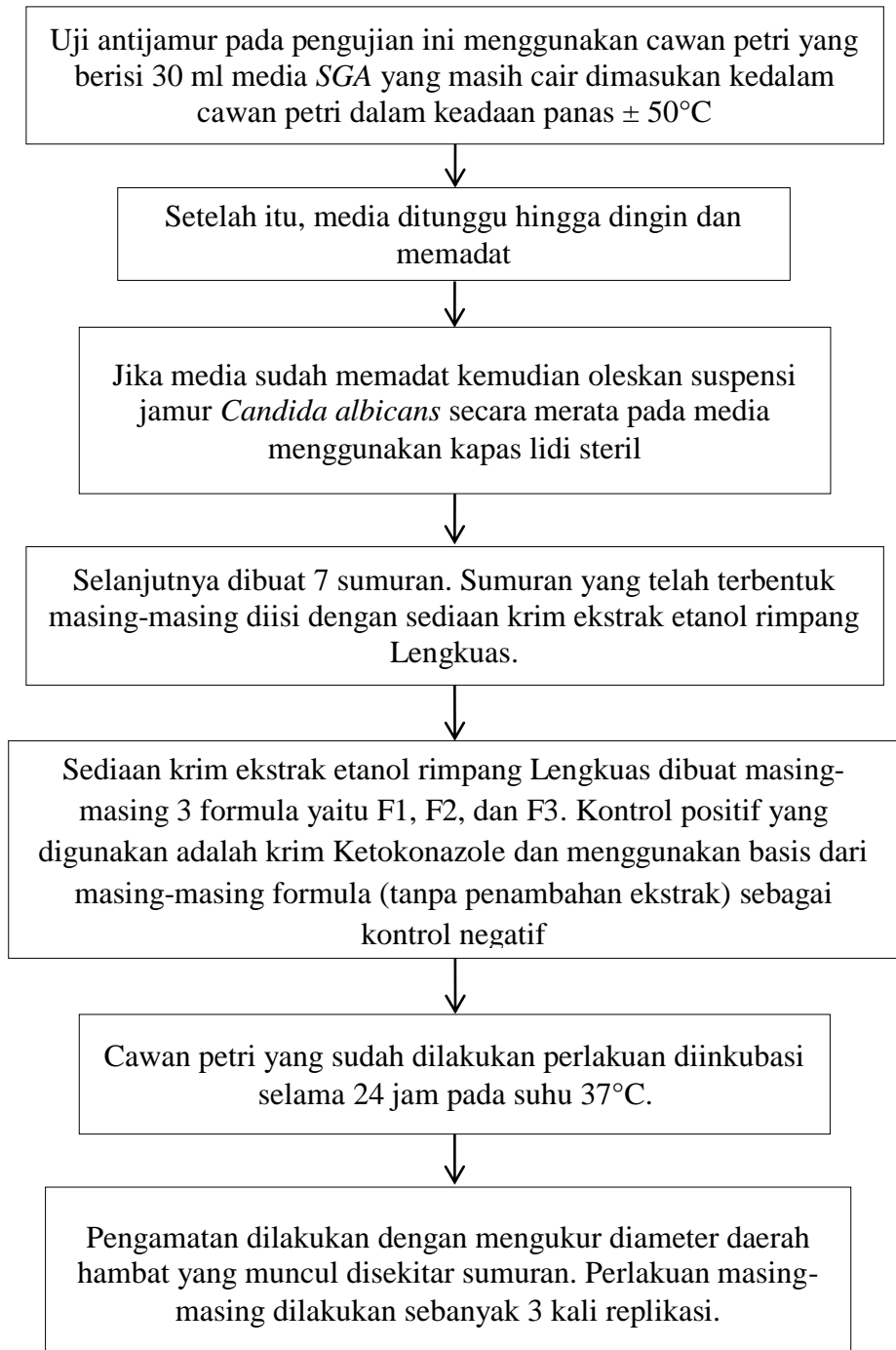
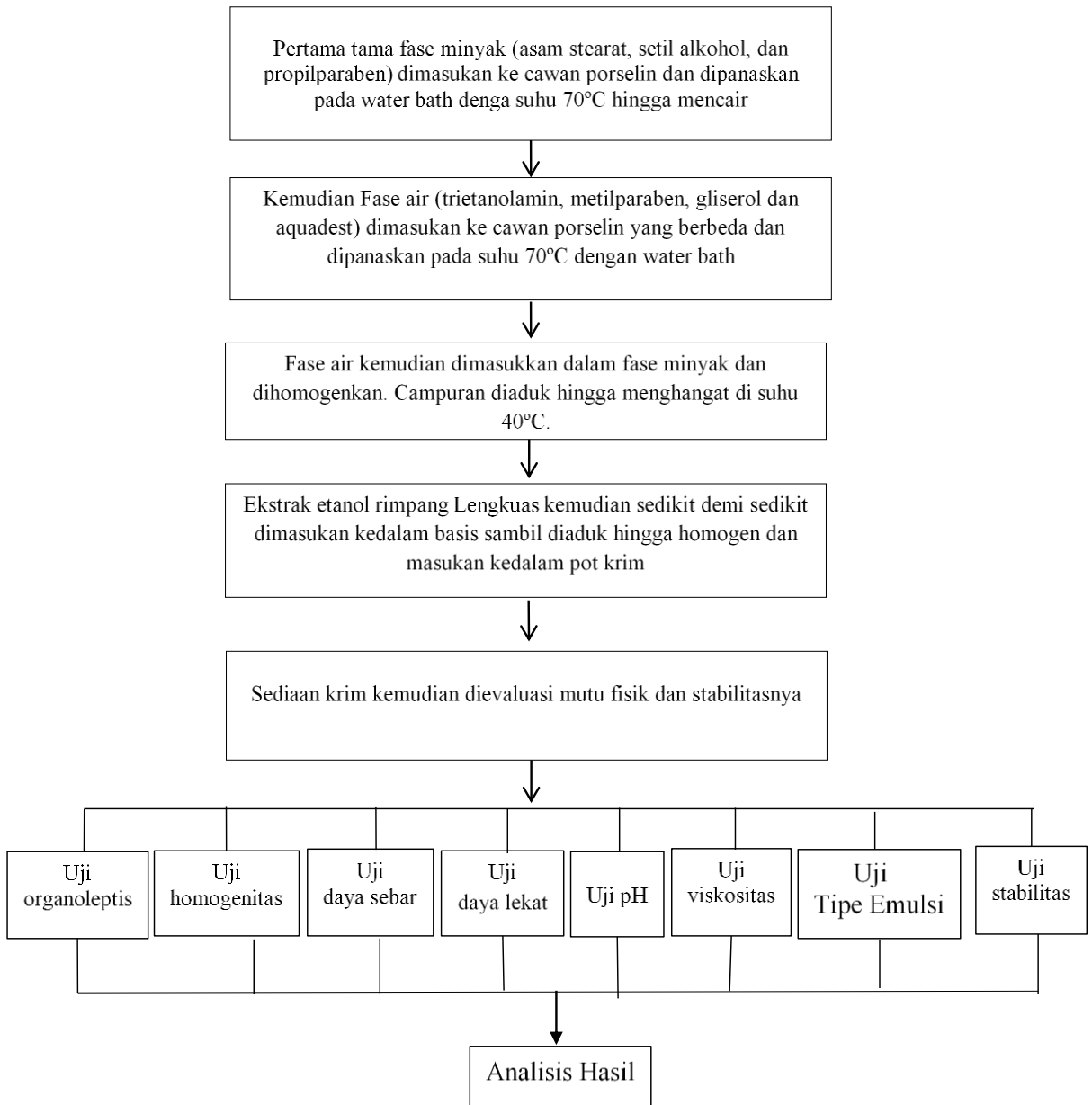


*L*  
*A*  
*M*  
*P*  
*I*  
*R*  
*A*  
*N*

## Lampiran 1. Pengujian Antijamur



**Lampiran 2. Pembuatan Sediaan Krim Ekstrak Etanol Lengkuas Putih**

Lampiran 3. Hasil determinasi tanaman rimpang lengkuas ( *Alpinia galanga* L. Willd )



**KEMENTERIAN KESEHATAN REPUBLIK INDONESIA**  
**BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN**  
 BALAI BESAR PENELITIAN DAN PENGEMBANGAN  
 TANAMAN OBAT DAN OBAT TRADISIONAL  
 Jalan Lawu No.11 Tawamangu, Karanganyar, Jawa Tengah 57792  
 Telepon (0271) 697 010 Faksimile (0271) 697 451  
 Laman b2p2toot.litbang.kemkes.go.id Surat Elektronik b2p2toot@litbang.kemkes.go.id

Nomor : KM.04.02/2/1541/2022 29 Agustus 2022  
 Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi  
 Jalan Letjend. Sutoyo, Solo 57127

Merujuk surat Saudara nomor: 793/H6-04/16.06.2022 tanggal 16 Juni 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Pandu Kusuma Bhakti  
 Nama Sampel : Lengkuas Putih  
 Sampel : Tanaman Segar  
 Spesies : *Alpinia galanga* (L.) Willd.  
 Sinonim : *Alpinia alba* (Retz.) Roscoe  
 Familia : Zingiberaceae  
 Penanggung Jawab : Isna Jati Asiyah, M.Sc.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke dan/atau berasal dari B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian  
 dan Pengembangan Tanaman Obat  
 dan Obat Tradisional



Akhmad Saikhu, S.K.M.,  
 M.Sc.PH.

## Lampiran 4. Sertifikat hasil uji jamur *Candida albicans*

### PRO – Technology

Laboratorium Uji Mikrobiologi  
Jalan Cempaka Putih No. 69 – Jakarta Pusat  
Jakarta - Indonesia

#### SERTIFIKAT HASIL UJI

1. Jamur Uji : Stock Strain *Candida albicans* ATCC 10231
2. Nomor Uji Jamur : J. 1.0
3. Tanggal Uji Jamur : 22 - 25 Juni 2020

#### Uraian Hasil Uji

##### V. 0.1. Biakan Murni *Candida albicans* ATCC 10231

- I. Ciri-ciri koloni :
  1. Pewarnaan Gram : Sel bulat, kecil-kecil, tersusun menyebar, berwarna ungu, termasuk Gram positif.
  2. Di tanam pada media Sabaraud Dektrosa Agar : Koloni bulat kecil, berwarna putih kekuningan, permukaan koloni cembung, dan bau khas seperti ragi.
  3. Di tanam pada Serum Kelinci, diinkubasi 4-8 jam, di amati dengan cat Laktofenol Cotton Blue : Sel bulat dengan tonjolan kecil - kecil (adanya Blastospora), dan adanya Pseudohifa.
- II. Uji Fermentasi Karbohidrat dan Biokimia Penegasan







Uji Fermentasi Karbohidrat			Uji Fisiologis	
Glukosa	Asam (+)	Gas (+)	Katalase	(+) timbul gelembung gas
Laktosa	Asam (+)	Gas (+)	Koagulase (serum)	(+) serum menggumpal
Maltosa	Asam (+)	Gas (+)	Oxidase	(-)
Sukrosa	Asam (+)	Gas (+)	Manitol	(+)

#### Catatan:

1. Hasil Uji ini hanya berlaku untuk contoh yang diuji.



### Lampiran 5. Gambar bahan penelitian

<p><b>Gambar pencucian rimpang lengkuas</b></p> 	<p><b>Gambar pengeringan</b></p> 
<p><b>Gambar serbuk rimpang lengkuas</b></p> 	<p><b>Gambar ekstrak rimpang lengkuas</b></p> 
<p><b>Gambar media SGA</b></p> 	<p><b>Gambar media SGC</b></p> 

**Gambar asam stearat****Gambar setil alkohol****Gambar metil paraben****Gambar propil paraben****Gambar tween 80****Gambar span 80****Gambar trietanolamin****Gambar gliserin**

**Lampiran 6. Gambar alat penelitian****Gambar *moisture balance*****Gambar *rotary vacuum evaporator*****Gambar inkubator****Gambar *Laminar air flow***



## Lampiran 7. Perhitungan rendemen, susut pengeringan dan kadar air serbuk rimpang lengkuas

### Perhitungan rendemen simplisia kering rimpang lengkuas

Sampel	Bobot basah (g)	Bobot kering (g)	Rendemen (%)
Rimpang lengkuas	12000	1850	15,42

$$\begin{aligned} \text{Rendemen simplisia kering rimpang lengkuas} &= \frac{\text{Bobot kering}}{\text{Bobot basah}} \times 100\% \\ &= \frac{1850}{12000} \times 100\% \\ &= 15,42\% \end{aligned}$$

### Perhitungan rendemen serbuk terhadap berat kering rimpang lengkuas

Sampel	Bobot kering (g)	Bobot serbuk (g)	Rendemen (%)
Rimpang lengkuas	1850	1200	64,86

$$\begin{aligned} \text{Rendemen serbuk rimpang lengkuas} &= \frac{\text{Bobot serbuk}}{\text{Bobot kering}} \times 100\% \\ &= \frac{1200}{1850} \times 100\% \\ &= 64,86\% \end{aligned}$$

### Perhitungan susut pengeringan serbuk rimpang lengkuas

Replikasi	Bobot serbuk (g)	Susut pengeringan (%)
1	2.0	6,3
2	2.0	6
3	2.0	6
Rata-rata		6,1
SD		0,173

$$\text{Presentase rata-rata susut pengeringan} = \frac{6,3+6+6}{3} = 6,1$$

### Hasil kadar air serbuk

Berat serbuk (g)	Volume (ml)	Rata-rata (%)
20	1	5
20	1	5
20	1,1	5,5
Rata-rata		5,17 ± 0,173

$$\begin{aligned} \text{Kadar air serbuk rimpang lengkuas} &= \frac{\text{Volume}}{\text{Bobot serbuk}} \times 100\% \\ &= \frac{1}{20} \times 100\% \\ &= 5\% \end{aligned}$$

$$\begin{aligned}\text{Kadar air serbuk rimpang lengkuas} &= \frac{\text{Volume}}{\text{Bobot serbuk}} \times 100\% \\ &= \frac{1}{20} \times 100\% \\ &= 5\%\end{aligned}$$

$$\begin{aligned}\text{Kadar air serbuk rimpang lengkuas} &= \frac{\text{Volume}}{\text{Bobot serbuk}} \times 100\% \\ &= \frac{1,1}{20} \times 100\% \\ &= 5,5\%\end{aligned}$$

$$\text{Presentase rata-rata susut pengeringan} = \frac{5+5+5,5}{3} = 5,17\%$$





### Lampiran 8. Perhitungan rendemen dan kadar air ekstrak rimpang lengkuas

#### Perhitungan rendemen ekstrak rimpang lengkuas


Sampel	Bobot serbuk (g)	Bobot ekstrak (g)	Rendemen (%)
Rimpang lengkuas	800	120	15

$$\begin{aligned} \text{Rendemen ekstrak} &= \frac{\text{Bobot ekstrak (g)}}{\text{Bobot serbuk (g)}} \times 100\% \\ &= \frac{120}{800} \times 100\% \\ &= 15\% \end{aligned}$$

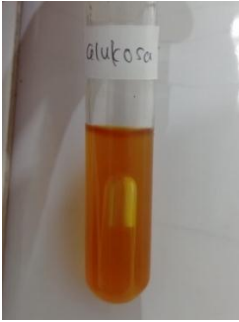

### Lampiran 9. Hasil identifikasi kandungan kimia ekstrak rimpang lengkuas

Senyawa kimia	Hasil	Interpretasi data
Alkaloid	Terbentuk endapan warna kuning jingga	
Flavonoid	Terbentuk warna jingga pada lapisan amil alkohol	
Tannin	Larutan menjadi warna hijau kehitaman	
Saponin	Terdapat buih	

### Lampiran 10. Hasil pengujian bebas etanol ekstrak rimpang lengkuas

Perlakuan	Hasil	Pustaka	Interpretasi data
Ekstrak + H <sub>2</sub> SO <sub>4</sub> + CH <sub>3</sub> COOH → Dipanaskan	Tidak tercium bau khas eter	Dikatakan bebas etanol apabila tidak tercium bau khas eter (Kurniawati, 2015)	

### Lampiran 11. Hasil identifikasi biokimia jamur *Candida albicans*

Media	Hasil	Pustaka (Mutiawati, 2016)	Interpretasi data
<i>Glucose Broth</i>	Kuning/G <sup>+</sup>	Terbentuk gas	
<i>Maltose Broth</i>	Kuning/G <sup>+</sup>	Terbentuk gas	

*Sucrose Broth*      Kuning/G<sup>-</sup>      Tidak terbentuk gas



*Lactose Broth*      Merah/G<sup>-</sup>      Tidak terbentuk gas



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**Lampiran 12. Stok (media miring) jamur *Candida albicans* ATCC 10231**

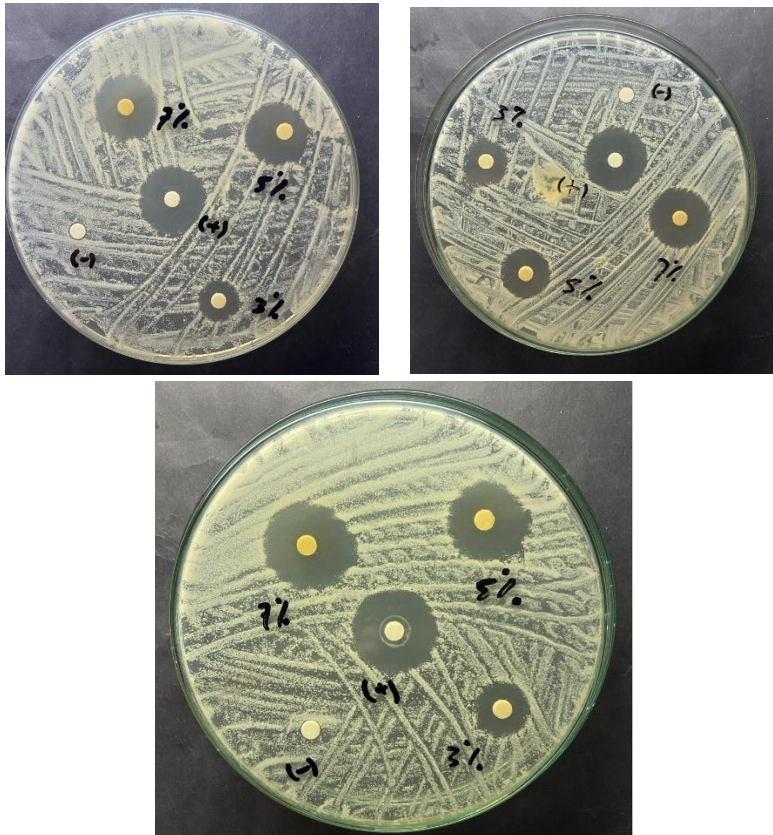


### Lampiran 13. Perhitungan pengenceran larutan ekstrak rimpang lengkuas

- Konsentrasi 7% →  $7 \text{ gram}/100 \text{ mL} = 0,7 \text{ gram}/10 \text{ mL}$
- Konsentrasi 5% →  $V1 \cdot C1 = V2 \cdot C2$   
 $V1 \cdot 7\% = 10 \text{ mL} \cdot 5\%$   
 $V1 = \frac{50}{7} = 7,14 \text{ mL}/10 \text{ mL}$
- Konsentrasi 3% →  $V1 \cdot C1 = V2 \cdot C2$   
 $V1 \cdot 5\% = 10 \text{ mL} \cdot 3\%$   
 $V1 = \frac{30}{5} = 6 \text{ mL}/10 \text{ mL}$

### Lampiran 14. Hasil pengujian aktivitas antijamur ekstrak rimpang lengkuas

Gambar hasil diameter zona hambat ekstrak



**Lampiran 15. Data hasil diameter zona hambat ekstrak rimpang lengkuas**

Replikasi	Diameter zona hambat (mm)				
	Konsentrasi 3%	Konsentrasi 5%	Konsentrasi 7%	Kontrol +	Kontrol -
1	18,45	22,15	25,27	27,56	0,00
2	17,55	22,95	28	25	0,00
3	17,8	23,1	29	22,67	0,00
Rata-rata ± SD	17,93 ± 0,46	22,73 ± 0,51	25,42 ± 0,52	28,19 ± 0,74	0,00 ± 0,00

**Lampiran 16. Hasil analisis SPSS aktivitas antijamur ekstrak rimpang lengkuas**  
**Uji One Way ANOVA**

**Tests of Normality**

Konsentrasi	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zona_hambat 3%	.280	3	.	.938	3	.520
5%	.331	3	.	.865	3	.281
7%	.283	3	.	.934	3	.504
Kontrol +	.267	3	.	.952	3	.578

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

		Levene Statistic	df1	df2	Sig.
diameter_zona_hambat	Based on Mean	,369	3	8	,777
	Based on Median	,177	3	8	,909
	Based on Median and with adjusted df	,177	3	7,017	,909
	Based on trimmed mean	,351	3	8	,789

**ANOVA**

diameter\_zona\_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	181,317	3	60,439	102,115	,000
Within Groups	4,735	8	,592		
Total	186,052	11			

## Post Hoc Tests

### Multiple Comparisons

Dependent Variable: diameter\_zona\_hambat

Tukey HSD

(I) konsentrasi	(J) konsentrasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrasi 3%	konsentrasi 5%	-5,18333*	,62816	,000	-7,1949	-3,1717
	konsentrasi 7%	-7,85000*	,62816	,000	-9,8616	-5,8384
	kontrol +	-10,51667*	,62816	,000	-12,5283	-8,5051
konsentrasi 5%	kontrasi 3%	5,18333*	,62816	,000	3,1717	7,1949
	konsentrasi 7%	-2,66667*	,62816	,012	-4,6783	-,6551
	kontrol +	-5,33333*	,62816	,000	-7,3449	-3,3217
konsentrasi 7%	kontrasi 3%	7,85000*	,62816	,000	5,8384	9,8616
	konsentrasi 5%	2,66667*	,62816	,012	,6551	4,6783
	kontrol +	-2,66667*	,62816	,012	-4,6783	-,6551
kontrol +	kontrasi 3%	10,51667*	,62816	,000	8,5051	12,5283
	konsentrasi 5%	5,33333*	,62816	,000	3,3217	7,3449
	konsentrasi 7%	2,66667*	,62816	,012	,6551	4,6783

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

## Homogeneous Subsets

diameter\_zona\_hambat

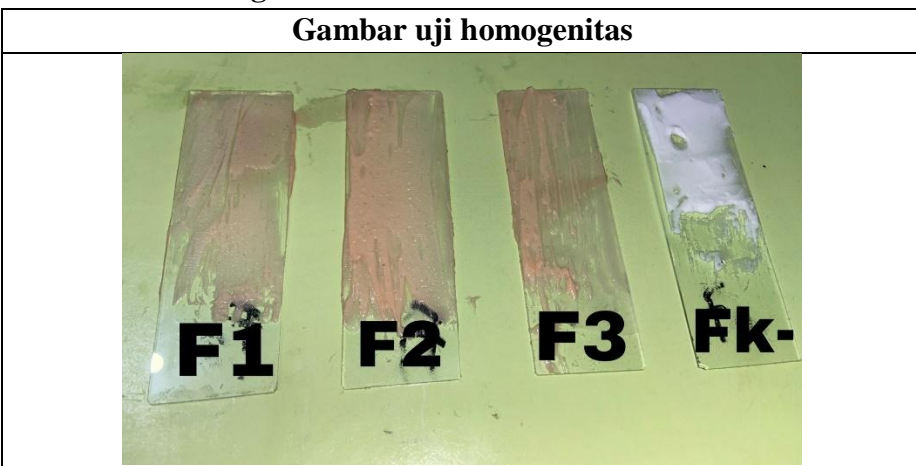
Tukey HSD<sup>a</sup>

konsentrasi	N	Subset for alpha = 0.05			
		1	2	3	4
kontrasi 3%	3	17,4833			
konsentrasi 5%	3		22,6667		
konsentrasi 7%	3			25,3333	
kontrol +	3				28,0000
Sig.		1,000	1,000	1,000	1,000

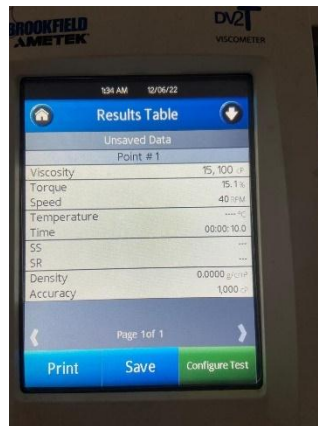
Means for groups in homogeneous subsets are displayed.

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

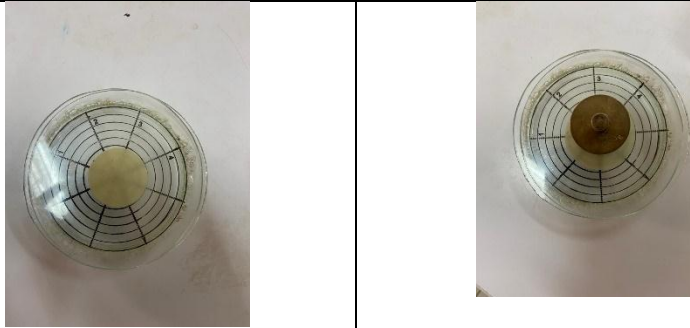


**Lampiran 17. Sediaan krim ekstrak rimpang lengkuas****Lampiran 18. Hasil uji mutu fisik sediaan krim ekstrak rimpang lengkuas**

### Gambar uji viskositas

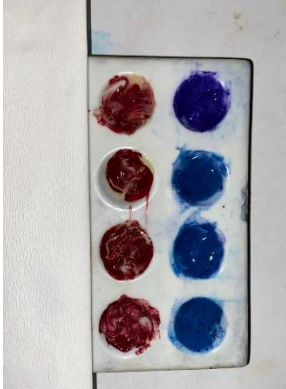




### Gambar uji daya sebar



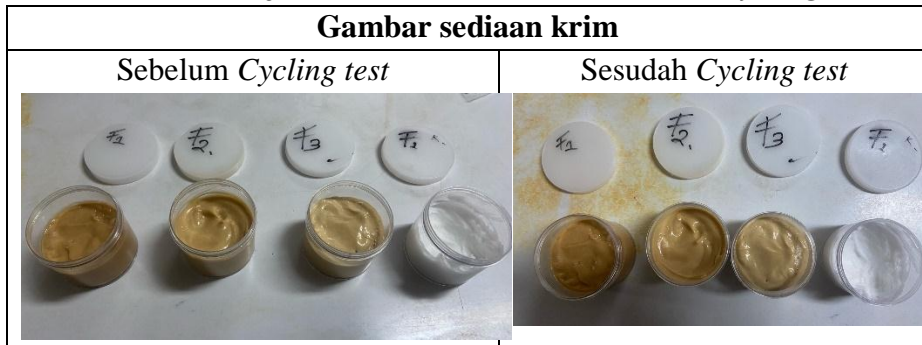
### Gambar uji daya lekat



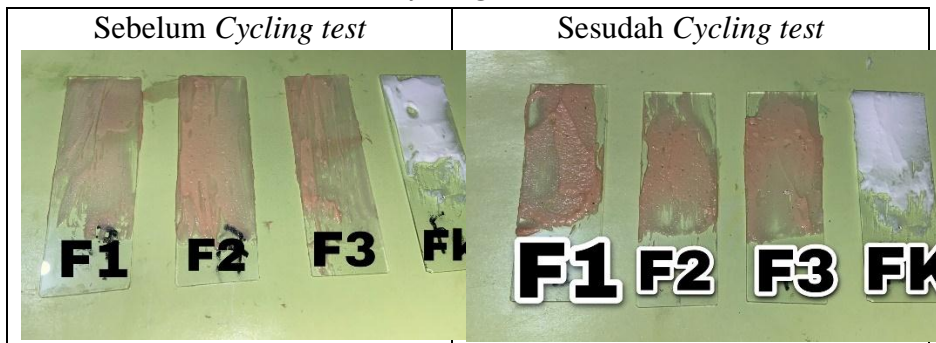
<b>Gambar uji tipe krim</b>		
<b>Pewarnaan</b>	<b>Konduktivitas</b>	<b>Pengenceran</b>
		

### Lampiran 19. Dokumentasi hasil uji stabilitas sediaan krim

#### Dokumentasi uji stabilitas sebelum dan sesudah *Cycling test*



#### Dokumentasi uji homogenitas sediaan krim sebelum dan sesudah *Cycling test*



### Lampiran 20. Data hasil uji mutu fisik pH

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	4,69	4,65	4,64	4,66	0,026
Formula II	4,76	4,75	4,73	4,75	0,015
Formula III	4,99	4,98	4,95	4,97	0,021
Kontrol-	4,61	4,58	4,59	4,59	0,0152

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

## Lampiran 21. Hasil analisis SPSS uji mutu fisik pH

### Uji *One Way* ANOVA

#### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pH Formula I	.314	3	.	.893	3	.363
Formula II	.253	3	.	.964	3	.637
Formula III	.292	3	.	.923	3	.463
Formula K-	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variances

pH

Levene Statistic	df1	df2	Sig.
.815	3	8	.521

#### ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.247	3	.082	205.889	.000
Within Groups	.003	8	.000		
Total	.250	11			

#### Multiple Comparisons

Dependent Variable: pH

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-.08667*	.01633	.003	-.1390	-.0344
	Formula III	-.31333*	.01633	.000	-.3656	-.2610
	Formula K-	.06667*	.01633	.015	.0144	.1190
Formula II	Formula I	.08667*	.01633	.003	.0344	.1390
	Formula III	-.22667*	.01633	.000	-.2790	-.1744
	Formula K-	.15333*	.01633	.000	.1010	.2056
Formula III	Formula I	.31333*	.01633	.000	.2610	.3656
	Formula II	.22667*	.01633	.000	.1744	.2790
	Formula K-	.38000*	.01633	.000	.3277	.4323
Formula K-	Formula I	-.06667*	.01633	.015	-.1190	-.0144
	Formula II	-.15333*	.01633	.000	-.2056	-.1010
	Formula III	-.38000*	.01633	.000	-.4323	-.3277

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

## pH

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula K-	3	4.5933			
Formula I	3		4.6600		
Formula II	3			4.7467	
Formula III	3				4.9733
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Lampiran 22. Data hasil uji mutu fisik viskositas

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	8.000	7.985	7.970	7.985	15
Formula II	15.100	15.085	15.060	15.082	20,2
Formula III	18.200	18.190	18.175	18.188	12,6
Kontrol-	21.100	21.070	21.090	21.087	15,28

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

### Lampiran 23. Uji statistic viskositas

#### Tests of Normality

Formula		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Formula I	.175	3	.	1.000	3	1.000
	Formula II	.232	3	.	.980	3	.726
	Formula III	.219	3	.	.987	3	.780
	Formula K-	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variances

Viskositas

Levene Statistic	df1	df2	Sig.
.268	3	8	.847

#### ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	285177072.9	3	95059024.31	370962.046	.000
Within Groups	2050.000	8	256.250		
Total	285179122.9	11			

#### Multiple Comparisons

Dependent Variable: Viskositas

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-7096.66667 <sup>*</sup>	13.07032	.000	-7138.5224	-7054.8109
	Formula III	-10203.3333 <sup>*</sup>	13.07032	.000	-10245.1891	-10161.4776
	Formula K-	-13101.6667 <sup>*</sup>	13.07032	.000	-13143.5224	-13059.8109
Formula II	Formula I	7096.66667 <sup>*</sup>	13.07032	.000	7054.8109	7138.5224
	Formula III	-3106.66667 <sup>*</sup>	13.07032	.000	-3148.5224	-3064.8109
	Formula K-	-6005.00000 <sup>*</sup>	13.07032	.000	-6046.8558	-5963.1442
Formula III	Formula I	10203.33333 <sup>*</sup>	13.07032	.000	10161.4776	10245.1891
	Formula II	3106.66667 <sup>*</sup>	13.07032	.000	3064.8109	3148.5224
	Formula K-	-2898.33333 <sup>*</sup>	13.07032	.000	-2940.1891	-2856.4776
Formula K-	Formula I	13101.66667 <sup>*</sup>	13.07032	.000	13059.8109	13143.5224
	Formula II	6005.00000 <sup>*</sup>	13.07032	.000	5963.1442	6046.8558
	Formula III	2898.33333 <sup>*</sup>	13.07032	.000	2856.4776	2940.1891

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

**Viskositas**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	7985.0000			
Formula II	3		15081.6667		
Formula III	3			18188.3333	
Formula K-	3				21086.6667
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.



**Lampiran 24. Data hasil uji mutu fisik daya sebar**

Formula	Beban	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	sd
1	0	4,6	4,7	4,5	4,6	0,1
	50	5,1	5	5	5,0	0,057735
	100	5,3	5,6	5,4	5,4	0,2
	150	6	5,8	6	5,933333	0,11547
	200	6,3	6,4	6,3	6,3	0,06
2	0	4,4	4,6	4,9	4,63	0,25
	50	4,8	5	5,2	5	0,2
	100	5,2	5,3	5,4	5,3	0,1
	150	5,6	5,6	5,8	5,7	0,11547
	200	5,8	5,9	6	5,9	0,1
3	0	4	4,3	4,2	4,2	0,15
	50	4,4	4,7	4,5	4,5	0,15
	100	4,7	5	4,9	4,9	0,15
	150	5	5,3	5,1	5,1	0,15
	200	5,3	5,5	5,4	5,4	0,1
4	0	3,9	3,8	4	3,9	0,1
	50	4,3	4,1	4,2	4,2	0,1
	100	4,8	4,6	4,5	4,6	0,2
	150	5	4,9	5	5,0	0,1
	200	5,2	5,1	5,2	5,166667	0,057735

**Keterangan:**

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

## Lampiran 25. Data hasil uji statistik daya sebar

### Tests of Normality

Formulasi	Formulasi	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya_sebar	Formula I	.253	3	.	.964	3	.637
	Formula II	.219	3	.	.987	3	.780
	Formula III	.175	3	.	1.000	3	1.000
	Formula K-	.204	3	.	.993	3	.843

a. Lilliefors Significance Correction

### Test of Homogeneity of Variances

Daya\_sebar

Levene Statistic	df1	df2	Sig.
1.332	3	8	.330

### ANOVA

Daya\_sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.547	3	.516	42.748	.000
Within Groups	.097	8	.012		
Total	1.644	11			

### Multiple Comparisons

Dependent Variable: Daya\_sebar

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	.16667	.08969	.316	-.1206	.4539
	Formula III	.64667*	.08969	.000	.3594	.9339
	Formula K-	.89333*	.08969	.000	.6061	1.1806
Formula II	Formula I	-.16667	.08969	.316	-.4539	.1206
	Formula III	.48000*	.08969	.003	.1928	.7672
	Formula K-	.72667*	.08969	.000	.4394	1.0139
Formula III	Formula I	-.64667*	.08969	.000	-.9339	-.3594
	Formula II	-.48000*	.08969	.003	-.7672	-.1928
	Formula K-	.24667	.08969	.095	-.0406	.5339
Formula K-	Formula I	-.89333*	.08969	.000	-1.1806	-.6061
	Formula II	-.72667*	.08969	.000	-1.0139	-.4394
	Formula III	-.24667	.08969	.095	-.5339	.0406

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

### Daya\_sebar

Tukey HSD<sup>a</sup>

Formulasi	N	Subset for alpha = 0.05	
		1	2
Formula K-	3	4.5733	
Formula III	3	4.8200	
Formula II	3		5.3000
Formula I	3		5.4667
Sig.		.095	.316

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Lampiran 26. Data hasil uji mutu fisik daya lekat**

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	1,8	1,5	1,4	1,6	0,21
Formula II	3,5	3,9	4,1	3,8	0,31
Formula III	4,4	4,8	5	4,73	0,31
Kontrol-	5,5	5,7	5,9	5,7	0,2

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5)

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

**Lampiran 27. Uji statistik daya lekat****Tests of Normality**

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya_lekat Formula I	.292	3	.	.923	3	.463
Formula II	.253	3	.	.964	3	.637
Formula III	.253	3	.	.964	3	.637
Formula K-	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

Daya\_lekat

Levene Statistic	df1	df2	Sig.
.428	3	8	.739

**ANOVA**

Daya\_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.109	3	9.370	138.811	.000
Within Groups	.540	8	.067		
Total	28.649	11			

### Multiple Comparisons

Dependent Variable: Daya\_lekat

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-2.26667*	.21213	.000	-2.9460	-1.5873
	Formula III	-3.16667*	.21213	.000	-3.8460	-2.4873
	Formula K-	-4.13333*	.21213	.000	-4.8127	-3.4540
Formula II	Formula I	2.26667*	.21213	.000	1.5873	2.9460
	Formula III	-.90000*	.21213	.012	-1.5793	-.2207
	Formula K-	-1.86667*	.21213	.000	-2.5460	-1.1873
Formula III	Formula I	3.16667*	.21213	.000	2.4873	3.8460
	Formula II	.90000*	.21213	.012	.2207	1.5793
	Formula K-	-.96667*	.21213	.008	-1.6460	-.2873
Formula K-	Formula I	4.13333*	.21213	.000	3.4540	4.8127
	Formula II	1.86667*	.21213	.000	1.1873	2.5460
	Formula III	.96667*	.21213	.008	.2873	1.6460

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

### Daya\_lekat

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	1.5667			
Formula II	3		3.8333		
Formula III	3			4.7333	
Formula K-	3				5.7000
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

## Lampiran 28. Uji stabilitas pH

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	4,62	4,6	4,64	4,62	0,02
Formula II	4,75	4,74	4,72	4,74	0,015
Formula III	4,97	4,95	4,92	4,95	0,025
Kontrol-	4,55	4,53	4,54	4,54	0,01

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

## Lampiran 29. Uji statistik stabilitas pH

### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pH Formula I	.175	3	.	1.000	3	1.000
Formula II	.253	3	.	.964	3	.637
Formula III	.219	3	.	.987	3	.780
Formula K-	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

### Test of Homogeneity of Variances

pH

Levene Statistic	df1	df2	Sig.
.686	3	8	.585

### ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.281	3	.094	274.301	.000
Within Groups	.003	8	.000		
Total	.284	11			

### Multiple Comparisons

Dependent Variable: pH

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-.11667*	.01509	.000	-.1650	-.0683
	Formula III	-.32667*	.01509	.000	-.3750	-.2783
	Formula K-	.08000*	.01509	.003	.0317	.1283
Formula II	Formula I	.11667*	.01509	.000	.0683	.1650
	Formula III	-.21000*	.01509	.000	-.2583	-.1617
	Formula K-	.19667*	.01509	.000	.1483	.2450
Formula III	Formula I	.32667*	.01509	.000	.2783	.3750
	Formula II	.21000*	.01509	.000	.1617	.2583
	Formula K-	.40667*	.01509	.000	.3583	.4550
Formula K-	Formula I	-.08000*	.01509	.003	-.1283	-.0317
	Formula II	-.19667*	.01509	.000	-.2450	-.1483
	Formula III	-.40667*	.01509	.000	-.4550	-.3583

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

### pH

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula K-	3	4.5400			
Formula I	3		4.6200		
Formula II	3			4.7367	
Formula III	3				4.9467
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Tests of Normality**

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
pH Formula I	.314	3	.	.893	3	.363
Formula II	.253	3	.	.964	3	.637
Formula III	.292	3	.	.923	3	.463
Formula K-	.253	3	.	.964	3	.637
Formula I Stabilitas	.175	3	.	1.000	3	1.000
Formula II Stabilitas	.253	3	.	.964	3	.637
Formula III Stabilitas	.219	3	.	.987	3	.780
Formula k- Stabilitas	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

pH

Levene Statistic	df1	df2	Sig.
.687	7	16	.682

**ANOVA**

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.535	7	.076	205.931	.000
Within Groups	.006	16	.000		
Total	.540	23			

## Multiple Comparisons

Dependent Variable: pH

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-.08667*	.01572	.001	-.1411	-.0322
	Formula III	-.31333*	.01572	.000	-.3678	-.2589
	Formula K-	.06667*	.01572	.011	.0122	.1211
	Formula I Stabilitas	.04000	.01572	.245	-.0144	.0944
	Formula II Stabilitas	-.07667*	.01572	.003	-.1311	-.0222
	Formula III Stabilitas	-.28667*	.01572	.000	-.3411	-.2322
	Formula k- Stabilitas	.12000*	.01572	.000	.0656	.1744
Formula II	Formula I	.08667*	.01572	.001	.0322	.1411
	Formula III	-.22667*	.01572	.000	-.2811	-.1722
	Formula K-	.15333*	.01572	.000	.0989	.2078
	Formula I Stabilitas	.12667*	.01572	.000	.0722	.1811
	Formula II Stabilitas	.01000	.01572	.998	-.0444	.0644
	Formula III Stabilitas	-.20000*	.01572	.000	-.2544	-.1456
	Formula k- Stabilitas	.20667*	.01572	.000	.1522	.2611
Formula III	Formula I	.31333*	.01572	.000	.2589	.3678
	Formula II	.22667*	.01572	.000	.1722	.2811
	Formula K-	.38000*	.01572	.000	.3256	.4344
	Formula I Stabilitas	.35333*	.01572	.000	.2989	.4078
	Formula II Stabilitas	.23667*	.01572	.000	.1822	.2911
	Formula III Stabilitas	.02667	.01572	.690	-.0278	.0811
	Formula k- Stabilitas	.43333*	.01572	.000	.3789	.4878
Formula K-	Formula I	-.06667*	.01572	.011	-.1211	-.0122
	Formula II	-.15333*	.01572	.000	-.2078	-.0989
	Formula III	-.38000*	.01572	.000	-.4344	-.3256
	Formula I Stabilitas	-.02667	.01572	.690	-.0811	.0278
	Formula II Stabilitas	-.14333*	.01572	.000	-.1978	-.0889
	Formula III Stabilitas	-.35333*	.01572	.000	-.4078	-.2989
	Formula k- Stabilitas	.05333	.01572	.057	-.0011	.1078
Formula I Stabilitas	Formula I	-.04000	.01572	.245	-.0944	.0144
	Formula II	-.12667*	.01572	.000	-.1811	-.0722
	Formula III	-.35333*	.01572	.000	-.4078	-.2989
	Formula K-	.02667	.01572	.690	-.0278	.0811
	Formula II Stabilitas	-.11667*	.01572	.000	-.1711	-.0622
	Formula III Stabilitas	-.32667*	.01572	.000	-.3811	-.2722
	Formula k- Stabilitas	.08000*	.01572	.002	.0256	.1344
Formula II Stabilitas	Formula I	.07667*	.01572	.003	.0222	.1311
	Formula II	-.01000	.01572	.998	-.0644	.0444
	Formula III	-.23667*	.01572	.000	-.2911	-.1822
	Formula K-	.14333*	.01572	.000	.0889	.1978
	Formula I Stabilitas	.11667*	.01572	.000	.0622	.1711
	Formula III Stabilitas	-.21000*	.01572	.000	-.2644	-.1556
	Formula k- Stabilitas	.19667*	.01572	.000	.1422	.2511
Formula III Stabilitas	Formula I	.28667*	.01572	.000	.2322	.3411
	Formula II	.20000*	.01572	.000	.1456	.2544
	Formula III	-.02667	.01572	.690	-.0811	.0278
	Formula K-	.35333*	.01572	.000	.2989	.4078
	Formula I Stabilitas	.32667*	.01572	.000	.2722	.3811
	Formula II Stabilitas	.21000*	.01572	.000	.1556	.2644
	Formula k- Stabilitas	.40667*	.01572	.000	.3522	.4611
Formula k- Stabilitas	Formula I	-.12000*	.01572	.000	-.1744	-.0656
	Formula II	-.20667*	.01572	.000	-.2611	-.1522
	Formula III	-.43333*	.01572	.000	-.4878	-.3789
	Formula K-	-.05333	.01572	.057	-.1078	.0011
	Formula I Stabilitas	-.08000*	.01572	.002	-.1344	-.0256
	Formula II Stabilitas	-.19667*	.01572	.000	-.2511	-.1422
	Formula III Stabilitas	-.40667*	.01572	.000	-.4611	-.3522

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



## pH

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
Formula k- Stabilitas	3	4.5400				
Formula K-	3	4.5933	4.5933			
Formula I Stabilitas	3		4.6200	4.6200		
Formula I	3			4.6600		
Formula II Stabilitas	3				4.7367	
Formula II	3				4.7467	
Formula III Stabilitas	3					4.9467
Formula III	3					4.9733
Sig.		.057	.690	.245	.998	.690

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

## Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
pH	Equal variances assumed	.571	.492	2.089	4	.105	.04000	.01915	-.01316	.09316
	Equal variances not assumed			2.089	3.723	.110	.04000	.01915	-.01476	.09476

### Lampiran 30. Data hasil uji stabilitas Viskositas

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	7.980	8.015	8.030	8.008	25,66
Formula II	15.090	15.098	15.120	15.103	15,53
Formula III	18.190	18.250	18.200	18.213	32,15
Kontrol-	21.100	21.120	21.135	21.118	17,56

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

#### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas Formula I	.269	3	.	.949	3	.567
Formula II	.285	3	.	.932	3	.497
Formula III	.328	3	.	.871	3	.298
Formula K-	.204	3	.	.993	3	.843

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variances

Viskositas

Levene Statistic	df1	df2	Sig.
1.154	3	8	.385

#### ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	285485406.0	3	95161802.00	169830.700	.000
Within Groups	4482.667	8	560.333		
Total	285489888.7	11			

### Multiple Comparisons

Dependent Variable: Viskositas

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-7094.33333*	19.32759	.000	-7156.2271	-7032.4396
	Formula III	-10205.0000*	19.32759	.000	-10266.8937	-10143.1063
	Formula K-	-13110.0000*	19.32759	.000	-13171.8937	-13048.1063
Formula II	Formula I	7094.33333*	19.32759	.000	7032.4396	7156.2271
	Formula III	-3110.66667*	19.32759	.000	-3172.5604	-3048.7729
	Formula K-	-6015.66667*	19.32759	.000	-6077.5604	-5953.7729
Formula III	Formula I	10205.0000*	19.32759	.000	10143.1063	10266.8937
	Formula II	3110.66667*	19.32759	.000	3048.7729	3172.5604
	Formula K-	-2905.0000*	19.32759	.000	-2966.8937	-2843.1063
Formula K-	Formula I	13110.0000*	19.32759	.000	13048.1063	13171.8937
	Formula II	6015.66667*	19.32759	.000	5953.7729	6077.5604
	Formula III	2905.0000*	19.32759	.000	2843.1063	2966.8937

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

### Viskositas

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	8008.3333			
Formula II	3		15102.6667		
Formula III	3			18213.3333	
Formula K-	3				21118.3333
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas Formula I	.175	3	.	1.000	3	1.000
Formula II	.232	3	.	.980	3	.726
Formula III	.219	3	.	.987	3	.780
Formula K-	.253	3	.	.964	3	.637
Formula I Stabilitas	.269	3	.	.949	3	.567
Formula II Stabilitas	.285	3	.	.932	3	.497
Formula III Stabilitas	.328	3	.	.871	3	.298
Formula k- Stabilitas	.204	3	.	.993	3	.843

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

Viskositas

Levene Statistic	df1	df2	Sig.
1.027	7	16	.450

**ANOVA**

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	570666304.3	7	81523757.76	199670.394	.000
Within Groups	6532.667	16	408.292		
Total	570672837.0	23			

## Multiple Comparisons

Dependent Variable: Viskositas

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-7096.66667 <sup>*</sup>	16.49832	.000	-7153.7863	-7039.5470
	Formula III	-10203.3333 <sup>*</sup>	16.49832	.000	-10260.4530	-10146.2137
	Formula K-	-13101.6667 <sup>*</sup>	16.49832	.000	-13158.7863	-13044.5470
	Formula I Stabilitas	-23.33333	16.49832	.838	-80.4530	33.7863
	Formula II Stabilitas	-7117.66667 <sup>*</sup>	16.49832	.000	-7174.7863	-7060.5470
	Formula III Stabilitas	-10228.3333 <sup>*</sup>	16.49832	.000	-10285.4530	-10171.2137
	Formula k- Stabilitas	-13133.3333 <sup>*</sup>	16.49832	.000	-13190.4530	-13076.2137
Formula II	Formula I	7096.66667 <sup>*</sup>	16.49832	.000	7039.5470	7153.7863
	Formula III	-3106.66667 <sup>*</sup>	16.49832	.000	-3163.7863	-3049.5470
	Formula K-	-6005.00000 <sup>*</sup>	16.49832	.000	-6062.1197	-5947.8803
	Formula I Stabilitas	7073.33333 <sup>*</sup>	16.49832	.000	7016.2137	7130.4530
	Formula II Stabilitas	-21.00000	16.49832	.896	-78.1197	36.1197
	Formula III Stabilitas	-3131.66667 <sup>*</sup>	16.49832	.000	-3188.7863	-3074.5470
	Formula k- Stabilitas	-6036.66667 <sup>*</sup>	16.49832	.000	-6093.7863	-5979.5470
Formula III	Formula I	10203.33333 <sup>*</sup>	16.49832	.000	10146.2137	10260.4530
	Formula II	3106.66667 <sup>*</sup>	16.49832	.000	3049.5470	3163.7863
	Formula K-	-2898.33333 <sup>*</sup>	16.49832	.000	-2955.4530	-2841.2137
	Formula I Stabilitas	10180.00000 <sup>*</sup>	16.49832	.000	10122.8803	10237.1197
	Formula II Stabilitas	3085.66667 <sup>*</sup>	16.49832	.000	3028.5470	3142.7863
	Formula III Stabilitas	-25.00000	16.49832	.789	-82.1197	32.1197
	Formula k- Stabilitas	-2930.00000 <sup>*</sup>	16.49832	.000	-2987.1197	-2872.8803
Formula K-	Formula I	13101.66667 <sup>*</sup>	16.49832	.000	13044.5470	13158.7863
	Formula II	6005.00000 <sup>*</sup>	16.49832	.000	5947.8803	6062.1197
	Formula III	2898.33333 <sup>*</sup>	16.49832	.000	2841.2137	2955.4530
	Formula I Stabilitas	13078.33333 <sup>*</sup>	16.49832	.000	13021.2137	13135.4530
	Formula II Stabilitas	5984.00000 <sup>*</sup>	16.49832	.000	5926.8803	6041.1197
	Formula III Stabilitas	2873.33333 <sup>*</sup>	16.49832	.000	2816.2137	2930.4530
	Formula k- Stabilitas	-31.66667	16.49832	.558	-88.7863	25.4530
Formula I Stabilitas	Formula I	23.33333	16.49832	.838	-33.7863	80.4530
	Formula II	-7073.33333 <sup>*</sup>	16.49832	.000	-7130.4530	-7016.2137
	Formula III	-10180.0000 <sup>*</sup>	16.49832	.000	-10237.1197	-10122.8803
	Formula K-	-13078.3333 <sup>*</sup>	16.49832	.000	-13135.4530	-13021.2137
	Formula II Stabilitas	-7094.33333 <sup>*</sup>	16.49832	.000	-7151.4530	-7037.2137
	Formula III Stabilitas	-10205.0000 <sup>*</sup>	16.49832	.000	-10262.1197	-10147.8803
	Formula k- Stabilitas	-13110.0000 <sup>*</sup>	16.49832	.000	-13167.1197	-13052.8803
Formula II Stabilitas	Formula I	7117.66667 <sup>*</sup>	16.49832	.000	7060.5470	7174.7863
	Formula II	21.00000	16.49832	.896	-36.1197	78.1197
	Formula III	-3085.66667 <sup>*</sup>	16.49832	.000	-3142.7863	-3028.5470
	Formula K-	-5984.00000 <sup>*</sup>	16.49832	.000	-6041.1197	-5926.8803
	Formula I Stabilitas	7094.33333 <sup>*</sup>	16.49832	.000	7037.2137	7151.4530
	Formula III Stabilitas	-3110.66667 <sup>*</sup>	16.49832	.000	-3167.7863	-3053.5470
	Formula k- Stabilitas	-6015.66667 <sup>*</sup>	16.49832	.000	-6072.7863	-5958.5470
Formula III Stabilitas	Formula I	10228.33333 <sup>*</sup>	16.49832	.000	10171.2137	10285.4530
	Formula II	3131.66667 <sup>*</sup>	16.49832	.000	3074.5470	3188.7863
	Formula III	25.00000	16.49832	.789	-32.1197	82.1197
	Formula K-	-2873.33333 <sup>*</sup>	16.49832	.000	-2930.4530	-2816.2137
	Formula I Stabilitas	10205.00000 <sup>*</sup>	16.49832	.000	10147.8803	10262.1197
	Formula II Stabilitas	3110.66667 <sup>*</sup>	16.49832	.000	3053.5470	3167.7863
	Formula k- Stabilitas	-2905.00000 <sup>*</sup>	16.49832	.000	-2962.1197	-2847.8803
Formula k- Stabilitas	Formula I	13133.33333 <sup>*</sup>	16.49832	.000	13076.2137	13190.4530
	Formula II	6036.66667 <sup>*</sup>	16.49832	.000	5979.5470	6093.7863
	Formula III	2930.00000 <sup>*</sup>	16.49832	.000	2872.8803	2987.1197
	Formula K-	31.66667	16.49832	.558	-25.4530	88.7863
	Formula I Stabilitas	13110.00000 <sup>*</sup>	16.49832	.000	13052.8803	13167.1197
	Formula II Stabilitas	6015.66667 <sup>*</sup>	16.49832	.000	5958.5470	6072.7863
	Formula III Stabilitas	2905.00000 <sup>*</sup>	16.49832	.000	2847.8803	2962.1197

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

### Viskositas

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	7985.0000			
Formula I Stabilitas	3	8008.3333			
Formula II	3		15081.6667		
Formula II Stabilitas	3		15102.6667		
Formula III	3			18188.3333	
Formula III Stabilitas	3			18213.3333	
Formula K-	3				21086.6667
Formula k- Stabilitas	3				21118.3333
Sig.		.838	.896	.789	.558

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Viskositas	Equal variances assumed	1.196	.336	-1.360	4	.245	-23.33333	17.15938	-70.97542	24.30875
	Equal variances not assumed			-1.360	3.224	.261	-23.33333	17.15938	-75.85635	29.18968

### Lampiran 31. Data hasil uji stabilitas daya lekat

Formula	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	Sd
Formula I	1,8	1,9	2,2	2,0	0,21
Formula II	3,6	4	4,2	3,9	0,31
Formula III	4,7	4,9	5	4,9	0,15
Kontrol-	5,9	6,1	6,3	6,1	0,2

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5)

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

### Lampiran 32. Data hasil uji statistic stabilitas daya lekat

#### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
daya_lekat Formula I	.292	3	.	.923	3	.463
Formula II	.253	3	.	.964	3	.637
Formula III	.253	3	.	.964	3	.637
Formula K-	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variances

daya\_lekat

Levene Statistic	df1	df2	Sig.
.622	3	8	.620

#### ANOVA

daya\_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	27.337	3	9.112	182.244	.000
Within Groups	.400	8	.050		
Total	27.737	11			

#### Multiple Comparisons

Dependent Variable: daya\_lekat

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-1.96667*	.18257	.000	-2.5513	-1.3820
	Formula III	-2.90000*	.18257	.000	-3.4847	-2.3153
	Formula K-	-4.13333*	.18257	.000	-4.7180	-3.5487
Formula II	Formula I	1.96667*	.18257	.000	1.3820	2.5513
	Formula III	-.93333*	.18257	.004	-1.5180	-.3487
	Formula K-	-2.16667*	.18257	.000	-2.7513	-1.5820
Formula III	Formula I	2.90000*	.18257	.000	2.3153	3.4847
	Formula II	.93333*	.18257	.004	.3487	1.5180
	Formula K-	-1.23333*	.18257	.001	-1.8180	-.6487
Formula K-	Formula I	4.13333*	.18257	.000	3.5487	4.7180
	Formula II	2.16667*	.18257	.000	1.5820	2.7513
	Formula III	1.23333*	.18257	.001	.6487	1.8180

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

**daya\_lekat**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	1.9667			
Formula II	3		3.9333		
Formula III	3			4.8667	
Formula K-	3				6.1000
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Tests of Normality**

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya_lekat Formula I	.292	3	.	.923	3	.463
Formula II	.253	3	.	.964	3	.637
Formula III	.253	3	.	.964	3	.637
Formula K-	.175	3	.	1.000	3	1.000
Formula I Stabilitas	.292	3	.	.923	3	.463
Formula II Stabilitas	.253	3	.	.964	3	.637
Formula III Stabilitas	.253	3	.	.964	3	.637
Formula k- Stabilitas	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

Daya\_lekat

Levene Statistic	df1	df2	Sig.
.490	7	16	.829

**ANOVA**

Daya\_lekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	55.846	7	7.978	135.796	.000
Within Groups	.940	16	.059		
Total	56.786	23			



## Multiple Comparisons

Dependent Variable: Daya\_lekat

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	-2.26667*	.19791	.000	-2.9518	-1.5815
	Formula III	-3.16667*	.19791	.000	-3.8518	-2.4815
	Formula K-	-4.13333*	.19791	.000	-4.8185	-3.4482
	Formula I Stabilitas	-.40000	.19791	.499	-1.0852	.2852
	Formula II Stabilitas	-2.36667*	.19791	.000	-3.0518	-1.6815
	Formula III Stabilitas	-3.30000*	.19791	.000	-3.9852	-2.6148
	Formula k- Stabilitas	-4.53333*	.19791	.000	-5.2185	-3.8482
Formula II	Formula I	2.26667*	.19791	.000	1.5815	2.9518
	Formula III	-.90000*	.19791	.006	-1.5852	-.2148
	Formula K-	-1.86667*	.19791	.000	-2.5518	-1.1815
	Formula I Stabilitas	1.86667*	.19791	.000	1.1815	2.5518
	Formula II Stabilitas	-.10000	.19791	.999	-.7852	.5852
	Formula III Stabilitas	-1.03333*	.19791	.002	-1.7185	-.3482
Formula k- Stabilitas	-2.26667*	.19791	.000	-2.9518	-1.5815	
Formula III	Formula I	3.16667*	.19791	.000	2.4815	3.8518
	Formula II	.90000*	.19791	.006	.2148	1.5852
	Formula K-	-.96667*	.19791	.003	-1.6518	-.2815
	Formula I Stabilitas	2.76667*	.19791	.000	2.0815	3.4518
	Formula II Stabilitas	.80000*	.19791	.016	.1148	1.4852
	Formula III Stabilitas	-.13333	.19791	.997	-.8185	.5518
	Formula k- Stabilitas	-1.36667*	.19791	.000	-2.0518	-.6815
Formula K-	Formula I	4.13333*	.19791	.000	3.4482	4.8185
	Formula II	1.86667*	.19791	.000	1.1815	2.5518
	Formula III	.96667*	.19791	.003	.2815	1.6518
	Formula I Stabilitas	3.73333*	.19791	.000	3.0482	4.4185
	Formula II Stabilitas	1.76667*	.19791	.000	1.0815	2.4518
	Formula III Stabilitas	.83333*	.19791	.012	.1482	1.5185
	Formula k- Stabilitas	-.40000	.19791	.499	-1.0852	.2852
Formula I Stabilitas	Formula I	.40000	.19791	.499	-.2852	1.0852
	Formula II	-1.86667*	.19791	.000	-2.5518	-1.1815
	Formula III	-2.76667*	.19791	.000	-3.4518	-2.0815
	Formula K-	-3.73333*	.19791	.000	-4.4185	-3.0482
	Formula II Stabilitas	-1.96667*	.19791	.000	-2.6518	-1.2815
	Formula III Stabilitas	-2.90000*	.19791	.000	-3.5852	-2.2148
	Formula k- Stabilitas	-4.13333*	.19791	.000	-4.8185	-3.4482
Formula II Stabilitas	Formula I	2.36667*	.19791	.000	1.6815	3.0518
	Formula II	.10000	.19791	.999	-.5852	.7852
	Formula III	-.80000*	.19791	.016	-1.4852	-.1148
	Formula K-	-1.76667*	.19791	.000	-2.4518	-1.0815
	Formula I Stabilitas	1.96667*	.19791	.000	1.2815	2.6518
	Formula III Stabilitas	-.93333*	.19791	.004	-1.6185	-.2482
	Formula k- Stabilitas	-2.16667*	.19791	.000	-2.8518	-1.4815
Formula III Stabilitas	Formula I	3.30000*	.19791	.000	2.6148	3.9852
	Formula II	1.03333*	.19791	.002	.3482	1.7185
	Formula III	.13333	.19791	.997	-.5518	.8185
	Formula K-	-.83333*	.19791	.012	-1.5185	-.1482
	Formula I Stabilitas	2.90000*	.19791	.000	2.2148	3.5852
	Formula II Stabilitas	.93333*	.19791	.004	.2482	1.6185
	Formula k- Stabilitas	-1.23333*	.19791	.000	-1.9185	-.5482
Formula k- Stabilitas	Formula I	4.53333*	.19791	.000	3.8482	5.2185
	Formula II	2.26667*	.19791	.000	1.5815	2.9518
	Formula III	1.36667*	.19791	.000	.6815	2.0518
	Formula K-	.40000	.19791	.499	-.2852	1.0852
	Formula I Stabilitas	4.13333*	.19791	.000	3.4482	4.8185
	Formula II Stabilitas	2.16667*	.19791	.000	1.4815	2.8518
	Formula III Stabilitas	1.23333*	.19791	.000	.5482	1.9185

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

### Daya\_lekat

Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula I	3	1.5667			
Formula I Stabilitas	3	1.9667			
Formula II	3		3.8333		
Formula II Stabilitas	3		3.9333		
Formula III	3			4.7333	
Formula III Stabilitas	3			4.8667	
Formula K-	3				5.7000
Formula k- Stabilitas	3				6.1000
Sig.		.499	.999	.997	.499

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Daya_lekat	Equal variances assumed	.000	1.000	-2.353	4	.078	-.40000	.16997	-.87190	.07190
	Equal variances not assumed			-2.353	4.000	.078	-.40000	.16997	-.87190	.07190

**Lampiran 33. Data hasil uji stabilitas daya sebar**

Formula	Beban	Replikasi 1	Replikasi 2	Replikasi 3	Rata rata	sd
1	0	4,5	4,6	4,4	4,5	0,1
	50	5,1	5	5	5,0	0,057735
	100	5,3	5,4	5,6	5,4	0,15
	150	5,9	5,9	6	5,93	0,06
	200	6,1	6,1	6,2	6,13	0,06
2	0	4,2	4,3	4,4	4,30	0,10
	50	4,8	4,9	4,8	4,83	0,057735
	100	5,1	5,2	5,2	5,2	0,1
	150	5,8	5,7	5,9	5,8	0,1
	200	6	6,1	6,2	6,1	0,1
3	0	3,9	4	4	4,0	0,1
	50	4,4	4,3	4,4	4,37	0,06
	100	4,6	4,7	4,6	4,63	0,06
	150	5,2	5,2	5,1	5,17	0,06
	200	5,4	5,5	5,3	5,4	0,1
4	0	4	4	3,9	3,97	0,06
	50	4	3,9	4,2	4,03	0,15
	100	4,3	4,3	4,4	4,33	0,06
	150	4,6	4,6	4,7	4,63	0,06
	200	5,1	5	5	5,03	0,06

Keterangan:

F1 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 5:3 )

F2 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 10:4 )

F3 : Sediaan krim ekstrak rimpang lengkuas dengan perbandingan asam stearat : TEA ( 15:5 )

Kontrol negatif : Sediaan krim tanpa ekstrak dengan perbandingan asam stearat : TEA ( 10:4 )

**Tests of Normality**

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya_sebar Formula I	.253	3	.	.964	3	.637
Formula II	.175	3	.	1.000	3	1.000
Formula III	.314	3	.	.893	3	.363
Formula K-	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

### Test of Homogeneity of Variances

Daya\_sebar

Levene Statistic	df1	df2	Sig.
.475	3	8	.708

### ANOVA

Daya\_sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.957	3	.652	381.820	.000
Within Groups	.014	8	.002		
Total	1.970	11			

### Multiple Comparisons

Dependent Variable: Daya\_sebar

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	.16667*	.03375	.005	.0586	.2747
	Formula III	.69667*	.03375	.000	.5886	.8047
	Formula K-	1.00667*	.03375	.000	.8986	1.1147
Formula II	Formula I	-.16667*	.03375	.005	-.2747	-.0586
	Formula III	.53000*	.03375	.000	.4219	.6381
	Formula K-	.84000*	.03375	.000	.7319	.9481
Formula III	Formula I	-.69667*	.03375	.000	-.8047	-.5886
	Formula II	-.53000*	.03375	.000	-.6381	-.4219
	Formula K-	.31000*	.03375	.000	.2019	.4181
Formula K-	Formula I	-1.00667*	.03375	.000	-1.1147	-.8986
	Formula II	-.84000*	.03375	.000	-.9481	-.7319
	Formula III	-.31000*	.03375	.000	-.4181	-.2019

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

**Daya\_sebar**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula K-	3	4.4000			
Formula III	3		4.7100		
Formula II	3			5.2400	
Formula I	3				5.4067
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**Tests of Normality**

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya_sebar Formula I	.253	3	.	.964	3	.637
Formula II	.219	3	.	.987	3	.780
Formula III	.175	3	.	1.000	3	1.000
Formula K-	.204	3	.	.993	3	.843
Formula I Stabilitas	.253	3	.	.964	3	.637
Formula II Stabilitas	.175	3	.	1.000	3	1.000
Formula III Stabilitas	.314	3	.	.893	3	.363
Formula k- Stabilitas	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

**Test of Homogeneity of Variances**

Daya\_sebar

Levene Statistic	df1	df2	Sig.
1.760	7	16	.165

**ANOVA**

Daya\_sebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.565	7	.509	73.950	.000
Within Groups	.110	16	.007		
Total	3.675	23			

## Multiple Comparisons

Dependent Variable: Daya\_sebar

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	.16667	.06776	.279	-.0679	.4013
	Formula III	.64667*	.06776	.000	.4121	.8813
	Formula K-	.89333*	.06776	.000	.6587	1.1279
	Formula I Stabilitas	.06000	.06776	.983	-.1746	.2946
	Formula II Stabilitas	.22667	.06776	.062	-.0079	.4613
	Formula III Stabilitas	.75667*	.06776	.000	.5221	.9913
	Formula k- Stabilitas	1.06667*	.06776	.000	.8321	1.3013
Formula II	Formula I	-.16667	.06776	.279	-.4013	.0679
	Formula III	.48000*	.06776	.000	.2454	.7146
	Formula K-	.72667*	.06776	.000	.4921	.9613
	Formula I Stabilitas	-.10667	.06776	.758	-.3413	.1279
	Formula II Stabilitas	.06000	.06776	.983	-.1746	.2946
	Formula III Stabilitas	.59000*	.06776	.000	.3554	.8246
	Formula k- Stabilitas	.90000*	.06776	.000	.6654	1.1346
Formula III	Formula I	-.64667*	.06776	.000	-.8813	-.4121
	Formula II	-.48000*	.06776	.000	-.7146	-.2454
	Formula K-	.24667*	.06776	.036	.0121	.4813
	Formula I Stabilitas	-.58667*	.06776	.000	-.8213	-.3521
	Formula II Stabilitas	-.42000*	.06776	.000	-.6546	-.1854
	Formula III Stabilitas	.11000	.06776	.731	-.1246	.3446
	Formula k- Stabilitas	.42000*	.06776	.000	.1854	.6546
Formula K-	Formula I	-.89333*	.06776	.000	-1.1279	-.6587
	Formula II	-.72667*	.06776	.000	-.9613	-.4921
	Formula III	-.24667*	.06776	.036	-.4813	-.0121
	Formula I Stabilitas	-.83333*	.06776	.000	-1.0679	-.5987
	Formula II Stabilitas	-.66667*	.06776	.000	-.9013	-.4321
	Formula III Stabilitas	-.13667	.06776	.501	-.3713	.0979
	Formula k- Stabilitas	.17333	.06776	.240	-.0613	.4079
Formula I Stabilitas	Formula I	-.06000	.06776	.983	-.2946	.1746
	Formula II	.10667	.06776	.758	-.1279	.3413
	Formula III	.58667*	.06776	.000	.3521	.8213
	Formula K-	.83333*	.06776	.000	.5987	1.0679
	Formula II Stabilitas	.16667	.06776	.279	-.0679	.4013
	Formula III Stabilitas	.69667*	.06776	.000	.4621	.9313
	Formula k- Stabilitas	1.00667*	.06776	.000	.7721	1.2413
Formula II Stabilitas	Formula I	-.22667	.06776	.062	-.4613	.0079
	Formula II	-.06000	.06776	.983	-.2946	.1746
	Formula III	.42000*	.06776	.000	.1854	.6546
	Formula K-	.66667*	.06776	.000	.4321	.9013
	Formula I Stabilitas	-.16667	.06776	.279	-.4013	.0679
	Formula III Stabilitas	.53000*	.06776	.000	.2954	.7646
	Formula k- Stabilitas	.84000*	.06776	.000	.6054	1.0746
Formula III Stabilitas	Formula I	-.75667*	.06776	.000	-.9913	-.5221
	Formula II	-.59000*	.06776	.000	-.8246	-.3554
	Formula III	-.11000	.06776	.731	-.3446	.1246
	Formula K-	.13667	.06776	.501	-.0979	.3713
	Formula I Stabilitas	-.69667*	.06776	.000	-.9313	-.4621
	Formula II Stabilitas	-.53000*	.06776	.000	-.7646	-.2954
	Formula k- Stabilitas	.31000*	.06776	.006	.0754	.5446
Formula k- Stabilitas	Formula I	-1.06667*	.06776	.000	-1.3013	-.8321
	Formula II	-.90000*	.06776	.000	-1.1346	-.6654
	Formula III	-.42000*	.06776	.000	-.6546	-.1854
	Formula K-	-.17333	.06776	.240	-.4079	.0613
	Formula I Stabilitas	-1.00667*	.06776	.000	-1.2413	-.7721
	Formula II Stabilitas	-.84000*	.06776	.000	-1.0746	-.6054
	Formula III Stabilitas	-.31000*	.06776	.006	-.5446	-.0754

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

**Daya\_sebar**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula k- Stabilitas	3	4.4000			
Formula K-	3	4.5733	4.5733		
Formula III Stabilitas	3		4.7100	4.7100	
Formula III	3			4.8200	
Formula II Stabilitas	3				5.2400
Formula II	3				5.3000
Formula I Stabilitas	3				5.4067
Formula I	3				5.4667
Sig.		.240	.501	.731	.062

Means for groups in homogeneous subsets are displayed.

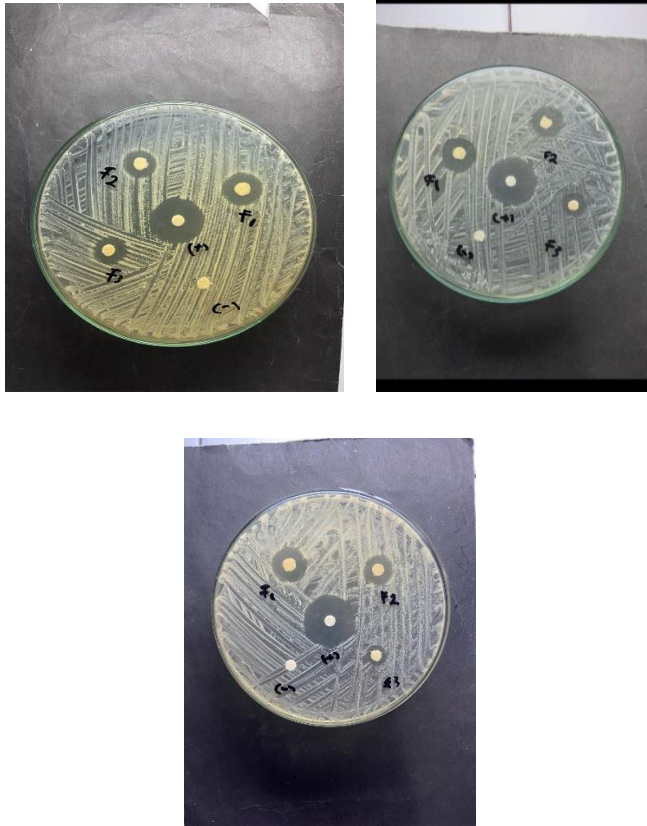
a. Uses Harmonic Mean Sample Size = 3.000.

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Daya_sebar	Equal variances assumed	.000	1.000	2.405	4	.074	.06000	.02494	-.00926	.12926
	Equal variances not assumed			2.405	4.000	.074	.06000	.02494	-.00926	.12926

Lampiran 34. Hasil pengujian aktivitas antijamur krim ekstrak rimpang lengkuas

Gambar hasil diameter zona hambat ekstrak





### Lampiran 35. Uji statistik aktivitas antijamur sediaan krim ekstrak lengkuas

#### Tests of Normality

Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Zona_hambat Formula I	.345	3	.	.839	3	.210
Formula II	.268	3	.	.950	3	.570
Formula III	.197	3	.	.996	3	.876
Kontrol +	.272	3	.	.947	3	.556

a. Lilliefors Significance Correction

#### Test of Homogeneity of Variances

Zona\_hambat

Levene Statistic	df1	df2	Sig.
.428	3	8	.738

#### ANOVA

Zona\_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	696.960	3	232.320	1134.929	.000
Within Groups	1.638	8	.205		
Total	698.597	11			

**Multiple Comparisons**

Dependent Variable: Zona\_hambat

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula I	Formula II	2.05333*	.36941	.002	.8703	3.2363
	Formula III	5.57667*	.36941	.000	4.3937	6.7597
	Kontrol +	-14.44333*	.36941	.000	-15.6263	-13.2603
Formula II	Formula I	-2.05333*	.36941	.002	-3.2363	-.8703
	Formula III	3.52333*	.36941	.000	2.3403	4.7063
	Kontrol +	-16.49667*	.36941	.000	-17.6797	-15.3137
Formula III	Formula I	-5.57667*	.36941	.000	-6.7597	-4.3937
	Formula II	-3.52333*	.36941	.000	-4.7063	-2.3403
	Kontrol +	-20.02000*	.36941	.000	-21.2030	-18.8370
Kontrol +	Formula I	14.44333*	.36941	.000	13.2603	15.6263
	Formula II	16.49667*	.36941	.000	15.3137	17.6797
	Formula III	20.02000*	.36941	.000	18.8370	21.2030

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

**Zona\_hambat**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula III	3	10.0733			
Formula II	3		13.5967		
Formula I	3			15.6500	
Kontrol +	3				30.0933
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.