L A M P I R A N

Lampiran 1. Hasil Determinasi

UNIVERSITAS SETIA BUDI

UPT-LABORATORIUM

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Nomor : 06/DET/UPT-LAB/25.05.2022
Hal : Hasil determinasi tumbuhan
Lamp. : -

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Alamat : Program Studi S-1 Farmasi,
Universitas Setia Budi, Surakarta
Nama sampel : *Spatholobus littoralis* Hassk.

HASIL DETERMINASI TUMBUHAN

Klasifikasi

Kingdom : Plantae
Super Divisi : Spermatophyta
Divisi : Magnoliophyta
Kelas : Magnoliopsida
Ordo : Fabales
Famili : Fabaceae
Genus : Spatholobus
Species : *Spatholobus littoralis* Hassk.

Hasil Determinasi menurut Steenis, C.G.G.J.V, Bloembergen, H, Eyma, P.J. 1992 dan C.A. Backer & R.C. Bakhuizen van den Brink Jr. (1963) :
1b – 2b – 3b – 4b – 6b – 7b – 9a. golongan 4 – 41b – 42b – 43b – 54a – 55b – 57b – 58b. familia Papilionaceae/Fabaceae – 1b – 13b – 23a – 24b – 25b – 26b – 27b – 28b – 29b – 32b – 39a – 40b – 50b – 51a – 52a – 53c. Spatholobus – 1b. *Spatholobus littoralis* Hassk.

Deskripsi :
Habitus : Tanaman merambat berupa semak atau pohon, tinggi sampai 5 m.
Akar : Akar rambat dapat menjalar atau menggantung sepanjang lebih dari 5 meter.

Batang : Batang berwarna coklat kehijauan, berkulit kayu dan tidak bercabang. Batang berbentuk seperti lekukan yang membedakan dari batang tumbuhan lain. Batang menghasilkan getah kental warna merah, rasa sepat dan pahit, ukuran cukup besar.

Daun : Daun berwarna hijau, tulang daun menyirip, permukaan licin dan mengkilap, jumlah daun dalam 1 tangkai ada 3 helai. Bentuk lanset, pangkal bentuk segitiga, ujung meruncing. tangkai daun dengan panjang 2,4 – 6 cm.

Bunga : Bunga kecil dengan panjang 7 – 8 mm, warna putih, merah muda, merah atau merah tua, tersusun dalam fasula.

Surakarta, 25 Mei 2022

Kepala UPT-LAB
Universitas Setia Budi

Asik Gunawan, Amdk

Penanggung jawab
Determinasi Tumbuhan

Dra. Dewi Sulistyawati. M.Sc.

Lampiran 2. Pembuatan serbuk batang bajakah tampala dan proses ekstraksi

Bajakah Tampala

Pengayakan Bajakah Tampala

Penimbangan serbuk batang bajakah tampala

Uji susut pengeringan serbuk

Maserasi & penyaringan

Rotary evaporator

Ekstrak bajakah tampala

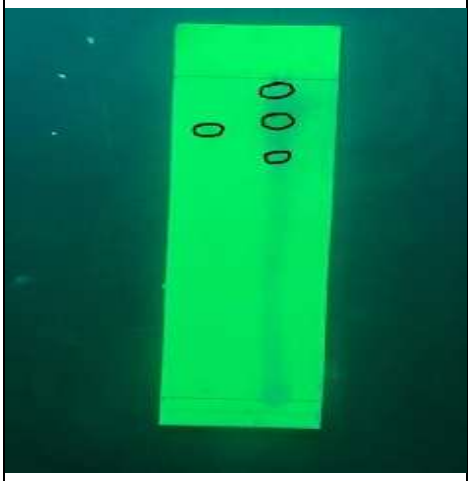
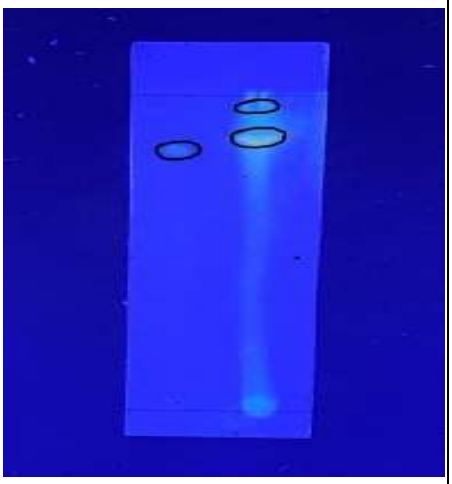
Uji susut pengeringan ekstrak

Variasi konsentrasi ekstrak bajakah tampala

Lampiran 3. Identifikasi kandungan tanaman

	
Serbuk bajakah tampala	**Ekstrak bajakah tampala**
	
Serbuk bajakah tampala	**Ekstrak bajakah tampala**

	
Serbuk bajakah tampala	**Ekstrak bajakah tampala**
	
Serbuk bajakah tampala	**Ekstrak bajakah tampala**
	
Serbuk bajakah tampala	**Ekstrak bajakah tampala**

	
Bercak A : Kuersetin pembanding Nilai Rf: $\frac{5,4}{7} = 0,77$ Bercak B : ekstrak batang bajakah tampala 1. Rf: $\frac{6,1}{7} = 0,87$ 2. **Rf: $\frac{5,5}{7}$ = 0,78** 3. Rf: $\frac{4,8}{7} = 0,68$	Bercak A dan B pada UV 366 Flouresensi kuning kehijauan.

Lampiran 4. Gambar alat uji spray dan sediaan *hand sanitizer spray*

Sediaan *hand sanitizer* spray

***Hand sanitizer* spray K+**

Uji pH

Timbangan analitik dan piknometer

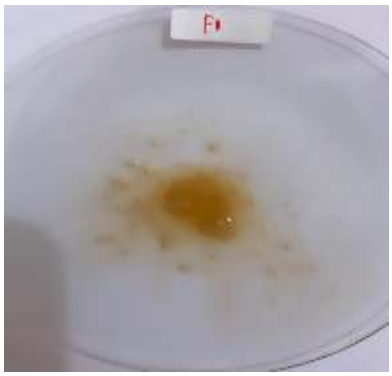
Viskositas Ostwald

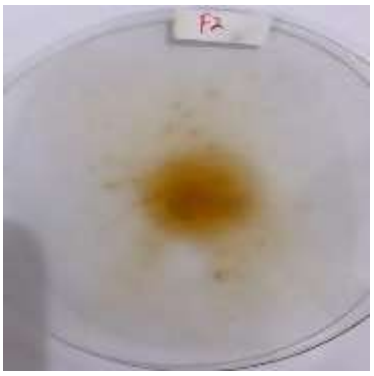
Uji Pola Penyemprotan

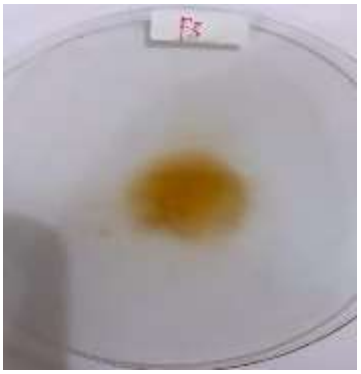
FI 3cm	FI 5cm	FI 10cm	FI 15cm
			
FII 3cm	**FII 5cm**	**FII 10cm**	**FII 15cm**
			
FIII 3cm	**FIII 5cm**	**FIII 10cm**	**FIII 15cm**
			

K-tanpa gliserin 3 cm	K-tanpa gliserin 5cm	K-tanpa gliserin 10 cm	K-tanpa gliserin 3 15 cm
			
K-tanpa zat aktif 3cm	**K-tanpa zat aktif 5cm**	**K-tanpa zat aktif 10cm**	**K-tanpa zat aktif 15cm**
			

Uji Stabilitas







Lampiran 5. Gambar alat dan identifikasi bakteri S*taphylococcus aureus* ATCC 25923

Mikroskop

Vortex Mixer

Inkubator

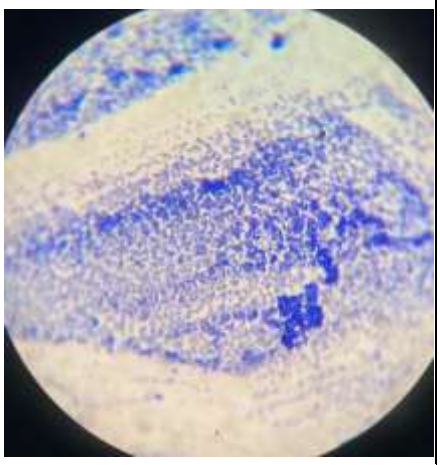
Oven

Autoclave

LAF

Peremajaan bakteri dengan media NA

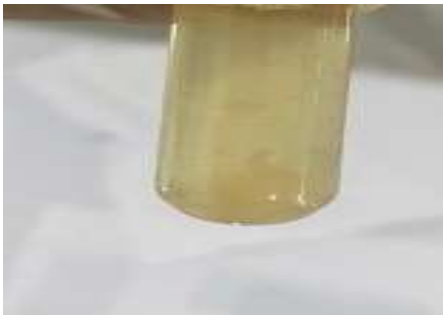
Suspensi biakan bakteri



Identifikasi bakteri dengan pewarnaan gram

Identifikasi Media VJA

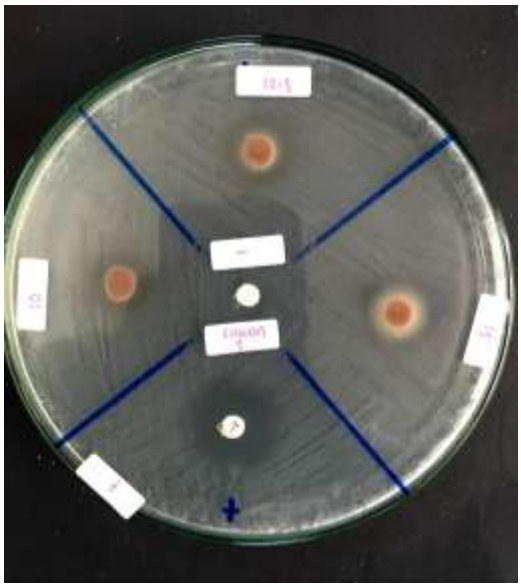
Uji katalase

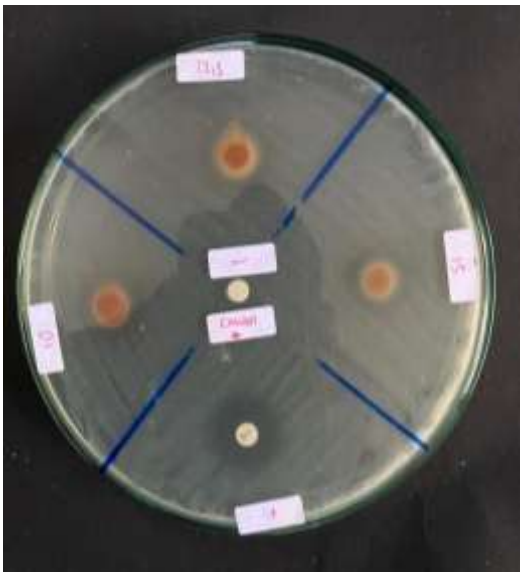


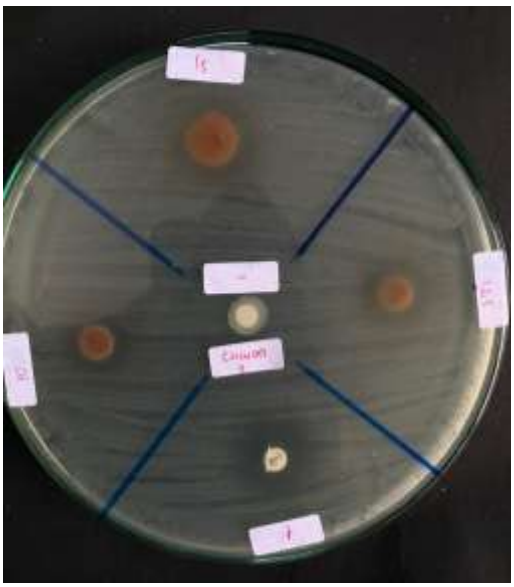
Uji koagulase

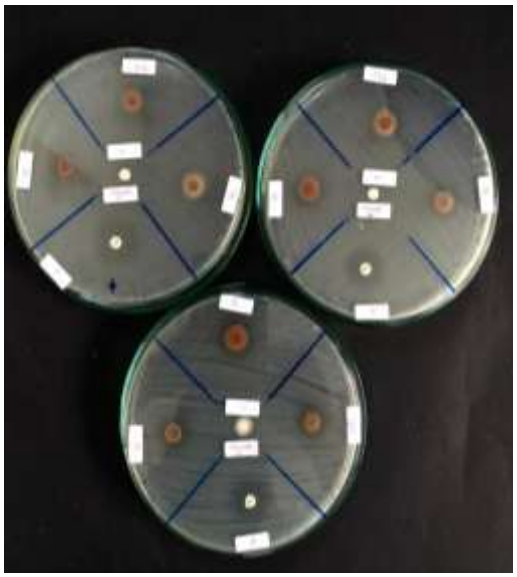
Lampiran 6. Gambar orientasi ekstrak batang bajakah tampala dan uji daya hambat formulasi *hand sanitizer spray*.

Orientasi uji daya hambat ekstrak batang bajakah tampala

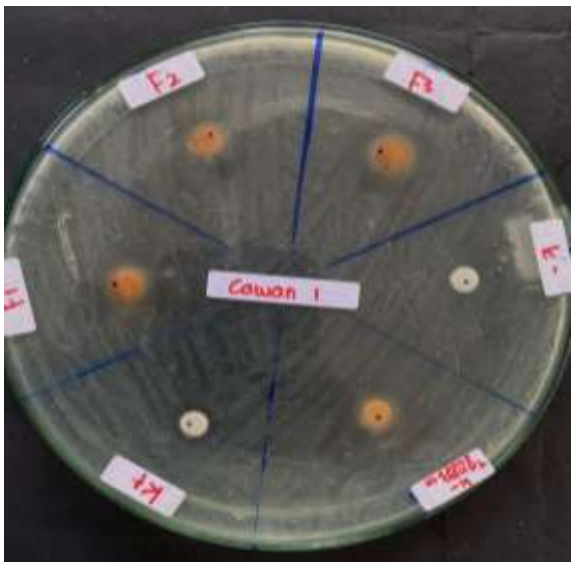


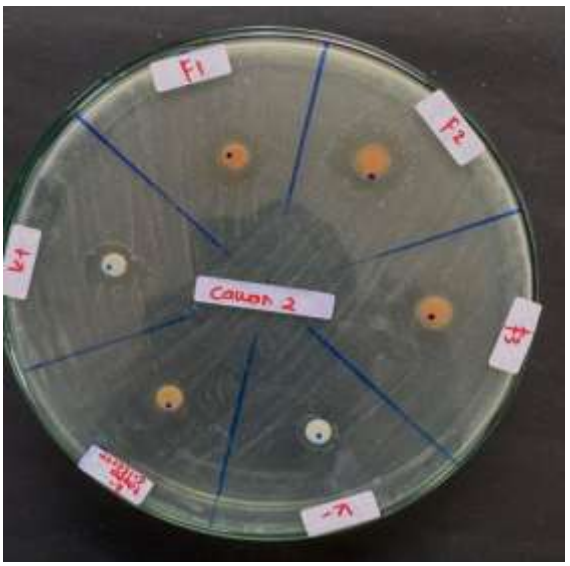


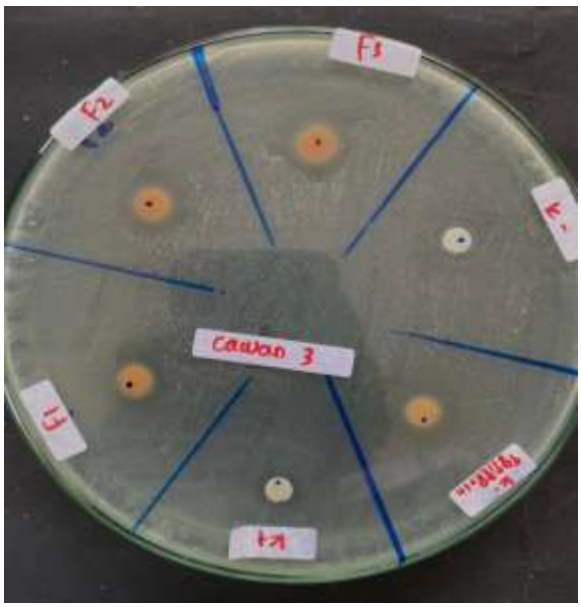


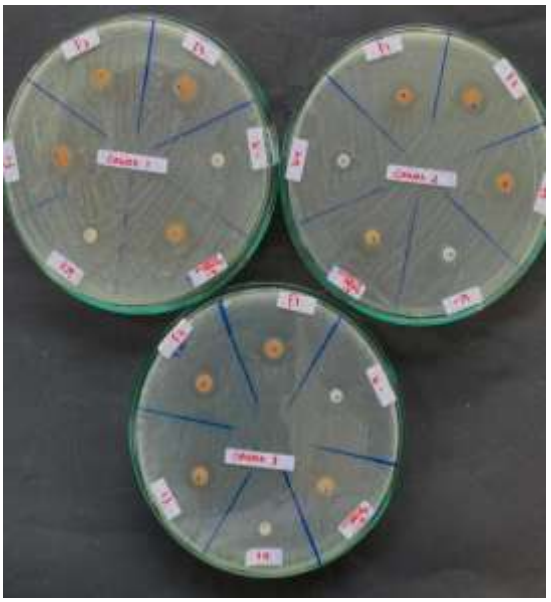


Uji daya hambat *hand sanitizer* spray ekstrak bajakah tampala









Lampiran 7. Perhitungan rendemen serbuk dan ekstrak

- **Perhitungan rendemen serbuk batang bajakah tampala**

  % Rendemen = $\frac{bobot\ serbuk\ (g)}{bobot\ kering\ (g)} \times 100\%$

  % Rendemen = $\frac{(410g)}{(700g)} \times 100\%$

  = 58,57%

- **Perhitungan rendemen ekstrak batang bajakah tampala**

  % Rendemen = $\frac{bobot\ ekstrak\ (g)}{bobot\ serbuk\ (g)} \times 100\%$

  % Rendemen = $\frac{(65{,}102g)}{(300g)} \times 100\%$

  = 21,70%

Lampiran 8. Data dan statistik uji pH hand sanitizer ekstrak batang bajakah tampala (*Spatholobus littoralis Hassk*)

Waktu pemeriksaan	FI	FII	FIII	K-tanpa gliserin	K-tanpa Zat aktif
Hari ke-1	4,85	5,33	5,72	4,22	6,67
	4,9	5,3	5,76	4,25	6,7
	4,88	5,35	5,74	4,24	6,69
SD	0,021	0,021	0,016	0,012	0,012
Rata - rata	4,88	5,33	5,74	4,24	6,69
Hari ke-28	4,63	4,87	5,4	3,98	6,3
	4,7	4,85	5,38	3,97	6,28
	4,66	4,86	5,39	3,99	6,29
SD	0,029	0,008	0,008	0,008	0,008
Rata-rata	4,66	4,86	5,39	3,98	6,29

Tests of Normality

formula	Statistic	df	Sig.	
pH Hari ke-1	1.00	.987	3	.780
	2.00	.987	3	.780
	3.00	1.000	3	1.000
	4.00	.964	3	.637
	5.00	.964	3	.637
pH Hari ke-28	1.00	.993	3	.843
	2.00	1.000	3	1.000
	3.00	1.000	3	1.000
	4.00	1.000	3	1.000
	5.00	1.000	3	1.000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH Hari ke-1	Based on Mean	.311	4	10	.864
	Based on Median	.208	4	10	.928
	Based on Median and with adjusted df	.208	4	8.727	.927
	Based on trimmed mean	.304	4	10	.869
pH Hari ke-28	Based on Mean	2.016	4	10	.168
	Based on Median	1.471	4	10	.282
	Based on Median and with adjusted df	1.471	4	3.341	.379
	Based on trimmed mean	1.983	4	10	.173

Post Hoc Tests
Homogeneous Subsets

pH Hari ke-1

Student-Newman-Keuls[a]

formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
4.00	3	4.2367				
1.00	3		4.8767			
2.00	3			5.3267		
3.00	3				5.7400	
5.00	3					6.6867
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.

pH Hari ke-28

Student-Newman-Keuls[a]

formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
4.00	3	3.9800				
1.00	3		4.6633			
2.00	3			4.8600		
3.00	3				5.3900	
5.00	3					6.2900
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 9. Data dan statistik uji viskositas hand sanitizer spray ekstrak batang bajakah tampala (*Spatholobus littoralis Hassk*)

Viskositas Hari ke-1

Rumus Kerapatan $\rho_{zat} = \frac{Berat\ sampel(\ yang\ telah\ dikurangi\ berat\ piknometer)}{Volume}$

Rumus Tegangan Geser : $\frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$

η1 :Viskositas cairan sampel (sentipoice (cP))
η2 :Viskositas cairan pembanding (sentipoice (cP))
ρ1 :Massa Jenis dalam cairan sampel (gram/mL)
t1 : Waktu aliran cairan sampel (detik)
ρ2 : Massa Jenis dalam cairan pembanding (gram/mL)
t2 : Waktu aliran cairan pembanding (detik)

Perhitungan Viskositas Hari ke-1		
Replikasi 1	**Replikasi 2**	**Replikasi 3**
FI $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,13-17,468}{25}$ = 1,067 t1 : 1,78 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,78.1.067}{1,36.1,036}$ = **1,347 cP**	**FI** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,15-17,468}{25}$ = 1,067 t1 : 1,76 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,76.1,067}{1,36.1,036}$ = **1,333 cP**	**FI** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,17-17,468}{25}$ = 1,068 t1 : 1,79 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,79.1,068}{1,36.1,036}$ = **1,357 cP**
FII $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,39-17,468}{25}$ = 1,077 t1 : 1,95 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,95.1,077}{1,36.1,036}$ = **1,490 cP**	**FII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,37-17,468}{25}$ = 1,076 t1 : 1,9 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,9.1,076}{1,36.1,036}$ = **1,450 cP**	**FII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,42-17,468}{25}$ = 1,078 t1 : 1,93 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,93.1,078}{1,36.1,036}$ = **1,476 cP**

FIII $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,70-17,468}{25}$ = 1,089 t1 : 2,1 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{2,1.1,089}{1,36.1,036}$ = **1,623 cP**	**FIII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,73-17,468}{25}$ = 1,091 t1 : 2,07detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{2,07.1,091}{1,36.1,036}$ = **1,601 cP**	**FIII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44,72-17,468}{25}$ = 1,090 t1 : 2,09 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{2,09.1,090}{1,36.1,036}$ = **1,616 cP**
K-tanpa Gliserin $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,52-17,468}{25}$ = 1,042 t1 : 1,63 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,63.1,042}{1,36.1,036}$ = **1,205 cP**	**K-tanpa Gliserin** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,59-17,468}{25}$ = 1,045 t1 : 1,6 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,6.1,045}{1,36.1,036}$ = **1,186 cP**	**K-tanpa Gliserin** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,56-17,468}{25}$ = 1,044 t1 : 1,62 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,62.1,044}{1,36.1,036}$ = **1,199 cP**
K-tanpa Zat aktif $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,68-17,468}{25}$ = **1,049 cP** t1 : 1,67 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,67.1,049}{1,36.1,036}$ = **1,242 cP**	**K-tanpa Zat aktif** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,63-17,468}{25}$ = **1,047 cP** t1 : 1,65 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,65.1,047}{1,36.1,036}$ = **1,225 cP**	**K-tanpa Zat aktif** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,60-17,468}{25}$ = **1,045 cP** t1 : 1,68 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,68.1,045}{1,36.1,036}$ = **1,246 cP**
Keterangan : Berat piknometer volume 25ml yaitu 17,468 **Viskositas pembanding yaitu aquadest diperoleh :**		

$\rho_{zat} = \frac{Berat\ sampel}{Volume}$

$= \frac{43{,}38-17{,}468}{25}$

= 1,036

t= 1,36 detik

Perhitungan Viskositas Hari ke-28		
Replikasi 1	**Replikasi 2**	**Replikasi 3**
FI $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}010-17{,}45}{25}$ = 1,062 t1 : 1,58 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}58.1.062}{1{,}37.1{,}037}$ = **1,182 cP**	**FI** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}000-17{,}45}{25}$ = 1,062 t1 : 1,60 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}60.1{,}062}{1{,}37.1{,}037}$ = **1,196 cP**	**FI** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}080-17{,}45}{25}$ = 1,065 t1 : 1,62 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}62.1{,}065}{1{,}37.1{,}037}$ = **1,200 cP**
FII $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}214-17{,}45}{25}$ = 1,071 t1 : 1,66 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}66.1{,}071}{1{,}37.1{,}037}$ = **1,251 cP**	**FII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}216-17{,}45}{25}$ = 1,071 t1 : 1,70 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}70.1{,}071}{1{,}37.1{,}037}$ = **1,281 cP**	**FII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}201-17{,}45}{25}$ = 1,070 t1 : 1,73 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1{,}73.1{,}070}{1{,}37.1{,}037}$ = **1,278 cP**
FIII $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}539-17{,}45}{25}$ = 1,084 t1 : 1,80 detik	**FIII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}605-17{,}45}{25}$ = 1,086 t1 : 1,82 detik	**FIII** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{44{,}529-17{,}45}{25}$ = 1,083 t1 : 1,85 detik

Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,80.1,084}{1,37.1,037}$ = **1,373 cP**	Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,82.1,086}{1,37.1,037}$ = **1,391 cP**	Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,85.1,083}{1,37.1,037}$ = **1,390 cP**
K-tanpa Gliserin $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,460-17,45}{25}$ = 1,040 t1 : 1,48 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,48.1,040}{1,37.1,037}$ = **1,084 cP**	**K-tanpa Gliserin** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,398-17,45}{25}$ = 1,038 t1 : 1,50 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,50.1,038}{1,37.1,037}$ = **1,096cP**	**K-tanpa Gliserin** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,463-17,45}{25}$ = 1,041 t1 : 1,53 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,53.1,041}{1,37.1,037}$ = **1,101 cP**
K-tanpa Zat aktif $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,520-17,45}{25}$ = 1,043 t1 : 1,58 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,58.1,043}{1,37.1,037}$ = **1,160 cP**	**K-tanpa Zat aktif** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,550-17,45}{25}$ = 1,044 t1 : 1,54 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,54.1,044}{1,37.1,037}$ = **1,132 cP**	**K-tanpa Zat aktif** $\rho_{zat} = \frac{Berat\ sampel}{Volume}$ $= \frac{43,60-17,468}{25}$ = 1,046 t1 : 1,56 detik Tegangan geser $= \frac{\eta 1}{\eta 2} = \frac{t1.p1}{t2.p2}$ $= \frac{\eta 1}{\eta 2} = \frac{1,56.1,046}{1,37.1,037}$ = **1,148 cP**
Keterangan : Berat piknometer volume 25ml yaitu 17,45 **Viskositas pembanding yaitu aquadest diperoleh :** $\boldsymbol{\rho_{zat} = \frac{Berat\ sampel}{Volume}}$ $\boldsymbol{= \frac{43,375-17,45}{25}}$ **= 1,037** **t= 1,37 detik**		

Viskositas Hari ke-1

Viskositas Hari ke-1	FI	FII	FIII	K-tanpa gliserin	K-tanpa ZA
	1,347	1,490	1,623	1,205	1,242
	1,333	1,450	1,601	1,186	1,225
	1,357	1,476	1,616	1,199	1,246
Rata-rata	1,345	1,472	1,614	1,197	1,238
SD	0,0098	0,0163	0,0090	0,0081	0,0091

Viskositas Hari ke-28

Viskositas Hari ke-28	FI	FII	FIII	K-tanpa gliserin	K-tanpa ZA
	1,182	1,251	1,373	1,084	1,160
	1,196	1,281	1,391	1,096	1,132
	1,200	1,278	1,390	1,101	1,148
Rata-rata	1,192	1,270	1,385	1,094	1,147
SD	0,0064	0,0092	0,0046	0,0067	0,0223

Oneway

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas Hari Ke-1	Based on Mean	.720	4	10	.598
	Based on Median	.299	4	10	.872
	Based on Median and with adjusted df	.299	4	7.477	.870
	Based on trimmed mean	.685	4	10	.619
Viskositas Hari Ke-28	Based on Mean	.758	4	10	.575
	Based on Median	.140	4	10	.964
	Based on Median and with adjusted df	.140	4	6.722	.962
	Based on trimmed mean	.679	4	10	.622
	K-tanpa zat aktif	.993	3	.843	

a. Lilliefors Significance Correction

Post Hoc Tests
Homogeneous Subsets

Viskositas Hari Ke-1

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
K-tanpa Gliserin	3	1.1967				
K-tanpa zat aktif	3		1.2377			
FI	3			1.3457		
FII	3				1.4720	
FIII	3					1.6133
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.

Viskositas Hari Ke-28

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05				
		1	2	3	4	5
K-tanpa Gliserin	3	1.0937				
K-tanpa zat aktif	3		1.1467			
FI	3			1.1927		
FII	3				1.2700	
FIII	3					1.3847
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 10. Data dan statistik uji pola penyemprotan *hand sanitizer spray* ekstrak batang bajakah tampala (*Spatholobus littoralis Hassk*)

Pola Penyemprotan	FI	FII	FIII	K-tanpa gliserin	K- tanpa zat aktif
3cm	8,9	8	7	10,5	8
	8	6	4,5	7	7,5
	7	7	6	9	6
Rata-rata	7,97	7,00	5,83	8,83	7,17
SD	0,776	0,816	1,027	1,434	0,850
5cm	11	10,5	8	15	11,5
	12,5	12	10	11	11
	15,2	11,5	10,5	15,5	9
Rata-rata	12,90	11,33	9,50	13,83	10,50
SD	1,738	0,624	1,080	2,014	1,080
10cm	17	13	16	20	15
	15	11,5	9	15	13
	17	14,5	10	18	13
Rata-rata	16,33	13,00	11,67	17,67	13,67
SD	0,943	1,225	3,091	2,055	0,943
15cm	21	17	16	18	17,5
	18	16	14,5	17,5	19
	19,5	15	13	16,5	20
Rata-rata	19,50	16,00	14,50	17,33	18,83
SD	1,225	0,816	1,225	0,624	1,027

Tests of Normality

Formula		Shapiro-Wilk Statistic	df	Sig.
3 cm	FI	.964	3	.637
	FII	1.000	3	1.000
	FIII	.987	3	.780
	K - Tanpa Gliserin	.993	3	.843
	K - Tanpa Zat aktif	.923	3	.463
5 cm	FI	.974	3	.688
	FII	.964	3	.637
	FIII	.893	3	.363
	K - Tanpa Gliserin	.832	3	.194
	K - Tanpa Zat aktif	.893	3	.363
10 cm	FI	.964	3	.637
	FII	1.000	3	1.000
	FIII	.855	3	.253
	K - Tanpa Gliserin	.987	3	.780
	K - Tanpa Zat aktif	.964	3	.637
15 cm	FI	1.000	3	1.000
	FII	1.000	3	1.000
	FIII	1.000	3	1.000
	K - Tanpa Gliserin	.964	3	.637
	K - Tanpa Zat aktif	.987	3	.780

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
3 cm	Based on Mean	.525	4	10	.720
	Based on Median	.338	4	10	.846
	Based on Median and with adjusted df	.338	4	7.918	.845
	Based on trimmed mean	.512	4	10	.728
5 cm	Based on Mean	1.721	4	10	.221
	Based on Median	.298	4	10	.873
	Based on Median and with adjusted df	.298	4	5.716	.869
	Based on trimmed mean	1.536	4	10	.265
10 cm	Based on Mean	3.356	4	10	.055
	Based on Median	.680	4	10	.622
	Based on Median and with adjusted df	.680	4	3.431	.646
	Based on trimmed mean	3.055	4	10	.069
15 cm	Based on Mean	.260	4	10	.897
	Based on Median	.266	4	10	.893
	Based on Median and with adjusted df	.266	4	8.678	.893
	Based on trimmed mean	.260	4	10	.897

Post Hoc Tests
Homogeneous Subsets

3 cm

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05 1
FIII	3	5.833
FII	3	7.000
K - Tanpa Zat aktif	3	7.167
FI	3	7.833
K - Tanpa Gliserin	3	8.833
Sig.		.074

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

5 cm

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05 1
FIII	3	9.500
K - Tanpa Zat aktif	3	10.500
FII	3	11.333
FI	3	12.900
K - Tanpa Gliserin	3	13.833
Sig.		.068

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

10 cm

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05 1	2
FIII	3	11.667	
FII	3	13.000	13.000
K - Tanpa Zat aktif	3	14.333	14.333
FI	3	16.333	16.333
K - Tanpa Gliserin	3		17.667
Sig.		.102	.102

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3,000.

15 cm

Student-Newman-Keuls[a]

Formula	N	Subset for alpha = 0.05		
		1	2	3
FIII	3	14.500		
FII	3	16.000	16.000	
K - Tanpa Gliserin	3		17.333	17.333
K - Tanpa Zat aktif	3			18.833
FI	3			19.500
Sig.		.169	.217	.131

Means for groups in homogeneous subsets are displayed.

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

Lampiran 11. Data dan statistik daya hambat ekstrak bajakah tampala (*Spatholobus littoralis Hassk*)

Replikasi	Ekstrak I	Ekstrak II	Ekstrak III	K-	K+
I	10	12,5	13	0	16
II	11	13	13	0	15
III	11	12,5	13,5	0	14,5
SD	0,471	0,236	0,236	0,00	0,624
Rata-rata	10,67	12,67	13,17	0	15,17

Tests of Normality

Ekstrak batang bajakah tampala		Shapiro-Wilk		
		Statistic	df	Sig.
Daya_Hambat	Ekstrak 10%	.750	3	.000
	Ekstrak 12,5%	.750	3	.000
	Ekstrak 15%	.750	3	.000
	k+	.964	3	.637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya_Hambat	Based on Mean	1.895	3	8	.209
	Based on Median	.407	3	8	.752
	Based on Median and with adjusted df	.407	3	6.000	.754
	Based on trimmed mean	1.706	3	8	.243

NPar Test

Kruskal-Wallis Test

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank
Daya_Hambat	Ekstrak 10%	3	2.00
	Ekstrak 12,5%	3	5.33
	Ekstrak 15%	3	7.67
	k+	3	11.00
	Total	12	

Test Statistics[a,b]

	Daya_Hambat
Kruskal-Wallis H	10.188
df	3
Asymp. Sig.	.017

a. Kruskal Wallis Test
b. Grouping Variable: Ekstrak batang bajakah tampala

NPar Tests
Mann-Whitney Test

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 10%	3	2.00	6.00
	Ekstrak 12,5%	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Ekstrak batang bajakah tampala
b. Not corrected for ties.

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 10%	3	2.00	6.00
	Ekstrak 15%	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.023
Asymp. Sig. (2-tailed)	.043
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Ekstrak batang bajakah tampala
b. Not corrected for ties.

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 10%	3	2.00	6.00
	k+	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Ekstrak batang bajakah tampala
b. Not corrected for ties.

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 12,5%	3	2.33	7.00
	Ekstrak 15%	3	4.67	14.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.650
Asymp. Sig. (2-tailed)	.099
Exact Sig. [2*(1-tailed Sig.)]	.200[b]

a. Grouping Variable: Ekstrak batang bajakah tampala
b. Not corrected for ties.

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 12,5%	3	2.00	6.00
	k+	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Ekstrak batang bajakah tampala

b. Not corrected for ties.

Ranks

	Ekstrak batang bajakah tampala	N	Mean Rank	Sum of Ranks
Daya_Hambat	Ekstrak 15%	3	2.00	6.00
	k+	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.993
Asymp. Sig. (2-tailed)	.046
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Ekstrak batang bajakah tampala

b. Not corrected for ties.

Lampiran 12. Data dan statistik uji daya hambat hand sanitizer spray ekstrak bajakah tampala (*Spatholobus littoralis Hassk*)

Replikasi	FI	FII	FIII	K- tanpa Gliserin	K- tanpa Zat aktif	K+
I	7	10,5	13,5	6,5	0	1,5
II	10	9,5	13	5	0	5,5
III	7,5	10	14,5	4	0	4
Rata - rata	8,17	10,00	13,67	5,17	0	3,67
SD	1,312	0,408	0,624	1,027	0	1,650

Tests of Normality

		Shapiro-Wilk		
Formula		Statistic	df	Sig.
Daya hambat	FI	.871	3	.298
	FII	1.000	3	1.000
	FIII	.964	3	.637
	K-tanpa gliserin	.987	3	.780
	K-tanpa zat aktif	.	3	.
	K+	.980	3	.726

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya hambat	Based on Mean	2.841	5	12	.064
	Based on Median	.988	5	12	.464
	Based on Median and with adjusted df	.988	5	6.042	.494
	Based on trimmed mean	2.679	5	12	.075

NPar Test

Kruskal-Wallis Test

Ranks

	Formula	N	Mean Rank
Daya hambat	FI	3	11.50
	FII	3	13.50
	FIII	3	17.00
	K-tanpa gliserin	3	7.17
	K-tanpa zat aktif	3	2.00
	K+	3	5.83
	Total	18	

Test Statistics[a,b]

	Daya hambat
Kruskal-Wallis H	16.035
df	5
Asymp. Sig.	.007

a. Kruskal Wallis Test
b. Grouping Variable: Formula

NPar Tests
Mann-Whitney Test

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FI	3	2.50	7.50
	FII	3	4.50	13.50
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	1.500
Wilcoxon W	7.500
Z	-1.328
Asymp. Sig. (2-tailed)	.184
Exact Sig. [2*(1-tailed Sig.)]	.200[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FI	3	2.00	6.00
	FIII	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FI	3	5.00	15.00
	K-Tanpa Gliserin	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FI	3	5.00	15.00
	K- Tanpa Zat aktif	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FI	3	5.00	15.00
	K+	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000

Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FII	3	2.00	6.00
	FIII	3	5.00	15.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FII	3	5.00	15.00
	K-Tanpa Gliserin	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FII	3	5.00	15.00
	K- Tanpa Zat aktif	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FII	3	5.00	15.00
	K+	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FIII	3	5.00	15.00
	K-Tanpa Gliserin	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FIII	3	5.00	15.00
	K- Tanpa Zat aktif	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	FIII	3	5.00	15.00
	K+	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-1.964
Asymp. Sig. (2-tailed)	.050
Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	K-Tanpa Gliserin	3	5.00	15.00
	K- Tanpa Zat aktif	3	2.00	6.00
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.087
Asymp. Sig. (2-tailed)	.037

Exact Sig. [2*(1-tailed Sig.)]	.100[b]

a. Grouping Variable: Formula
b. Not corrected for ties.

Ranks

	Formula	N	Mean Rank	Sum of Ranks
Daya_Hambat	K-Tanpa Gliserin	3	4.17	12.50
	K+	3	2.83	8.50
	Total	6		

Test Statistics[a]

	Daya_Hambat
Mann-Whitney U	2.500
Wilcoxon W	8.500
Z	-.886
Asymp. Sig. (2-tailed)	.376
Exact Sig. [2*(1-tailed Sig.)]	.400[b]

a. Grouping Variable: Formula
b. Not corrected for ties.