1	2
F3	3	2.7433	
F2	3	2.8933	
F1	3	2.9033	
Kontrol ngatif	3		3.1967
Sig.		.322	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 3.000.			

Lampiran 10. Hasil SPSS uji stabilitas

1. Uji stabilitas pH

Tests of Normality

	pH	Shapiro-Wilk		
		Statistic	df	Sig.
Sebelum_stabilitas	Kontrol negatif	.997	3	.896
	F1	.936	3	.510
	F2	.842	3	.220
	F3	.996	3	.878
Setelah_stabilitas	Kontrol negatif	.999	3	.930
	F1	.984	3	.756
	F2	.981	3	.736
	F3	.953	3	.583

a. Lilliefors Significance Correction

T-Test

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	KontrolNegatif_ sebelum & KontrolNegatif_ setelah	3	.996	.058
Pair 2	F1_sebelum & F1_setelah	3	.788	.422
Pair 3	F2_sebelum & F2_setelah	3	.854	.348
Pair 4	F3_sebelum & F3_setelah	3	.722	.487

Paired Samples Test

		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_ sebelum - KontrolNegatif_ setelah	3.050	2	.093
Pair 2	F1_sebelum - F1_setelah	-.502	2	.666
Pair 3	F2_sebelum - F2_setelah	.104	2	.927
Pair 4	F3_sebelum - F3_setelah	2.875	2	.103

2. Uji stabilitas viskositas

Tests of Normality				
		Shapiro-Wilk		
	Viskositas	Statistic	df	Sig.
Sebelum_stabilitas	Kontrol Negatif	.993	3	.843
	F1	.987	3	.780
	F2	.902	3	.391
	F3	.987	3	.780
Setelah_stabilitas	Kontrol Negatif	.988	3	.787
	F1	1.000	3	.985
	F2	.959	3	.613
	F3	1.000	3	.959
a. Lilliefors Significance Correction				

T-Test

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_sebelum - KontrolNegatif_setelah	1.613	2	.248
Pair 2	F1_sebelum - F1_setelah	-.467	2	.686
Pair 3	F2_sebelum - F2_setelah	-3.317	2	.080
Pair 4	F3_sebelum - F3_setelah	-4.351	2	.058

3. Uji stabilitas daya sebar

Tests of Normality				
		Shapiro-Wilk		
	Daya_Sebar	Statistic	df	Sig.
KontrolNegatif_Sebelum	Beban 0 gram	.964	3	.637
	Beban 50 gram	.995	3	.862
	Beban 100 gram	.993	3	.843
	Beban 200 gram	.991	3	.817
KontrolNegatif_Setelah	Beban 0 gram	.750	3	.000
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	1.000	3	1.000
	Beban 200 gram	.964	3	.637
F1_Sebelum	Beban 0 gram	.886	3	.342
	Beban 50 gram	.947	3	.554
	Beban 100 gram	.850	3	.241
	Beban 200 gram	.964	3	.637
F1_Setelah	Beban 0 gram	1.000	3	1.000
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	.964	3	.637
	Beban 200 gram	1.000	3	1.000
F2_Sebelum	Beban 0 gram	.947	3	.554

	Beban 50 gram	.964	3	.637
	Beban 100 gram	.964	3	.637
	Beban 200 gram	1.000	3	1.000
F2_Setelah	Beban 0 gram	.750	3	.000
	Beban 50 gram	.964	3	.637
	Beban 100 gram	1.000	3	1.000
	Beban 200 gram	1.000	3	1.000
F3_Sebelum	Beban 0 gram	.893	3	.363
	Beban 50 gram	.871	3	.298
	Beban 100 gram	.871	3	.298
	Beban 200 gram	.984	3	.762
F3_Setelah	Beban 0 gram	.964	3	.637
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	.987	3	.780
	Beban 200 gram	.893	3	.363
a. Lilliefors Significance Correction				

T-Test

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Setelah	4.646	11	.001
Pair 2	F1_Sebelum - F1_Setelah	6.820	11	.000
Pair 3	F2_Sebelum - F2_Setelah	7.829	11	.000
Pair 4	F3_Sebelum - F3_Setelah	14.269	11	.000

4. Uji stabilitas daya lekat

Tests of Normality[a]			
	Shapiro-Wilk		
	Statistic	df	Sig.
Sebelum_stabilitas	.999	3	.927
Sesudah_stabilitas	.998	3	.915
KontrolNegatif_Sebelum	.999	3	.927
KontrolNegatif_Sesudah	.998	3	.915
F1_Sebelum	.887	3	.344
F1_Sesudah	.862	3	.274
F2_Sebelum	1.000	3	.959
F2_Sesudah	.989	3	.800
F3_Sebelum	.907	3	.407
F3_Sesudah	.984	3	.756
a. Daya_lekat is constant. It has been omitted.			
b. Lilliefors Significance Correction			

T-Test

Paired Samples Test

		Paired Differences				
					95% Confidence Interval of the Difference	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper
Pair 1	KontrolNegatif_Sebelum – Kontrol Negatif_Sesudah	.05333	.07234	.04177	-.12637	.23304
Pair 2	F1_Sebelum - F1_Sesudah	.00000	.02646	.01528	-.06572	.06572
Pair 3	F2_Sebelum - F2_Sesudah	-.08667	.05132	.02963	-.21414	.04081
Pair 4	F3_Sebelum - F3_Sesudah	-.00333	.04041	.02333	-.10373	.09706

Paired Samples Test

		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Sesudah	1.277	2	.330
Pair 2	F1_Sebelum - F1_Sesudah	.000	2	1.000
Pair 3	F2_Sebelum - F2_Sesudah	-2.925	2	.100
Pair 4	F3_Sebelum - F3_Sesudah	-.143	2	.899

Lampiran 11. Hasil uji *Skin Analyzer* terhadap hewan uji

Kelompok	Replikasi	Hasil uji persen kolagen				
		Sebelum induksi sinar UV-A	Setelah induksi sinar UV-A	Hari ke-30 (T30)	Peningkatan parameter	
					T0-T(-14)	T30-T0
Kontrol negatif	1	65	51	67	-14	16
	2	66	51	66	-15	15
	3	67	52	68	-15	16
	4	67	53	69	-14	16
	5	68	54	68	-14	14
Rata-rata±SD		66,6 ± 1,14	52,2 ± 1,30	67,6 ± 1,14	-14,4 ± 0,54	15,4 ± 0,89
Kontrol positif	1	69	55	71	-14	21
	2	69	53	73	-16	20
	3	68	56	74	-12	22
	4	70	58	74	-12	19
	5	70	59	75	-11	18
Rata-rata±SD		69,2 ± 0,83	52,6 ± 2,38	73,4 ± 1,51	-13 ± 2,00	20,8 ± 1,78
F1	1	66	52	68	-14	16
	2	66	52	68	-14	17
	3	67	53	67	-14	18
	4	68	54	70	-14	18
	5	69	53	69	-16	19
Rata-rata±SD		67,2 ± 1,30	50,2 ± 0,83	68,4 ± 1,14	-14,4 ± 0,89	18,2 ± 0,89

F2	1	68	53	70	-15	17
	2	67	53	69	-14	20
	3	68	54	69	-14	20
	4	69	55	71	-14	16
	5	69	46	70	-23	24
Rata-rata±SD		68,2 ± 0,83	50,8 ± 3,56	69,8 ± 0,83	-16 ± 3,93	19,00 ± 3,64
F3	1	65	53	69	-12	16
	2	66	54	70	-12	16
	3	67	55	70	-12	15
	4	69	55	68	-14	15
	5	70	57	68	-15	14
Rata-rata±SD		67,4 ± 2,07	54,8 ± 1,48	69,00 ± 1,00	-13 ± 1,41	15,00 ± 2,16

Keterangan :
Kontrol negatif : Krim tanpa ekstrak (basis krim)
Kontrol positif : Krim bahan alam Batrisyia
F1 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%
F2 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%
F3 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%

Kelompok	Replikasi	Hasil uji persen elastisitas				
		Sebelum induksi sinar UV-A	Setelah induksi sinar UV-A	Hari ke-30 (T30)	Peningkatan parameter	
					T0-T(-14)	T30-T0
Kontrol negatif	1	56	45	55	-11	10
	2	59	43	56	-16	11
	3	58	42	55	-16	13
	4	56	42	57	-14	15
	5	60	43	56	-17	12
Rata-rata±SD		57,8 ± 1,78	44,00 ± 1,22	55,80 ± 0,83	-14,8 ± 2,38	11,8 ± 1,78
Kontrol positif	1	59	44	59	-15	15
	2	60	45	60	-13	18
	3	61	46	60	-12	17
	4	63	44	62	-12	18
	5	60	42	64	-8	17
Rata-rata±SD		60,60 ± 1,51	43,60 ± 3,20	61,00 ± 2,00	-12 ± 2,54	17,40 ± 1,67
F1	1	58	46	58	-15	15
	2	58	45	59	-15	13
	3	58	44	60	-14	14
	4	58	45	61	-13	15
	5	60	45	63	-16	19
Rata-rata±SD		58,40 ± 0,89	45,00 ± 0,83	60,20 ± 1,92	-14,6 ± 1,14	15,20 ± 1,51
F2	1	57	46	58	-11	12
	2	57	42	59	-10	15

	3	58	46	59	-12	13
	4	57	44	59	-13	15
	5	59	42	62	-17	20
Rata-rata±SD		57,60 ± 0,89	43,80 ± 2,00	59,40 ± 1,51	-12,60 ± 3,36	15,60 ± 3,36
F3	1	56	43	57	-13	14
	2	57	46	58	-11	12
	3	60	44	58	-12	18
	4	62	47	59	-13	16
	5	60	50	60	-10	10
Rata-rata±SD		59,00 ± 2,44	45,20 ± 2,77	58,40 ± 1,14	-11,80 ± 1,30	13,20 ± 1,78

Keterangan :
Kontrol negatif : Krim tanpa ekstrak (basis krim)
Kontrol positif : Krim bahan alam Batrisyia
F1 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%
F2 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%
F3 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%

Kelompok	**Replikasi**	**Hasil uji persen kelembaban**				
		Sebelum induksi sinar UV-A	**Setelah induksi sinar UV-A**	**Hari ke-30 (T30)**	**Peningkatan parameter**	
					T0-T(-14)	**T30-T0**
Kontrol negatif	1	15	5	5	-11	1
	2	15	6	6	-9	0
	3	15	5	8	-10	1

	4	17	5	7	-12	2
	5	15	4	9	-11	3
Rata-rata±SD		15,40 ± 0,89	5,80 ± 0,83	8,20 ± 0,83	-10,6 ± 1,14	1,40 ± 1,14
Kontrol positif	1	18	7	12	-12	7
	2	17	7	17	-10	9
	3	18	7	15	-11	5
	4	16	8	18	-12	6
	5	20	9	17	-11	8
Rata-rata±SD		17,80 ± 1,48	8,00 ± 1,14	13,00 ± 0,70	-11,20 ± 0,83	5,60 ± 0,89
F1	1	17	5	10	-12	5
	2	18	5	11	-13	5
	3	16	6	12	-10	6
	4	16	7	13	-9	6
	5	17	8	15	-8	8
Rata-rata±SD		16,80 ± 0,83	6,80 ± 1,00	11,40 ± 1,81	-10,40 ± 2,07	4,60 ± 1,14
F2	1	16	5	16	-11	8
	2	16	6	15	-10	9
	3	15	8	13	-7	8
	4	16	8	11	-9	7
	5	18	9	17	-9	5
Rata-rata±SD		16,20 ± 1,09	7,60 ± 1,58	12,80 ± 0,89	-9,20 ± 1,48	5,20 ± 1,14
F3	1	17	6	13	-11	7
	2	17	8	12	-9	6
	3	18	5	11	-13	4

	4	19	8	16	-13	5
	5	18	9	15	-10	6
Rata-rata±SD		18,00 ± 1,00	7,20 ± 1,64	11,60 ± 1,14	-11,20 ± 1,78	4,40 ± 2,04

Keterangan :
Kontrol negatif : Krim tanpa ekstrak (basis krim)
Kontrol positif : Krim bahan alam Batrisyia
F1 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%
F2 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%
F3 : Krim ekstrak daun sirih dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%

Lampiran 12. Hasil uji statistika *Skin Analyzer* terhadap hewan uji

Hasil uji SPSS persen kolagen sebelum (T14) dan setelah induksi sinar UV-A selama 14 hari (T14)

One-Sample Kolmogorov-Smirnov Test			
		KontrolNegatif_Sebelum	KontrolNegatif_Setelah
N		5	5
Normal Parameters[a,b]	Mean	66.6000	52.2000
	Std. Deviation	1.14018	1.30384
Most Extreme Differences	Absolute	.237	.221
	Positive	.163	.221
	Negative	-.237	-.179
Test Statistic		.237	.221
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		KontrolPositif_Sebelum	KontrolPositif_Setelah
N		5	5
Normal Parameters[a,b]	Mean	69.2000	56.2000
	Std. Deviation	.83666	2.38747
Most Extreme Differences	Absolute	.231	.175
	Positive	.194	.133
	Negative	-.231	-.175
Test Statistic		.231	.175
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F1_Sebelum	F1_Setelah
N		5	5
Normal Parameters[a,b]	Mean	67.2000	52.8000
	Std. Deviation	1.30384	.83666
Most Extreme Differences	Absolute	.221	.231
	Positive	.221	.231
	Negative	-.179	-.194
Test Statistic		.221	.231
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F2_Sebelum	F2_Setelah
N		5	5
Normal Parameters[a,b]	Mean	68.2000	54.2000
	Std. Deviation	.83666	1.30384
Most Extreme Differences	Absolute	.231	.221
	Positive	.194	.221
	Negative	-.231	-.179
Test Statistic		.231	.221
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F3_Sebelum	F3_Setelah
N		5	5
Normal Parameters[a,b]	Mean	67.4000	54.8000
	Std. Deviation	2.07364	1.48324
Most Extreme Differences	Absolute	.180	.246
	Positive	.176	.246
	Negative	-.180	-.154
Test Statistic		.180	.246
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

T-Test

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Setelah	13.71991	15.08009	58.788	4	.000
Pair 2	KontrolPositif_Sebelum - KontrolPositif_Setelah	10.51667	15.48333	14.534	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	F1_Sebelum - F1_Setelah	13.28942	15.51058	36.000	4	.000
Pair 2	F2_Sebelum - F2_Setelah	13.12201	14.87799	44.272	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	F3_Sebelum - F3_Setelah	11.48942	13.71058	31.500	4	.000

Hasil uji SPSS persen elastisitas sebelum (T14) dan setelah induksi sinar UV-A selama 14 hari (T14)

One-Sample Kolmogorov-Smirnov Test			
		KontrolNegatif_sebelum	KontrolNegatif_setelah
N		5	5
Normal Parameters[a,b]	Mean	57.8000	43.0000
	Std. Deviation	1.78885	1.22474
Most Extreme Differences	Absolute	.243	.300
	Positive	.243	.300
	Negative	-.157	-.207
Test Statistic		.243	.300
Asymp. Sig. (2-tailed)		.200[c,d]	.161[c]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		KontrolPositif_sebelum	KontrolPositif_setelah
N		5	5
Normal Parameters[a,b]	Mean	60.6000	48.6000
	Std. Deviation	1.51658	3.20936
Most Extreme Differences	Absolute	.254	.173
	Positive	.254	.145
	Negative	-.146	-.173
Test Statistic		.254	.173
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F1_sebelum	F1_setelah
N		5	5
Normal Parameters[a,b]	Mean	57.6000	43.8000
	Std. Deviation	1.51658	.83666
Most Extreme Differences	Absolute	.254	.231
	Positive	.254	.231
	Negative	-.146	-.194
Test Statistic		.254	.231
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F2_sebelum	F2_setelah
N		5	5
Normal Parameters[a,b]	Mean	57.2000	45.0000
	Std. Deviation	1.48324	2.00000
Most Extreme Differences	Absolute	.246	.291
	Positive	.154	.159
	Negative	-.246	-.291
Test Statistic		.246	.291
Asymp. Sig. (2-tailed)		.200[c,d]	.191[c]
a. Test distribution is Normal.			
b. Calculated from data.			

One-Sample Kolmogorov-Smirnov Test			
		F3_sebelum	F3_setelah
N		5	5
Normal Parameters[a,b]	Mean	59.0000	47.2000
	Std. Deviation	2.44949	2.77489
Most Extreme Differences	Absolute	.258	.213
	Positive	.193	.156
	Negative	-.258	-.213
Test Statistic		.258	.213
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

T-Test

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	KontrolNegatif_sebelum - KontrolNegatif_setelah	11.83557	17.76443	13.861	4	.000
Pair 2	KontrolPositif_sebelum - KontrolPositif_setelah	8.83437	15.16563	10.525	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	F1_sebelum - F1_setelah	12.18107	15.41893	23.667	4	.000
Pair 2	F2_sebelum - F2_setelah	10.58107	13.81893	20.923	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	F3_sebelum - F3_setelah	10.18107	13.41893	20.237	4	.000

Hasil uji SPSS persen kelembaban sebelum (T14) dan setelah induksi sinar UV-A selama 14 hari (T14)

One-Sample Kolmogorov-Smirnov Test					
		KontrolNegatif_sebelum	KontrolNegatif_setelah	KontrolPositif_sebelum	KontrolPositif_setelah
N		5	5	5	5
Normal Parameters[a,b]	Mean	15.8000	4.8000	17.8000	7.4000
	Std. Deviation	.83666	.83666	1.48324	1.14018
Most Extreme Differences	Absolute	.231	.231	.246	.237
	Positive	.231	.231	.246	.237
	Negative	-.194	-.194	-.154	-.163
Test Statistic		.231	.231	.246	.237
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]	.200[c,d]	.200[c,d]
a. Test distribution is Normal.					
b. Calculated from data.					

One-Sample Kolmogorov-Smirnov Test					
		F1 sebelum	F1_setelah	F2_sebelum	F2_setelah
N		5	5	5	5
Normal Parameters[a,b]	Mean	16.8000	6.0000	16.4000	7.0000
	Std. Deviation	.83666	1.00000	1.14018	1.58114
Most Extreme Differences	Absolute	.231	.241	.237	.136
	Positive	.231	.241	.237	.136
	Negative	-.194	-.241	-.163	-.136
Test Statistic		.231	.241	.237	.136
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]	.200[c,d]	.200[c,d]
a. Test distribution is Normal.					
b. Calculated from data.					

One-Sample Kolmogorov-Smirnov Test			
		F3_sebelum	F3_setelah
N		5	5
Normal Parameters[a,b]	Mean	18.0000	6.8000
	Std. Deviation	1.00000	1.64317
Most Extreme Differences	Absolute	.241	.287
	Positive	.241	.287
	Negative	-.241	-.167
Test Statistic		.241	.287
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]
a. Test distribution is Normal.			
b. Calculated from data.			

T-Test

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	KontrolNegatif_sebelum - KontrolNegatif_setelah	9.47928	12.52072	20.083	4	.000
Pair 2	KontrolPositif_sebelum - KontrolPositif_setelah	8.51692	12.28308	15.334	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
		Lower	Upper			
Pair 1	F1_sebelum - F1_setelah	8.75974	12.84026	14.697	4	.000
Pair 2	F2_sebelum - F2_setelah	7.51692	11.28308	13.860	4	.000

Paired Samples Test						
		Paired Differences				
		95% Confidence Interval of the Difference				
		Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	F3_sebelum - F3_setelah	8.97884	13.42116	14.000	4	.000

Lampiran 13. Hasil uji SPSS sebelum (T0) dan setelah pengolesan krim selama 30 hari (T30)

A. Persen kolagen

1. Kontrol negatif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_setelah	-38.500	4	.000

2. Kontrol positif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolPositif_sebelum - KontrolPositif_setelah	-11.314	4	.000

3. F1 (Krim dengan variasi konsentrasi Gliserin 5% dan Propilen glikol 15%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F1_Sebelum - F1_setelah	-39.000	4	.000

4. F2 (Krim dengan Variasi konsentrasi Gliserin 10% dan Propilen glikol 10%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F2_sebelum - F2_setelah	-41.500	4	.000

5. F3 (Krim dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F3_sebelum - F3_setelah	-14.646	4	.000

B. Persen elastisitas

1. Kontrol positif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_setelah	-16.000	4	.000

2. Kontrol positif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolPositif_Sebelum - KontrolPositif_setelah	-11.255	4	.000

3. F1 (Krim dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F1_Sebelum - F1_setelah	-24.180	4	.000

4. F2 (Krim dengan variasi konsentrasi 10% dan propilen glikol 10%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F2_Sebelum - F2_Setelah	-9.579		.000

5. F3 (Krim dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F3_Sebelum - F3_Setelah	-18.522	4	.000

C. Kelembaban

1. Kontrol negatif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Setelah	.000	4	.000

2. Kontrol positif

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	KontrolPositif_Sebelum - KontrolPositif_Setelah	-24.000	4	.000

3. F1 (Krim dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F1_Sebelum - F1_Setelah	-12.551	4	.000

4. F2 (Krim dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F2_Sebelum - F2_Setelah	-18.435	4	.000

5. F3 (Krim dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%)

Paired Samples Test				
		Paired Differences		
		t	df	Sig. (2-tailed)
Pair 1	F3_Sebelum - F3_Setelah	-8.510	4	.001

Lampiran 14. Hasil uji iritasi primer dan okuler krim pada hewan uji

1. Uji iritasi primer

Krim	Replikasi	Respon sesudah diberikan sediaan krim					
		24 jam		48 jam		72 jam	
		Eritema	Udema	Eritema	Udema	Eritama	Udema
Krim kontrol negatif	1	0	0	1	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	1	0
Total		0	0	1	0	1	0
IIPR		0,25					
Kesimpulan		Krim sangat sedikit mengiritasi hewan uji					
Krim F1	1	0	0	1	0	1	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	1	0	1	0
IIPR		0,25					
Kesimpulan		Krim sangat sedikit mengiritasi hewan uji					
Krim F2	1	0	0	0	0	0	0
	2	0	0	1	0	1	0
	3	0	0	0	0	0	0
Total		0	0	1	0	1	0
IIPR		0,25					
Kesimpulan		Krim sangat sedikit mengiritasi hewan uji					
Krim F3	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	1	0	1	0
Total		0	0	1	0	1	0
IIPR		0,25					
Kesimpulan		Krim sangat sedikit mengiritasi hewan uji					

IIPR : Indeks Iritasi Primer

Indeks iritasi primer : $\frac{\text{Jumlah eritema 24/48/72 jam + Jumlah edema 24/48/72 jam}}{\text{Jumlah kelinci}}$

Krim kontrol negatif : $\frac{}{4} = 0,25$

Krim F1 : $\frac{1}{4} = 0,25$

Krim F2 : $\frac{1}{4} = 0,25$

Krim F3 : $\frac{1}{4} = 0,25$

Keterangan :

F1 : Krim dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%

F2 : Krim dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%

F3 : Krim dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%

2. Uji iritasi primer

Krim	Replikasi	Respon sesudah diberikan sediaan krim					
		24 jam		48 jam		72 jam	
		Eritema	Udema	Eritema	Udema	Eritama	Udema
Krim kontrol negatif	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	0	0	0	0
IIPR		0					
Kesimpulan		Krim tidak mengiritasi hewan uji					
Krim F1	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	0	0	0	0
IIPR		0					
Kesimpulan		Krim tidak mengiritasi hewan uji					
Krim F2	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	0	0	0	0
IIPR		0					
Kesimpulan		Krim tidak mengiritasi hewan uji					
Krim F3	1	0	0	0	0	0	0
	2	0	0	0	0	0	0
	3	0	0	0	0	0	0
Total		0	0	0	0	0	0
IIPR		0					
Kesimpulan		Krim tidak mengiritasi hewan uji					

IIO : Indeks Iritasi Okuler

Keterangan :

F1 : Krim dengan variasi konsentrasi gliserin 5% dan propilen glikol 15%

F2 : Krim dengan variasi konsentrasi gliserin 10% dan propilen glikol 10%

F3 : Krim dengan variasi konsentrasi gliserin 15% dan propilen glikol 5%

Lampiran 15. Hasil SPSS uji *One-Way Anova* persen peningkatan hari ke-30

1. Persen kolagen

One-Sample Kolmogorov-Smirnov Test		
		AktivitasPeningkatan
N		25
Normal Parameters[a,b]	Mean	17.2280
	Std. Deviation	3.14693
Most Extreme Differences	Absolute	.139
	Positive	.139
	Negative	-.078
Test Statistic		.139
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		

ANOVA					
AktivitasPeningkatan					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	399.331	4	99.833	29.536	.000
Within Groups	67.601	20	3.380		
Total	466.932	24			

Multiple Comparisons				
Dependent Variable: AktivitasPeningkatan				
Tukey HSD				
(I) PeningkatanParameter	(J) Peningkatan Parameter	Mean Difference (I-J)	Std. Error	Sig.
Kontrol Negatif	Kontrol Positif	-11.75800*	1.16276	.000
	F1	-2.73800*	1.16276	.039
	F2	-5.28400*	1.16276	.002
	F3	-2.70600	1.16276	.177
Kontrol Positif	Kontrol Negatif	11.75800*	1.16276	.000
	F1	9.02000*	1.16276	.121
	F2	6.47400*	1.16276	.214
	F3	9.05200*	1.16276	.000
F1	Kontrol Negatif	2.73800	1.16276	.169
	Kontrol Positif	-9.02000*	1.16276	.000
	F2	-2.54600	1.16276	.224
	F3	.03200	1.16276	1.000
F2	Kontrol Negatif	5.28400*	1.16276	.002
	Kontrol Positif	-6.47400*	1.16276	1.000
	F1	2.54600	1.16276	.024
	F3	2.57800*	1.16276	.014

F3	Kontrol Negatif	2.70600	1.16276	.177
	Kontrol Positif	-9.05200*	1.16276	.000
	F1	-.03200	1.16276	.000
	F2	-2.57800	1.16276	.002
*. The mean difference is significant at the 0.05 level.				

AktivitasPeningkatan			
Tukey HSD[a]			
		Subset for alpha = 0.05	
PeningkatanParameter	N	1	2
F1	5	15.1400	
F3	5	15.1800	
Kontrol negatif	5	16.2200	
F2	5	17.2400	
Kontrol positif	5		22.3600
Sig.		.326	1.000
Means for groups in homogeneous subsets are displayed.			
a. Uses Harmonic Mean Sample Size = 5.000.			

2. Persen elastisitas

One-Sample Kolmogorov-Smirnov Test		
		AktivitasPeningkatan
N		25
Normal Parameters[a,b]	Mean	14.7580
	Std. Deviation	2.84369
Most Extreme Differences	Absolute	.108
	Positive	.108
	Negative	-.084
Test Statistic		.108
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		

ANOVA					
AktivitasPeningkatan					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	140.615	4	35.154	19.318	.000
Within Groups	30.936	17	1.820		
Total	171.551	21			

Multiple Comparisons

Dependent Variable: AktivitasPeningkatan

Tukey HSD

(I) PeningkatanParameter	(J) PersenPeningkatan	Mean Difference (I-J)	Std. Error	Sig.
Kontrol Negatif	Kontrol positif	-6.82000*	.85317	.000
	F1	-3.72000*	.85317	.003
	F2	-4.90000*	.85317	.000
	F3	-.82000	1.12864	.947
Kontrol positif	Kontrol Negatif	6.82000*	.85317	.000
	F1	3.10000	.85317	.215
	F2	1.92000	.85317	.209
	F3	6.00000*	1.12864	.000
F1	Kontrol Negatif	3.72000*	.85317	.003
	Kontrol positif	-3.10000	.85317	.105
	F2	-1.18000	.85317	.646
	F3	2.90000	1.12864	.021
F2	Kontrol Negatif	4.90000*	.85317	.000
	Kontrol positif	-1.92000	.85317	.209
	F1	1.18000	.85317	.646
	F3	4.08000*	1.12864	.016
F3	Kontrol Negatif	.82000	1.12864	.947
	Kontrol positif	-6.00000*	1.12864	.000
	F1	-2.90000	1.12864	.021
	F2	-4.08000*	1.12864	.016

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

AktivitasPeningkatan

Tukey HSD[a,b]

PersenPeningkatan	N	Subset for alpha = 0.05			
		1	2	3	4
Kontrol Negatif	5	11.4800			
F3	2	12.3000	12.3000		
F1	5		15.2000	15.2000	
F2	5			16.3800	16.3800
Kontrol positif	5				18.3000
Sig.		.913	.056	.744	.319

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.846.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

3. Persen kelembaban

One-Sample Kolmogorov-Smirnov Test		
		AktivitasPeningkatan
N		25
Normal Parameters[a,b]	Mean	5.8372
	Std. Deviation	2.14361
Most Extreme Differences	Absolute	.093
	Positive	.057
	Negative	-.093
Test Statistic		.093
Asymp. Sig. (2-tailed)		.200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		

ANOVA					
AktivitasPeningkatan					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5921.377	4	1480.344	670.931	.000
Within Groups	44.128	20	2.206		
Total	5965.505	24			

Multiple Comparisons				
Dependent Variable: AktivitasPeningkatan				
Tukey HSD				
(I) PeningkatanParameter	(J) Peningkatan Parameter	Mean Difference (I-J)	Std. Error	Sig.
Kontrol Negatif	Kontrol Positif	-41.69600*	.93945	.000
	F1	-37.77200*	.93945	.000
	F2	-39.11200*	.93945	.000
	F3	-32.03000*	.93945	.000
Kontrol Positif	Kontrol Negatif	41.69600*	.93945	.000
	F1	3.92400	.93945	.104
	F2	2.58400	.93945	.081
	F3	9.66600	.93945	.100
F1	Kontrol Negatif	37.77200*	.93945	.000
	Kontrol Positif	-3.92400	.93945	.204
	F2	-1.34000	.93945	.619
	F3	5.74200	.93945	.200
F2	Kontrol Negatif	39.11200*	.93945	.000
	Kontrol Positif	-2.58400	.93945	.081
	F1	1.34000	.93945	.619
	F3	7.08200	.93945	.090
F3	Kontrol Negatif	32.03000*	.93945	.000
	Kontrol Positif	-9.66600	.93945	.105
	F1	-5.74200	.93945	.200
	F2	-7.08200	.93945	1.000
*. The mean difference is significant at the 0.05 level.				

AktivitasPeningkatan				
Tukey HSD[a,b]				
		Subset for alpha = 0.05		
PeningkatanPersen	N	1	2	3
Kontrol Negatif	5	3.1400		
F3	2	4.1250	4.1250	
F1	5	5.4500	5.4500	5.4500
F2	5		7.2600	7.2600
Kontrol Positif	5			7.7000
Sig.		.232	.058	.254
Means for groups in homogeneous subsets are displayed.				
a. Uses Harmonic Mean Sample Size = 3.846.				
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.				