L A M P I R A N

Lampiran 1. Hasil determinasi tanaman daun sirih hijau

KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
BADAN PENELITIAN DAN PENGEMBANGAN KESEHATAN
BALAI BESAR PENELITIAN DAN PENGEMBANGAN
TANAMAN OBAT DAN OBAT TRADISIONAL
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Nomor : KM.04.02/2/2672/2021 21 November 2021
Lampiran : -
Hal : Keterangan Determinasi

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

Merujuk surat Saudara nomor: 472/H6-04/10.09.2021 tanggal 10 September 2021 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon	: Diah Ratri Nugrahini
Nama Sampel	: Sirih Hijau
Sampel	: Segar
Spesies	: *Piper betle* L.
Sinonim	: *Piper betle* f. *densum* (Blume) Fosberg;
	Piper betle f. *marianum* (Opiz) Fosberg
Familia	: Piperaceae
Penanggung Jawab	: Isna Jati Asiyah, M.Sc.

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

Atas perhatian Saudara, kami sampaikan terima kasih.

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

Akhmad Saikhu, S.K.M., M.Sc.PH.
NIP 196805251992031004

Tembusan :
-

Dokumen ini ditandatangani secara elektronik melalui Aplikasi TNDE menggunakan sertifikat elektronik yang diterbitkan oleh BSrE. (1/1)

Lampiran 2. Perhitungan dan hasil presentase rendemen serbuk daun sirih hijau

Bobot kering (kg)	Bobot serbuk (kg)	Rendemen (%b/b)
1,6 kg	1 kg	62,5 %

Perhitungan :

% rendemen serbuk = $\frac{Berat\ serbuk}{Berat\ kering}$ **x 100 %**

= $\frac{1}{1,6}$ **x 100 %**

= 62,5 %

Lampiran 3. Perhitungan dan hasil penetapan kadar air serbuk

Serbuk	Penimbangan	Kandungan air (%b/v)
Daun sirih hijau	10,0223 gram	7,98 %
	10,0118 gram	8,99 %
	10,0363 gram	6,97 %
Rata-rata ± SD		**7,98±1,01**

Perhitungan :

Kadar air serbuk 1

- **Bobot kertas kosong** **= 0,9039 gram**
- **Bobot kertas + serbuk** **= 10,9477 gram**
- **Bobot kertas + sisa** **= 0,9254 gram**
- **Bobot serbuk** **= 10,0223 gram**
- **Volume air** **= 0,8 mL**

$$= \frac{0,8}{10,0223} \text{ x } 100$$

$$= 7,98\%$$

Kadar air serbuk 2

- **Bobot kertas kosong** **= 0,9052 gram**
- **Bobot kertas + serbuk** **= 10,9365 gram**
- **Bobot kertas + sisa** **= 0,9247 gram**
- **Bobot serbuk** **= 10,0118 gram**
- **Volume air** **= 0,9 mL**

$$= \frac{0,9}{10,0118} \text{ x } 100$$

$$= 8,99\%$$

Kadar air serbuk 3

- **Bobot kertas kosong** **= 0,9045 gram**
- **Bobot kertas + serbuk** **= 10,9520 gram**
- **Bobot kertas + sisa** **= 0,9157 gram**
- **Bobot serbuk** **= 10,0363 gram**
- **Volume air** **= 0,7 mL**

$$= \frac{0,7}{10,0363} \text{ x } 100$$

= 6,97%

Rata–rata kadar air serbuk daun sirih hijau $= \frac{7,98\%+8,99\%+6,97\%}{3}$

= 7,98%

Hasil

Kadar air 1 **Kadar air 2** **Kadar air 3**

Gambar alat destilator :

Lampiran 4. Perhitungan dan hasil susut pengeringan serbuk daun sirih hijau

Serbuk	Penimbangan	Kandungan lembab serbuk
Daun sirih hijau	2,0 gram	6,5 %
	2,0 gram	6 %
	2,0 gram	6,6 %
Rata-rata ± SD		6,37 ± 0,32

Perhitungan :

Susut pengeringan 1 = 6,5 %

Susut pengeringan 2 = 6 %

Susut pengeringan 3 = 6,6 %

Rata-rata susut pengeringan = $\frac{6{,}5\%+6\%+6{,}6\%}{3}$

= 6,37%

Hasil

Susut pengeringan 1

Susut pengeringan 2

Susut pengeringan 3

Gambar Alat *Moisture Balance* :

Lampiran 5. Perhitungan dan hasil presentase rendemen ekstrak daun sirih hijau

Bobot serbuk (g)	Bobot ekstrak (g)	Rendemen (%b/b)
700 gram	78 gram	11,14 %

Perhitungan :

% randemen ekstrak $= \frac{Bobot\ ekstrak}{Bobot\ serbuk}$

$= \frac{78}{700}$ **x 100**

= 11,14%

Gambar proses maserasi :

Lampiran 6. Perhitungan dan penetapan kadar air ekstrak daun sirih hijau

Bobot awal (g)	Bobot akhir (g)	Kandungan air ekstrak
1,1720	1,0632	9,28 %
1,1777	1,0652	9,55 %
1,1807	1,0685	9,50 %
Rata-rata ± SD		**9,44 ± 0,14**

Perhitungan :

Kadar air ekstrak 1

- **Bobot kurs kosong = 8,6819 gram**
- **Bobot kurs + ekstrak awal = 9,8539 gram**
- **Bobot kurs + ekstrak akhir = 9,7451 gram**
- **Bobot ekstrak awal = 9,8539 g – 8,6819 g = 1,1720 gram**
- **Bobot ekstrak akhir = 9,7451 g – 8,6819 g = 1,0632 gram**

$$= \frac{Berat\ awal - berat\ akhir}{Berat\ awal} \text{ x } 100$$

$$= \frac{1{,}1720 - 1{,}0632}{1{,}1720} \text{ x } 100$$

= 9,28 %

Kadar air ekstrak 2

- **Bobot kurs kosong = 8,5749 gram**
- **Bobot kurs + ekstrak awal = 9,7526 gram**
- **Bobot kurs + ekstrak akhir = 9,6401 gram**
- **Bobot ekstrak awal = 9,7526 g – 8,5749 g = 1,1777 gram**
- **Bobot ekstrak akhir = 9,6401 g – 8,5749 g = 1,0652 gram**

$$= \frac{Berat\ awal - berat\ akhir}{Berat\ awal} \text{ x } 100$$

$$= \frac{1{,}1777 - 1{,}0652}{1{,}1777} \text{ x } 100$$

= 9,55 %

Kadar air ekstrak 3

- **Bobot kurs kosong = 8,7938 gram**
- **Bobot kurs + ekstrak awal = 9,9745 gram**
- **Bobot kurs + ekstrak akhir = 9,8623 gram**
- **Bobot ekstrak awal = 9,9745 g – 8,7938 g = 1,1807 gram**
- **Bobot ekstrak akhir = 9,8623 g – 8,7938 g = 1,0685 gram**

$$= \frac{Berat\ awal - berat\ akhir}{Berat\ awal} \text{ x } 100$$

$$= \frac{1{,}1807 - 1{,}0685}{1{,}1807} \text{ x } 100$$

$$= 9{,}50\ \%$$

Rata-rata kadar air ekstrak kulit buah delima merah $= \frac{9{,}28\% + 9{,}55\% + 9{,}50\%}{3}$

$$= 9{,}44\%$$

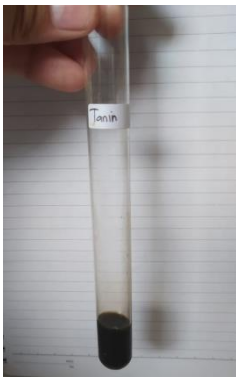
Gambar alat :

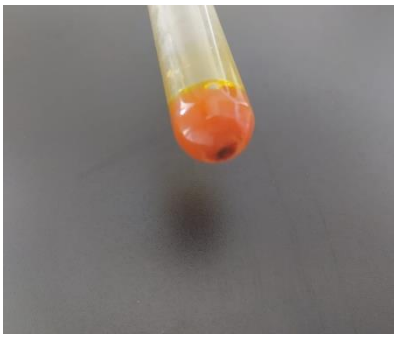
Alat gravimetri menggunakan oven dengan suhu 105 ^{o}C	
	

Lampiran 7. Gambar dan hasil uji bebas etanol ekstrak daun sirih hijau

Hasil	Gambar
Hasil (+) **Tidak tercium aroma ester**	

Lampiran 8. Hasil identifikasi senyawa kimia ekstrak daun sirih hijau

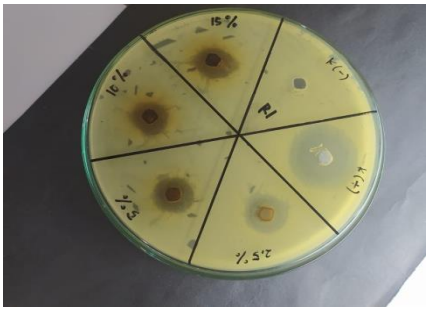
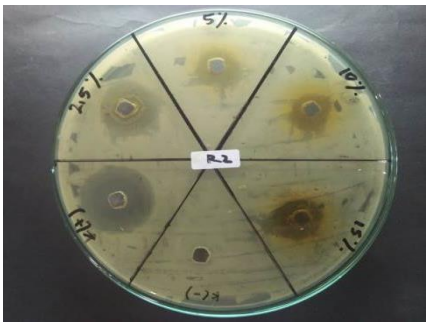
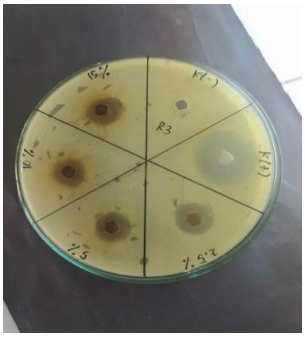
Kandungan	Gambar
Flavonoid	
Tanin	
Saponin	

Alkaloid	- **Mayer**  - **Dragondrof** 

Lampiran 9. Hasil pengujian daya hambat ekstrak daun sirih hijau

Konsentrasi	Daya Hambat (mm)			Rata-rata	SD
	R1	R2	R3		
K (-)	0.0	0.0	0.0	0.00	0.00
K (+)	28.2	28.4	28.3	28.30	0.10
2.5%	11.7	11.6	11.4	11.57	0.15
5%	12.5	12.4	12.3	12.40	0.10
10%	13.4	13	13.2	13.20	0.20
15%	14.4	14.5	14.2	14.37	0.15

Gambar hasil :

Replikasi 1	
Replikasi 2	
Replikasi 3	

Lampiran 10. Hasil uji statistik uji daya hambat ekstrak

Tests of Normality

			Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		formula	Statistic	df	Sig.	Statistic	df	Sig.
Daya hambat ekstrak		2.5%	.253	3	.	.964	3	.637
		5	.175	3	.	1.000	3	1.000
		10%	.175	3	.	1.000	3	1.000
		15%	.253	3	.	.964	3	.637
		K(-)	.	3	.	.	3	.
		K(+)	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Oneway

Descriptives

Daya hambat ekstrak

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
2.5%	3	11.5667	.15275	.08819	11.1872	11.9461	11.40	11.70
5	3	12.4000	.10000	.05774	12.1516	12.6484	12.30	12.50
10%	3	13.2000	.20000	.11547	12.7032	13.6968	13.00	13.40
15%	3	14.3667	.15275	.08819	13.9872	14.7461	14.20	14.50
K(-)	3	.0000	.00000	.00000	.0000	.0000	.00	.00
K(+)	3	28.3000	.10000	.05774	28.0516	28.5484	28.20	28.40
Total	18	13.3056	8.47408	1.99736	9.0915	17.5196	.00	28.40

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya hambat ekstrak	Based on Mean	1.400	5	12	.292
	Based on Median	.933	5	12	.493
	Based on Median and with adjusted df	.933	5	8.000	.508
	Based on trimmed mean	1.372	5	12	.302

ANOVA

Daya hambat ekstrak

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1220.556	5	244.111	13731.256	.000
Within Groups	.213	12	.018		
Total	1220.769	17			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya hambat ekstrak

Tukey HSD

(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
2.5%	5	-.83333*	.10887	.000	-1.1990	-.4677
	10%	-1.63333*	.10887	.000	-1.9990	-1.2677
	15%	-2.80000*	.10887	.000	-3.1657	-2.4343
	K(-)	11.56667*	.10887	.000	11.2010	11.9323
	K(+)	-16.73333*	.10887	.000	-17.0990	-16.3677
5	2.5%	.83333*	.10887	.000	.4677	1.1990
	10%	-.80000*	.10887	.000	-1.1657	-.4343
	15%	-1.96667*	.10887	.000	-2.3323	-1.6010
	K(-)	12.40000*	.10887	.000	12.0343	12.7657
	K(+)	-15.90000*	.10887	.000	-16.2657	-15.5343
10%	2.5%	1.63333*	.10887	.000	1.2677	1.9990
	5	.80000*	.10887	.000	.4343	1.1657

	15%	-1.16667*	.10887	.000	-1.5323	-.8010
	K(-)	13.20000*	.10887	.000	12.8343	13.5657
	K(+)	-15.10000*	.10887	.000	-15.4657	-14.7343
15%	2.5%	2.80000*	.10887	.000	2.4343	3.1657
	5	1.96667*	.10887	.000	1.6010	2.3323
	10%	1.16667*	.10887	.000	.8010	1.5323
	K(-)	14.36667*	.10887	.000	14.0010	14.7323
	K(+)	-13.93333*	.10887	.000	-14.2990	-13.5677
K(-)	2.5%	-11.56667*	.10887	.000	-11.9323	-11.2010
	5	-12.40000*	.10887	.000	-12.7657	-12.0343
	10%	-13.20000*	.10887	.000	-13.5657	-12.8343
	15%	-14.36667*	.10887	.000	-14.7323	-14.0010
	K(+)	-28.30000*	.10887	.000	-28.6657	-27.9343
K(+)	2.5%	16.73333*	.10887	.000	16.3677	17.0990
	5	15.90000*	.10887	.000	15.5343	16.2657
	10%	15.10000*	.10887	.000	14.7343	15.4657
	15%	13.93333*	.10887	.000	13.5677	14.2990
	K(-)	28.30000*	.10887	.000	27.9343	28.6657

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

Homogeneous Subsets

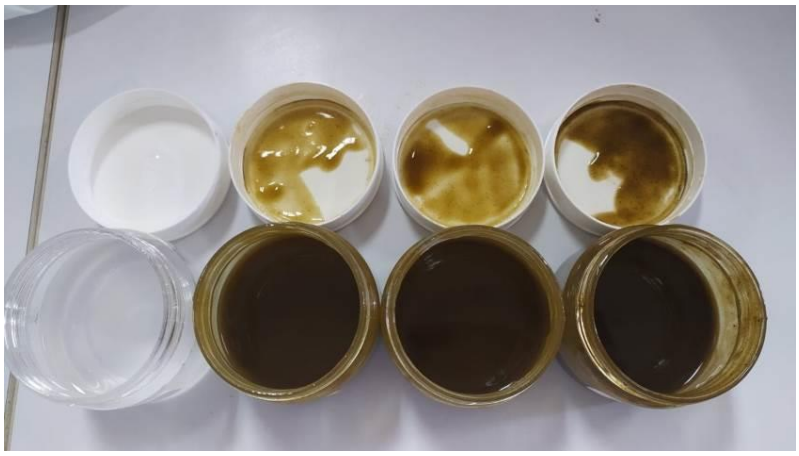
Daya hambat ekstrak

Tukey HSD[a]

		Subset for alpha = 0.05					
formula	N	1	2	3	4	5	6
K(-)	3	.0000					
2.5%	3		11.5667				
5	3			12.4000			
10%	3				13.2000		
15%	3					14.3667	
K(+)	3						28.3000
Sig.		1.000	1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 11. Gambar pengujian mutu fisik serum ekstrak daun sirih hijau



Lampiran 12. Hasil uji pH serum ekstrak daun sirih hijau

Waktu	Formula	Uji pH			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	1	6.28	6.4	6.26	6.31	0.08
	2	5.82	5.82	6.1	5.91	0.16
	3	5.65	5,69	5.7	5.68	0.04
	4	6.2	6.22	6.1	6.17	0.06
Hari ke-21	1	6.3	6.3	6.28	6.29	0.01
	2	5.8	5.84	6	5.88	0.11
	3	5.62	5.72	5.69	5.68	0.05
	4	6.27	6.16	6	6.14	0.14

Gambar alat pH meter :

Lampiran 13. Hasil statistik uji pH

pH hari ke-1

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
pH hari ke-1	.187	12	.200*	.873	12	.072

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH hari ke-1	Based on Mean	3.447	3	8	.072
	Based on Median	1.343	3	8	.327
	Based on Median and with adjusted df	1.343	3	4.329	.372
	Based on trimmed mean	3.271	3	8	.080

ANOVA

pH hari ke-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.670	3	.223	29.329	.000
Within Groups	.061	8	.008		
Total	.731	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: pH hari ke-1

Tukey HSD

(I) Formulasi	(J) Formulasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	.41333*	.07126	.002	.1851	.6415
	F3	.61333*	.07126	.000	.3851	.8415
	F4	.15000	.07126	.230	-.0782	.3782
F2	F1	-.41333*	.07126	.002	-.6415	-.1851
	F3	.20000	.07126	.087	-.0282	.4282
	F4	-.26333*	.07126	.025	-.4915	-.0351
F3	F1	-.61333*	.07126	.000	-.8415	-.3851
	F2	-.20000	.07126	.087	-.4282	.0282
	F4	-.46333*	.07126	.001	-.6915	-.2351
F4	F1	-.15000	.07126	.230	-.3782	.0782
	F2	.26333*	.07126	.025	.0351	.4915
	F3	.46333*	.07126	.001	.2351	.6915

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

Homogeneous Subsets

pH hari ke-1

Tukey HSD[a]

Formulasi	N	Subset for alpha = 0.05	
		1	2
F3	3	5.6800	
F2	3	5.8800	
F4	3		6.1433
F1	3		6.2933
Sig.		.087	.230

Means for groups in homogeneous subsets are displayed.

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

pH hari ke-21

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
pH hari ke-21	.202	12	.192	.907	12	.196

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH hari ke-21	Based on Mean	3.911	3	8	.055
	Based on Median	.259	3	8	.853
	Based on Median and with adjusted df	.259	3	3.317	.852
	Based on trimmed mean	3.172	3	8	.085

ANOVA

pH hari ke-21

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.716	3	.239	24.726	.000
Within Groups	.077	8	.010		
Total	.794	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: pH hari ke-21

Tukey HSD

(I) Formulasi	(J) Formulasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	.40000*	.08024	.005	.1430	.6570
	F3	.63667*	.08024	.000	.3797	.8936
	F4	.14000	.08024	.363	-.1170	.3970
F2	F1	-.40000*	.08024	.005	-.6570	-.1430
	F3	.23667	.08024	.071	-.0203	.4936
	F4	-.26000*	.08024	.047	-.5170	-.0030
F3	F1	-.63667*	.08024	.000	-.8936	-.3797
	F2	-.23667	.08024	.071	-.4936	.0203
	F4	-.49667*	.08024	.001	-.7536	-.2397
F4	F1	-.14000	.08024	.363	-.3970	.1170
	F2	.26000*	.08024	.047	.0030	.5170
	F3	.49667*	.08024	.001	.2397	.7536

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

Homogeneous Subsets

pH hari ke-21

Tukey HSD[a]

Formulasi	N	Subset for alpha = 0.05	
		1	2
F3	3	5.6767	
F2	3	5.9133	
F4	3		6.1733
F1	3		6.3133
Sig.		.071	.363

Means for groups in homogeneous subsets are displayed.

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

pH hari ke-1 dan ke-21

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pH hari ke-1	5.9992	12	.25780	.07442
	pH hari ke-21	6.0192	12	.26861	.07754

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pH hari ke-1 & pH hari ke-21	12	.976	.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			
Pair 1	pH hari ke-1 - pH hari ke-21	-.02000	.05815	.01679	-.05695	.01695	-1.191	11	.259

Lampiran 14. Hasil uji viskositas serum ekstrak daun sirih hijau

Waktu	Formula	Uji viskositas			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	1	8.2	8.1	8	8.10	0.10
	2	8	7.9	7.6	7.83	0.21
	3	7.9	7.8	7.5	7.73	0.21
	4	8.3	8.2	8	8.17	0.15
Hari ke-21	1	8.1	8	8.1	8.07	0.06
	2	7.9	7.8	7.7	7.80	0.10
	3	7.8	7.7	7.6	7.70	0.10
	4	8.2	8.1	8	8.10	0.10

Gambar alat viskometer :

Lampiran 15. Hasil pengujian statistic uji viskositas

Viskositas hari ke-1

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Viskositas hari ke-1	.154	12	.200*	.948	12	.609

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

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas hari ke-1	Based on Mean	.978	3	8	.450
	Based on Median	.204	3	8	.891
	Based on Median and with adjusted df	.204	3	6.000	.890
	Based on trimmed mean	.894	3	8	.485

ANOVA

Viskositas hari ke-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3891.667	3	1297.222	4.324	.043
Within Groups	2400.000	8	300.000		
Total	6291.667	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Viskositas hari ke-1

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	6.66667	14.14214	.963	-38.6214	51.9548
	F3	33.33333	14.14214	.164	-11.9548	78.6214
	F4	43.33333	14.14214	.061	-1.9548	88.6214
F2	F1	-6.66667	14.14214	.963	-51.9548	38.6214
	F3	26.66667	14.14214	.305	-18.6214	71.9548
	F4	36.66667	14.14214	.118	-8.6214	81.9548
F3	F1	-33.33333	14.14214	.164	-78.6214	11.9548
	F2	-26.66667	14.14214	.305	-71.9548	18.6214
	F4	10.00000	14.14214	.892	-35.2881	55.2881
F4	F1	-43.33333	14.14214	.061	-88.6214	1.9548
	F2	-36.66667	14.14214	.118	-81.9548	8.6214
	F3	-10.00000	14.14214	.892	-55.2881	35.2881

Homogeneous Subsets

Viskositas hari ke-1

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05
		1
F4	3	773.3333
F3	3	783.3333
F2	3	810.0000
F1	3	816.6667
Sig.		.061

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Viskositas hari ke-21

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Viskositas hari ke-21	.166	12	.200*	.936	12	.448

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

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas hari ke-21	Based on Mean	.143	3	8	.931
	Based on Median	.250	3	8	.859
	Based on Median and with adjusted df	.250	3	8.000	.859
	Based on trimmed mean	.150	3	8	.927

ANOVA

Viskositas hari ke-21

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3500.000	3	1166.667	14.000	.002
Within Groups	666.667	8	83.333		
Total	4166.667	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Viskositas hari ke-21

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	3.33333	7.45356	.968	-20.5356	27.2023
	F3	30.00000*	7.45356	.016	6.1311	53.8689
	F4	40.00000*	7.45356	.003	16.1311	63.8689
F2	F1	-3.33333	7.45356	.968	-27.2023	20.5356
	F3	26.66667*	7.45356	.030	2.7977	50.5356
	F4	36.66667*	7.45356	.005	12.7977	60.5356
F3	F1	-30.00000*	7.45356	.016	-53.8689	-6.1311
	F2	-26.66667*	7.45356	.030	-50.5356	-2.7977
	F4	10.00000	7.45356	.565	-13.8689	33.8689
F4	F1	-40.00000*	7.45356	.003	-63.8689	-16.1311
	F2	-36.66667*	7.45356	.005	-60.5356	-12.7977
	F3	-10.00000	7.45356	.565	-33.8689	13.8689

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

Homogeneous Subsets

Viskositas hari ke-21

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05	
		1	2
F4	3	770.0000	
F3	3	780.0000	
F2	3		806.6667
F1	3		810.0000
Sig.		.565	.968

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Viskositas hari ke-1 dan ke-21

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Viskositas hari ke-1	795.8333	12	23.91589	6.90392
	Viskositas hari ke-21	791.6667	12	19.46247	5.61833

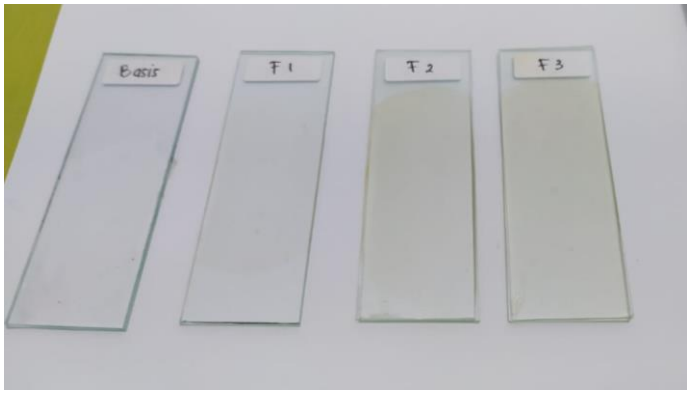
Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Viskositas hari ke-1 & Viskositas hari ke-21	12	.934	.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			
Pair 1	Viskositas hari ke-1 - Viskositas hari ke-21	4.16667	9.00337	2.59905	-1.55380	9.88713	1.603	11	.137

Lampiran 16. Hasil uji homogenitas serum ekstrak daun sirih hijau



Lampiran 17. Hasil uji daya sebar serum ekstrak daun sirih hijau

Waktu	Formula 1	Daya sebar			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	0	5.3	5.3	5.31	5.30	0.01
	50	5.4	5.4	5.42	5.41	0.01
	100	5.6	5.7	5.71	5.67	0.06
	150	5.82	5.92	5.91	5.88	0.06
Hari ke-21	0	5.3	5.4	5.42	5.37	0.06
	50	5.4	5.51	5.5	5.47	0.06
	100	5.6	5.7	5.72	5.67	0.06
	150	5.84	5.94	5.93	5.90	0.06

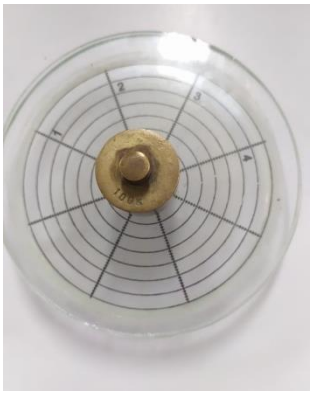
Waktu	Formula 2	Daya sebar			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	0	5.41	5.4	5.4	5.40	0.01
	50	5.5	5.51	5.61	5.54	0.06
	100	5.75	5.76	5.8	5.77	0.03
	150	5.97	5.96	6	5.98	0.02
Hari ke-21	0	5.4	5.4	5.41	5.40	0.01
	50	5.5	5.51	5.6	5.54	0.06
	100	5.75	5.7	5.87	5.77	0.09
	150	5.99	6	6.22	6.07	0.13

Waktu	Formula 3	Daya sebar			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	0	5.6	5.7	5.8	5.70	0.10
	50	5.75	5.8	5.9	5.82	0.08
	100	5.91	6	6.1	6.00	0.10
	150	6.12	6.2	6.25	6.19	0.07
Hari ke-21	0	5.6	5.81	5.8	5.74	0.12
	50	5.7	5.9	5.91	5.84	0.12
	100	5.9	6.1	6.1	6.03	0.12
	150	6.13	6.21	6.26	6.20	0.07

Waktu	Formula 4	Daya sebar			Rata-rata	SD
		R1	R2	R3		
Hari ke-1	0	5.21	5.2	5.2	5.20	0.01
	50	5.3	5.3	5.31	5.30	0.01
	100	5.56	5.5	5.51	5.52	0.03
	150	5.8	5.79	5.78	5.79	0.01
Hari ke-21	0	5.2	5.21	5.2	5.20	0.01
	50	5.32	5.3	5.3	5.31	0.01
	100	5.57	5.5	5.51	5.53	0.04
	150	5.82	5.81	5.79	5.81	0.02

Gambar alat daya sebar :

Beban	Gambar
0 gram	
50 gram	

100 gram	
150 gram	

Lampiran 18. Hasil pengujian statistik uji daya sebar

Daya Sebar hari ke-1

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya Sebar hari ke-1	.129	12	.200*	.947	12	.589

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

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya Sebar hari ke-1	Based on Mean	1.892	3	8	.209
	Based on Median	.470	3	8	.711
	Based on Median and with adjusted df	.470	3	5.307	.715
	Based on trimmed mean	1.736	3	8	.237

ANOVA

Daya Sebar hari ke-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.308	3	.103	36.303	.000
Within Groups	.023	8	.003		
Total	.330	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya Sebar hari ke-1

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
F1	F2	-.10333	.04340	.158	-.2423	.0356
	F3	-.31333*	.04340	.000	-.4523	-.1744
	F4	.12333	.04340	.083	-.0156	.2623
F2	F1	.10333	.04340	.158	-.0356	.2423
	F3	-.21000*	.04340	.006	-.3490	-.0710
	F4	.22667*	.04340	.004	.0877	.3656
F3	F1	.31333*	.04340	.000	.1744	.4523
	F2	.21000*	.04340	.006	.0710	.3490
	F4	.43667*	.04340	.000	.2977	.5756
F4	F1	-.12333	.04340	.083	-.2623	.0156
	F2	-.22667*	.04340	.004	-.3656	-.0877
	F3	-.43667*	.04340	.000	-.5756	-.2977

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

Homogeneous Subsets

Daya Sebar hari ke-1

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05 1	2	3
F4	3	5.7467		
F1	3	5.8700	5.8700	
F2	3		5.9733	
F3	3			6.1833
Sig.		.083	.158	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Daya sebar hari ke-21

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Daya sebar hari ke-21	.119	12	.200*	.956	12	.733

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

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya sebar hari ke-21	Based on Mean	1.160	3	8	.383
	Based on Median	.220	3	8	.880
	Based on Median and with adjusted df	.220	3	5.742	.879
	Based on trimmed mean	1.045	3	8	.424

ANOVA

Daya sebar hari ke-21

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.307	3	.102	34.275	.000
Within Groups	.024	8	.003		
Total	.331	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya sebar hari ke-21

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
F1	F2	-.10667	.04460	.156	-.2495	.0361
	F3	-.30667*	.04460	.001	-.4495	-.1639
	F4	.13000	.04460	.075	-.0128	.2728
F2	F1	.10667	.04460	.156	-.0361	.2495
	F3	-.20000*	.04460	.009	-.3428	-.0572
	F4	.23667*	.04460	.003	.0939	.3795
F3	F1	.30667*	.04460	.001	.1639	.4495
	F2	.20000*	.04460	.009	.0572	.3428
	F4	.43667*	.04460	.000	.2939	.5795
F4	F1	-.13000	.04460	.075	-.2728	.0128
	F2	-.23667*	.04460	.003	-.3795	-.0939
	F3	-.43667*	.04460	.000	-.5795	-.2939

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

Homogeneous Subsets

Daya sebar hari ke-21

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05 1	2	3
F4	3	5.7467		
F1	3	5.8767	5.8767	
F2	3		5.9833	
F3	3			6.1833
Sig.		.075	.156	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Daya Sebar Hari Ke-1 dan Ke-21

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Daya sebar hari ke-1	5.9433	12	.17328	.05002
	Daya sebar hari ke-21	5.9475	12	.17337	.05005

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Daya sebar hari ke-1 & Daya sebar hari ke-21	12	.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			
Pair 1	Daya sebar hari ke-1 - Daya sebar hari ke-21	-.00417	.00900	.00260	-.00989	.00155	-1.603	11	.137

Lampiran 19. Hasil uji stabilitas cycling test serum ekstrak daun sirih hijau

	Formula	Viskositas			Rata-rata	SD
		R1	R2	R3		
Sebelum	1	8.2	8.1	8	8.10	10.00
	2	8	7.9	7.6	7.83	20.82
	3	7.9	7.8	7.5	7.73	20.82
	4	8.3	8.2	8	8.17	15.28
Sesudah	1	8.1	8.1	7.9	8.03	5.77
	2	7.8	7.7	7.7	7.73	10.00
	3	7.7	7.6	7.8	7.70	10.00
	4	8.2	8.1	8	8.10	10.00

Waktu	Formula	pH			Rata-rata	SD
		R1	R2	R3		
Sebelum	1	6.28	6.4	6.26	6.31	0.08
	2	5.82	5.82	6.1	5.91	0.16
	3	5.65	5.69	5.7	5.68	0.03
	4	6.2	6.22	6.1	6.17	0.06
Sesudah	1	6.3	6.29	6.28	6.29	0.01
	2	5.81	5.83	6	5.88	0.10
	3	5.64	5.7	5.68	5.67	0.03
	4	6.25	6.15	6.1	6.17	0.08

Gambar alat :

Oven dengan suhu 40^{o}C	
Suhu dingin 4^{o}C	

Lampiran 20. Hasil statistik uji pH cycling test

pH setelah uji stabilitas

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	.187	12	.200*	.873	12	.072
Sesudah	.172	12	.200*	.921	12	.291

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sebelum	5.9992	12	.25780	.07442
	Sesudah	6.0142	12	.26919	.07771

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum & Sesudah	12	.982	.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			
Pair 1	Sebelum - Sesudah	-.01500	.05108	.01475	-.04745	.01745	-1.017	11	.331

Lampiran 21. Hasil statistik uji viskositas cycling test

Viskositas setelah uji stabilitas

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Sebelum	.154	12	.200*	.948	12	.609
Sesudah	.253	12	.033	.924	12	.325

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Sebelum	795.83	12	23.916	6.904
	Sesudah	791.67	12	18.990	5.482

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Sebelum & Sesudah	12	.777	.003

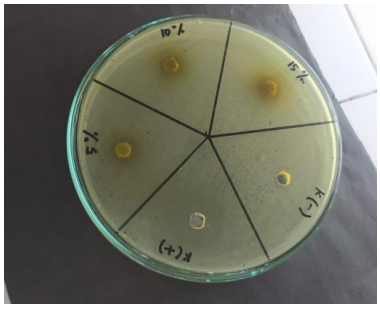
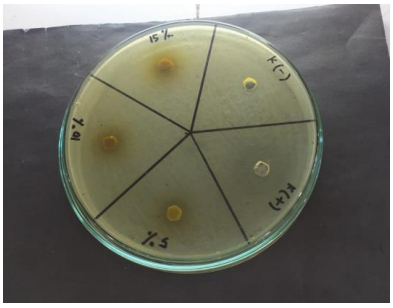
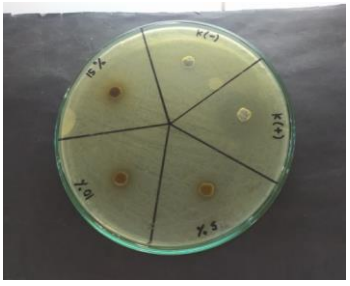
Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Sebelum – Sesudah	4.167	15.050	4.345	-5.396	13.729	.959	11	.358

Lampiran 22. Hasil uji aktivitas antibakteri sediaan serum

Formula	Konsentrasi	Daya Hambat (mm)			Rata-rata	SD
		R1	R2	R3		
1	5%	13	13.3	13.2	13.17	0.15
2	10%	14.4	14.1	14.2	14.23	0.15
3	15%	15.1	15.3	15	15.13	0.15
4	0%	0.0	0.0	0.0	0.00	0.00
5	1%	28.3	28.5	28.4	28.40	0.10

Gambar hasil :

Replikasi 1	
Replikasi 2	
Replikasi 3	

Lampiran 23. Hasil statistik daya hambat sediaan serum

Daya Hambat Antibakteri Sediaan Serum

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula	Statistic	df	Sig.	Statistic	df	Sig.
Daya Hambat Sediaan	5%	.253	3	.	.964	3	.637
	10%	.253	3	.	.964	3	.637
	15%	.253	3	.	.964	3	.637
	K(-)	.	3	.	.	3	.
	K(+)	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Oneway

Descriptives

Daya Hambat Sediaan

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
5%	3	13.1667	.15275	.08819	12.7872	13.5461	13.00	13.30
10%	3	14.2333	.15275	.08819	13.8539	14.6128	14.10	14.40
15%	3	15.1333	.15275	.08819	14.7539	15.5128	15.00	15.30
K(-)	3	.0000	.00000	.00000	.0000	.0000	.00	.00
K(+)	3	28.4000	.10000	.05774	28.1516	28.6484	28.30	28.50
Total	15	14.1867	9.31902	2.40616	9.0260	19.3474	.00	28.50

ANOVA

Daya Hambat Sediaan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1215.657	4	303.914	18994.646	.000
Within Groups	.160	10	.016		
Total	1215.817	14			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya Hambat Sediaan

Tukey HSD

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
5%	10%	-1.06667*	.10328	.000	-1.4066	-.7268
	15%	-1.96667*	.10328	.000	-2.3066	-1.6268
	K(-)	13.16667*	.10328	.000	12.8268	13.5066
	K(+)	-15.23333*	.10328	.000	-15.5732	-14.8934
10%	5%	1.06667*	.10328	.000	.7268	1.4066
	15%	-.90000*	.10328	.000	-1.2399	-.5601
	K(-)	14.23333*	.10328	.000	13.8934	14.5732
	K(+)	-14.16667*	.10328	.000	-14.5066	-13.8268
15%	5%	1.96667*	.10328	.000	1.6268	2.3066
	10%	.90000*	.10328	.000	.5601	1.2399
	K(-)	15.13333*	.10328	.000	14.7934	15.4732
	K(+)	-13.26667*	.10328	.000	-13.6066	-12.9268
K(-)	5%	-13.16667*	.10328	.000	-13.5066	-12.8268
	10%	-14.23333*	.10328	.000	-14.5732	-13.8934
	15%	-15.13333*	.10328	.000	-15.4732	-14.7934
	K(+)	-28.40000*	.10328	.000	-28.7399	-28.0601
K(+)	5%	15.23333*	.10328	.000	14.8934	15.5732
	10%	14.16667*	.10328	.000	13.8268	14.5066
	15%	13.26667*	.10328	.000	12.9268	13.6066
	K(-)	28.40000*	.10328	.000	28.0601	28.7399

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

Homogeneous Subsets

Daya Hambat Sediaan

Tukey HSD[a]

Formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
K(-)	3	.0000				
5%	3		13.1667			
10%	3			14.2333		
15%	3				15.1333	
K(+)	3					28.4000
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 24. Uji statistik daya hambat ekstrak dan sediaan

Homogeneous Subsets

Daya hambat ekstrak dan sediaan

Tukey HSD[a]

		Subset for alpha = 0.05					
Formula	N	1	2	3	4	5	6
ekstrak K(-)	3	.0000					
sediaan K(-)	3	.0000					
ekstrak 5%	3		12.4000				
sediaan 5%	3			13.1667			
ekstrak 10%	3			13.2000			
sediaan 10%	3				14.2333		
ekstrak 15%	3				14.3667		
sediaan 15%	3					15.1333	
ekstrak K(+)	3						28.3000
sediaan K(+)	3						28.4000
Sig.		1.000	1.000	1.000	.948	1.000	.992

Means for groups in homogeneous subsets are displayed.

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