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## Lampiran 1. Hasil determinasi rimpang rumput teki



**KEMENTERIAN KESEHATAN REPUBLIK INDONESIA**  
**BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN**

BALAI BESAR PENELITIAN DAN PENGEMBANGAN  
 TANAMAN OBAT DAN OBAT TRADISIONAL  
 Jalan Lawu No. 11 Tawangmangu, Karanganyar, Jawa Tengah 57792  
 Telepon (0271) 697 010 Faksimile (0271) 697 451



Laman [b2p2toot.litbang.kemkes.go.id](http://b2p2toot.litbang.kemkes.go.id) Surat Elektronik [b2p2toot@litbang.kemkes.go.id](mailto:b2p2toot@litbang.kemkes.go.id)

Nomor : KM.04.02/2/1727/2022  
 Hal : Keterangan Determinasi

19 September 2022

Yth. Dekan Fakultas Farmasi  
 Universitas Setia Budi  
 Jalan Let. Jend. Sutoyo  
 Solo 57127

Merujuk surat Saudara nomor: 968/H6-04/01.09.2022 tanggal 1 September 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Intan Olivia Putri  
 Nama Sampel : Rumput Teki  
 Sampel : Tanaman Segar  
 Spesies : *Cyperus rotundus* L.  
 Sinonim : *Cyperus retzii* Nees  
 Familia : Cyperaceae  
 Penanggung Jawab : Nina Kurnianingrum, S.Si.

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 Kesehatan Tanaman Obat  
 dan Obat Tradisional Tawangmangu,



**Akhmad Saikhu, S.KM., M.Sc.PH**

**Lampiran 2. Hasil keterangan bakteri *Staphylococcus aureus* ATCC 25923**

## PRO – Technology

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

### SERTIFIKAT HASIL UJI

1. Bakteri Uji : Stock Strain *Staphylococcus aureus* ATCC 25923
2. Nomor Uji Bakteri : B. O. 1. 1
3. Tanggal Uji Bakteri : 22 - 25 Juni 2020

Uraian Hasil Uji

**B. 0.1.1.1. Biakan Murni *Staphylococcus aureus* ATCC 25923**

- I. Ciri-ciri koloni :
  1. Pewarnaan Gram : Sel bulat, kecil-kecil, menggerombol, berwarna ungu, termasuk Gram positif.
  2. Di tanam pada media Vogel Jhonson Agar : Koloni warna hitam, disekitar koloni berwarna kuning.
  
- 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 3. Surat sertifikat *hydroxypropyl methylcellulose*

 **PT. INDO SUKSES PRATAMA**  
 Pergudangan Sentra Prima Tekno Park Blok D No.20  
 Jl.Palem Mania Raya, Gandasari, Jatiluwung  
 Tangerang- Banten  
 Tel : (021) 29874080 - 90  
 Fax: (021) 29874220  
 Email : Indosuksepratama20@gmail.com

### Certificate Of Analysis

<b>Certificate No :</b>	<b>HPMC 8060-N</b>	<b>Issue Date:</b>	<b>2021-11-29</b>
<b>Product Name :</b>	<b>8060-N</b>	<b>Chemical Name :</b>	<b>HPMC</b>
<b>PI Number :</b>	<b>21JX1008</b>	<b>Lot Weight :</b>	<b>3,000 kilograms</b>
<b>Sampling Date :</b>	<b>2021-11-22</b>	<b>Sampling Place :</b>	<b>Supplier Warehouse</b>
<b>Manufacturing Date :</b>	<b>2021-11-21</b>	<b>Shelf Life :</b>	<b>2 years under dry and cool condition</b>
<b>Sample Package :</b>	<b>250g Plastic Bottle</b>	<b>Product Package :</b>	<b>25.0 kg / bag</b>

This is to certify that we, the under signed, have inspected the quality of the above mentioned product and found inspection results as following .

Item	Unit	Specification	Result
Appearance	/	Whitish to yellowish even particle or powder	Whitish powder
Bulk Density	Kg/m <sup>3</sup>	320 - 460	368
Fineness	目	≤ 80	100% through
Drying Loss Ratio	%	≤ 5.0	4.5
Viscosity	cps	65,000 - 80,000	68.000
pH Value	/	5.0 - 9.0	7.0
Water Retention Ratio	%	≥ 90	90.5

**Conclusion :** All analysi results comply ith the requirements of the ordered products via contract.

**Lampiran 4. Gambar dokumentasi tanaman rimpang rumput teki**



Rimpang rumput teki



Serbuk rimpang rumput teki



Alat penghalus serbuk



Botol maserasi



Ekstrak



*Rotary evaporator*

## Hasil perhitungsn rendemen simplisia dan ekstrak rimpang rumput teki

- **Perhitungan rendemen simplisia rimpang rumput teki**

$$\begin{aligned} \text{Rumus rendemen simplisia} &= \frac{\text{Bobot kering (g)}}{\text{Bobot basah (g)}} \times 100\% \\ &= \frac{2400}{5000} \times 100\% \\ &= 48\% \end{aligned}$$

- **Perhitungan rendemen ekstrak rimpang rumput teki**

$$\text{Bobot jar kosong} = 197 \text{ gram}$$

$$\text{Bobot jar + ekstrak} = 303 \text{ gram}$$

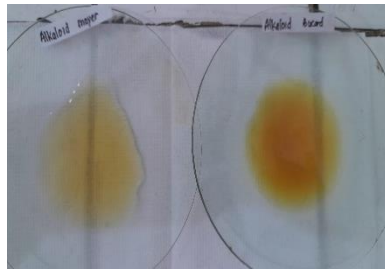
$$\text{Bobot ekstrak} = 106 \text{ gram}$$

$$\begin{aligned} \text{Rumus rendemen ekstrak} &= \frac{\text{Bobot ekstrak (g)}}{\text{Bobot bobot serbuk (g)}} \times 100\% \\ &= \frac{106}{700} \times 100\% \\ &= 15,14\% \end{aligned}$$

### Lampiran 5. Identifikasi senyawa ekstrak rimpang rumput teki



Flavonoid



Alkaloid



Triterpenoid



Saponin



Tanin

#### Hasil perhitungan susut pengeringan

##### ➤ Susut pengeringan serbuk

Replikasi 1 = 7,5

Replikasi 2 = 7

Replikasi 3 = 8,5

#### Rata-rata presentase kadar

$$\frac{7,5 + 7 + 8,5}{3} = 7,67 \%$$

**Lampiran 6. Uji susut pengeringan**  
**Uji susut pengeringan serbuk**

**Replikasi 1**

**Replikasi 2**

**Replikasi 3**





**Lampiran 7. Uji kadar air ekstrak rimpang rumput teki**

Replikasi	Berat kurs kosong	Berat kurs + ekstrak sebelum oven	Berat kurs + ekstrak setelah di oven	Berat ekstrak awal	Berat ekstrak akhir (konstan)	Kadar air (%)
1	65,4341	75,4544	75,0032	10,0203	9,5691	4,50
2	65,4536	75,4555	75,0092	10,0019	9,5556	4,46
3	65,528	75,5308	75,0285	10,0028	9,5005	5,02
Rerata						4,66
±SD						0,31

Metode gravimetri →

$$\text{Rumus kadar air} = \frac{\text{bobot awal} - \text{bobot akhir}}{\text{bobot awal}} \times 100\%$$

**Replikasi 1 :**

Bobot kurs kosong : 65,4341 gram

Bobot kurs + ekstrak : 75,4544 gram

Berat ekstrak : 10,0203 gram

Penimbangan 5 jam : 75,0508 gram

Penimbangan /1 jam : 75,0187 gram

: 75,0098 gram → selisih : 0,0089

: 75,0075 gram → selisih : 0,0023

: 75,0054 gram → selisih : 0,0021

: 75,0042 gram → selisih : 0,0012

: 75,0037 gram → selisih : 0,0005

: 75,0032 gram → selisih : 0,0005

Bobot ekstrak akhir : 9,5691 gram

$$\text{➤ Replikasi 1} = \frac{10,0203 - 9,5691}{10,0203} \times 100\% = 4,5\%$$

**Replikasi 2 :**

Bobot kurs kosong : 65,4536 gram

Bobot kurs + ekstrak : 75,4555 gram

Berat ekstrak : 10,0019 gram

Penimbangan 5 jam : 75,0102 gram

Penimbangan /1 jam : 75,0187 gram

: 75,0148 gram → selisih : 0,0019

: 75,0129 gram → selisih : 0,0015

: 75,0114 gram → selisih : 0,0013

: 75,0101 gram → selisih : 0,0012

: 75,0096 gram → selisih : 0,0005

: 75,0092 gram → selisih : 0,0004

Bobot ekstrak akhir : 9,5556 gram

$$\text{➤ Replikasi 2} = \frac{10,0019 - 9,5556}{10,0019} \times 100\% = 4,4\%$$

### Replikasi 3 :

Bobot kurs kosong : 65,5280 gram

Bobot kurs + ekstrak : 75,5308 gram

Berat ekstrak : 10,0028 gram

Penimbangan 5 jam : 75,0436 gram

Penimbangan /1 jam :

: 75,0366 gram → selisih : 0,0021

: 75,0345 gram → selisih : 0,0017

: 75,0328 gram → selisih : 0,0017

: 75,0311 gram → selisih : 0,0016

: 75,0290 gram → selisih : 0,0005

: 75,0285 gram → selisih : 0,0005

Bobot ekstrak akhir : 9,5005 gram

$$\text{➤ Replikasi 3} = \frac{10,0028 - 9,5005}{10,0028} \times 100\% = 5,02\%$$



Penimbangan bobot konstan kadar air ekstrak



Desikator



Oven

**Lampiran 8. Alat uji mutu fisik emulgel**



Sediaan emulgel ekstrak rimpang rumput teki



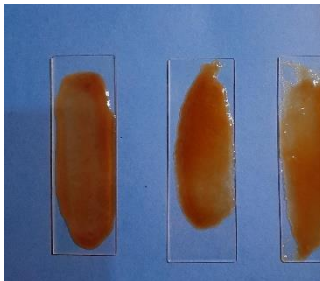
Homogenitas kontrol



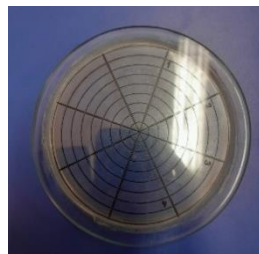
*pH* meter



Viskometer



Homogenitas formula



Daya sebar



Daya lekat



*Voltmeter*



Pengenceran kontrol



Pengenceran formula

**Lampiran 9. Perhitungan konsentrasi ekstrak**

Seri konsentrasi ekstrak rimpang rumput teki dengan pelarut DMSO

10%

$$\begin{aligned}\text{Konsentrasi 3\%} &= 3/100 \text{ b/v} \\ &= 3 \text{ gram} / 100 \text{ ml} \\ &= 0,3 \text{ gram}/10\text{ml}\end{aligned}$$

Menimbang 0,3 gram ekstrak, kemudian dilarutkan dengan DMSO 10% hingga 10ml

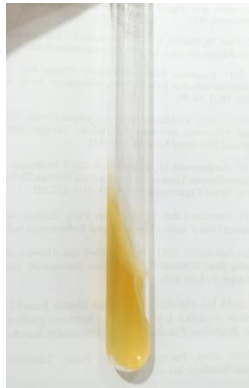
$$\begin{aligned}\text{Konsentrasi 5\%} &= 5/100 \text{ b/v} \\ &= 5 \text{ gram}/100\text{ml} \\ &= 0,5 \text{ gram}/10\text{ml}\end{aligned}$$

Menimbang 0,5 gram ekstrak, kemudian dilarutkan dalam DMSO 10% hingga 10ml

$$\begin{aligned}\text{Konsentrasi 7\%} &= 7/100 \text{ b/v} \\ &= 7 \text{ gram}/100\text{ml} \\ &= 0,7 \text{ gram}/10\text{ml}\end{aligned}$$

Menimbang 0,7 gram ekstrak, kemudian dilarutkan dalam DMSO 10% hingga 10ml

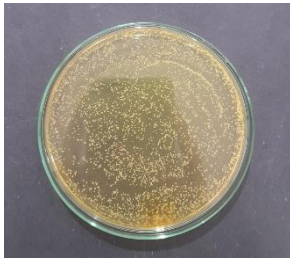
**Lampiran 10. Gambar identifikasi bakteri *Staphylococcus aureus* ATCC 25923**



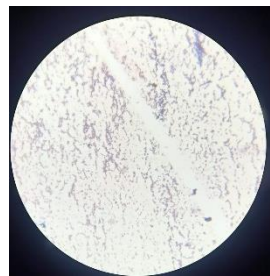
Peremajaan bakteri



Suspensi bakteri



Identifikasi bakteri  
*Staphylococcus aureus* pada media  
MSA



Hasil pewarnaan Gram



Uji katalase



Uji koagulase

## Lampiran 11. Komposisi media bakteri

### Formulasi dan pembuatan MHA (Muller Hinton Agar)

Beef.dehydrate infusion	300 g
Casein hydrosate	17,5 g
Starch	1,5 g
Agar	17 g

#### Cara Pembuatan :

Semua bahan – bahan diatas dilarutkan dalam 1000 ml aquadest, panaskan sampai larut sempurna, kemudian disterilkan dengan autoclaf pada suhu 121<sup>0</sup>C selama 15 menit dan masukkan ke dalam plat.

### Formulasi dan Pembuatan BHI (Brain Heart Infusion)

Infus dari otak sapi	12,5g
Infus dari hati sapi	5,0 g
Protease pepton	10,0 g
Dextrose	2,0 g
NaCl	5,0 g
Dinatrium fosfat	2,5 g
Aquadest ad 1000 ml	
pH = 7,4	

#### Cara pembuatan :

Semua bahan dimasukkan kedalam aquadest ad 1000 ml. Kemudian dipanaskan sampai larut sempurna, kemudian disterilkan dengan autoclave pada suhu 121<sup>0</sup>C selama 15 menit.

**Lampiran 12. Alat pengujian aktivitas antibakteri**



Jangka sorong

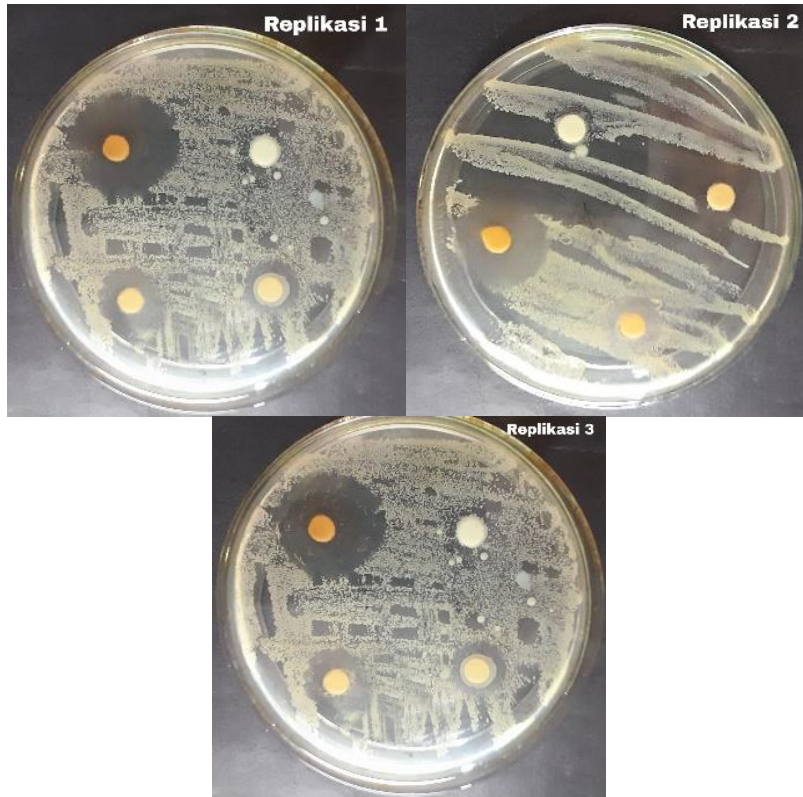


Vortex mixer



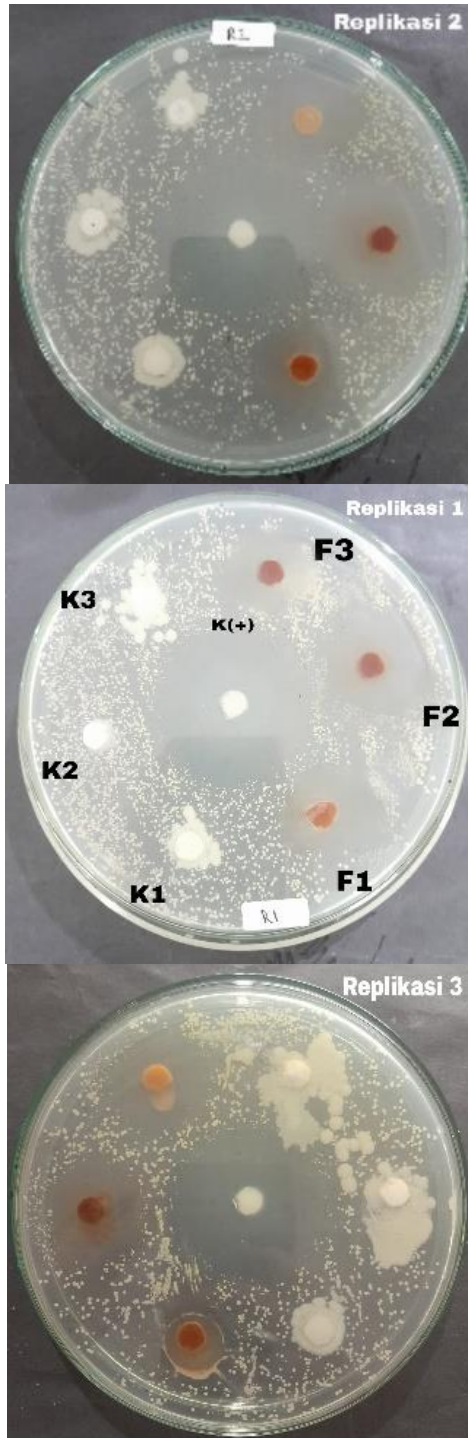
Autoklaf

Lampiran 13. Hasil orientasi ekstrak terhadap bakteri *Staphylococcus aureus*





**Lampiran 14. Hasil uji aktivitas antibakteri sediaan emulgel ekstrak rimpang rumput teki**



## Lampiran 15. Hasil statistik uji pH

Formula	<i>pH sebelum cycling test</i>			Rata-rata	± SD
	Replikasi 1	Replikasi 2	Replikasi 3		
K1	6,83	6,85	6,83	6,84	0,01
K2	6,78	6,8	6,77	6,78	0,02
K3	6,69	6,68	6,68	6,68	0,01
F1	5,66	5,67	5,68	5,67	0,01
F2	5,68	5,65	5,65	5,66	0,02
F3	5,64	5,62	5,63	5,63	0,01

Formula	<i>pH sesudah cycling test</i>			Rata rata	±SD
	Replikasi 1	Replikasi 2	Replikasi 3		
K1	6,80	6,82	6,85	6,82	0,03
K2	6,73	6,72	6,70	6,72	0,02
K3	6,62	6,65	6,60	6,62	0,03
F1	5,64	5,62	5,60	5,62	0,02
F2	5,59	5,63	5,62	5,61	0,02
F3	5,61	5,60	5,64	5,62	0,02

Formula	Rata-rata ± SD sebelum		Rata-rata ± SD sesudah	
K1	6,84	0,02	6,82	0,03
K2	6,78	0,04	6,72	0,02
K3	6,68	0,04	6,62	0,03
F1	5,67	0,03	5,62	0,02
F2	5,66	0,03	5,61	0,02
F3	5,63	0,02	5,62	0,02

**Case Processing Summary**

	Kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
UjiPH	Kontrol 1	3	100.0%	0	0.0%	3	100.0%
	Kontrol 2	3	100.0%	0	0.0%	3	100.0%
	Kontrol 3	3	100.0%	0	0.0%	3	100.0%
	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%
	Formula 3	3	100.0%	0	0.0%	3	100.0%

**Tests of Normality**

	Kelompok	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
UjiPH	Kontrol 1	.241	3	.	.974	3	.688
	Kontrol 2	.175	3	.	1.000	3	1.000
	Kontrol 3	.241	3	.	.974	3	.688
	Formula 1	.175	3	.	1.000	3	1.000
	Formula 2	.175	3	.	1.000	3	1.000
	Formula 3	.219	3	.	.987	3	.780

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

UjiPH

Levene Statistic	df1	df2	Sig.
1.548	5	12	.247

**ANOVA**

UjiPH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.545	5	1.109	405.700	.000
Within Groups	.033	12	.003		
Total	5.577	17			

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

Kelompok	N	Subset for alpha = 0.05	
		1	2
Formula 3	3	5.6533	
Kontrol 2	3	5.6600	
Formula 1	3	5.6600	
Kontrol 1	3		6.7667
Kontrol 3	3		6.7667
Formula 2	3		6.7700
Sig.		1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

## pH Sesudah dan Setelah Cycling test

### Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Standardized Residual for UjiPH	36	100.0%	0	0.0%	36	100.0%

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for UjiPH	.120	36	.200	.961	36	.231

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## TWO WAY ANOVA

### Between-Subjects Factors

	Value Label	N
Formula	1 Kontrol 1	6
	2 Kontrol 2	6
	3 Kontrol 3	6
	4 Formula 1	6
	5 Formula 2	6
	6 Formula 3	6
Replikasi	1 Sebelum cycling Test	18
	2 Sesudah Cycling Test	18

### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: UjiPH

F	df1	df2	Sig.
1.491	11	24	.199

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

a. Design: Intercept + Formula + Replikasi + Formula \* Replikasi

UjiPH

### Tukey HSDa.b

Formula	N	Subset			
		1	2	3	4
Formula 3	6	5.6267			
Formula 2	6	5.6417			
Formula 1	6	5.6433			
Kontrol 3	6		6.6583		
Kontrol 2	6			6.7467	
Kontrol 1	6				6.8283
Sig.		.525	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

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

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = .05.

**Lampiran 16. Hasil statistik viskositas**

Formula	Viskositas (cP) sebelum cycling test			Rata-rata	± SD
	Replikasi 1	Replikasi 2	Replikasi 3		
K1	5840	5830	5840	5837	5,77
K2	13010	13030	13020	13020	10,00
K3	19560	19590	19580	19577	15,28
F1	5180	5160	5160	5167	11,55
F2	11560	11560	11570	11563	5,77
F3	13450	13450	13440	13447	5,77

Formula	Viskositas sesudah cycling Test			Rata-rata ± SD sesudah	
	Replikasi 1	Replikasi 2	Replikasi 3		
K1	5710	5720	5700	5710	10,00
K2	13140	13110	13120	13123	15,28
K3	19120	19100	19110	19110	10,00
F1	5130	5120	5140	5130	10,00
F2	11540	11550	11560	11550	10,00
F3	13110	13140	13120	13123	15,28

**Case Processing Summary**

	Kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Viskositas	Kontrol 1	3	100.0%	0	0.0%	3	100.0%
	Kontrol 2	3	100.0%	0	0.0%	3	100.0%
	Kontrol 3	3	100.0%	0	0.0%	3	100.0%
	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%
	Formula 3	3	100.0%	0	0.0%	3	100.0%

**Tests of Normality**

	Kelompok	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	Kontrol 1	.179	3	.	.999	3	.950
	Kontrol 2	.302	3	.	.911	3	.420
	Kontrol 3	.179	3	.	.999	3	.949
	Formula 1	.303	3	.	.909	3	.416
	Formula 2	.178	3	.	.999	3	.951
	Formula 3	.303	3	.	.909	3	.414

a. Lilliefors Significance Correction

### Test of Homogeneity of Variances

Viskositas

Levene Statistic	df1	df2	Sig.
.195	5	12	.959

### ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	34059400.000	5	6811880.000	.206	.954
Within Groups	396488000.000	12	33040666.667		
Total	430547400.000	17			

### Viskositas setelah uji stabilitas

#### Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Standardized Residual for Viskositas	36	100.0%	0	0.0%	36	100.0%

#### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for Viskositas	.176	36	.006	.918	36	.011

a. Lilliefors Significance Correction

### Paired T Test

#### Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 SebelumCycling	11436.67	18	5032.526	1186.178
SesudahCycling	11291.11	18	4917.402	1159.043

#### Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 SebelumCycling & SesudahCycling	18	.999	.000

**Paired Samples Test**

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Paired Sample 1 SebelumCyclin g - SesudahCyclin g	145.556	200.594	47.280	45.803	245.309	3.079	17	.007

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

Formula	N	Subset					
		1	2	3	4	5	6
Formula 1	6	5146.67					
Kontrol 1	6		5775.00				
Formula 2	6			11560.00			
Kontrol 2	6				13071.67		
Formula 3	6					13286.67	
Kontrol 3	6						19343.33
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 144.444.

a. Uses Harmonic Mean Sample Size = 6.000.

b. Alpha = .05.

### Lampiran 17. Hasil statistik daya lekat

Formula	Daya lekat (detik)			Rata-rata	± SD
	Replikasi 1	Replikasi 2	Replikasi 3		
K1	1,1	1,21	1,36	1,22	0,13
K2	2,09	2,89	2,65	2,54	0,41
K3	3,3	3,46	3,98	3,58	0,36
F1	1,02	1,17	1,05	1,08	0,08
F2	1,85	2,1	1,94	1,96	0,13
F3	3,21	2,93	2,74	2,96	0,24

#### Case Processing Summary

	Formula	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
DayaLekat	Kontrol 1	3	100.0%	0	0.0%	3	100.0%
	Kontrol 2	3	100.0%	0	0.0%	3	100.0%
	Kontrol 3	3	100.0%	0	0.0%	3	100.0%
	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%
	Formula 3	3	100.0%	0	0.0%	3	100.0%

#### Tests of Normality

	Formula	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
DayaLekat	Kontrol 1	.207	3	.	.992	3	.831
	Kontrol 2	.269	3	.	.949	3	.567
	Kontrol 3	.299	3	.	.915	3	.433
	Formula 1	.253	3	.	.964	3	.637
	Formula 2	.240	3	.	.975	3	.694
	Formula 3	.217	3	.	.988	3	.790

a. Lilliefors Significance Correction



**ONE WAY ANOVA****Descriptives**

DayaLekat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Kontrol 1	3	1.2233	.13051	.07535	.8991	1.5475	1.10	1.36
Kontrol 2	3	2.5433	.41053	.23702	1.5235	3.5631	2.09	2.89
Kontrol 3	3	3.5800	.35553	.20526	2.6968	4.4632	3.30	3.98
Formula 1	3	.9433	.12220	.07055	.6398	1.2469	.81	1.05
Formula 2	3	1.9633	.12662	.07311	1.6488	2.2779	1.85	2.10
Formula 3	3	2.9600	.23643	.13650	2.3727	3.5473	2.74	3.21
Total	18	2.2022	.98113	.23125	1.7143	2.6901	.81	3.98

**Test of Homogeneity of Variances**

DayaLekat

Levene Statistic	df1	df2	Sig.
2.150	5	12	.129

**ANOVA**

DayaLekat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.567	5	3.113	46.837	.000
Within Groups	.798	12	.066		
Total	16.365	17			

**Daya Lekat**Tukey HSD<sup>a</sup>

Formula	N	Subset for alpha = 0.05			
		1	2	3	4
Formula 1	3	.9433			
Kontrol 1	3	1.2233			
Formula 2	3		1.9633		
Kontrol 2	3		2.5433	2.5433	
Formula 3	3			2.9600	2.9600
Kontrol 3	3				3.5800
Sig.		.764	.134	.406	.099

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

## Lampiran 18. Hasil statistik uji aktivitas antibakteri emulgel

### Uji Aktivitas Antibakteri

Formulasi	Daya hambat			Rerata	±SD	Kategori
	Replikasi 1	Replikasi 2	Replikasi 3			
K(+)	26,45	25,80	24,64	25,63	0,92	sangat kuat
K1	0	0	0	0	0	Lemah
K2	0	0	0	0	0	Lemah
K3	0	0	0	0	0	Lemah
F1	14,85	14,18	14,72	14,58	0,36	Kuat
F2	13,20	13,64	13,44	13,43	0,22	Kuat
F3	12,13	12,23	12,80	12,39	0,36	Kuat

### Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
DayaHambat	Kontrol positif	3	100.0%	0	0.0%	3	100.0%
	Kontrol 1	3	100.0%	0	0.0%	3	100.0%
	Kontrol 2	3	100.0%	0	0.0%	3	100.0%
	Kontrol 3	3	100.0%	0	0.0%	3	100.0%
	Formula 1	3	100.0%	0	0.0%	3	100.0%
	Formula 2	3	100.0%	0	0.0%	3	100.0%
	Formula 3	3	100.0%	0	0.0%	3	100.0%

### Tests of Normality<sup>b,c,d</sup>

	kelompok	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
DayaHambat	Kontrol positif	.240	3	.	.974	3	.692
	Formula 1	.316	3	.	.889	3	.351
	Formula 2	.191	3	.	.997	3	.900
	Formula 3	.334	3	.	.859	3	.265

a. Lilliefors Significance Correction

b. DayaHambat is constant when kelompok = Kontrol 1. It has been omitted.

c. DayaHambat is constant when kelompok = Kontrol 2. It has been omitted.

d. DayaHambat is constant when kelompok = Kontrol 3. It has been omitted.

Test of Homogeneity of Variances

DayaHambat

Levene Statistic	df1	df2	Sig.
5.102	6	14	.006

## ANOVA

DayaHambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1741.460	6	290.243	1772.711	.000
Within Groups	2.292	14	.164		
Total	1743.752	20			

## Daya Hambat

Tukey HSD<sup>a</sup>

kelompok	N	Subset for alpha = 0.05			
		1	2	3	4
Kontrol 1	3	.0000			
Kontrol 2	3	.0000			
Kontrol 3	3	.0000			
Formula 3	3		12.3867		
Formula 2	3		13.4267		
Formula 1	3			14.5833	
Kontrol positif	3				25.6300
Sig.		1.000	.080	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

One-Sample Kolmogorov-Smirnov Test

		Unstandardize d Residual
N		90
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	.40241550
Most Extreme Differences	Absolute	.058
	Positive	.041
	Negative	-.058
Kolmogorov-Smirnov Z		.552
Asymp. Sig. (2-tailed)		.921

a. Test distribution is Normal.

b. Calculated from data.

**Lampiran 19. Hasil statistik daya sebar**

Formula	Beban (g)	Diameter penyebaran (cm)			Rata-rata	± SD
		Replikasi 1	Replikasi 2	Replikasi 3		
Kontrol 1	0	3,575	3,6	3,55	3,58	0,03
	50	3,825	3,825	3,75	3,80	0,04
	100	4,1	4,025	4,025	4,05	0,04
	150	4,175	4,175	4,225	4,19	0,03
	200	4,3	4,375	4,325	4,33	0,04
Kontrol 2	0	3,325	3,325	3,3	3,32	0,01
	50	3,475	3,525	3,55	3,52	0,04
	100	3,775	3,75	3,75	3,76	0,01
	150	3,95	4,025	3,9	3,96	0,06
Kontrol 3	200	4,175	4,275	4,175	4,21	0,06
	0	2,95	2,925	3	2,96	0,04
	50	3,15	3,175	3,25	3,19	0,05
	100	3,425	3,4	3,475	3,43	0,04
	150	3,9	3,7	3,775	3,79	0,10
Formula 1	200	3,95	3,95	4,075	3,99	0,07
	0	3,7	3,775	3,7	3,73	0,04
	50	3,85	3,95	3,9	3,90	0,05
	100	4,05	4,1	4,1	4,08	0,03
Formula 2	150	4,275	4,3	4,25	4,28	0,02
	200	4,55	4,5	4,5	4,52	0,03
	0	3,475	3,175	3,275	3,31	0,15
	50	3,825	3,55	3,6	3,66	0,15
	100	4,125	3,85	3,925	3,97	0,14
Formula 3	150	4,35	4	4,3	4,22	0,19
	200	4,55	4,275	4,575	4,47	0,17
	0	3,175	3,225	3,175	3,19	0,03
	50	3,425	3,45	3,35	3,41	0,05
	100	3,7	3,65	3,575	3,64	0,06
Formula 3	150	3,925	3,9	3,725	3,85	0,11
	200	4,225	4,075	3,975	4,09	0,13

**Test of Homogeneity of Variances**

DayaSebar

Levene Statistic	df1	df2	Sig.
3.675	29	60	.000

**ANOVA**

DayaSebar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.047	29	.484	70.101	.000
Within Groups	.415	60	.007		
Total	14.462	89			

**Lampiran 20. Hasil uji statistik aktivitas antibakteri ekstrak**

Pengujian	Replikasi 1	Replikasi 2	Replikasi 3	Rerata
DMSO 10%	0	0	0	0
Ekstrak 3%	5,28	5,04	4,90	5,07
Ekstrak 5%	10,75	11,86	12,15	11,58
Ekstrak 7%	17,68	17,24	17,1	17,34

**Case Processing Summary**

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
Daya Hambat	DMSO 10%	3	100.0%	0	0.0%	3	100.0%
	Ekstrak 3%	3	100.0%	0	0.0%	3	100.0%
	ekstrak 5%	3	100.0%	0	0.0%	3	100.0%
	Ekstrak 7%	3	100.0%	0	0.0%	3	100.0%

**Tests of Normality<sup>a</sup>**

	kelompok	Kolmogorov-Smirnov <sup>b</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya Hambat	Ekstrak 3%	.236	3	.	.977	3	.712
	ekstrak 5%	.311	3	.	.897	3	.377
	Ekstrak 7%	.296	3	.	.918	3	.446

a. DayaHambat is constant when kelompok = DMSO 10%. It has been omitted.

b. Lilliefors Significance Correction

**Descriptives**

DayaHambat

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Ekstrak 3%	3	5.0733	.19218	.11096	4.5959	5.5507	4.90	5.28
ekstrak 5%	3	11.5867	.73894	.42663	9.7510	13.4223	10.75	12.15
Ekstrak 7%	3	17.3400	.30265	.17474	16.5882	18.0918	17.10	17.68
Total	9	11.3333	5.33086	1.77695	7.2357	15.4310	4.90	17.68

### Test of Homogeneity of Variances

DayaHambat

Levene Statistic	df1	df2	Sig.
4.308	2	6	.069

### ANOVA

DayaHambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	225.995	2	112.998	502.535	.000
Within Groups	1.349	6	.225		
Total	227.345	8			

### DayaHambat

Tukey HSD<sup>a</sup>

kelompok	N	Subset for alpha = 0.05			
		1	2	3	4
DMSO 10%	3	.0000			
Ekstrak 3%	3		5.0733		
ekstrak 5%	3			11.5867	
Ekstrak 7%	3				17.3400
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.