L A M P I R A N

Lampiran 1. Hasil determinasi tanaman daun *Plumeria acuminata*

PEMERINTAH PROVINSI JAWA TIMUR
DINAS KESEHATAN
UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU
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Nomor : 074/ 621/ 102.7-A/ 2021
Sifat : Biasa
Perihal : **Determinasi Tanaman Kamboja**

Memenuhi permohonan saudara :

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NIM : 24185465A
Fakultas : FARMASI, UNIVERSITAS SETIA BUDI

1. Perihal determinasi tanaman kamboja
   - Kingdom : Plantae (Tumbuhan)
   - Divisi : Magnoliophyta (Tumbuhan berbunga)
   - Kelas : Dycotyledonae
   - Bangsa : Apocynales
   - Suku : Apocynaceae
   - Marga : Plumeria
   - Jenis : *Plumeria acuminata* W.T.Aiton
   - Nama Daerah : Kamboja, kamboja putih, kamoja, cempaka malja, cempaka sabakul, pandam (Minangkabau), semboja (Jawa), cempaka (Madura), bunga jabun (Bali), bunga matandani (Roti), kamboja (Manado).
   - Kunci determinasi : 1b-2b-3b-4b-6b-7b-9b-10b-11b-12b-13b-14b-16a-239a-240b-241b-242a:Apocynaceae-1a-2b:Plumeria-1:*P.acuminata*.
2. Morfologi : Habitus: Pohon, tinggi ± 6 m. Batang: Tegak, bulat, berkayu, bergetah, percabangan simpodial, hijau pucat. Daun: Tunggal, lanset, tersebar, di ujung cabang, pangkal dan ujung meruncing, tepi rata atau bergelombang, panjang 14-30 cm, lebar 5-10 cm, tangkai panjang 2,5-7 cm, pertulangan menyirip, hijau. Bunga: Majemuk, bentuk malai, tangkai panjang 15-20 cm, berbulu, kelopak kecil, benang sari merah, putik lonjong, berbulu, putih, mahkota bentuk bintang, panjang 3-4,5 cm, tebar 2,5-3,5 cm. berambut, putih. Buah: Bulat panjang, meruncing, panjang 16-20 cm, penampang ± 2,5 cm, coklat kehitaman. Biji: Bulat pipih, coklat kehitaman. Akar: Tunggang, putih.
3. Bagian yang digunakan : Daun.
4. Penggunaan : Penelitian (Skripsi).
5. Daftar Pustaka
   - Van Steenis, CGGJ. 2008. *FLORA: untuk Sekolah di Indonesia*. Pradnya Paramita, Jakarta.

Demikian surat keterangan determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 18 Oktober 2021
KEPALA UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU

AGHMAD MABRUR, SKM, M.Kes.
PEMBINA
NIP. 19680203 199203 1 004

Lampiran 2. Gambar tanaman *Plumeria acuminata*

Tanaman *P. acuminata*

Rajangan daun *P. Acuminata*

Serbuk daun *P. acuminta*

Ekstrak daun *P. acuminata*

Lampiran 3. Hasil uji susut pengeringan serbuk *P. Acuminata*

Replikasi 1

Replikasi 2

Replikasi 3

Lampiran 4. Hasil uji kadar air serbuk *P. Acuminata*

Replikasi 1

Replikasi 2

Replikasi 3

Lampiran 5. Hasil uji kandungan senyawa kimia serbuk daun *P. acuminata*

Saponin

Alkaloid wagner

Alkaloid *Dragendorff*

Tanin

Flavonoid

Terpenoid/ steroid

Lampiran 6. Hasil uji susut pengeringan ekstrak *P. Acuminata*

Replikasi 1

Replikasi 2

Replikasi 3

Lampiran 7. Hasil identifikasi senyawa kimia ekstrak daun *P. acuminata*

Alkaloid Wagner

Bebas Etanol

Flavonoid

Saponin

Alkaloid Dragendorfd

Steroid / Terpenoid

Tanin

Lampiran 8. Hasil uji tinggi busa

F1

Replikasi 1

Replikasi 2

Replikasi 3

F2

Replikasi 1

Replikasi 2

Replikasi 3

F3

Replikasi 1

Replikasi 2

Replikasi 3

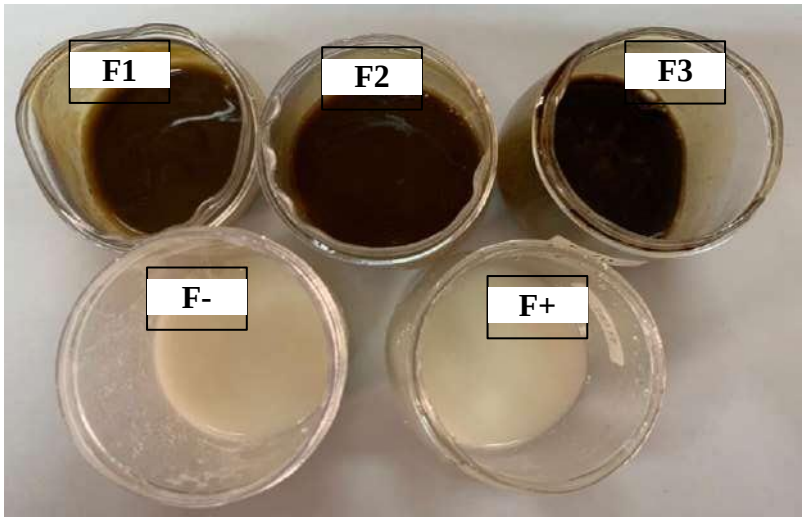
Lampiran 9. Sediaan sabun cair

Sediaan sabun cair

F1

F2

F3



Sabun cair setelah *cycling test*

Lampiran 10. Alat-alat yang digunakan

Jangka sorong

Alat destilasi

Oven

Inkubator

Kulkas

Timbangan analitik

Moisture balance

Alat pengukur pH

Evaporator

Lampiran 11. Hasil uji biokimia

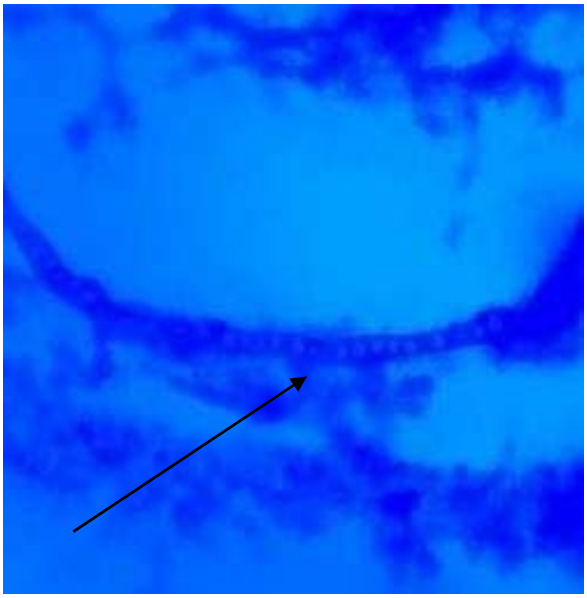
Laktosa

Sukrosa

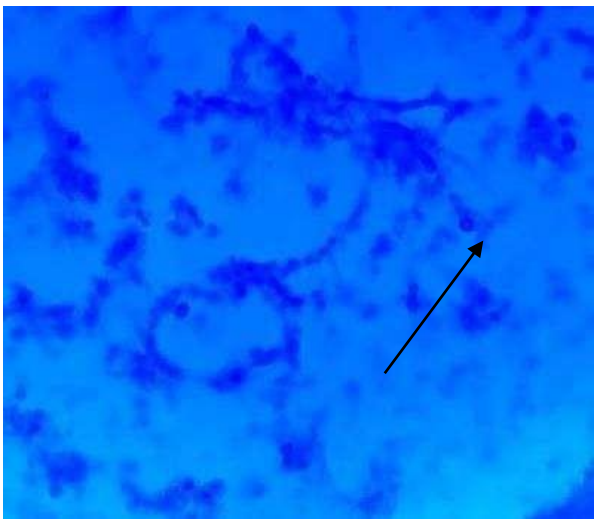
Maltosa

Glukosa

Lampiran 12. Hasil uji mikroskopis

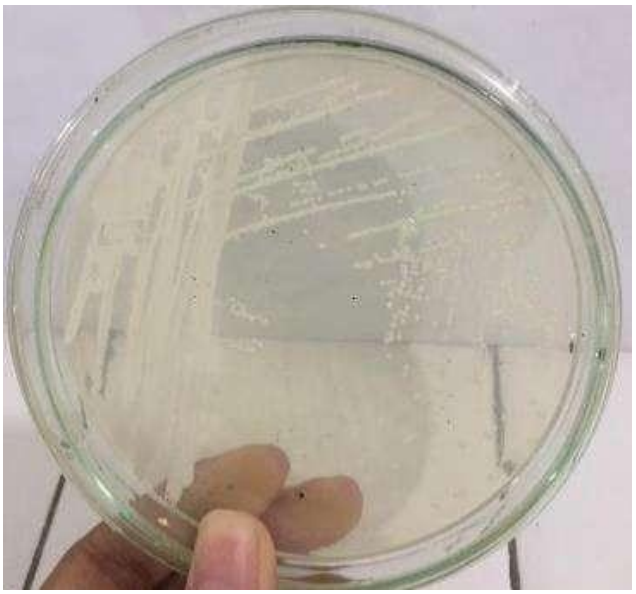


Pseudohifa

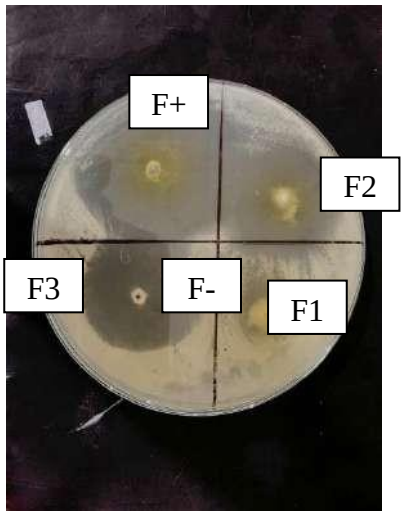


Blastospora

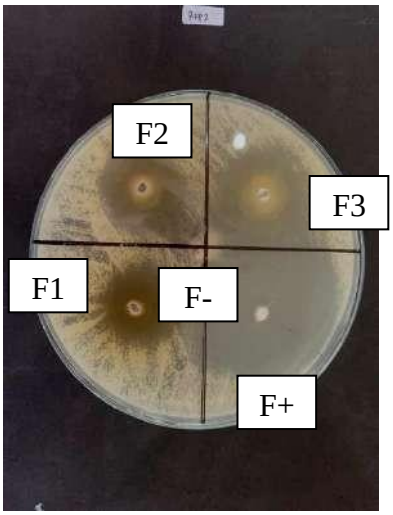
Lampiran 13. Hasil uji maksroskopis



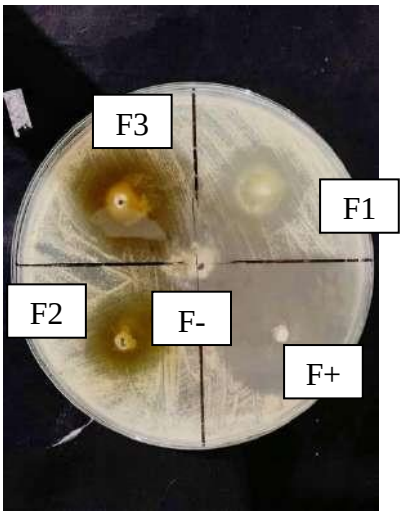
Lampiran 14. Hasil uji aktivitas antijamur sediaan sabun cair ekstrak daun



Replikasi 1



Replikasi 2



Replikasi 3

Lampiran 15. Perhitungan rendemen

A. Rendemen bobot kering terhadap bobot basah

Bobot basah	Bobot kering	Rendemen
23.000 gram	4.100 gram	17,83 %

Berat awal = 23.000 gram

Simplisia kering = 4.100 gram

Rendemen = $\frac{\text{Ba}}{\text{Bo}}$ x 100%

(%) = $\frac{4.100\ \text{gram}}{23.000\ \text{gram}}$ x 100%

= 17,826 % b/b

B. Rendemen ekstrak daun *P. acuminata*

Bobot serbuk	Bobot ekstrak	Rendemen
1.200 gram	336 gram	28,00 %

Berat ekstrak (Ba) = 336 gram

Berat simplisia yang di ekstraksi (Bo) = 1.200 gram

Rendemen = $\frac{\text{Ba}}{\text{Bo}}$ x 100%

(%) = $\frac{3.369\ \text{gram}}{1.200\ \text{gram}}$ x 100%

= 28 % b/b

Lampiran 16. Perhitungan susut pengeringan serbuk dan ekstrak *P.acuminata*

A. Perhitungan susut pengeringan serbuk

Replikasi	Berat serbuk (gram)	Susut pengeringan (%)
1	2,00	2,6
2	2,00	2,8
3	2,00	3,0
	Rata-rata ± SD	2,8 ± 0,2

Hasil prosentase dari perhitungan diatas dapat dihitung sebagai berikut :

Rata-rata susut pengeringan serbuk daun *P. acuminata* : $\frac{2,6+2,8+3,0}{3} = 2,8\ \%$

Kesimpulan :

prosentase rata-rata dari susut pengeringan serbuk daun *P. acuminata* adalah 2,8%.

B. Perhitungan susut pengeringan serbuk

Replikasi	Berat ekstrak (gram)	Susut pengeringan (%)
1	2,00	2,9
2	2,00	3,3
3	2,00	3,1
	Rata-rata ± SD	3,1 ± 0,2

Hasil prosentase dari perhitungan diatas dapat dihitung sebagai berikut :

Rata-rata susut pengeringan ekstrak daun *P. acuminata* : $\frac{2,9+3,3+3,1}{3} = 3,1\ \%$

Kesimpulan :

prosentase rata-rata dari susut pengeringan ekstrak daun *P. acuminata* adalah 3,1%.

Lampiran 17. Perhitungan kadar air ekstrak *P.acuminata* yang diukur dengan metode gravimetri

Replikasi	Berat wadah kosong (gram)	Berat ekstrak (gram)	Penimbangan sebelum pemanasan (gram)	Penimbangan sesudah pemanasan (gram)	Persentase (%)
1	33,41	10,00	43,67	43,25	4,09 %
2	38,32	10,00	48,51	48,06	4,42 %
3	39,95	10,00	50,17	49,81	3,52 %
	Rata-rata ± SD		38,65 ± 3,04	38,62 ± 3,05	

Perhitungan persentase kadar air :

a. Replikasi 1 = $\frac{43,67-43,25}{43,67-33,41}$ x100 % = 4,09 %

b. Replikasi 2 = $\frac{48,51-48,06}{48,51-38,32}$ x100 % = 4,42 %

c. Replikasi 3 = $\frac{50,17-49,81}{50,17-39,95}$ x100 % = 3,52 %

Lampiran 18. Perhitungan bobot jenis ekstrak *P.acuminata*

Replikasi	Bobot awal (gram)	Bobot jenis (g/ml)
1	2,5	1,02
2	2,5	1,01
3	2,5	1,02
	Rata-rata ± SD	1,02 ± 5,77x10^{-3}

A. Replikasi 1

Bobot pikno kosong = 28,9722 gram

Bobot pikno + aquadest = 78,1681 gram

Bobot pikno + ekstrak = 79,0000 gram

Bobot ekstrak = 50,0278 gram

Bobot air = 49,1959 gram

Bobot jenis $= \frac{W2-W0}{W1-W0} = \frac{50,0278}{49,1959} = 1,0169 \sim 1,02\ g/ml$

B. Replikasi 2

Bobot pikno kosong = 29,6589 gram

Bobot pikno + aquadest = 79,3748 gram

Bobot pikno + ekstrak = 79,9513 gram

Bobot ekstrak = 50,2924 gram

Bobot air = 49,7159 gram

Bobot jenis $= \frac{W2-W0}{W1-W0} = \frac{50,2924}{49,7159} = 1,0116 \sim 1,01\ g/ml$

C. Replikasi 3

Bobot pikno kosong = 29,2006 gram

Bobot pikno + aquadest = 78,3268 gram

Bobot pikno + ekstrak = 79,2471 gram

Bobot ekstrak = 50,0465 gram

Bobot air = 49,1262 gram

Bobot jenis $= \frac{W2-W0}{W1-W0} = \frac{50,2924}{49,7159} = 1,0116 \sim 1,01\ g/ml$

Lampiran 19. Perhitungan pembuatan kontrol positif

Pembuatan kontrol positif (ketokonazole) 2 %

Perhitungan :

Berat tablet ketokonazole = 330 mg (mengandung 200 mg ketokonazole)

- 200 mg zat aktif ketokonazole
- 130 mg bahan tambahan

Tablet yang diperlukan = a / b x c

a = berat ketokonazole yang diperlukan

b = ketokonazole tiap tablet

c = berat rata-rata ketokonazole

Tablet yang diperlukan =

a / b x c = 200 mg /200 mg x 330 mg = 330 mg

2 % = 2 g / 100 ml

= 2000 mg / 100 ml

= 200 mg / 10 ml

1 tablet = 200 mg untuk 10 ml

Jadi jika akan dibuat 100 ml kontrol + maka diperlukan 10 tablet ketokonazole 200 mg

Pembuatan kontrol positif ketokonazole 2 % = 10 tablet ketokonazole digerus halus kemudian ditambahkan kedalam basis sabun cair 100 ml.

Lampiran 20. Data hasil uji mutu fisik pH sediaan sabun cair ekstrak daun *P. acuminata.*

pH				
Fomula	**Replikasi 1**	**Replikasi 2**	**Replikasi 3**	**Rata-rata ± SD (%)**
F1	8,19	8,21	8,30	8,23 ± 0,06
F2	8,14	8,10	8,15	8,13 ± 0,03
F3	8,12	8,00	8,04	8,05 ± 0,06
F -	8,46	8,51	8,43	8,46 ± 0,04
F+	8,41	8,39	8,47	8,42 ± 0,04

Tests of Normality

	Kelompok	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Pengujian	Statistic	df	Sig.	Statistic	df	Sig.
Uji pH	F1	.321	3	.	.881	3	.328
	F2	.314	3	.	.893	3	.363
	F3	.253	3	.	.964	3	.637
	F-	.232	3	.	.980	3	.726
	F+	.292	3	.	.923	3	.463

a. Lilliefors Significance Correction

Descriptives

Uji pH

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F1	3	8.2333	.05859	.03383	8.0878	8.3789	8.19	8.30
F2	3	8.1300	.02646	.01528	8.0643	8.1957	8.10	8.15
F3	3	8.0533	.06110	.03528	7.9016	8.2051	8.00	8.12
F-	3	8.4667	.04041	.02333	8.3663	8.5671	8.43	8.51
F+	3	8.4233	.04163	.02404	8.3199	8.5268	8.39	8.47
Total	15	8.2613	.17146	.04427	8.1664	8.3563	8.00	8.51

Uji pH

Test of Homogeneity of Variances

Levene Statistic	df 1	df 2	Sig.
.839	4	10	.531

Uji pH

ANOVA

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	.389	4	.097	43.298	.000
Within Groups	.022	10	.002		
Total	.412	14			

Tukey HSD[a]

Uji pH

Kelompok Pengujian	N	Subset for alpha = 0.05		
		1	2	3
F3	3	8.0533		
F2	3	8.1300	8.1300	
F1	3		8.2333	
F+	3			8.4233
F-	3			8.4667
Sig.		.340	.129	.793

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Multiple Comparisons

Dependent Variable: Uji pHTukey HSD

(I) Kelompok Pengujian	(J) Kelompok Pengujian	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	.10333	.03870	.129	-.0240	.2307
	F3	.18000*	.03870	.006	.0526	.3074
	F-	-.23333*	.03870	.001	-.3607	-.1060
	F+	-.19000*	.03870	.004	-.3174	-.0626
F2	F1	-.10333	.03870	.129	-.2307	.0240
	F3	.07667	.03870	.340	-.0507	.2040
	F-	-.33667*	.03870	.000	-.4640	-.2093
	F+	-.29333*	.03870	.000	-.4207	-.1660
F3	F1	-.18000*	.03870	.006	-.3074	-.0526

	F2	-.07667	.03870	.340	-.2040	.0507
	F-	-.41333*	.03870	.000	-.5407	-.2860
	F+	-.37000*	.03870	.000	-.4974	-.2426
F-	F1	.23333*	.03870	.001	.1060	.3607
	F2	.33667*	.03870	.000	.2093	.4640
	F3	.41333*	.03870	.000	.2860	.5407
	F+	.04333	.03870	.793	-.0840	.1707
F+	F1	.19000*	.03870	.004	.0626	.3174
	F2	.29333*	.03870	.000	.1660	.4207
	F3	.37000*	.03870	.000	.2426	.4974
	F-	-.04333	.03870	.793	-.1707	.0840

*

. The mean difference is significant at the 0.05 level

Lampiran 21. Data hasil uji mutu fisik viskositas sediaan sabun cair ekstrak daun *P. acuminata.*

Viskositas (dPas)				
Formula	**Replikasi 1**	**Replikasi 2**	**Replikasi 3**	**Rata-rata ± SD (%)**
F1	0,4	0,45	0,35	0,4 ± 0,05
F2	0,45	0,5	0,6	0,52 ± 0,08
F3	0,5	0,65	0,6	0,58 ± 0,08
F -	0,4	0,45	0,5	0,45 ± 0,05
F+	0,35	0,4	0,45	0,4 ± 0,05

Tests of Normality

	Kelompok Perlakuan	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji Viskositas	F1	.175	3	.	1.000	3	1.000
	F2	.253	3	.	.964	3	.637
	F3	.253	3	.	.964	3	.637
	F-	.175	3	.	1.000	3	1.000
	F+	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Descriptives

Uji Viskositas								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F1	3	.4000	.05000	.02887	.2758	.5242	.35	.45
F2	3	.5167	.07638	.04410	.3269	.7064	.45	.60
F3	3	.5833	.07638	.04410	.3936	.7731	.50	.65
F-	3	.4500	.05000	.02887	.3258	.5742	.40	.50
F+	3	.4000	.05000	.02887	.2758	.5242	.35	.45
Total	15	.4700	.09024	.02330	.4200	.5200	.35	.65

Test of Homogeneity of Variances

Uji Viskositas

Levene Statistic	df1	df2	Sig.
.453	4	10	.769

Uji Viskositas

ANOVA

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	.076	4	.019	4.935	.019
Within Groups	.038	10	.004		
Total	.114	14			

Tukey HSD[a]

Uji Viskositas

Kelompok Perlakuan	N	Subset for alpha = 0.05	
		1	2
F+	3	.4000	
F1	3	.4000	
F-	3	.4500	.4500
F2	3	.5167	.5167
F3	3		.5833
Sig.		.219	.136

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000

Multiple Comparisons

Dependent Variable: Uji ViskositasTukey HSD

(I) Kelompok Perlakuan	(J) Kelompok Perlakuan	Mean Difference(I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-.11667	.05055	.219	-.2830	.0497
	F3	-.18333*	.05055	.030	-.3497	-.0170
	F-	-.05000	.05055	.854	-.2164	.1164
	F+	.00000	.05055	1.000	-.1664	.1664
F2	F1	.11667	.05055	.219	-.0497	.2830
	F3	-.06667	.05055	.687	-.2330	.0997
	F-	.06667	.05055	.687	-.0997	.2330
	F+	.11667	.05055	.219	-.0497	.2830
F3	F1	.18333*	.05055	.030	.0170	.3497
	F2	.06667	.05055	.687	-.0997	.2330
	F-	.13333	.05055	.136	-.0330	.2997
	F+	.18333*	.05055	.030	.0170	.3497
F-	F1	.05000	.05055	.854	-.1164	.2164
	F2	-.06667	.05055	.687	-.2330	.0997
	F3	-.13333	.05055	.136	-.2997	.0330
	F+	.05000	.05055	.854	-.1164	.2164
F+	F1	.00000	.05055	1.000	-.1664	.1664
	F2	-.11667	.05055	.219	-.2830	.0497
	F3	-.18333*	.05055	.030	-.3497	-.0170
	F-	-.05000	.05055	.854	-.2164	.1164

Lampiran 22. Data hasil uji mutu fisik bobot jenis sediaan sabun cair ekstrak daun *P. acuminata.*

Bobot jenis (g/ml)

Fomula	Replikasi 1	Replikasi 2	Replikasi 3	Rata-rata ± SD (%)
F1	1,03	1,04	1,02	1,03 ± 1,72
F2	1,04	1,02	1,05	1,03 ± 0,01
F3	1,04	1,03	1,05	1,04 ± 0,01
F -	1,02	1,01	1,03	1,02 ± 0,01
F+	1,03	1,02	1,01	1,02 ± 0,01

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok Pengujian	Statistic	df	Sig.	Statistic	df	Sig.
Uji Bobot Jenis	F1	.175	3	.	1.000	3	1.000
	F2	.253	3	.	.964	3	.637
	F3	.175	3	.	1.000	3	1.000
	F-	.175	3	.	1.000	3	1.000
	F+	.175	3	.	1.000	3	1.000

a. Lilliefors Significance Correction

Uji Bobot Jenis

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F1	3	1.0300	.01000	.00577	1.0052	1.0548	1.02	1.04
F2	3	1.0367	.01528	.00882	.9987	1.0746	1.02	1.05
F3	3	1.0400	.01000	.00577	1.0152	1.0648	1.03	1.05
F-	3	1.0200	.01000	.00577	.9952	1.0448	1.01	1.03
F+	3	1.0200	.01000	.00577	.9952	1.0448	1.01	1.03
Total	15	1.0293	.01280	.00330	1.0222	1.0364	1.01	1.05

Test of Homogeneity of Variances			
Uji Bobot Jenis			
Levene Statistic	df1	df2	Sig.
.327	4	10	.854

Uji Bobot Jenis

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.001	4	.000	2.026	.166
Within Groups	.001	10	.000		
Total	.002	14			

Tukey HSD[a]

Uji Bobot Jenis

Subset for alpha = 0.05

Kelompok Pengujian	N	1
F+	3	1.0200
F-	3	1.0200
F1	3	1.0300
F2	3	1.0367
F3	3	1.0400
Sig.		.263

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Multiple Comparisons

(I) Kelompok Pengujian	(J) Kelompok Pengujian	Mean Difference(I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-.00667	.00919	.946	-.0369	.0236
	F3	-.01000	.00919	.809	-.0402	.0202
	F-	.01000	.00919	.809	-.0202	.0402
	F+	.01000	.00919	.809	-.0202	.0402
F2	F1	.00667	.00919	.946	-.0236	.0369
	F3	-.00333	.00919	.996	-.0336	.0269
	F-	.01667	.00919	.417	-.0136	.0469
	F+	.01667	.00919	.417	-.0136	.0469
F3	F1	.01000	.00919	.809	-.0202	.0402
	F2	.00333	.00919	.996	-.0269	.0336
	F-	.02000	.00919	.263	-.0102	.0502
	F+	.02000	.00919	.263	-.0102	.0502
F-	F1	-.01000	.00919	.809	-.0402	.0202
	F2	-.01667	.00919	.417	-.0469	.0136
	F3	-.02000	.00919	.263	-.0502	.0102
	F+	.00000	.00919	1.000	-.0302	.0302
F+	F1	-.01000	.00919	.809	-.0402	.0202
	F2	-.01667	.00919	.417	-.0469	.0136
	F3	-.02000	.00919	.263	-.0502	.0102
	F-	.00000	.00919	1.000	-.0302	.0302

Dependent Variable: Uji Bobot JenisTukey HSD

Lampiran 23. Data hasil uji mutu fisik *p*H sediaan sabun cair ekstrak daun

Formula	Replikasi 1	Replikasi 2	pH Replikasi 3	Replikasi 1	Replikasi 2	Replikasi 3
F1	8,19	8,21	8,3	8,19	8,21	8,3
F2	8,14	8,1	8,15	8,14	8,1	8,15
F3	8,12	8	8,04	8,02	8	8,01
F -	8,46	8,51	8,43	8,46	8,51	8,43
F+	8,41	8,39	8,47	8,41	8,39	8,47

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pH sebelum cycling test	8.2613	15	.17146	.04427
	pH sesudah cycling test	8.2527	15	.18183	.04695

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	pH sebelum cycling test &pH sesudah cycling test	15	.991	.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 sebelum cycling test - pH sesudah cyclingtest	.00867	.02642	.00682	-.00597	.02330	1.270	14	.225

Lampiran 24. Data hasil uji mutu fisik viskositas sediaan sabun cair ekstrak daun *P. acuminata* setelah uji *cycling test.*

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	viskositas sebelum cycling test	.4700	15	.09024	.02330
	viskositas sesudah cycling test	.3433	15	.07037	.01817

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	viskositas sebelum cycling test & viskositas sesudah cycling test	15	.697	.004

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 sebelum cycling test - viskositas sesudah cycling test	.12667	.06510	.01681	.09062	.16272	7.536	14	.000

Lampiran 25. Data hasil uji daya hambat sabun cair ekstrak daun *P. Acuminate*

Sampel	Diameter zona hambat (mm) Replikasi			Rata-rata (mm) ± SD
	1	2	3	
F1	27	34	32	31 ± 3,60
F2	48	36	33	39 ± 7,94
F3	62	39	36	45,67 ± 14,22
F-	9	14	20	14,33 ± 5,5
F+	52	60	62	58 ± 5,29

Tests of Normality

	Kelompok	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
Uji Daya	F1	.276	3	.	.942	3	.537
Hambat	F2	.314	3	.	.893	3	.363
	F3	.347	3	.	.835	3	.202
	F-	.191	3	.	.997	3	.900
	F+	.314	3	.	.893	3	.363

a. Lilliefors Significance Correction

Uji Daya Hambat

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F1	3	31.0000	3.60555	2.08167	22.0433	39.9567	27.00	34.00
F2	3	39.0000	7.93725	4.58258	19.2828	58.7172	33.00	48.00
F3	3	45.6667	14.22439	8.21246	10.3313	81.0020	36.00	62.00
F-	3	14.3333	5.50757	3.17980	.6518	28.0149	9.00	20.00
F+	3	58.0000	5.29150	3.05505	44.8552	71.1448	52.00	62.00
Total	15	37.6000	16.64246	4.29706	28.3837	46.8163	9.00	62.00

Test of Homogeneity of Variances

Uji Daya Hambat

Levene Statistic	df1	df2	Sig.
3.272	4	10	.058

Uji Daya Hambat

ANOVA

Sum of Squares		df	Mean Square	F	Sig.
Between Groups	3204.267	4	801.067	11.897	.001
Within Groups	673.333	10	67.333		
Total	3877.600	14			

Tukey HSD[a]

Uji Daya Hambat

Kelompok Perlakuan	N	Subset for alpha = 0.05		
		1	2	3
F-	3	14.3333		
F1	3	31.0000	31.0000	
F2	3		39.0000	39.0000
F3	3		45.6667	45.6667
F+	3			58.0000
Sig.		.169	.258	.101

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Multiple Comparisons

Dependent Variable: Uji Daya HambatTukey HSD

(I) Kelompok Perlakuan	(J) Kelompok Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-8.00000	6.69992	.755	-30.0500	14.0500
	F3	-14.66667	6.69992	.258	-36.7166	7.3833
	F-	16.66667	6.69992	.169	-5.3833	38.7166
	F+	-27.00000*	6.69992	.016	-49.0500	-4.9500
F2	F1	8.00000	6.69992	.755	-14.0500	30.0500
	F3	-6.66667	6.69992	.852	-28.7166	15.3833
	F-	24.66667*	6.69992	.027	2.6167	46.7166
	F+	-19.00000	6.69992	.101	-41.0500	3.0500
F3	F1	14.66667	6.69992	.258	-7.3833	36.7166
	F2	6.66667	6.69992	.852	-15.3833	28.7166
	F-	31.33333*	6.69992	.006	9.2834	53.3833
	F+	-12.33333	6.69992	.404	-34.3833	9.7166
F-	F1	-16.66667	6.69992	.169	-38.7166	5.3833
	F2	-24.66667*	6.69992	.027	-46.7166	-2.6167
	F3	-31.33333*	6.69992	.006	-53.3833	-9.2834
	F+	-43.66667*	6.69992	.001	-65.7166	-21.6167
F+	F1	27.00000*	6.69992	.016	4.9500	49.0500
	F2	19.00000	6.69992	.101	-3.0500	41.0500
	F3	12.33333	6.69992	.404	-9.7166	34.3833
	F-	43.66667*	6.69992	.001	21.6167	65.7166