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Lampiran 1 . Surat Determinasi



**PEMERINTAH PROVINSI JAWA TIMUR**  
**DINAS KESEHATAN**  
**UPT LABORATORIUM HERBAL MATERIA MEDICA BATU**  
Jalan Lahor No.87 Telp. (0341) 593396, e-mail: [materiamedicabatu@jatimprov.go.id](mailto:materiamedicabatu@jatimprov.go.id)  
**KOTA BATU 65313**

Nomor : 074/ 403/ 102.7-A/ 2021  
Sifat : Biasa  
Perihal : **Determinasi Tanaman Kelor**

Memenuhi permohonan saudara :

Nama : MOCH MAFI ALFI MUZAQI  
NIM : 23175270A  
Fakultas : FARMASI, UNIVERSITAS SETIA BUDI SURAKARTA

1. Perihal determinasi tanaman kelor

Kingdom : Plantae (Tumbuhan)  
Subkingdom : Tracheobionta (Tumbuhan berpembuluh)  
Super Divisi : Spermatophyta (Menghasilkan biji)  
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), Marangghi (Madura), Moltong (Flores), Kelo (Gorontalo), Kelo (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-1.

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, coklat kehitaman. Biji: Bulat, bersayap tiga, hitam. Akar: Tunggang, putih kotor.

3. Bagian yang digunakan : Daun.

4. Penggunaan : Penelitian.

5. Daftar Pustaka

- Syamsuhidayat, Sri Sugati dan Hutapea, Johny Ria. 1991. *Inventaris Tanaman Obat Indonesia I*. Departemen Kesehatan Republik Indonesia: Badan Penelitian Dan Pengembangan Kesehatan.
- Van Steenis, CGGJ. 2008. *FLORA: untuk Sekolah di Indonesia*. Pradnya Paramita, Jakarta.

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

Batu, 04 Juni 2021

KEPALA UPT LABORATORIUM HERBAL  
MATERIA MEDICA BATU



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

## Lampiran 2. Surat Etical Clearance



### KOMISI ETIK PENELITIAN KESEHATAN (KEPK)

*Health Research Ethics Committee*

### FAKULTAS KEDOKTERAN

**Universitas Muhammadiyah Surakarta**

*Faculty of Medicine Universitas Muhammadiyah Surakarta*

Komplek kampus 4 UMS Gonilan Kartasura, Telp.(0271)716844, Fax.(0271)724883 Surakarta 57102, email:kepk@ums.ac.id

#### **ETHICAL CLEARANCE LETTER**

Surat Kelaikan Etik

No. 3630/A.1/KEPK-FKUMS/VIII/2021

**Komisi Etik Penelitian Kesehatan (KEPK) FK UMS, setelah menelaah rancangan penelitian yang diusulkan menyatakan bahwa:**

*Health Research Ethics Committee Faculty of medicine of Universitas Muhammadiyah Surakarta, after reviewing the research design, state that:*

**Penelitian dengan judul:**

*The research proposal with topic:*

**UJI AKTIVITAS ANTI JERAWAT EMULGEL EKSTRAK DAUN KELOR (Moringa oleifera) TERHADAP KELINCI PUTIH NEW ZEALAND YANG DIINDUKSI BAKTERI Staphylococcus aureus**

**Peneliti:**

*The researcher:*

Nama/ Name : **Moch Mafi Alfi Muzaqi**

Alamat/ Address : Dsn. Ngerjo, RT. 01/ RW.04, Ds. Joho, Kalidawir, Tulungagung

Institusi/ Institution : Farmasi

**Telah memenuhi deklarasi Helsinki 1975, Council for International Organizations of Medical Sciences (CIOMS) dan World Health Organization (WHO) 2016**

*Has met the declaration of Helsinki 1975, Council for International Organizations of Medical Sciences (CIOMS) and World Health Organization (WHO) 2016*

**dan dinyatakan lolos etik**

*and ethically approved*

Surakarta, 05 Agustus 2021

Ketua/Chairman,

**Prof. Dr. dr. EM. Sutrisna, M.Kes.**

### Lampiran 3 Surat keterangan hewan uji

**"ABIMANYU FARM"**

√ Mencit putih jantan    √ Tikus Wistar    √ Swis Webster    √ Cacing  
√ Mencit Balb/C    √ Kelinci New Zealand

Ngampon RT 04 / RW 04. Mojosongo Kec. Jebres Surakarta. Phone 085 629 994 33 / Lab USB Ska

---

Yang bertanda tangan di bawah ini:

Nama : Sigit Pramono

Selaku pengelola Abimanyu Farm, menerangkan bahwa hewan uji yang digunakan untuk penelitian, oleh:

Nama : Moch. Mafi Alfi Muzaqi  
Nim : 231753270A  
Institusi : Universitas Setia Budi Surakarta

Merupakan hewan uji dengan spesifikasi sebagai berikut:

Jenis hewan : Kelinci New Zealand  
Umur : 2-3 bulan  
Jenis kelamin : Jantan  
Jumlah : 6 ekor  
Keterangan : Sehat  
Asal-usul : Unit Pengembangan Hewan Percobaan Boyolali

Yang pengembangan dan pengelolaannya disesuaikan standar baku penelitian. Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Surakarta, 15 Juli 2021

Hormat kami



Sigit Pramono  
"ABIMANYU FARM"

Lampiran 4 Surat bakteri *Staphylococcus aureus* ATCC 25923

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

**SERTIFIKAT HASIL UJI**

1. Bakteri : Stock Strain *Staphylococcus aureus* ATCC 25923  
2. Nomor Uji Bakteri : Strain V. 1. 3.  
3. Tanggal Uji bakteri : 5 – 10 Oktober 2020

Uraian Hasil Uji

**Strain V. 1. 3. Biakan Murni dari *Staphylococcus aureus* ATCC 25923**

- I. Ciri-ciri koloni :
1. Pewarnaan Gram : Sel bulat, kecil-kecil, menggerombol, berwarna ungu, termasuk Gram positif.
  2. Di tanam pada media Vogel Jhonson Agar : Koloni bakteri berwarna hitam, disekitar koloni bakteri berwarna kuning.
  3. Ditanam pada media Mannitol Salt Agar : Koloni bakteri bening/kuning, disekitar koloni berwarna kuning.
- II. Uji Fermentasi Karbohidrat dan Biokimia Penegasan

Uji Fermentasi Karbohidrat			Uji Fisiologis	
Glukosa	Asam (-)	Gas (-)	Katalase	(+) timbul gelembung gas
Laktosa	Asam (-)	Gas (-)	Koagulase (serum)	(+) serum menggumpal
Maltosa	Asam (-)	Gas (-)	Oxidase	(+)
Sukrosa	Asam (-)	Gas (-)	Manitol	(+)

Catatan:

1. Hasil Uji ini hanya berlaku untuk contoh yang diuji.



Lampiran 5 Alat penelitian



timbangan analitik



rotary evaporator



Oven



Desikator

Lampiran 6 Daun kelor



Daun kelor kering



serbuk daun kelor



Ekstrak daun kelor

Lampiran 7 Perhitungan rendemen

Perhitungan rendemen daun kering

<b>Berat basah (g)</b>	<b>Berat kering (g)</b>	<b>Rendemen (%)</b>
10.000	2.858	28,58

Rendemen serbuk terhadap berat kering = berat kering/ beratbasah X 100%

$$= 2.858/10.000 \times 100 \% = 28,58\%$$

Perhitungan rendemen serbuk

<b>Berat kering (g)</b>	<b>Berat serbuk (g)</b>	<b>Rendemen (%)</b>
2.858	1.386	48,53

Rendemen serbuk terhadap berat serbuk = berat kering/ berat serbuk X 100%

$$= 1.386/2.858 \times 100 \% = 48.53\%$$

Perhitungan rendemen ekstrak

<b>Serbuk daun kelor (g)</b>	<b>Ekstrak kental (g)</b>	<b>Rendemen (%)</b>
1.000	217	21,7

Rendemen serbuk terhadap berat ekstrak = berat serbuk/ beratekstrak X 100%

$$= 217/1000 \times 100 \% = 21,7\%$$

Perhitungan kadar air

No	Berat awal ekstrak (g)	Berat akhir ekstrak (g)	Kadar air (%)
1.	10,2075	9,6275	5,68
2.	10,1104	9,5714	5,33
3.	10,3745	9,8286	5,26
	Rata-rata kadar ekstrak (%)		5,42

Kadar air

Kadar air

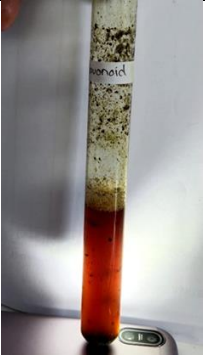


$$\frac{\text{bobot sebelum pengeringan} - \text{bobot sesudah pengeringan}}{\text{bobot sebelum pengeringan}} \times 100\%$$




- $\frac{10.2075 - 9.62275}{10.2075} \times 100\% = 5,68\%$
- $\frac{10.2075 - 9.5714}{10.2075} \times 100\% = 5,33\%$
- $\frac{10.2075 - 9.8286}{10.2075} \times 100\% = 5,26\%$

$$\text{Rata-rata kadar ekstral} = \frac{5,68 + 5,33 + 5,26}{3} = 5,42\%$$

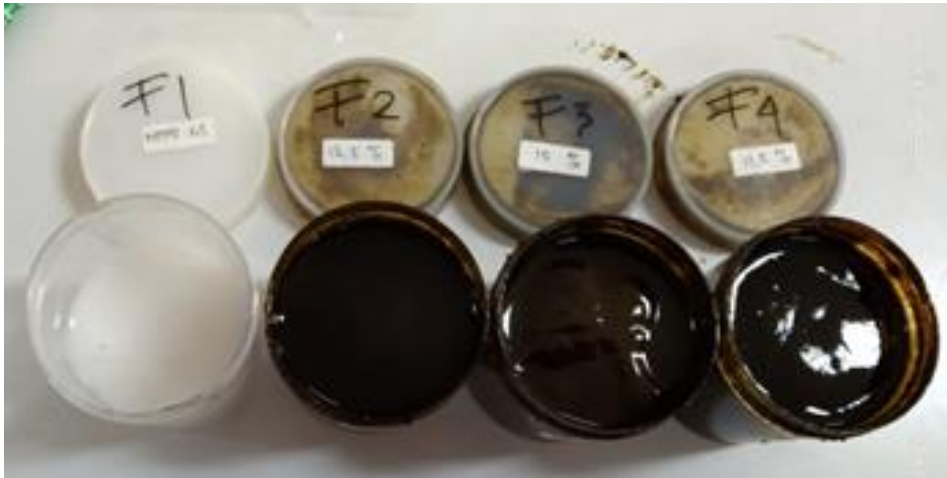


lampiran 8 Hasil skrining fitokimia

Uji	hasil	keterangan
Flavonoid		Terjadi perubahan warna merah jingga (+)
Tanin		Terjadi perubahan warna hijau kehitaman (+)
Saponin		Tejadi buih stabil selama 10 menit (+)

Alkaloid		Terjadi perubahan warna kuning dan terjadi endapan (+)
Terpenoid		terjadi perubahan warna merah (+) terpenoid
Steroid		Terdapat perubahan warna hijau- biru (+) Steroid

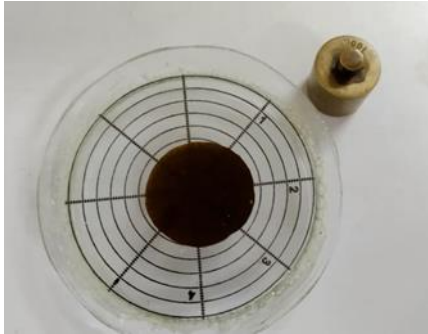
## Lampiran 9 Formula emulgel.



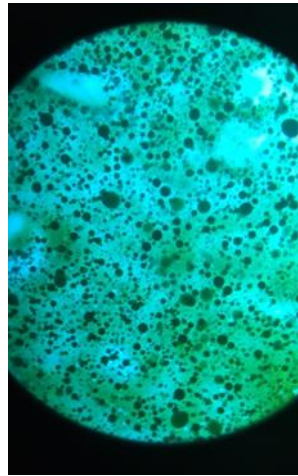
### Keterangan :

1. Formula 1 : merupakan basis emulgel yang tidak diberikan ekstrak daun kelor.
2. Formula 2 : merupakan emulgel ekstrak daun kelor dengan konsentrasi ekstrak 12,5%
3. Formula 3 : merupakan emulgel ekstrak daun kelor dengan konsentrasi ekstrak 15%
4. Formula 4 : merupakan emulgel ekstrak daun kelor dengan konsentrasi ekstrak 17,5%

Lampiran 10 Hasil uji mutu fisik emulgel



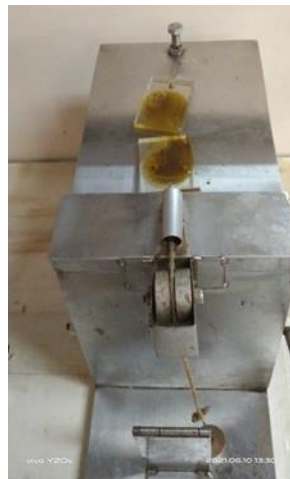
Uji daya sebar



uji tipe emulsi



Uji viskositas

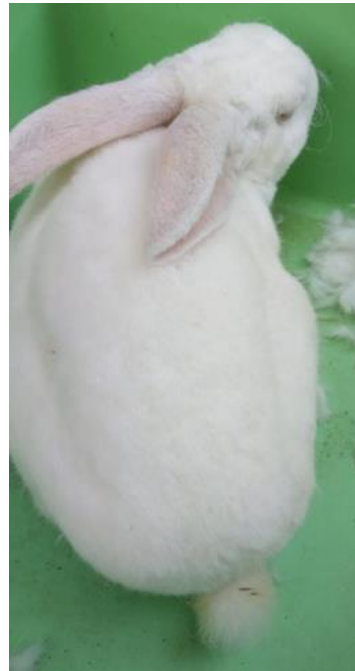


uji daya lekat

Lampiran 11 Uji antijerawat ekstrak daun kelor



Kelinci di aklimatisasi



kelinci di beri perlakuan



Kelinci diinduksi bakteri



kelinci mulai timbul jerawat



Kelinci diberi perlakuan



kelinci dikatakan sembuh

Lampiran 12 Hasil output SPSS uji pH

PH

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
ph_harike_2	12	5.63	7.58	6.2142	.82478
ph_harike_14	12	5.61	7.56	6.2117	.81501
ph_harike_21	12	5.54	7.58	6.0350	.72680
Valid N (listwise)	12				

**One-Sample Kolmogorov-Smirnov Test**

		ph_harike_2	ph_harike_14	ph_harike_21
N		12	12	12
Normal Parameters <sup>a,b</sup>	Mean	6.2142	6.2117	6.0350
	Std. Deviation	.82478	.81501	.72680
	Absolute	.416	.412	.418
Most Extreme Differences	Positive	.416	.412	.418
	Negative	-.239	-.230	-.248
Kolmogorov-Smirnov Z		1.442	1.429	1.447
Asymp. Sig. (2-tailed)		.031	.034	.030

a. Test distribution is Normal.

b. Calculated from data.

Uji Kruskal walis

**Ranks**

	formula	N	Mean Rank
--	---------	---	-----------

	formula 1	3	11.00
	formula 2	3	8.00
ph_harike_2	formula 3	3	5.00
	formula 4	3	2.00
	Total	12	
	formula 1	3	11.00
	formula 2	3	8.00
ph_harike_14	formula 3	3	5.00
	formula 4	3	2.00
	Total	12	
	formula 1	3	8.00
	formula 2	3	9.00
ph_harike_21	formula 3	3	6.00
	formula 4	3	3.00
	Total	12	

**Test Statistics<sup>a,b</sup>**

	ph_harike_2	ph_harike_14	ph_harike_21
Chi-Square	10.458	10.421	4.846
df	3	3	3
Asymp. Sig.	.015	.015	.183

a. Kruskal Wallis Test

b. Grouping Variable: formula



Lampiran 13 Hasil output SPSS uji daya lekat

**DAYA LEKAT**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
dayalekat_2	12	1.02	1.10	1.0617	.02657
dayalekat_14	12	1.02	1.30	1.0800	.07311
dayalekat_21	12	1.03	1.30	1.0883	.08077
Valid N (listwise)	12				

**One-Sample Kolmogorov-Smirnov Test**

		dayalekat_2	dayalekat_14	dayalekat_21
N		12	12	12
Normal Parameters <sup>a,b</sup>	Mean	1.0617	1.0800	1.0883
	Std. Deviation	.02657	.07311	.08077
	Absolute	.206	.362	.304
Most Extreme Differences	Positive	.133	.362	.304
	Negative	-.206	-.209	-.235
Kolmogorov-Smirnov Z		.715	1.255	1.052
Asymp. Sig. (2-tailed)		.686	.086	.218

a. Test distribution is Normal.

b. Calculated from data.

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
dayalekat_2	Between Groups	.004	3	.001	3.086	.090
	Within Groups	.004	8	.000		
	Total	.008	11			
dayalekat_14	Between Groups	.017	3	.006	1.085	.409
	Within Groups	.042	8	.005		
	Total	.059	11			
dayalekat_21	Between Groups	.023	3	.008	1.277	.346
	Within Groups	.049	8	.006		
	Total	.072	11			

Lampiran 14 Hasil output SPSS uji viskositas

## VISKOSITAS

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
viskositas_2	12	175.00	330.00	280.8333	59.38447
viskositas_14	12	170.00	325.00	282.5000	61.44103
viskosotas_21	12	175.00	325.00	281.6667	59.78497
Valid N (listwise)	12				

### One-Sample Kolmogorov-Smirnov Test

		viskositas_2	viskositas_14	viskosotas_21
N		12	12	12
Normal Parameters <sup>a,b</sup>	Mean	280.8333	282.5000	281.6667
	Std. Deviation	59.38447	61.44103	59.78497
Most Extreme Differences	Absolute	.377	.368	.370
	Positive	.204	.245	.234
	Negative	-.377	-.368	-.370
Kolmogorov-Smirnov Z		1.304	1.276	1.283
Asymp. Sig. (2-tailed)		.067	.077	.074

a. Test distribution is Normal.

b. Calculated from data.

**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
viskositas_2	Between Groups	38375.000	3	12791.667	245.600	.000
	Within Groups	416.667	8	52.083		
	Total	38791.667	11			
viskositas_14	Between Groups	40958.333	3	13652.778	192.745	.000
	Within Groups	566.667	8	70.833		
	Total	41525.000	11			
viskosotas_21	Between Groups	38850.000	3	12950.000	222.000	.000
	Within Groups	466.667	8	58.333		
	Total	39316.667	11			

**Multiple Comparisons**

Tukey HSD

Dependent Variable	(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
viskositas_2		formula 2	-123.33333 <sup>+</sup>	5.89256	.000	-142.2034	-104.4633	
	formula 1	formula 3	-138.33333 <sup>+</sup>	5.89256	.000	-157.2034	-119.4633	
		formula 4	-128.33333 <sup>+</sup>	5.89256	.000	-147.2034	-109.4633	
		formula 1	123.33333 <sup>+</sup>	5.89256	.000	104.4633	142.2034	
		formula 2	formula 3	-15.00000	5.89256	.126	-33.8700	3.8700
		formula 4	formula 3	-5.00000	5.89256	.830	-23.8700	13.8700
		formula 1	formula 3	138.33333 <sup>+</sup>	5.89256	.000	119.4633	157.2034
		formula 3	formula 2	15.00000	5.89256	.126	-3.8700	33.8700
		formula 4	formula 2	10.00000	5.89256	.384	-8.8700	28.8700
		formula 1	formula 2	128.33333 <sup>+</sup>	5.89256	.000	109.4633	147.2034
		formula 4	formula 2	5.00000	5.89256	.830	-13.8700	23.8700
		formula 3	formula 2	-10.00000	5.89256	.384	-28.8700	8.8700
viskositas_14		formula 2	-126.66667 <sup>+</sup>	6.87184	.000	-148.6727	-104.6606	
	formula 1	formula 3	-136.66667 <sup>+</sup>	6.87184	.000	-158.6727	-114.6606	
		formula 4	-140.00000 <sup>+</sup>	6.87184	.000	-162.0061	-117.9939	
		formula 1	formula 3	126.66667 <sup>+</sup>	6.87184	.000	104.6606	148.6727
		formula 2	formula 3	-10.00000	6.87184	.503	-32.0061	12.0061
		formula 4	formula 3	-13.33333	6.87184	.285	-35.3394	8.6727
	formula 3	formula 1	136.66667 <sup>+</sup>	6.87184	.000	114.6606	158.6727	

	formula 2	10.00000	6.87184	.503	-12.0061	32.0061
	formula 4	-3.33333	6.87184	.960	-25.3394	18.6727
	formula 1	140.00000*	6.87184	.000	117.9939	162.0061
formula 4	formula 2	13.33333	6.87184	.285	-8.6727	35.3394
	formula 3	3.33333	6.87184	.960	-18.6727	25.3394
	formula 2	-125.00000*	6.23610	.000	-144.9702	-105.0298
formula 1	formula 3	-133.33333*	6.23610	.000	-153.3035	-113.3632
	formula 4	-135.00000*	6.23610	.000	-154.9702	-115.0298
	formula 1	125.00000*	6.23610	.000	105.0298	144.9702
formula 2	formula 3	-8.33333	6.23610	.568	-28.3035	11.6368
	formula 4	-10.00000	6.23610	.428	-29.9702	9.9702
viskosotas_21	formula 1	133.33333*	6.23610	.000	113.3632	153.3035
formula 3	formula 2	8.33333	6.23610	.568	-11.6368	28.3035
	formula 4	-1.66667	6.23610	.993	-21.6368	18.3035
	formula 1	135.00000*	6.23610	.000	115.0298	154.9702
formula 4	formula 2	10.00000	6.23610	.428	-9.9702	29.9702
	formula 3	1.66667	6.23610	.993	-18.3035	21.6368

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

**viskositas\_2**

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
formula 1	3	183.3333	
formula 2	3		306.6667
formula 4	3		311.6667
formula 3	3		321.6667
Sig.		1.000	.126

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**viskositas\_14**

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
formula 1	3	181.6667	
formula 2	3		308.3333
formula 3	3		318.3333
formula 4	3		321.6667
Sig.		1.000	.285

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**viskosotas\_21**

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
formula 1	3	183.3333	
formula 2	3		308.3333

formula 3	3		316.6667
formula 4	3		318.3333
Sig.		1.000	.428

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 15 Hasil output SPSS uji daya sebar.

## DAYA SEBAR

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
dayasebar_2	12	5.30	5.90	5.7000	.17056
dayasebar_14	12	4.90	6.00	5.5250	.38642
dayasebar_21	12	4.90	5.90	5.4333	.34728
Valid N (listwise)	12				

### One-Sample Kolmogorov-Smirnov Test

		dayasebar_2	dayasebar_14	dayasebar_21
N		12	12	12
Normal Parameters <sup>a,b</sup>	Mean	5.7000	5.5250	5.4333
	Std. Deviation	.17056	.38642	.34728
	Absolute	.250	.244	.112
Most Extreme Differences	Positive	.120	.163	.104
	Negative	-.250	-.244	-.112
Kolmogorov-Smirnov Z		.866	.844	.388
Asymp. Sig. (2-tailed)		.441	.475	.998

a. Test distribution is Normal.

b. Calculated from data.

### ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
dayasebar_2	Between Groups	.087	3	.029	.990	.445
	Within Groups	.233	8	.029		
	Total	.320	11			
dayasebar_14	Between Groups	1.536	3	.512	38.396	.000
	Within Groups	.107	8	.013		
	Total	1.643	11			
dayasebar_21	Between Groups	1.073	3	.358	11.298	.003
	Within Groups	.253	8	.032		
	Total	1.327	11			

**Multiple Comparisons**

Tukey HSD

Dependent Variable	(I) formula	(J) formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
dayasebar_2		formula 2	.23333	.13944	.395	-.2132	.6799
	formula 1	formula 3	.06667	.13944	.962	-.3799	.5132
		formula 4	.10000	.13944	.888	-.3465	.5465
		formula 1	-.23333	.13944	.395	-.6799	.2132
	formula 2	formula 3	-.16667	.13944	.646	-.6132	.2799
		formula 4	-.13333	.13944	.777	-.5799	.3132
		formula 1	-.06667	.13944	.962	-.5132	.3799
	formula 3	formula 2	.16667	.13944	.646	-.2799	.6132
		formula 4	.03333	.13944	.995	-.4132	.4799
		formula 1	-.10000	.13944	.888	-.5465	.3465
	formula 4	formula 2	.13333	.13944	.777	-.3132	.5799
		formula 3	-.03333	.13944	.995	-.4799	.4132
dayasebar_14		formula 2	.93333 <sup>*</sup>	.09428	.000	.6314	1.2353
	formula 1	formula 3	.13333	.09428	.525	-.1686	.4353
		formula 4	.30000	.09428	.051	-.0019	.6019
		formula 1	-.93333 <sup>*</sup>	.09428	.000	-1.2353	-.6314
	formula 2	formula 3	-.80000 <sup>*</sup>	.09428	.000	-1.1019	-.4981
		formula 4	-.63333 <sup>*</sup>	.09428	.001	-.9353	-.3314
		formula 1	-.13333	.09428	.525	-.4353	.1686
	formula 3	formula 2	.80000 <sup>*</sup>	.09428	.000	.4981	1.1019
		formula 4	.16667	.09428	.353	-.1353	.4686
		formula 1	-.30000	.09428	.051	-.6019	.0019
	formula 4	formula 2	.63333 <sup>*</sup>	.09428	.001	.3314	.9353
		formula 3	-.16667	.09428	.353	-.4686	.1353
dayasebar_21		formula 2	.83333 <sup>*</sup>	.14530	.002	.3680	1.2986
	formula 1	formula 3	.30000	.14530	.243	-.1653	.7653
		formula 4	.33333	.14530	.179	-.1320	.7986
		formula 1	-.83333 <sup>*</sup>	.14530	.002	-1.2986	-.3680
	formula 2	formula 3	-.53333 <sup>*</sup>	.14530	.026	-.9986	-.0680
		formula 4	-.50000 <sup>*</sup>	.14530	.036	-.9653	-.0347
	formula 3	formula 1	-.30000	.14530	.243	-.7653	.1653



	formula 2	.53333 <sup>*</sup>	.14530	.026	.0680	.9986
	formula 4	.03333	.14530	.995	-.4320	.4986
	formula 1	-.33333	.14530	.179	-.7986	.1320
	formula 4 formula 2	.50000 <sup>*</sup>	.14530	.036	.0347	.9653
	formula 3	-.03333	.14530	.995	-.4986	.4320

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

#### dayasebar\_2

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05
		1
formula 2	3	5.5667
formula 4	3	5.7000
formula 3	3	5.7333
formula 1	3	5.8000
Sig.		.395

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

#### dayasebar\_14

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
formula 2	3	4.9333	
formula 4	3		5.5667
formula 3	3		5.7333
formula 1	3		5.8667
Sig.		1.000	.051

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

**dayasebar\_21**

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
formula 2	3	4.9667	
formula 4	3		5.4667
formula 3	3		5.5000
formula 1	3		5.8000
Sig.		1.000	.179

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 16 Hasil output SPSS uji lama penyembuhan

## LAMA PENYEMBUHAN

### Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
lama_penyembuhan	30	8.00	20.00	16.1667	3.92238
Valid N (listwise)	30				

### One-Sample Kolmogorov-Smirnov Test

		lama_penyemb uhan
N		30
Normal Parameters <sup>a,b</sup>	Mean	16.1667
	Std. Deviation	3.92238
	Absolute	.217
Most Extreme Differences	Positive	.164
	Negative	-.217
Kolmogorov-Smirnov Z		1.191
Asymp. Sig. (2-tailed)		.117

a. Test distribution is Normal.

b. Calculated from data.

### ANOVA

lama\_penyembuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	433.000	4	108.250	205.538	.000
Within Groups	13.167	25	.527		
Total	446.167	29			

### Multiple Comparisons

Dependent Variable: lama\_penyembuhan

Tukey HSD

(I) kelompok	(J) kelompok		Std. Error	Sig.	95% Confidence Interval
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		Mean			Lower Bound	Upper Bound
		Difference (I-J)				
kontrol positif	formula 1	-10.83333 <sup>*</sup>	.41899	.000	-12.0639	-9.6028
	formula 2	-9.50000 <sup>*</sup>	.41899	.000	-10.7305	-8.2695
	formula 3	-8.33333 <sup>*</sup>	.41899	.000	-9.5639	-7.1028
	formula 4	-6.33333 <sup>*</sup>	.41899	.000	-7.5639	-5.1028
formula 1	kontrol positif	10.83333 <sup>*</sup>	.41899	.000	9.6028	12.0639
	formula 2	1.33333 <sup>*</sup>	.41899	.029	.1028	2.5639
	formula 3	2.50000 <sup>*</sup>	.41899	.000	1.2695	3.7305
	formula 4	4.50000 <sup>*</sup>	.41899	.000	3.2695	5.7305
formula 2	kontrol positif	9.50000 <sup>*</sup>	.41899	.000	8.2695	10.7305
	formula 1	-1.33333 <sup>*</sup>	.41899	.029	-2.5639	-.1028
	formula 3	1.16667	.41899	.069	-.0639	2.3972
	formula 4	3.16667 <sup>*</sup>	.41899	.000	1.9361	4.3972
formula 3	kontrol positif	8.33333 <sup>*</sup>	.41899	.000	7.1028	9.5639
	formula 1	-2.50000 <sup>*</sup>	.41899	.000	-3.7305	-1.2695
	formula 2	-1.16667	.41899	.069	-2.3972	.0639
	formula 4	2.00000 <sup>*</sup>	.41899	.001	.7695	3.2305
formula 4	kontrol positif	6.33333 <sup>*</sup>	.41899	.000	5.1028	7.5639
	formula 1	-4.50000 <sup>*</sup>	.41899	.000	-5.7305	-3.2695
	formula 2	-3.16667 <sup>*</sup>	.41899	.000	-4.3972	-1.9361
	formula 3	-2.00000 <sup>*</sup>	.41899	.001	-3.2305	-.7695

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

#### lama\_penyembuhan

Tukey HSD<sup>a</sup>

kelompok	N	Subset for alpha = 0.05			
		1	2	3	4
kontrol positif	6	9.1667			
formula 4	6		15.5000		
formula 3	6			17.5000	
formula 2	6			18.6667	
formula 1	6				20.0000
Sig.		1.000	1.000	.069	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 6.000.

