

**L
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Lampiran 1 Hasil Determinasi Buah Belimbing Wuluh



PEMERINTAH PROVINSI JAWA TIMUR
DINAS KESEHATAN
UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU

Jl. Lahor 87 Kota Batu
Jl. Raya 228 Kejayan Kabupaten Pasuruan
Jl. Kolonel Sugiono 457 – 459 Kota Malang
Email : materiamedicabatu@jatimprov.go.id



Nomor : 074/ 307/ 102.20-A/ 2022
Sifat : Biasa
Perihal : **Determinasi Tanaman Belimbing Wuluh**

Memenuhi permohonan saudara :

Nama : AGRO ARIAWAN PEGIA
NIM : 24185660A
Fakultas : FARMASI, UNIVERSITAS SETIA BUDI

1. Perihal determinasi tanaman belimbing wuluh

Kingdom : Plantae
Divisi : Magnoliophyta
Sub divisi : Angiospermae
Kelas : Dicotyledoneae
Bangsa : Geraniales
Suku : Oxalidaceae
Marga : *Averrhoa*
Jenis : *Averrhoa bilimbi* L.
Nama Daerah : Limeng, selimeng, thlimeng (Aceh); balimbieng (Minangkabau); belimbing asam (Melayu); Balimbing (Lampung); calincing, balingbing (Sunda); belimbing wuluh (Jawa); bhalingbhing bulu (Madura); blingbing buloh (Bali).
Kunci Determinasi : 1b-2b-3b-4b-6b-7b-9b-10b-11b-12b-13b-14a-15b-197b-208b-219b-220b-224b-225b-225b-227b-229b-230b-234b-235b-236b-237b-238b: Oxalidaceae-a: *Averrhoa*-1b: *A. bilimbi*.

2. Morfologi : Habitus: Pohon, tinggi 5-10 m. Batang: Tegak, bercabang-cabang, permukaan kasar, banyak tonjolan, hijau kotor. Daun: Majemuk, menyirip, anak daun 25-45 helai, bulat telur, ujung meruncing, pangkal membulat, panjang 7-10 cm, lebar 1-3 cm, bertangkai pendek, pertulangan menyirip, hijau muda, hijau. Bunga: Majemuk, bentuk malai, pada tonjolan batang dan cabang, menggantung, panjang 5-20 cm, kelopak ± 6 mm, merah, daun mahkota bergandengan, bentuk lanset, ungu. Buah: Buni, bulat, panjang 4-6 cm, hijau kekuningan. Biji: Lanset atau segi tiga, masih muda hijau setelah tua kuning kehijauan. Akar: Tunggang, coklat kehitaman.

3. Bagian yang digunakan : Buah.

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, 26 April 2022

KEPALA UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU
ACHMAD MABRUR, SKM, M.Kes.
PEMBINA
NIP. 19680203 199203 1 004

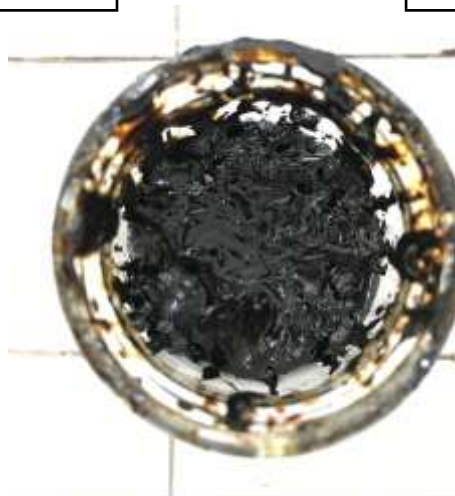
Lampiran 2 Buah belimbing wuluh



Buah Segar
Belimbing Wuluh



Buah Kering
Belimbing Wuluh



Ekstrak buah
belimbing wuluh



kadar air serbuk
Buah belimbing
wuluh



Proses evaporasi
buah belimbing
wuluh

Lampiran 3 Perhitungan Rendemen Buah Belimbing Wuluh

Hasil perhitungan rendemen simplisia buah belimbing wuluh

Perhitungan rendemen serbuk:

$$\begin{aligned}\text{Rendemen (\%)} &= \frac{\text{bobot serbuk kering}}{\text{bobot simplisia basah}} \times 100\% \\ &= \frac{4.300}{20.000} \times 100\% \\ &= 21,5\%\end{aligned}$$

Hasil perhitungan rendemen ekstrak buah belimbing wuluh

Perhitungan rendemen ekstrak:

$$\begin{aligned}\text{Rendemen (\%)} &= \frac{\text{bobot ekstrak}}{\text{bobot serbuk}} \times 100\% \\ &= \frac{371}{1000} \times 100\% \\ &= 37,1\%\end{aligned}$$

Lampiran 4 Hasil susut pengeringan serbuk buah belimbing wuluh



REPLIKASI 1



REPLIKASI 2



REPLIKASI 3

Lampiran 5 Hasil penetapan susut kering ekstrak buah belimbing wuluh

➤ Replikasi 1

Bobot krus porselin kosong = 42. 1267 g

Bobot krus porselin + ekstrak sebelum di oven = 43,2309 g

Bobot awal = 43.2309 g – 42,1267 g
= 1,1042 g

Bobot krus porselin + ekstrak setelah di oven = 43.0139 g

Bobot akhir = 43,0139 g – 42,1267 g
= 0,8872 g

Kadar air (%) = $\frac{1,1042 \text{ g} - 0,8872 \text{ g}}{1,1042 \text{ g}} \times 100 \%$
= 19,65%

➤ Replikasi 2

Bobot krus porselin kosong = 39,5626 g

Bobot krus porselin + ekstrak sebelum di oven = 40,9695 g

Bobot awal = 40,9695, g – 39,5626 g
= 1,4069 g

Bobot krus porselin + ekstrak setelah di oven = 40,6888 g

Bobot akhir = 40,6888 g – 39,5626 g
= 1,1262 g

Kadar air (%) = $\frac{1,4069 \text{ g} - 1,1262 \text{ g}}{1,4069 \text{ g}} \times 100 \%$
= 19,9%

➤ Replikasi 3

Bobot krus porselin kosong = 28,0538 g

Bobot krus porselin + ekstrak sebelum di oven = 29,2256 g

Bobot awal = 29,2256 g – 28,0538g
= 1,1718 g

Bobot krus porselin + ekstrak setelah di oven = 28,9987 g

Bobot akhir = 28,9987 g – 28,0538 g
= 0,9949 g

Kadar air (%) = $\frac{1,1718 \text{ g} - 0,9949 \text{ g}}{1,1718 \text{ g}} \times 100 \%$
= 15,09%

Lampiran 6 Hasil Uji identifikasi senyawa kimia buah belimbing wuluh

Uji flavonoid ekstrak
buah nelimbing wuluh



Uji Saponin ekstrak
buah belimbing wuluh



Uji
Steroid/Triterpenoid
Buah belimbing
wuluh



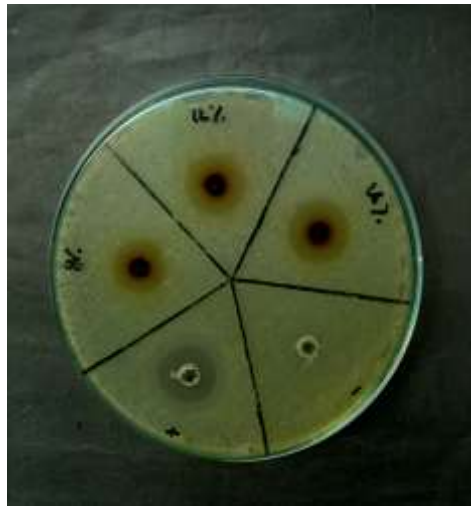
Uji tanin ekstrak
Buah belimbing
Wuluh



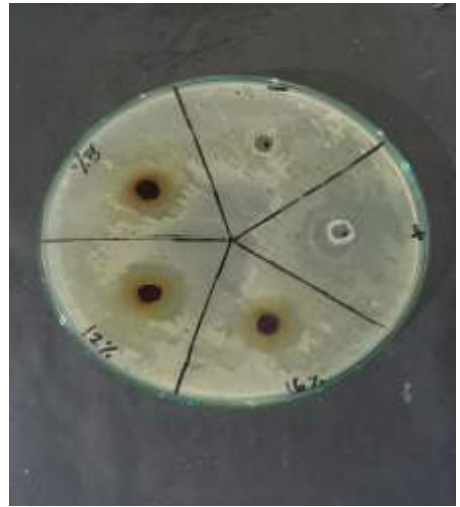
Uji bebas etanol
Buah Belimbing
Wuluh.

Lampiran 7 Hasil uji aktivitas antibakteri terhadap *Staphylococcus epidermidis* metode difusi

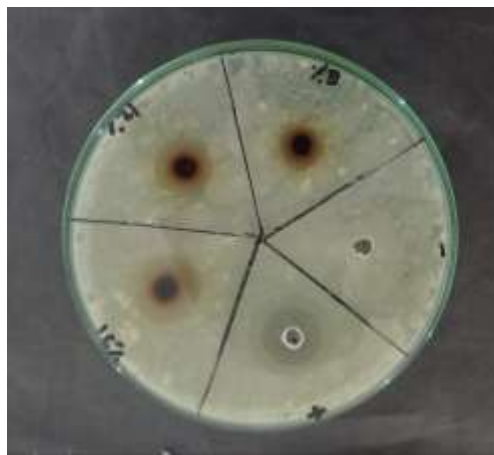
➤ Uji aktivitas antibakteri ekstrak buah belimbing wuluh



REPLIKASI 1

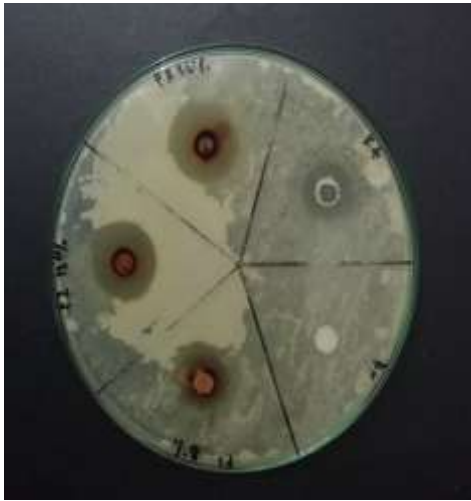


REPLIKASI 2



REPLIKASI 3

➤ Uji aktivitas antibakteri formula sabun cair buah belimbing wuluh



REPLIKASI 1



REPLIKASI 2



REPLIKASI 3

Lampiran 8 Hasil uji statistik aktivitas antibakteri ekstrak buah belimbing wuluh terhadap Staphylococcus epidermidis

Uji Aktivitas Antibakteri Ekstrak Daun Buah Belimbing Wuluh					
Replikasi	8%	12%	16%	Kontrol positif	Kontrol negatif
1	14,6	17,6	19,3	21	0
2	14,3	16,3	18,6	19,6	0
3	14,0	17,3	18,3	20,3	0
Rata – rata	14,3	17	18,7	19,6	0
SD	0,24	0,68	0,30	0,89	0

Test of Homogeneity of Variances

Tests of Normality^a

	KELOMPOK	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
UJI_AKTIVITAS_ANTIBAKTERI_EKSTRAK	DMSO 3% (K -)	,175	3	.	1,000	3	1,000
	Ekstrak 8 %	,301	3	.	,912	3	,424
	Ekstrak 12%	,269	3	.	,949	3	,567
	Ekstrak 16%	,175	3	.	1,000	3	1,000

a. UJI_AKTIVITAS_ANTIBAKTERI_EKSTRAK is constant when KELOMPOK = ,00. It has been omitted.

b. Lilliefors Significance Correction

UJI_AKTIVITAS_ANTIBAKTERI_EKSTRAK

Levene Statistic	df1	df2	Sig.
2,123	4	10	,152

Multiple Comparisons

Dependent Variable: UJI_AKTIVITAS_ANTIBAKTERI_EKSTRAK

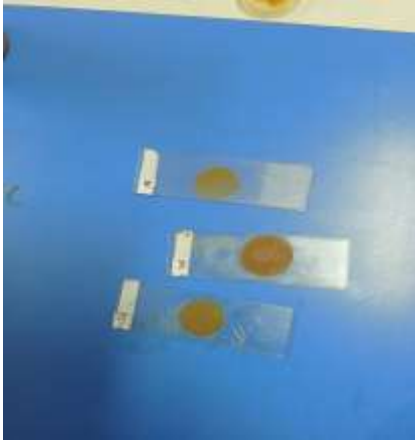
Tukey HSD

(I) KELOMPOK	(J) KELOMPOK	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
,00	DMSO 3% (K -)	-14,30000*	,41740	,000	-15,6737	-12,9263
	Ekstrak 8 %	-17,06667*	,41740	,000	-18,4404	-15,6930
	Ekstrak 12%	-18,73333*	,41740	,000	-20,1070	-17,3596
	Ekstrak 16%	-20,30000*	,41740	,000	-21,6737	-18,9263
DMSO 3% (K -)	,00	14,30000*	,41740	,000	12,9263	15,6737
	Ekstrak 8 %	-2,76667*	,41740	,000	-4,1404	-1,3930
	Ekstrak 12%	-4,43333*	,41740	,000	-5,8070	-3,0596
	Ekstrak 16%	-6,00000*	,41740	,000	-7,3737	-4,6263
Ekstrak 8 %	,00	17,06667*	,41740	,000	15,6930	18,4404
	DMSO 3% (K -)	2,76667*	,41740	,000	1,3930	4,1404
	Ekstrak 12%	-1,66667*	,41740	,017	-3,0404	-,2930
	Ekstrak 16%	-3,23333*	,41740	,000	-4,6070	-1,8596
Ekstrak 12%	,00	18,73333*	,41740	,000	17,3596	20,1070
	DMSO 3% (K -)	4,43333*	,41740	,000	3,0596	5,8070
	Ekstrak 8 %	1,66667*	,41740	,017	,2930	3,0404
	Ekstrak 16%	-1,56667*	,41740	,024	-2,9404	-,1930
Ekstrak 16%	,00	20,30000*	,41740	,000	18,9263	21,6737
	DMSO 3% (K -)	6,00000*	,41740	,000	4,6263	7,3737
	Ekstrak 8 %	3,23333*	,41740	,000	1,8596	4,6070
	Ekstrak 12%	1,56667*	,41740	,024	,1930	2,9404

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

Lampiran 9 Sediaan sabun cair ekstrak buah belimbing wuluh

Lampiran 10 Hasil pengujian mutu fisik sabun cair ekstrak buah belimbing wuluh



homogenitas



Uji pH



Daya Busa



Uji Viskositas



Uji Stabilitas

**Lampiran 11 Data hasil miti fisik , viskositas, pH, daya busa sediaan
sabun cair ekstrak buah belimbing wuluh**

➤ Uji daya busa

Uji Daya Busa				
Replikasi	F1	F2	F3	F4
1	50,1	51,5	54,2	55,0
2	48,6	51,3	53,4	54,8
3	48,1	51,9	53,1	54,6
Rata – rata	48,96	51,56	53,56	54,8
SD	1,04	0,30	0,56	0,2

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji_Tinggi_Busa	Formula 0%	,253	3	.	,964	3	,637
	Formula 8 %	,175	3	.	1,000	3	1,000
	Formula 12%	,253	3	.	,964	3	,637
	Formula 16%	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Uji_Tinggi_Busa

Levene Statistic	df1	df2	Sig.
,053	3	8	,983

Multiple Comparisons

Dependent Variable: Uji_Tinggi_Busa

Tukey HSD

(I) KELOMPOK	(J) KELOMPOK	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 0%	Formula 8 %	1,23333 [*]	,13540	,000	,7997	1,6669
	Formula 12%	3,60000 [*]	,13540	,000	3,1664	4,0336
	Formula 16%	6,16667 [*]	,13540	,000	5,7331	6,6003
Formula 8 %	Formula 0%	-1,23333 [*]	,13540	,000	-1,6669	-,7997
	Formula 12%	2,36667 [*]	,13540	,000	1,9331	2,8003
	Formula 16%	4,93333 [*]	,13540	,000	4,4997	5,3669
Formula 12%	Formula 0%	-3,60000 [*]	,13540	,000	-4,0336	-3,1664
	Formula 8 %	-2,36667 [*]	,13540	,000	-2,8003	-1,9331
	Formula 16%	2,56667 [*]	,13540	,000	2,1331	3,0003
Formula 16%	Formula 0%	-6,16667 [*]	,13540	,000	-6,6003	-5,7331
	Formula 8 %	-4,93333 [*]	,13540	,000	-5,3669	-4,4997
	Formula 12%	-2,56667 [*]	,13540	,000	-3,0003	-2,1331

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

➤ Uji Viskositas

Uji Viskositas				
Replikasi	F1	F2	F3	F4
1	480	460	430	430
2	470	440	440	420
3	490	450	410	400
Rata – rata	480	450	426,6	416,6
SD	10	10	15,27	15,27

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
UJI_VISKOSIT AS	FORMULA 1 = 0% (K-)	,175	3	.	1,000	3	1,000
	FORMULA 2 = 8%	,175	3	.	1,000	3	1,000
	FORMULA 3 = 12%	,253	3	.	,964	3	,637
	FORMULA 4 = 16%	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

UJI_VISKOSITAS

Levene Statistic	df1	df2	Sig.
,485	3	8	,702

Multiple Comparisons

Dependent Variable: UJI_VISKOSITAS

Tukey HSD

(I) KELOMPOK	(J) KELOMPOK	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
FORMULA 1 = 0% (K-)	FORMULA 2 = 8%	30,000	10,541	,083	-3,76	63,76
	FORMULA 3 = 12%	53,333*	10,541	,004	19,58	87,09
	FORMULA 4 = 16%	63,333*	10,541	,001	29,58	97,09
FORMULA 2 = 8%	FORMULA 1 = 0% (K-)	-30,000	10,541	,083	-63,76	3,76
	FORMULA 3 = 12%	23,333	10,541	,199	-10,42	57,09
	FORMULA 4 = 16%	33,333	10,541	,053	-,42	67,09
FORMULA 3 = 12%	FORMULA 1 = 0% (K-)	-53,333*	10,541	,004	-87,09	-19,58
	FORMULA 2 = 8%	-23,333	10,541	,199	-57,09	10,42
	FORMULA 4 = 16%	10,000	10,541	,781	-23,76	43,76
FORMULA 4 = 16%	FORMULA 1 = 0% (K-)	-63,333*	10,541	,001	-97,09	-29,58
	FORMULA 2 = 8%	-33,333	10,541	,053	-67,09	,42
	FORMULA 3 = 12%	-10,000	10,541	,781	-43,76	23,76

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

Uji pH

Uji pH				
Replikasi	F1	F2	F3	F4
1	9,07	8,97	9,65	7,76
2	9,04	8,91	8,44	8,10
3	9,06	8,83	7,95	7,90
Rata – rata	9,05	8,89	8,68	7,92
SD	0,01	0,07	0,87	0,17

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
UJI_pH	Formula 0% (K-)	,253	3	.	,964	3	,637
	Formula 8%	,204	3	.	,993	3	,843
	Formula 12%	,275	3	.	,944	3	,542
	Formula 16 %	,213	3	.	,990	3	,806

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Uji_pH

Levene Statistic	df1	df2	Sig.
7,169	3	8	,012

Multiple Comparisons

Dependent Variable: Uji_pH

Dunnnett T3

(I) KELOMPOK	(J) KELOMPOK	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1= 0% (K-)	Formula 2 = 8 %	,15333	,04150	,174	-,1337	,4404
	Formula 3 = 12 %	,37667	,50528	,946	-3,4837	4,2370
	Formula 4 = 16%	1,13667*	,09905	,022	,3932	1,8802
Formula 2 = 8 %	Formula 1= 0% (K-)	-,15333	,04150	,174	-,4404	,1337
	Formula 3 = 12 %	,22333	,50683	,994	-3,5945	4,0412
	Formula 4 = 16%	,98333*	,10667	,015	,3690	1,5977
Formula 3 = 12 %	Formula 1= 0% (K-)	-,37667	,50528	,946	-4,2370	3,4837
	Formula 2 = 8 %	-,22333	,50683	,994	-4,0412	3,5945
	Formula 4 = 16%	,76000	,51475	,662	-2,8648	4,3848
Formula 4 = 16%	Formula 1= 0% (K-)	-1,13667*	,09905	,022	-1,8802	-,3932
	Formula 2 = 8 %	-,98333*	,10667	,015	-1,5977	-,3690
	Formula 3 = 12 %	-,76000	,51475	,662	-4,3848	2,8648

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

Lampiran 12 Data Stabilitas hasil miti fisik , viskositas, pH, daya busa sediaan
sabun cair ekstrak buah belimbing wuluh

➤ Uji Stabilitas Busa

Uji Stabilitas Busa									
Sebelum Cycling test					Setelah Cycling test				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	50,1	51,5	54,2	55,0	1	46,10	48,8	50,4	51,2
2	48,6	51,3	53,4	54,8	2	46,15	48,6	50,8	51,4
3	48,1	51,9	53,1	54,6	3	46,0	48,9	59	51,6
Rata – rata	48,96	51,56	53,56	54,8	Rata – rata	46,08	48,76	50,73	51,2
SD	1,04	0,30	0,56	0,2	SD	0,07	0,15	0,30	0,4

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum_Cycling_t est	FORMULA 1 = 0% (K-)	,292	3	.	,923	3	,463
	FORMULA 2 = 8%	,253	3	.	,964	3	,637
	FORMULA 3 = 12%	,282	3	.	,936	3	,510
	FORMULA 4 = 16%	,175	3	.	1,000	3	1,000
Setelah_Cycling_T EST	FORMULA 1 = 0% (K-)	,253	3	.	,964	3	,637
	FORMULA 2 = 8%	,253	3	.	,964	3	,637
	FORMULA 3 = 12%	,371	3	.	,785	3	,079
	FORMULA 4 = 16%	,175	3	.	1,000	3	1,000

a. Lilliefors Significance Correction

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Sebelum_Cycling_test	Between Groups	59,097	3	19,699	51,166	,000
	Within Groups	3,080	8	,385		
	Total	62,177	11			
Setelah_Cycling_TES T	Between Groups	91,052	3	30,351	5,138	,029
	Within Groups	47,258	8	5,907		
	Total	138,311	11			

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Paired 1	Formulasi sebelum stabilitas - Formulasi sesudah stabilitas	1 2.85000	1.01119	.58381	.33807	5.36193	4.882	2	.039	
Paired 2	Formulasi sebelum stabilitas - Formulasi sesudah stabilitas	2 2.80000	.17321	.10000	2.36973	3.23027	28.000	2	.001	
Paired 3	Formulasi sebelum stabilitas - Formulasi sesudah stabilitas	3 .16667	5.28804	3.05305	-12.96955	13.30288	.055	2	.961	
Paired 4	Formulasi sebelum stabilitas - Formulasi setelah stabilitas	4 3.40000	.40000	.23094	2.40634	4.39366	14.722	2	.005	

➤ Uji Stabilitas pH

Uji Stabilitas pH									
Sebelum <i>Cycling test</i>					Setelah <i>Cycling test</i>				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	9,07	8,97	9,65	7,76	1	9,02	8,34	8,20	7,68
2	9,04	8,91	8,44	8,10	2	9,00	8,31	8,16	7,62
3	9,06	8,83	7,95	7,90	3	8,98	8,25	8,11	7,64
Rata – rata	9,05	8,89	8,68	7,92	Rata – rata	9,00	8,3	8,15	7,65
SD	0,01	0,07	0,87	0,17	SD	0,02	0,04	0,04	0,03

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum_Cycling_Test	FORMULA 1 = 0% (K-)	,253	3	.	,964	3	,637
	FORMULA 2 = 8%	,204	3	.	,993	3	,843
	FORMULA 3 = 12%	,275	3	.	,944	3	,542
	FORMULA 4 = 16%	,213	3	.	,990	3	,806
Setelah_cycling_Test	FORMULA 1 = 0% (K-)	,175	3	.	1,000	3	1,000
	FORMULA 2 = 8%	,253	3	.	,964	3	,637
	FORMULA 3 = 12%	,196	3	.	,996	3	,878
	FORMULA 4 = 16%	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Sebelum_Cycling_Test	Between Groups	2,289	3	,763	3,814	,058
	Within Groups	1,600	8	,200		
	Total	3,889	11			
Setelah_cycling_Test	Between Groups	2,805	3	,935	684,185	,000
	Within Groups	,011	8	,001		
	Total	2,816	11			

Uji Stabilitas Viskositas

Uji Stabilitas Viskositas									
Sebelum <i>Cycling test</i>					Setelah <i>Cycling test</i>				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	480	460	430	430	1	510	470	450	440
2	470	440	440	420	2	490	460	440	420
3	490	450	410	400	3	470	450	420	400
Rata – rata	480	450	426,6	416,6	Rata – rata	496,66	460	436,67	420
SD	10	10	15,27	15,27	SD	15,27	10	15,28	20

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Uji_Viskositas_Sebelum_Cyclingtest	FORMULA 1 = 0% (K-)	,175	3	.	1,000	3	1,000
	FORMULA 2 = 8%	,175	3	.	1,000	3	1,000
	FORMULA 3 = 12%	,253	3	.	,964	3	,637
	FORMULA 4 = 16%	,253	3	.	,964	3	,637
Uji_viskositas_Setelah_Cyclingtest	FORMULA 1 = 0% (K-)	,175	3	.	1,000	3	1,000
	FORMULA 2 = 8%	,175	3	.	1,000	3	1,000
	FORMULA 3 = 12%	,253	3	.	,964	3	,637
	FORMULA 4 = 16%	,175	3	.	1,000	3	1,000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Uji_Viskositas_Sebelum_Cyclingtest	,485	3	8	,702
Uji_viskositas_Setelah_Cyclingtest	,340	3	8	,797

Paired Samples Test

		Paired Differences								
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)	
					Lower	Upper				
Paired 1	Formulasi sebelum stabilitas Formulasi sesudah stabilitas	10.0000	26.45751	15.27525	-75.72411	55.72411	-.655	2	.580	
Paired 2	Formulasi sebelum stabilitas Formulasi sesudah stabilitas	23.3333	15.27525	8.81917	-61.27916	14.61250	-2.646	2	.118	
Paired 3	Formulasi sebelum stabilitas Formulasi sesudah stabilitas	10.0000	10.00000	5.77350	-34.84138	14.84138	-1.732	2	.225	
Paired 4	Formulasi sebelum stabilitas Formulasi setelah stabilitas	3.3333	5.77350	3.33333	-17.67551	11.00884	-1.000	2	.423	

Lampiran 13 Data Hasil Uji Aktivitas Antibakteri Buah Belimbing Wuluh

- Uji Aktivitas Antibakteri Sabun Cair Ekstrak Buah Belimbing Wuluh.

Uji Aktivitas Antibakteri Sediaan Sabun Cair					
Replikasi	F1	F2	F3	Kontrol positif	Kontrol negatif
1	17	19,33	21,33	20	2,33
2	16,66	19	20,66	20,5	2,66
3	16,33	19,66	19,66	20,9	2
Rata – rata	16,66	19,33	20,55	20,4	2,33
SD	0,33	0,33	0,84	0,45	0,33

Tests of Normality

	KELOMPOK	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
AKTIVITAS_ANTIBAKTERI_SABUN	Formula 1 0% (K-)	,175	3	.	1,000	3	1,000
	Formula 2 8%	,176	3	.	1,000	3	,984
	Formula 3 12%	,175	3	.	1,000	3	1,000
	Formula 4 16%	,219	3	.	,987	3	,783
	K + (JF Sulfur)	,196	3	.	,996	3	,878

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

AKTIVITAS_ANTIBAKTERI_SABUN

Levene Statistic	df1	df2	Sig.
1,125	4	10	,398

Multiple Comparisons

Dependent Variable: AKTIVITAS_ANTIBAKTERI_SABUN

Tukey HSD

(I) KELOMPOK	(J) KELOMPOK	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1 0% (K-)	Formula 2 8%	-14,34333 [*]	,39702	,000	-15,6500	-13,0367
	Formula 3 12%	-17,01667 [*]	,39702	,000	-18,3233	-15,7100
	Formula 4 16%	-18,18667 [*]	,39702	,000	-19,4933	-16,8800
	K + (JF Sulfur)	-18,15333 [*]	,39702	,000	-19,4600	-16,8467
Formula 2 8%	Formula 1 0% (K-)	14,34333 [*]	,39702	,000	13,0367	15,6500
	Formula 3 12%	-2,67333 [*]	,39702	,000	-3,9800	-1,3667
	Formula 4 16%	-3,84333 [*]	,39702	,000	-5,1500	-2,5367
	K + (JF Sulfur)	-3,81000 [*]	,39702	,000	-5,1166	-2,5034
Formula 3 12%	Formula 1 0% (K-)	17,01667 [*]	,39702	,000	15,7100	18,3233
	Formula 2 8%	2,67333 [*]	,39702	,000	1,3667	3,9800
	Formula 4 16%	-1,17000	,39702	,085	-2,4766	,1366
	K + (JF Sulfur)	-1,13667	,39702	,097	-2,4433	,1700
Formula 4 16%	Formula 1 0% (K-)	18,18667 [*]	,39702	,000	16,8800	19,4933
	Formula 2 8%	3,84333 [*]	,39702	,000	2,5367	5,1500
	Formula 3 12%	1,17000	,39702	,085	-,1366	2,4766
	K + (JF Sulfur)	,03333	,39702	1,000	-1,2733	1,3400
K + (JF Sulfur)	Formula 1 0% (K-)	18,15333 [*]	,39702	,000	16,8467	19,4600
	Formula 2 8%	3,81000 [*]	,39702	,000	2,5034	5,1166
	Formula 3 12%	1,13667	,39702	,097	-,1700	2,4433
	Formula 4 16%	-,03333	,39702	1,000	-1,3400	1,2733

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