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## Lampiran 1. Hasil determinasi tanaman



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/ 246/ 102.20-A/ 2022  
Sifat : Biasa  
Perihal : **Determinasi Tanaman Kelor**

Memenuhi permohonan saudara :

Nama : I GUSTI AGUNG GEDE ADHITYA  
NIM : 24185672A  
Fakultas : FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA

1. Perihal determinasi tanaman kelor

Kingdom : Plantae (Tumbuhan)  
Divisi : Magnoliophyta (Tumbuhan berbunga)  
Kelas : Dicotyledonae  
Sub kelas : Dilleniidae  
Bangsa : Capparales  
Suku : Moringaceae  
Marga : Moringa  
Jenis : *Moringa oleifera* Lamk.  
Nama Daerah : Kelor (Indonesia, Jawa, Sunda, Bali, Lampung), Kerol (Buru), Maranghi (Madura), Moltong (Flores), Kelo (Gorontalo), Keloro (Bugis), Kawano (Sumba), Onge (Bima), Hau fo (Timor).  
Kunci determinasi : 1b-2b-3b-4b-6b-7b-9b-10b-11b-12b-13b-14a-15b-197b-208b-209b-210b-211b-214a:Moringaceae-1:*M.oleifera*.

2. Morfologi : Habitus: Pohon, tinggi +8 m. Batang: Berkayu, bulat, bercabang, berbintik hitam, putih kotor. Daun: Majemuk, panjang 20-60 cm, anak daun bulat telur, tepi rata, ujung berlekuk, menyirip ganjil, hijau. Bunga: Majemuk, bentuk malai, letak di ketiak daun, panjang 10-30 cm, daun kelopak hijau, benang sari dan putik kecil, mahkota putih, putih. Buah: Polong, panjang 20-45 cm, berisi 15-25 biji, cokelat kehitaman. Biji: Bulat, bersayap tiga, hitam. Akar: Tunggang, putih kotor.

3. Bagian yang digunakan : Daun.

4. Penggunaan : Penelitian.

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, 28 Maret 2022

KEPALA UPT LABORATORIUM HERBAL  
MATERIA MEDICA BATU



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

**Lampiran 2. Daun kelor (*Moringa oleifera*)**



**Lampiran 3. Peralatan penelitian**

**Lampiran 4. Uji fitokimia ekstrak daun kelor**



**Uji flavonoid pada ekstrak daun kelor**



**Uji tanin pada ekstrak daun kelor**



**Uji saponin pada ekstrak daun kelor**



**Uji triterpenoid pada ekstrak daun kelor**

**Lampiran 5. Hasil uji kadar air serbuk**



**Lampiran 6. Hasil uji susut pengeringan serbuk**



**Lampiran 7. Pengujian kadar air ekstrak**



**Lampiran 8. Formula sediaan gel *hand sanitizer***



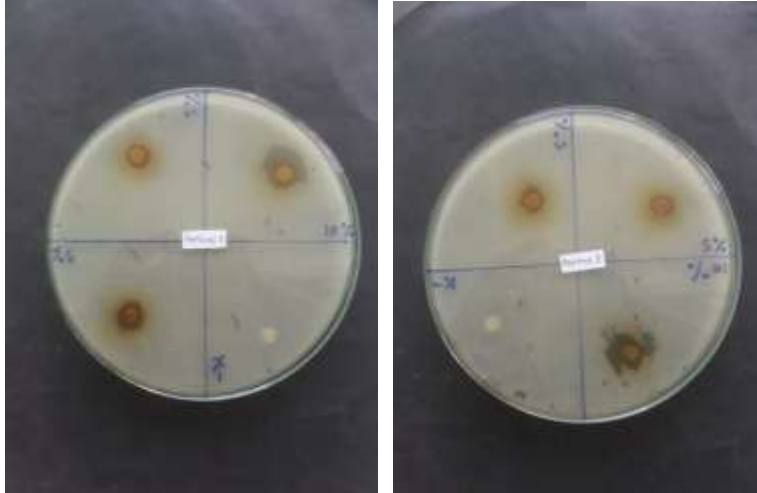
Formula 1



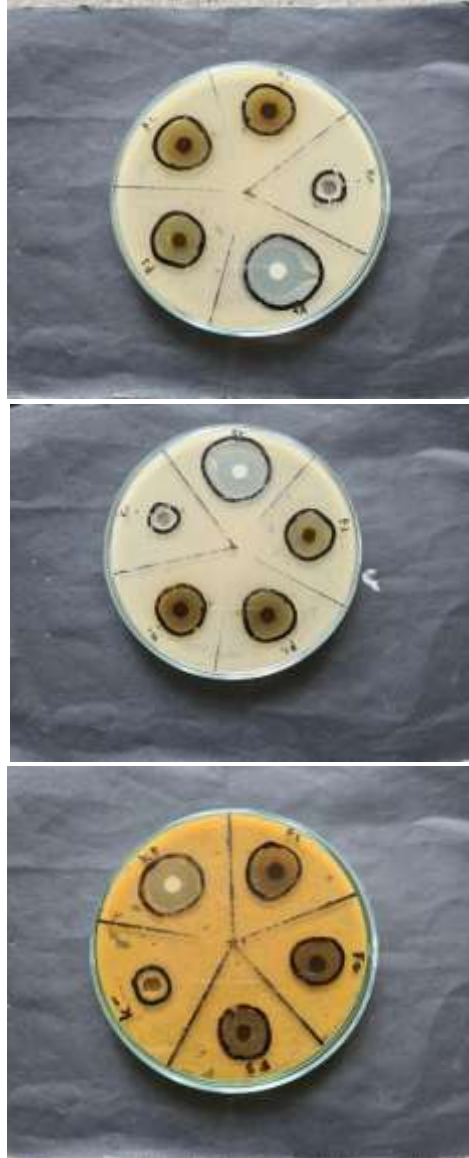
Formula 2



Formula 3

**Lampiran 9. Uji aktivitas ekstrak daun kelor**

**Lampiran 10. Uji aktivitas sediaan gel *hand sanitizer***



**Lampiran 11. Perhitungan rendemen serbuk dan ekstrak daun kelor**

Hasil perhitungan rendemen simplisia daun kelor

Perhitungan rendemen serbuk :

$$\begin{aligned}\text{Rendemen (\%)} &= \frac{\text{Bobot serbuk kering}}{\text{Bobot simplisia basah}} \times 100\% \\ &= \frac{1011}{15000} \times 100\% \\ &= 6,74 \%\end{aligned}$$

Hasil perhitungan rendemen ekstrak kelor

Perhitungan Rendemen ekstrak :

$$\begin{aligned}\text{Rendemen (\%)} &= \frac{\text{bobot ekstrak}}{\text{bobot serbuk}} \times 100\% \\ &= \frac{126}{800} \times 100\% \\ &= 15,75 \%\end{aligned}$$

**Lampiran 12. Perhitungan kadar air ekstrak**

Replikasi 1

Berat awal = 1,302

Berat akhir = 1,213

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{1,302 - 1,213}{1,302} \times 100\% \\ &= 6,81\% \end{aligned}$$

Repikasi 2

Berat awal = 1,054

Berat akhir = 0,981

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{1,054 - 0,981}{1,054} \times 100\% \\ &= 6,92 \end{aligned}$$

Repikasi 3

Berat awal = 1,047

Berat akhir = 0,975

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{1,047 - 0,975}{1,047} \times 100\% \\ &= 6,85\% \end{aligned}$$

**Lampiran 13. Data dan statistik uji mutu fisik pH sediaan gel had sanitizer**  
Oneway anova

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Uji_pH	Based on Mean	.323	5	12	.890
	Based on Median	.215	5	12	.950
	Based on Median and with adjusted df	.215	5	10.340	.949
	Based on trimmed mean	.316	5	12	.894

tukey

Multiple Comparisons						
Dependent Variable: Uji_pH						
Tukey HSD						
(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
KB1	KB2	.42667*	.01622	.000	.3722	.4811
	KB3	.21333*	.01622	.000	.1589	.2678
	F1	3.89667*	.01622	.000	3.8422	3.9511
	F2	4.57667*	.01622	.000	4.5222	4.6311
	F3	4.61000*	.01622	.000	4.5555	4.6645
KB2	KB1	-.42667*	.01622	.000	-.4811	-.3722
	KB3	-.21333*	.01622	.000	-.2678	-.1589
	F1	3.47000*	.01622	.000	3.4155	3.5245
	F2	4.15000*	.01622	.000	4.0955	4.2045
	F3	4.18333*	.01622	.000	4.1289	4.2378
KB3	KB1	-.21333*	.01622	.000	-.2678	-.1589
	KB2	.21333*	.01622	.000	.1589	.2678
	F1	3.68333*	.01622	.000	3.6289	3.7378
	F2	4.36333*	.01622	.000	4.3089	4.4178
	F3	4.39667*	.01622	.000	4.3422	4.4511
F1	KB1	-3.89667*	.01622	.000	-3.9511	-3.8422
	KB2	-3.47000*	.01622	.000	-3.5245	-3.4155
	KB3	-3.68333*	.01622	.000	-3.7378	-3.6289
	F2	.68000*	.01622	.000	.6255	.7345
	F3	.71333*	.01622	.000	.6589	.7678
F2	KB1	-4.57667*	.01622	.000	-4.6311	-4.5222
	KB2	-4.15000*	.01622	.000	-4.2045	-4.0955
	KB3	-4.36333*	.01622	.000	-4.4178	-4.3089
	F1	-.68000*	.01622	.000	-.7345	-.6255
	F3	.03333	.01622	.369	-.0211	.0878
F3	KB1	-4.61000*	.01622	.000	-4.6645	-4.5555
	KB2	-4.18333*	.01622	.000	-4.2378	-4.1289
	KB3	-4.39667*	.01622	.000	-4.4511	-4.3422
	F1	-.71333*	.01622	.000	-.7678	-.6589
	F2	-.03333	.01622	.369	-.0878	.0211

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

**Lampiran 14. Data dan statistic uji viskositas sediaan gel hand sanitizer**  
Oneway anova

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Uji_Viskositas	Based on Mean	.000	5	12	1.000
	Based on Median	.000	5	12	1.000
	Based on Median and with adjusted df	.000	5	12.000	1.000
	Based on trimmed mean	.000	5	12	1.000

tukey

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
KB1	KB2	-700.00000*	81.64966	.000	-974.2547	-425.7453
	KB3	-2600.00000*	81.64966	.000	-2874.2547	-2325.7453
	F1	300.00000*	81.64966	.029	25.7453	574.2547
	F2	-400.00000*	81.64966	.004	-674.2547	-125.7453
	F3	-2200.00000*	81.64966	.000	-2474.2547	-1925.7453
KB2	KB1	700.00000*	81.64966	.000	425.7453	974.2547
	KB3	-1900.00000*	81.64966	.000	-2174.2547	-1625.7453
	F1	1000.00000*	81.64966	.000	725.7453	1274.2547
	F2	300.00000*	81.64966	.029	25.7453	574.2547
	F3	-1500.00000*	81.64966	.000	-1774.2547	-1225.7453
KB3	KB1	2600.00000*	81.64966	.000	2325.7453	2874.2547
	KB2	1900.00000*	81.64966	.000	1625.7453	2174.2547
	F1	2900.00000*	81.64966	.000	2625.7453	3174.2547
	F2	2200.00000*	81.64966	.000	1925.7453	2474.2547
	F3	400.00000*	81.64966	.004	125.7453	674.2547
F1	KB1	-300.00000*	81.64966	.029	-574.2547	-25.7453
	KB2	-1000.00000*	81.64966	.000	-1274.2547	-725.7453
	KB3	-2900.00000*	81.64966	.000	-3174.2547	-2625.7453
	F2	-700.00000*	81.64966	.000	-974.2547	-425.7453
	F3	-2500.00000*	81.64966	.000	-2774.2547	-2225.7453
F2	KB1	400.00000*	81.64966	.004	125.7453	674.2547
	KB2	-300.00000*	81.64966	.029	-574.2547	-25.7453
	KB3	-2200.00000*	81.64966	.000	-2474.2547	-1925.7453
	F1	700.00000*	81.64966	.000	425.7453	974.2547
	F3	-1800.00000*	81.64966	.000	-2074.2547	-1525.7453
F3	KB1	2200.00000*	81.64966	.000	1925.7453	2474.2547
	KB2	1500.00000*	81.64966	.000	1225.7453	1774.2547
	KB3	-400.00000*	81.64966	.004	-674.2547	-125.7453
	F1	2500.00000*	81.64966	.000	2225.7453	2774.2547
	F2	1800.00000*	81.64966	.000	1525.7453	2074.2547

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

### Lampiran 15. Data dan statistic uji daya sebar gel *hand sanitizer*

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Tanpa_beban	Based on Mean	.000	5	12	1.000
	Based on Median	.000	5	12	1.000
	Based on Median and with adjusted df	.000	5	12.000	1.000
	Based on trimmed mean	.000	5	12	1.000
Beban_50g	Based on Mean	.000	5	12	1.000
	Based on Median	.000	5	12	1.000
	Based on Median and with adjusted df	.000	5	12.000	1.000
	Based on trimmed mean	.000	5	12	1.000
Beban_100g	Based on Mean	.000	5	12	1.000
	Based on Median	.000	5	12	1.000
	Based on Median and with adjusted df	.000	5	12.000	1.000
	Based on trimmed mean	.000	5	12	1.000

Multiple Comparisons							
Tukey HSD							
Dependent Variable	(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tanpa_beban	Formulasi 1 Gliserin 5 %	Formulasi 2 Gliserin 7,5 %	.80000*	.08165	.000	.5257	1.0743
		Formulasi 3 Gliserin 10 %	1.80000*	.08165	.000	1.5257	2.0743
		Basis 1 Gliserin 5 %	.50000*	.08165	.001	.2257	.7743
		Basis 2 Gliserin 7,5 %	1.00000*	.08165	.000	.7257	1.2743
		Basis 3 Gliserin 10 %	1.60000*	.08165	.000	1.3257	1.8743
	Formulasi 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	-.80000*	.08165	.000	-1.0743	-.5257
		Formulasi 3 Gliserin 10 %	1.00000*	.08165	.000	.7257	1.2743
		Basis 1 Gliserin 5 %	-.30000*	.08165	.029	-.5743	-.0257
		Basis 2 Gliserin 7,5 %	.20000	.08165	.214	-.0743	.4743
		Basis 3 Gliserin 10 %	.80000*	.08165	.000	.5257	1.0743
	Formulasi 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	-1.80000*	.08165	.000	-2.0743	-1.5257



		Formulasi 2 Gliserin 7,5 %	- 1.00000*	.0816 5	.00 0	-1.2743	-.7257
		Basis 1 Gliserin 5 %	- 1.30000*	.0816 5	.00 0	-1.5743	-1.0257
		Basis 2 Gliserin 7,5 %	-.80000*	.0816 5	.00 0	-1.0743	-.5257
		Basis 3 Gliserin 10 %	-.20000	.0816 5	.21 4	-.4743	.0743
	Basis 1 Gliserin 5 %	Formulasi 1 Gliserin 5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Formulasi 2 Gliserin 7,5 %	.30000*	.0816 5	.02 9	.0257	.5743
		Formulasi 3 Gliserin 10 %	1.30000*	.0816 5	.00 0	1.0257	1.5743
		Basis 2 Gliserin 7,5 %	.50000*	.0816 5	.00 1	.2257	.7743
		Basis 3 Gliserin 10 %	1.10000*	.0816 5	.00 0	.8257	1.3743
	Basis 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	- 1.00000*	.0816 5	.00 0	-1.2743	-.7257
		Formulasi 2 Gliserin 7,5 %	-.20000	.0816 5	.21 4	-.4743	.0743
		Formulasi 3 Gliserin 10 %	.80000*	.0816 5	.00 0	.5257	1.0743
		Basis 1 Gliserin 5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Basis 3 Gliserin 10 %	.60000*	.0816 5	.00 0	.3257	.8743
	Basis 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	- 1.60000*	.0816 5	.00 0	-1.8743	-1.3257
		Formulasi 2 Gliserin 7,5 %	-.80000*	.0816 5	.00 0	-1.0743	-.5257
		Formulasi 3 Gliserin 10 %	.20000	.0816 5	.21 4	-.0743	.4743
		Basis 1 Gliserin 5 %	- 1.10000*	.0816 5	.00 0	-1.3743	-.8257
		Basis 2 Gliserin 7,5 %	-.60000*	.0816 5	.00 0	-.8743	-.3257
Beban _50g	Formulasi 1 Gliserin 5 %	Formulasi 2 Gliserin 7,5 %	1.00000*	.0816 5	.00 0	.7257	1.2743
		Formulasi 3 Gliserin 10 %	1.70000*	.0816 5	.00 0	1.4257	1.9743
		Basis 1 Gliserin 5 %	.50000*	.0816 5	.00 1	.2257	.7743
		Basis 2 Gliserin 7,5 %	1.10000*	.0816 5	.00 0	.8257	1.3743
		Basis 3 Gliserin 10 %	1.60000*	.0816 5	.00 0	1.3257	1.8743

	Formulasi 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	- 1.00000*	.0816 5	.00 0	-1.2743	-.7257
		Formulasi 3 Gliserin 10 %	.70000*	.0816 5	.00 0	.4257	.9743
		Basis 1 Gliserin 5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Basis 2 Gliserin 7,5 %	.10000	.0816 5	.81 7	-.1743	.3743
		Basis 3 Gliserin 10 %	.60000*	.0816 5	.00 0	.3257	.8743
	Formulasi 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	- 1.70000*	.0816 5	.00 0	-1.9743	-1.4257
		Formulasi 2 Gliserin 7,5 %	-.70000*	.0816 5	.00 0	-.9743	-.4257
		Basis 1 Gliserin 5 %	- 1.20000*	.0816 5	.00 0	-1.4743	-.9257
		Basis 2 Gliserin 7,5 %	-.60000*	.0816 5	.00 0	-.8743	-.3257
		Basis 3 Gliserin 10 %	-.10000	.0816 5	.81 7	-.3743	.1743
	Basis 1 Gliserin 5 %	Formulasi 1 Gliserin 5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Formulasi 2 Gliserin 7,5 %	.50000*	.0816 5	.00 1	.2257	.7743
		Formulasi 3 Gliserin 10 %	1.20000*	.0816 5	.00 0	.9257	1.4743
		Basis 2 Gliserin 7,5 %	.60000*	.0816 5	.00 0	.3257	.8743
		Basis 3 Gliserin 10 %	1.10000*	.0816 5	.00 0	.8257	1.3743
Basis 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	- 1.10000*	.0816 5	.00 0	-1.3743	-.8257	
	Formulasi 2 Gliserin 7,5 %	-.10000	.0816 5	.81 7	-.3743	.1743	
	Formulasi 3 Gliserin 10 %	.60000*	.0816 5	.00 0	.3257	.8743	
	Basis 1 Gliserin 5 %	-.60000*	.0816 5	.00 0	-.8743	-.3257	
	Basis 3 Gliserin 10 %	.50000*	.0816 5	.00 1	.2257	.7743	
Basis 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	- 1.60000*	.0816 5	.00 0	-1.8743	-1.3257	
	Formulasi 2 Gliserin 7,5 %	-.60000*	.0816 5	.00 0	-.8743	-.3257	
	Formulasi 3 Gliserin 10 %	.10000	.0816 5	.81 7	-.1743	.3743	
	Basis 1 Gliserin 5 %	- 1.10000*	.0816 5	.00 0	-1.3743	-.8257	

		Basis 2 Gliserin 7,5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
Beban _100g	Formulasi 1 Gliserin 5 %	Formulasi 2 Gliserin 7,5 %	.90000*	.0816 5	.00 0	.6257	1.1743
		Formulasi 3 Gliserin 10 %	1.40000 *	.0816 5	.00 0	1.1257	1.6743
		Basis 1 Gliserin 5 %	.40000*	.0816 5	.00 4	.1257	.6743
		Basis 2 Gliserin 7,5 %	1.30000 *	.0816 5	.00 0	1.0257	1.5743
		Basis 3 Gliserin 10 %	1.40000 *	.0816 5	.00 0	1.1257	1.6743
	Formulasi 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	-.90000*	.0816 5	.00 0	-1.1743	-.6257
		Formulasi 3 Gliserin 10 %	.50000*	.0816 5	.00 1	.2257	.7743
		Basis 1 Gliserin 5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Basis 2 Gliserin 7,5 %	.40000*	.0816 5	.00 4	.1257	.6743
		Basis 3 Gliserin 10 %	.50000*	.0816 5	.00 1	.2257	.7743
	Formulasi 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	- 1.40000 *	.0816 5	.00 0	-1.6743	-1.1257
		Formulasi 2 Gliserin 7,5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Basis 1 Gliserin 5 %	- 1.00000 *	.0816 5	.00 0	-1.2743	-.7257
		Basis 2 Gliserin 7,5 %	-.10000	.0816 5	.81 7	-.3743	.1743
		Basis 3 Gliserin 10 %	.00000	.0816 5	1.0 00	-.2743	.2743
	Basis 1 Gliserin 5 %	Formulasi 1 Gliserin 5 %	-.40000*	.0816 5	.00 4	-.6743	-.1257
		Formulasi 2 Gliserin 7,5 %	.50000*	.0816 5	.00 1	.2257	.7743
		Formulasi 3 Gliserin 10 %	1.00000 *	.0816 5	.00 0	.7257	1.2743
		Basis 2 Gliserin 7,5 %	.90000*	.0816 5	.00 0	.6257	1.1743
		Basis 3 Gliserin 10 %	1.00000 *	.0816 5	.00 0	.7257	1.2743
Basis 2 Gliserin 7,5 %	Formulasi 1 Gliserin 5 %	- 1.30000 *	.0816 5	.00 0	-1.5743	-1.0257	
	Formulasi 2 Gliserin 7,5 %	-.40000*	.0816 5	.00 4	-.6743	-.1257	
	Formulasi 3 Gliserin 10 %	.10000	.0816 5	.81 7	-.1743	.3743	
	Basis 1 Gliserin 5 %	-.90000*	.0816 5	.00 0	-1.1743	-.6257	

		Basis 3 Gliserin 10 %	.10000	.0816 5	.81 7	-.1743	.3743
	Basis 3 Gliserin 10 %	Formulasi 1 Gliserin 5 %	- 1.40000 *	.0816 5	.00 0	-1.6743	-1.1257
		Formulasi 2 Gliserin 7,5 %	-.50000*	.0816 5	.00 1	-.7743	-.2257
		Formulasi 3 Gliserin 10 %	.00000	.0816 5	1.0 00	-.2743	.2743
		Basis 1 Gliserin 5 %	- 1.00000 *	.0816 5	.00 0	-1.2743	-.7257
		Basis 2 Gliserin 7,5 %	-.10000	.0816 5	.81 7	-.3743	.1743
*. The mean difference is significant at the 0.05 level.							

**Lampiran 16. Data dan statistic uji daya lekat gel *hand sanitizer***

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Uji_daya_lekat	Based on Mean	1.772	5	12	.193
	Based on Median	.494	5	12	.775
	Based on Median and with adjusted df	.494	5	6.066	.772
	Based on trimmed mean	1.652	5	12	.220

Multiple Comparisons						
Dependent Variable: Uji_daya_lekat						
Tukey HSD						
(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
KB1	KB2	-.53000*	.07209	.000	-.7721	-.2879
	KB3	-1.46667*	.07209	.000	-1.7088	-1.2245
	F1	.06667	.07209	.932	-.1755	.3088
	F2	-.11000	.07209	.656	-.3521	.1321
	F3	-1.24000*	.07209	.000	-1.4821	-.9979
KB2	KB1	.53000*	.07209	.000	.2879	.7721
	KB3	-.93667*	.07209	.000	-1.1788	-.6945
	F1	.59667*	.07209	.000	.3545	.8388
	F2	.42000*	.07209	.001	.1779	.6621
	F3	-.71000*	.07209	.000	-.9521	-.4679
KB3	KB1	1.46667*	.07209	.000	1.2245	1.7088
	KB2	.93667*	.07209	.000	.6945	1.1788
	F1	1.53333*	.07209	.000	1.2912	1.7755
	F2	1.35667*	.07209	.000	1.1145	1.5988
	F3	.22667	.07209	.071	-.0155	.4688
F1	KB1	-.06667	.07209	.932	-.3088	.1755
	KB2	-.59667*	.07209	.000	-.8388	-.3545
	KB3	-1.53333*	.07209	.000	-1.7755	-1.2912
	F2	-.17667	.07209	.214	-.4188	.0655
	F3	-1.30667*	.07209	.000	-1.5488	-1.0645
F2	KB1	.11000	.07209	.656	-.1321	.3521
	KB2	-.42000*	.07209	.001	-.6621	-.1779
	KB3	-1.35667*	.07209	.000	-1.5988	-1.1145
	F1	.17667	.07209	.214	-.0655	.4188
	F3	-1.13000*	.07209	.000	-1.3721	-.8879
F3	KB1	1.24000*	.07209	.000	.9979	1.4821
	KB2	.71000*	.07209	.000	.4679	.9521
	KB3	-.22667	.07209	.071	-.4688	.0155
	F1	1.30667*	.07209	.000	1.0645	1.5488
	F2	1.13000*	.07209	.000	.8879	1.3721

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

**Lampiran 17. Uji stabilitas data dan statistic uji pH gel *hand sanitizer***

Tests of Normality						
	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Formulasi 1 sebelum stabilitas	.219	3	.	.987	3	.780
Formulasi 1 sesudah stabilitas	.376	3	.	.773	3	.050
Formulasi 2 sebelum stabilitas	.253	3	.	.964	3	.637
Formulasi 2 sesudah stabilitas	.373	3	.	.779	3	.066
Formulasi 3 sebelum stabilitas	.175	3	.	1.000	3	1.000
Formulasi 3 sesudah stabilitas	.371	3	.	.784	3	.076
Formulasi 4 sebelum stabilitas	.253	3	.	.964	3	.637
Formulasi 4 sesudah stabilitas	.376	3	.	.771	3	.047
Formulasi 5 sebelum stabilitas	.253	3	.	.964	3	.637
Formulasi 5 sesudah stabilitas	.331	3	.	.865	3	.281
Formulasi 6 sebelum stabilitas	.219	3	.	.987	3	.780
Formulasi 6 sesudah stabilitas	.362	3	.	.803	3	.122

a. Lilliefors Significance Correction

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	Formulasi 1 sebelum stabilitas - Formulasi 1 sesudah stabilitas	.98667	.77655	.44834	-.94240	2.91573	2.201	.159	
Pair 2	Formulasi 2 sebelum stabilitas - Formulasi 2 sesudah stabilitas	.62000	.45044	.26006	-.49897	1.73897	2.384	.140	
Pair 3	Formulasi 3 sebelum stabilitas - Formulasi 3 sesudah stabilitas	.70000	.51971	.30006	-.59103	1.99103	2.333	.145	
Pair 4	Formulasi 4 sebelum stabilitas - Formulasi 4 sesudah stabilitas	.85000	.62362	.36005	-.69915	2.39915	2.361	.142	
Pair 5	Formulasi 5 sebelum stabilitas - Formulasi 5 sesudah stabilitas	.72000	.52431	.30271	-.58246	2.02246	2.379	.140	
Pair 6	Formulasi 6 sebelum stabilitas - Formulasi 6 sesudah stabilitas	.30333	.17616	.10171	-.13428	.74095	2.982	.096	

**Lampiran 18. Uji stabilitas data dan statistic uji viskosits gel *hand sanitizer***

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pa ir 1	Formulasi 1 sebelum stabilitas - Formulasi 1 sesudah stabilitas	666.66667	288.67513	166.66667	-50.44212	1383.77545	4.000	2	.057
Pa ir 2	Formulasi 2 sebelum stabilitas - Formulasi 2 sesudah stabilitas	666.66667	288.67513	166.66667	-50.44212	1383.77545	4.000	2	.057
Pa ir 4	Formulasi 4 sebelum stabilitas - Formulasi 4 sesudah stabilitas	666.66667	288.67513	166.66667	-50.44212	1383.77545	4.000	2	.057
Pa ir 5	Formulasi 5 sebelum stabilitas - Formulasi 5 sesudah stabilitas	666.66667	288.67513	166.66667	-50.44212	1383.77545	4.000	2	.057
Pa ir 6	Formulasi 6 sebelum stabilitas - Formulasi 6 sesudah stabilitas	666.66667	288.67513	166.66667	-50.44212	1383.77545	4.000	2	.057

**Lampiran 19. Uji stabilitas data dan statistic uji daya lekat gel hand sanitizer**

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	Formulasi 1 sebelum stabilitas - Formulasi 1 sesudah stabilitas	.17000	.08544	.04933	-.04224	.38224	3.446	2	.075
Pair 2	Formulasi 2 sebelum stabilitas - Formulasi 2 sesudah stabilitas	.43000	.10536	.06083	.16828	.69172	7.069	2	.019
Pair 3	Formulasi 3 sebelum stabilitas - Formulasi 3 sesudah stabilitas	.67667	.28006	.16169	-.01904	1.37237	4.185	2	.053
Pair 4	Formulasi 4 sebelum stabilitas - Formulasi 4 sesudah stabilitas	.19333	.03055	.01764	.11744	.26922	10.961	2	.008
Pair 5	Formulasi 5 sebelum stabilitas - Formulasi 5 sesudah stabilitas	.11000	.05568	.03215	-.02831	.24831	3.422	2	.076
Pair 6	Formulasi 6 sebelum stabilitas - Formulasi 6 sesudah stabilitas	.51333	.15695	.09062	.12345	.90322	5.665	2	.030



**Lampiran 20. Data uji statistic Uji aktivitas antibakteri ekstrak daun kelor**

<b>Test of Homogeneity of Variances</b>					
		Levene Statistic	df1	df2	Sig.
Ui_Antibakteri_sediaan	Based on Mean	2.449	4	10	.114
	Based on Median	.654	4	10	.637
	Based on Median and with adjusted df	.654	4	4.881	.650
	Based on trimmed mean	2.273	4	10	.133

<b>Multiple Comparisons</b>						
Dependent Variable: Ui_Antibakteri_sediaan						
Tukey HSD						
(I) Kelom pok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-7.36667*	.21082	.000	-8.0605	-6.6728
	F3	-9.30000*	.21082	.000	-9.9938	-8.6062
	K+	-20.80000*	.21082	.000	-21.4938	-20.1062
	K-	7.16667*	.21082	.000	6.4728	7.8605
F2	F1	7.36667*	.21082	.000	6.6728	8.0605
	F3	-1.93333*	.21082	.000	-2.6272	-1.2395
	K+	-13.43333*	.21082	.000	-14.1272	-12.7395
	K-	14.53333*	.21082	.000	13.8395	15.2272
F3	F1	9.30000*	.21082	.000	8.6062	9.9938
	F2	1.93333*	.21082	.000	1.2395	2.6272
	K+	-11.50000*	.21082	.000	-12.1938	-10.8062
	K-	16.46667*	.21082	.000	15.7728	17.1605
K+	F1	20.80000*	.21082	.000	20.1062	21.4938
	F2	13.43333*	.21082	.000	12.7395	14.1272
	F3	11.50000*	.21082	.000	10.8062	12.1938
	K-	27.96667*	.21082	.000	27.2728	28.6605
K-	F1	-7.16667*	.21082	.000	-7.8605	-6.4728
	F2	-14.53333*	.21082	.000	-15.2272	-13.8395
	F3	-16.46667*	.21082	.000	-17.1605	-15.7728
	K+	-27.96667*	.21082	.000	-28.6605	-27.2728

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

### Lampiran 21. Data dan uji statistic uji aktivits sedian gel hand sanitizer

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Ui_Antibakteri_sediaan	Based on Mean	3.355	4	10	.055
	Based on Median	3.241	4	10	.060
	Based on Median and with adjusted df	3.241	4	2.312	.223
	Based on trimmed mean	3.351	4	10	.055

Multiple Comparisons						
Dependent Variable: Ui_Antibakteri_sediaan						
Tukey HSD						
(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-.08000	.37383	.999	-1.3103	1.1503
	F3	-.17333	.37383	.989	-1.4036	1.0570
	K+	-6.34667*	.37383	.000	-7.5770	-5.1164
	K-	13.42000*	.37383	.000	12.1897	14.6503
F2	F1	.08000	.37383	.999	-1.1503	1.3103
	F3	-.09333	.37383	.999	-1.3236	1.1370
	K+	-6.26667*	.37383	.000	-7.4970	-5.0364
	K-	13.50000*	.37383	.000	12.2697	14.7303
F3	F1	.17333	.37383	.989	-1.0570	1.4036
	F2	.09333	.37383	.999	-1.1370	1.3236
	K+	-6.17333*	.37383	.000	-7.4036	-4.9430
	K-	13.59333*	.37383	.000	12.3630	14.8236
K+	F1	6.34667*	.37383	.000	5.1164	7.5770
	F2	6.26667*	.37383	.000	5.0364	7.4970
	F3	6.17333*	.37383	.000	4.9430	7.4036
	K-	19.76667*	.37383	.000	18.5364	20.9970
K-	F1	-13.42000*	.37383	.000	-14.6503	-12.1897
	F2	-13.50000*	.37383	.000	-14.7303	-12.2697
	F3	-13.59333*	.37383	.000	-14.8236	-12.3630
	K+	-19.76667*	.37383	.000	-20.9970	-18.5364

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