

L A M P I R A N

Lampiran 1. Hasil determinasi daun mangkogan



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA

BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN

BALAI BESAR PENELITIAN DAN PENGEMBANGAN

TANAMAN OBAT DAN OBAT TRADISIONAL

Jalan Lawu No. 11 Tawamangu, Karanganyar, Jawa Tengah 57792

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Nomor : KM.04.02/2/1189/2022

27 Juni 2022

Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi
Jalan Let. Jend. Sutoyo, Solo 57127

Merujuk surat Saudara nomor: 778/H6-04/13.06.2022 tanggal 13 Juni 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Dini Rahmawati
Nama Sampel : Mangkogan
Sampel : Tanaman Segar
Spesies : *Polyscias scutellaria* (Burm.f.) Fosberg
Sinonim : *Nothopanax scutellarium* L.
Familia : Araliaceae
Penanggung Jawab : Nina Kurnianingrum, S.Si.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke dan/atau berasal dari B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian
dan Pengembangan Tanaman Obat
dan Obat Tradisional



Akhmad Saikhu, S.K.M.,
M.Sc.PH.

Lampiran 2. Hasil Ethicel Clearance

8/16/22, 3:01 PM

KEPK-RSDM



HEALTH RESEARCH ETHICS COMMITTEE KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE KELAIKAN ETIK

Nomor : 1.067 / VIII / HREC / 2022

The Health Research Ethics Committee Dr. Moewardi
Komisi Etik Penelitian Kesehatan RSUD Dr. Moewardi

after reviewing the proposal design, herewith to certify
setelah menilai rancangan penelitian yang diusulkan, dengan ini menyatakan

That the research proposal with topic :
Bahwa usulan penelitian dengan judul

FORMULASI, UJI MUTU FISIK DAN UJI AKTIVITAS PERTUMBUHAN RAMBUT SEDIAAN HAIR TONIC EKSTRAK DAUN MANGKOKAN (*Nothopanax scutellarium* L.) PADA KELINCI NEW ZEALAND WHITE

Principal investigator : Dini Rahmawati
Peneliti Utama : 25195932A

Location of research : Laboratorium Universitas Setia Budi Surakarta
Lokasi Tempat Penelitian

Is ethically approved
Dinyatakan layak etik

Issued on : 16 Agustus 2022

Chairman
Ketua

Dr. Wahyu Dwi Atmoko, Sp.F
19770224 201001 1 004

Lampiran 3. Bahan penelitian



Simplisia kering



Serbuk daun mangkoka



Ekstrak daun mangkoka



Sediaan natur



Krim pencukur

Lampiran 4. Perhitungan rendemen serbuk daun mangkogan

Hasil rendemen daun mangkogan yaitu bobot basah 20.000 gram, daun kering 3.775 gram dan bobot simplisia halus 1.500 gram sehingga hasil yang didapat :

$$\begin{aligned}\text{Presentase rendemen} &= \frac{\text{bobot serbuk (gram)}}{\text{bobot kering (gram)}} \times 100\% \\ &= \frac{1.500}{3.775} \times 100\% \\ &= 39,73\%\end{aligned}$$

Lampiran 5. perhitungan rendemen ekstrak daun mangkogan

Serbuk daun mangkogan yang digunakan maserasi yaitu 1.000 gram dan ekstrak kental yang didapat 253 gram sehingga rendemen yang didapat :

$$\begin{aligned}\text{Presentase rendemen} &= \frac{\text{serbuk (gram)}}{\text{ekstrak kental (gram)}} \times 100\% \\ &= \frac{253}{1.500} \times 100\% \\ &= 25,30\%\end{aligned}$$

Lampiran 6. Hasil pengujian kelarutan serbuk daun mangkogan

1. Hasil penetapan kadar sari larut air

Bobot serbuk (gram)	Replikasi	Hasil (%)
5	1	17,15
5	2	22,6
5	3	19,5
Rata rata		19,75

Perhitungan hasil penetapan sari larut air

$$\begin{aligned}\text{Replikasi 1} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,1712}{5,0002} + \frac{100}{20} \times 100\% \\ &= 17,15\%\end{aligned}$$

$$\begin{aligned}\text{Replikasi 2} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,2666}{5,0080} + \frac{100}{20} \times 100\% \\ &= 22,6\%\end{aligned}$$

$$\begin{aligned}\text{Replikasi 3} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,1954}{5,0012} + \frac{100}{20} \times 100\% \\ &= 19,5\%\end{aligned}$$

2. Hasil penetapan kadar sari larut etanol

Bobot serbuk (gram)	Replikasi	Hasil (%)
5	1	17,15
5	2	16,4
5	3	18,05
Rata rata		17,20

Perhitungan hasil penetapan sari larut etanol

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,172}{5,0005} + \frac{100}{20} \times 100\% \\
 &= 17,15\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,1672}{5,0009} + \frac{100}{20} \times 100\% \\
 &= 16,4\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,1808}{5,0055} + \frac{100}{20} \times 100\% \\
 &= 18,05\%
 \end{aligned}$$



Uji kadar sari larut air



Uji kadar sari larut etanol

Lampiran 7. Susut pengeringan

Bobot serbuk (g)	Susut Pengeringan (%)
2	7,00
2	6,90
2	7,40
Rata rata	6,90

Lampiran 8. Hasil pengujian kelarutan ekstrak daun mangkoka

1. Hasil penetapan kadar sari larut air

Bobot serbuk (gram)	Replikasi	Hasil (%)
5	1	50,00
5	2	45,45
5	3	41,50
Rata rata		45,65

Perhitungan hasil penetapan sari larut air

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,05}{0,500} + \frac{100}{20} \times 100\% \\
 &= 50\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,046}{0,506} + \frac{100}{20} \times 100\% \\
 &= 45,45\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\
 &= \frac{0,042}{0,501} + \frac{100}{20} \times 100\% \\
 &= 41,5\%
 \end{aligned}$$

2. hasil penetapan kadar sari larut etanol

Bobot ekstrak (gram)	Replikasi	Hasil (%)
5	1	50,29
5	2	38,00
5	3	52,85
Rata rata		47, 046

Perhitungan hasil penetaan sari larut etanol

$$\begin{aligned}\text{Replikasi 1} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,051}{0,057} + \frac{100}{20} \times 100\% \\ &= 50,29\%\end{aligned}$$

$$\begin{aligned}\text{Replikasi 2} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,039}{0,507} + \frac{100}{20} \times 100\% \\ &= 38\%\end{aligned}$$

$$\begin{aligned}\text{Replikasi 3} &= \frac{\text{bobot sari}}{\text{bobot sampel}} + \frac{100}{20} \times 100\% \\ &= \frac{0,053}{0,501} + \frac{100}{20} \times 100\% \\ &= 52,85\%\end{aligned}$$

Lampiran 9. Susut pengeringan ekstrak daun mangkoka



Gambar Susut pengeringan ekstrak

Bobot serbuk (g)	Susut pengeringan (%)
2,00	2, 00
2,02	4,50
2,01	2,30
Rata – rata ± SD	2,93 ± 1,36

Lampiran 10. Uji identifikasi kandungan kimia serbuk dan ekstrak

Uji identifikasi	Reagen yang digunakan	Uji serbuk	Uji ekstrak	Hasil
Saponin	Air panas dan HCl 2N			+
Flavonoid	Serbuk Mg, HCl pekat, dan amil alkohol			+
Tanin	FeCl ₃			+
Alkaloid	reaksi meyer (serbuk) Pereaksi draggondrof (ekstrak)			+

Lampiran 11. Uji mutu fisik sediaan hair tonic

1. uji oragnoleptis sediaan

Pemeriksaan	Sediaan <i>hair tonic</i>	Minggu 1	Minggu 4
Warna	Kontrol negatif Formula 1 Formula 2 Formula 3	Bening Hijau kehitaman Hijau kehitaman Hijau kehitaman	Bening Hijau kehitaman Hijau kehitaman Hijau kehitaman
Bau	Kontrol negatif Formula 1 Formula 2 Formula 3	Wangi Wangi Wangi Wangi	Wangi Wangi Wangi Wangi
Bentuk	Kontrol negatif Formula 1 Formula 2 Formula 3	Cair Cair Cair Cair	Cair Cair Cair Cair



Uji Ph



Uji viskositas



Uji bobot jenis



Uji bobot jenis (bobot pikno+air)

Lampiran 12. Uji pH

Sediaan hair tonic	Replikasi	Minggu 1	Minggu 4
Kontrol negatif	1	6,62	6,46
	2	6,77	6,57
	3	6,72	6,55
	Mean±SD	6,70±0,08	6,526667±0,058595
Formula A	1	5,07	4,73
	2	4,92	4,69
	3	5,05	4,7
	Mean±SD	5,01±0,08	4,706667±0,02
Formula B	1	5,79	5,5
	2	5,81	5,54
	3	5,83	5,56
	Mean±SD	5,81±0,02	5,53±0,03
Formula C	1	6,04	5,9
	2	6,05	5,96
	3	6,05	5,98
	Mean±SD	6,046667±0,01	5,95±0,04

PH

Case Processing Summary

	Kelompok	Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
pH	kontrol negatif minggu 1	3	100,0%	0	0,0%	3	100,0%
	kontrol negatif minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula A minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula A minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula B minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula B minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula C minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula C minggu 4	3	100,0%	0	0,0%	3	100,0%

Descriptives

	Kelompok		Statistic	Std. Error
pH	kontrol negatif minggu 1	Mean	6,7033	,04410
		95% Confidence Interval for Mean	Lower Bound	6,5136
			Upper Bound	6,8931
		5% Trimmed Mean	.	.
		Median	6,7200	.
		Variance	,006	.
		Std. Deviation	,07638	.
		Minimum	6,62	.
		Maximum	6,77	.
		Range	,15	.
		Interquartile Range	.	.
		Skewness	-,935	1,225
		Kurtosis	.	.
	kontrol negatif minggu 4	Mean	6,5267	,03383
		95% Confidence Interval for Mean	Lower Bound	6,3811
			Upper Bound	6,6722
		5% Trimmed Mean	.	.
		Median	6,5500	.
		Variance	,003	.
		Std. Deviation	,05859	.
		Minimum	6,46	.
		Maximum	6,57	.
		Range	,11	.
		Interquartile Range	.	.
		Skewness	-1,508	1,225
		Kurtosis	.	.
	formula A minggu 1	Mean	5,0133	,04702
		95% Confidence Interval for Mean	Lower Bound	4,8110
			Upper Bound	5,2157
		5% Trimmed Mean	.	.
		Median	5,0500	.
		Variance	,007	.
		Std. Deviation	,08145	.
		Minimum	4,92	.
		Maximum	5,07	.
		Range	,15	.
		Interquartile Range	.	.
		Skewness	-1,615	1,225
		Kurtosis	.	.
	formula A minggu 4	Mean	4,7067	,01202
		95% Confidence Interval for Mean	Lower Bound	4,6550
			Upper Bound	4,7584
		5% Trimmed Mean	.	.
		Median	4,7000	.
		Variance	,000	.

		Std. Deviation	,02082	
		Minimum	4,69	
		Maximum	4,73	
		Range	,04	
		Interquartile Range	.	
		Skewness	1,293	1,225
		Kurtosis	.	.
	formula B minggu 1	Mean	5,8100	,01155
		95% Confidence Interval for Mean	Lower Bound	5,7603
			Upper Bound	5,8597
		5% Trimmed Mean	.	
		Median	5,8100	
		Variance	,000	
		Std. Deviation	,02000	
		Minimum	5,79	
		Maximum	5,83	
		Range	,04	
		Interquartile Range	.	
		Skewness	,000	1,225
		Kurtosis	.	.
	formula B minggu 4	Mean	5,5333	,01764
		95% Confidence Interval for Mean	Lower Bound	5,4574
			Upper Bound	5,6092
		5% Trimmed Mean	.	
		Median	5,5400	
		Variance	,001	
		Std. Deviation	,03055	
		Minimum	5,50	
		Maximum	5,56	
		Range	,06	
		Interquartile Range	.	
		Skewness	-,935	1,225
		Kurtosis	.	.
	formula C minggu 1	Mean	6,0467	,00333
		95% Confidence Interval for Mean	Lower Bound	6,0323
			Upper Bound	6,0610
		5% Trimmed Mean	.	
		Median	6,0500	
		Variance	,000	
		Std. Deviation	,00577	
		Minimum	6,04	
		Maximum	6,05	
		Range	,01	
		Interquartile Range	.	
		Skewness	-1,732	1,225

formula C minggu 4	Kurtosis		.	.
	Mean		5,9467	,02404
	95% Confidence Interval for Mean	Lower Bound	5,8432	
		Upper Bound	6,0501	
	5% Trimmed Mean		.	
	Median		5,9600	
	Variance		,002	
	Std. Deviation		,04163	
	Minimum		5,90	
	Maximum		5,98	
	Range		,08	
	Interquartile Range		.	
	Skewness		-1,293	1,225
	Kurtosis		.	.

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
pH	kontrol negatif minggu 1	,253	3	.	,964	3	,637
	kontrol negatif minggu 4	,321	3	.	,881	3	,328
	formula A minggu 1	,340	3	.	,848	3	,235
	formula A minggu 4	,292	3	.	,923	3	,463
	formula B minggu 1	,175	3	.	1,000	3	1,000
	formula B minggu 4	,253	3	.	,964	3	,637
	formula C minggu 1	,385	3	.	,750	3	,000
	formula C minggu 4	,292	3	.	,923	3	,463

a. Lilliefors Significance Correction

Ranks

	Kelompok	N	Mean Rank
pH	kontrol negatif minggu 1	3	23,00
	kontrol negatif minggu 4	3	20,00
	formula A minggu 1	3	5,00
	formula A minggu 4	3	2,00
	formula B minggu 1	3	11,00
	formula B minggu 4	3	8,00
	formula C minggu 1	3	17,00
	formula C minggu 4	3	14,00
	Total	24	

Multiple Comparisons

Dependent Variable: Ph

Tukey HSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol negatif minggu 1	kontrol negatif minggu 4	,17667*	,04024	,008	,0373	,3160
	formula A minggu 1	1,69000*	,04024	,000	1,5507	1,8293
	formula A minggu 4	1,99667*	,04024	,000	1,8573	2,1360
	formula B minggu 1	,89333*	,04024	,000	,7540	1,0327
	formula B minggu 4	1,17000*	,04024	,000	1,0307	1,3093
	formula C minggu 1	,65667*	,04024	,000	,5173	,7960
	formula C minggu 4	,75667*	,04024	,000	,6173	,8960
kontrol negatif minggu 4	kontrol negatif minggu 1	-,17667*	,04024	,008	-,3160	-,0373
	formula A minggu 1	1,51333*	,04024	,000	1,3740	1,6527
	formula A minggu 4	1,82000*	,04024	,000	1,6807	1,9593
	formula B minggu 1	,71667*	,04024	,000	,5773	,8560
	formula B minggu 4	,99333*	,04024	,000	,8540	1,1327
	formula C minggu 1	,48000*	,04024	,000	,3407	,6193
	formula C minggu 4	,58000*	,04024	,000	,4407	,7193
formula A minggu 1	kontrol negatif minggu 1	-1,69000*	,04024	,000	-1,8293	-1,5507
	kontrol negatif minggu 4	-1,51333*	,04024	,000	-1,6527	-1,3740
	formula A minggu 4	,30667*	,04024	,000	,1673	,4460
	formula B minggu 1	-,79667*	,04024	,000	-,9360	-,6573
	formula B minggu 4	-,52000*	,04024	,000	-,6593	-,3807
	formula C minggu 1	-1,03333*	,04024	,000	-1,1727	-,8940
	formula C minggu 4	-,93333*	,04024	,000	-1,0727	-,7940
formula A minggu 4	kontrol negatif minggu 1	-1,99667*	,04024	,000	-2,1360	-1,8573
	kontrol negatif minggu 4	-1,82000*	,04024	,000	-1,9593	-1,6807
	formula A minggu 1	-,30667*	,04024	,000	-,4460	-,1673
	formula B minggu 1	-1,10333*	,04024	,000	-1,2427	-,9640
	formula B minggu 4	-,82667*	,04024	,000	-,9660	-,6873
	formula C minggu 1	-1,34000*	,04024	,000	-1,4793	-1,2007
	formula C minggu 4	-1,24000*	,04024	,000	-1,3793	-1,1007
formula B minggu 1	kontrol negatif minggu 1	-,89333*	,04024	,000	-1,0327	-,7540
	kontrol negatif minggu 4	-,71667*	,04024	,000	-,8560	-,5773
	formula A minggu 1	,79667*	,04024	,000	,6573	,9360
	formula A minggu 4	1,10333*	,04024	,000	,9640	1,2427
	formula B minggu 4	,27667*	,04024	,000	,1373	,4160

Multiple Comparisons

Dependent Variable: Ph

Tukey HSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
formula B minggu 4	formula C minggu 1	-,23667*	,04024	,000	-,3760	-,0973
	formula C minggu 4	-,13667	,04024	,057	-,2760	,0027
	kontrol negatif minggu 1	-1,17000*	,04024	,000	-1,3093	-1,0307
	kontrol negatif minggu 4	-,99333*	,04024	,000	-1,1327	-,8540
	formula A minggu 1	,52000*	,04024	,000	,3807	,6593
	formula A minggu 4	,82667*	,04024	,000	,6873	,9660
	formula B minggu 1	-,27667*	,04024	,000	-,4160	-,1373
	formula C minggu 1	-,51333*	,04024	,000	-,6527	-,3740
formula C minggu 1	formula C minggu 4	-,41333*	,04024	,000	-,5527	-,2740
	kontrol negatif minggu 1	-,65667*	,04024	,000	-,7960	-,5173
	kontrol negatif minggu 4	-,48000*	,04024	,000	-,6193	-,3407
	formula A minggu 1	1,03333*	,04024	,000	,8940	1,1727
	formula A minggu 4	1,34000*	,04024	,000	1,2007	1,4793
	formula B minggu 1	,23667*	,04024	,000	,0973	,3760
	formula B minggu 4	,51333*	,04024	,000	,3740	,6527
	formula C minggu 4	,10000	,04024	,268	-,0393	,2393
formula C minggu 4	kontrol negatif minggu 1	-,75667*	,04024	,000	-,8960	-,6173
	kontrol negatif minggu 4	-,58000*	,04024	,000	-,7193	-,4407
	formula A minggu 1	,93333*	,04024	,000	,7940	1,0727
	formula A minggu 4	1,24000*	,04024	,000	1,1007	1,3793
	formula B minggu 1	,13667	,04024	,057	-,0027	,2760
	formula B minggu 4	,41333*	,04024	,000	,2740	,5527
	formula C minggu 1	-,10000	,04024	,268	-,2393	,0393

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

Test Statistics^{a,b}

	pH
Kruskal-Wallis H	22,690
Df	7
Asymp. Sig.	,002

a. Kruskal Wallis Test

b. Grouping Variable: Kelompok

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9,931	7	1,419	584,017	,000
Within Groups	,039	16	,002		
Total	9,970	23			

pHTukey HSD^a

Kelompok	N	Subset for alpha = 0.05						
		1	2	3	4	5	6	7
formula A minggu 4	3	4,7067						
formula A minggu 1	3		5,0133					
formula B minggu 4	3			5,5333				
formula B minggu 1	3				5,8100			
formula C minggu 4	3				5,9467	5,9467		
formula C minggu 1	3					6,0467		
kontrol negatif minggu 4	3						6,5267	
kontrol negatif minggu 1	3							6,7033
Sig.		1,000	1,000	1,000	,057	,268	1,000	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 13. Uji viskositas

Sediaan hair tonic	Replikasi	Minggu 1	Minggu 4
Kontrol negative	1	4,35cp	4,115cp
	2	4,359cp	4,134cp
Mean±SD	3	4,361cp 4,36±0,01	4,129cp 4,13±0,01
Formula A	1	3,793cp	3,532cp
	2	3,786cp	3,525cp
	3	3,796cp	3,52cp
Mean±SD		3,79±0,01	3,53±0,01
Formula B	1	3,955cp	3,702cp
	2	3,963cp	3,715cp
	3	3,952cp	3,712cp
Mean±SD		3,96±0,01	3,71±0,01
Formula C	1	4,221cp	4, 015cp
	2	4,219cp	4,009cp
	3	4,239cp	4,021cp
Mean±SD		4,23±0,01	4, 02±0,01

VISKOSITAS

Case Processing Summary

		Valid		Cases Missing		Total	
		N	Percent	N	Percent	N	Percent
Viskositas	Kelompok kontrol negatif minggu 1	3	100,0%	0	0,0%	3	100,0%
	kontrol negatif minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula A minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula A minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula B minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula B minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula C minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula C minggu 4	3	100,0%	0	0,0%	3	100,0%

Descriptives

		Statistic		Std. Error
Viskositas	Kelompok kontrol negatif minggu 1	Mean	4,3567	,00338
		95% Confidence Interval for Mean	Lower Bound	4,3421
			Upper Bound	4,3712
		5% Trimmed Mean	.	
		Median	4,3590	
		Variance	,000	
		Std. Deviation	,00586	
		Minimum	4,35	

		Maximum	4,36	
		Range	,01	
		Interquartile Range	.	
		Skewness	-1,508	1,225
		Kurtosis	.	.
	kontrol negatif minggu 4	Mean	4,1260	,00569
		95% Confidence Interval for Mean	Lower Bound Upper Bound	4,1015 4,1505
		5% Trimmed Mean	.	
		Median	4,1290	
		Variance	,000	
		Std. Deviation	,00985	
		Minimum	4,12	
		Maximum	4,13	
		Range	,02	
		Interquartile Range	.	
		Skewness	-1,244	1,225
		Kurtosis	.	.
	formula A minggu 1	Mean	3,7917	,00296
		95% Confidence Interval for Mean	Lower Bound Upper Bound	3,7789 3,8044
		5% Trimmed Mean	.	
		Median	3,7930	
		Variance	,000	
		Std. Deviation	,00513	
		Minimum	3,79	
		Maximum	3,80	
		Range	,01	
		Interquartile Range	.	
		Skewness	-1,090	1,225
		Kurtosis	.	.
	formula A minggu 4	Mean	3,5323	,00433
		95% Confidence Interval for Mean	Lower Bound Upper Bound	3,5137 3,5510
		5% Trimmed Mean	.	
		Median	3,5320	
		Variance	,000	
		Std. Deviation	,00751	
		Minimum	3,53	
		Maximum	3,54	
		Range	,02	
		Interquartile Range	.	
		Skewness	,199	1,225
		Kurtosis	.	.
	formula B	Mean	3,9567	,00328

	minggu 1	95% Confidence Interval for Mean	Lower Bound	3,9425	
			Upper Bound	3,9708	
		5% Trimmed Mean		.	
		Median		3,9550	
		Variance		,000	
		Std. Deviation		,00569	
		Minimum		3,95	
		Maximum		3,96	
		Range		,01	
		Interquartile Range		.	
		Skewness		1,206	1,225
		Kurtosis		.	.
	formula B minggu 4	Mean		3,7097	,00393
		95% Confidence Interval for Mean	Lower Bound	3,6928	
			Upper Bound	3,7266	
		5% Trimmed Mean		.	
		Median		3,7120	
		Variance		,000	
		Std. Deviation		,00681	
		Minimum		3,70	
		Maximum		3,72	
		Range		,01	
		Interquartile Range		.	
		Skewness		-1,361	1,225
		Kurtosis		.	.
	formula C minggu 1	Mean		4,2263	,00636
		95% Confidence Interval for Mean	Lower Bound	4,1990	
			Upper Bound	4,2537	
		5% Trimmed Mean		.	
		Median		4,2210	
		Variance		,000	
		Std. Deviation		,01102	
		Minimum		4,22	
		Maximum		4,24	
		Range		,02	
		Interquartile Range		.	
		Skewness		1,668	1,225
		Kurtosis		.	.
	formula C minggu 4	Mean		4,0150	,00346
		95% Confidence Interval for Mean	Lower Bound	4,0001	
			Upper Bound	4,0299	
		5% Trimmed Mean		.	
		Median		4,0150	
		Variance		,000	
		Std. Deviation		,00600	
		Minimum		4,01	
		Maximum		4,02	

	Range	,01	
	Interquartile Range	.	
	Skewness	,000	1,225
	Kurtosis	.	.

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	kontrol negatif minggu 1	,321	3	.	,881	3	,328
	kontrol negatif minggu 4	,286	3	.	,930	3	,490
	formula A minggu 1	,269	3	.	,949	3	,567
	formula A minggu 4	,184	3	.	,999	3	,927
	formula B minggu 1	,282	3	.	,936	3	,510
	formula B minggu 4	,301	3	.	,912	3	,424
	formula C minggu 1	,353	3	.	,824	3	,174
	formula C minggu 4	,175	3	.	1,000	3	1,000

a. Lilliefors Significance Correction

Descriptives

Viskositas

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol negatif minggu 1	3	4,3567	,00586	,00338	4,3421	4,3712	4,35	4,36
kontrol negatif minggu 4	3	4,1260	,00985	,00569	4,1015	4,1505	4,12	4,13
formula A minggu 1	3	3,7917	,00513	,00296	3,7789	3,8044	3,79	3,80
formula A minggu 4	3	3,5323	,00751	,00433	3,5137	3,5510	3,53	3,54
formula B minggu 1	3	3,9567	,00569	,00328	3,9425	3,9708	3,95	3,96
formula B minggu 4	3	3,7097	,00681	,00393	3,6928	3,7266	3,70	3,72
formula C minggu 1	3	4,2263	,01102	,00636	4,1990	4,2537	4,22	4,24
formula C minggu 4	3	4,0150	,00600	,00346	4,0001	4,0299	4,01	4,02
Total	24	3,9643	,26365	,05382	3,8530	4,0756	3,53	4,36

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	,834	7	16	,575
	Based on Median	,150	7	16	,992
	Based on Median and with adjusted df	,150	7	9,281	,990
	Based on trimmed mean	,754	7	16	,632

ANOVA

Viskositas

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1,598	7	,228	4058,090	,000
Within Groups	,001	16	,000		
Total	1,599	23			

Multiple Comparisons

Dependent Variable: Viskositas

Tukey HSD

(I) Kelompok	(J) Kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol negatif minggu 1	kontrol negatif minggu 4	,23067*	,00612	,000	,2095	,2519
	formula A minggu 1	,56500*	,00612	,000	,5438	,5862
	formula A minggu 4	,82433*	,00612	,000	,8031	,8455
	formula B minggu 1	,40000*	,00612	,000	,3788	,4212
	formula B minggu 4	,64700*	,00612	,000	,6258	,6682
	formula C minggu 1	,13033*	,00612	,000	,1091	,1515
	formula C minggu 4	,34167*	,00612	,000	,3205	,3629
kontrol negatif minggu 4	kontrol negatif minggu 1	-,23067*	,00612	,000	-,2519	-,2095
	formula A minggu 1	,33433*	,00612	,000	,3131	,3555
	formula A minggu 4	,59367*	,00612	,000	,5725	,6149
	formula B minggu 1	,16933*	,00612	,000	,1481	,1905
	formula B minggu 4	,41633*	,00612	,000	,3951	,4375
	formula C minggu 1	-,10033*	,00612	,000	-,1215	-,0791
	formula C minggu 4	,11100*	,00612	,000	,0898	,1322
formula A minggu 1	kontrol negatif minggu 1	-,56500*	,00612	,000	-,5862	-,5438
	kontrol negatif minggu 4	-,33433*	,00612	,000	-,3555	-,3131
	formula A minggu 4	,25933*	,00612	,000	,2381	,2805
	formula B minggu 1	-,16500*	,00612	,000	-,1862	-,1438
	formula B minggu 4	,08200*	,00612	,000	,0608	,1032

formula A minggu 4	formula C minggu 1	-,43467*	,00612	,000	-,4559	-,4135
	formula C minggu 4	-,22333*	,00612	,000	-,2445	-,2021
	kontrol negatif minggu 1	-,82433*	,00612	,000	-,8455	-,8031
	kontrol negatif minggu 4	-,59367*	,00612	,000	-,6149	-,5725
	formula A minggu 1	-,25933*	,00612	,000	-,2805	-,2381
	formula B minggu 1	-,42433*	,00612	,000	-,4455	-,4031
	formula B minggu 4	-,17733*	,00612	,000	-,1985	-,1561
	formula C minggu 1	-,69400*	,00612	,000	-,7152	-,6728
formula B minggu 1	formula C minggu 4	-,48267*	,00612	,000	-,5039	-,4615
	kontrol negatif minggu 1	-,40000*	,00612	,000	-,4212	-,3788
	kontrol negatif minggu 4	-,16933*	,00612	,000	-,1905	-,1481
	formula A minggu 1	,16500*	,00612	,000	,1438	,1862
	formula A minggu 4	,42433*	,00612	,000	,4031	,4455
	formula B minggu 4	,24700*	,00612	,000	,2258	,2682
	formula C minggu 1	-,26967*	,00612	,000	-,2909	-,2485
	formula C minggu 4	-,05833*	,00612	,000	-,0795	-,0371
formula B minggu 4	kontrol negatif minggu 1	-,64700*	,00612	,000	-,6682	-,6258
	kontrol negatif minggu 4	-,41633*	,00612	,000	-,4375	-,3951
	formula A minggu 1	-,08200*	,00612	,000	-,1032	-,0608
	formula A minggu 4	,17733*	,00612	,000	,1561	,1985
	formula B minggu 1	-,24700*	,00612	,000	-,2682	-,2258
	formula C minggu 1	-,51667*	,00612	,000	-,5379	-,4955
	formula C minggu 4	-,30533*	,00612	,000	-,3265	-,2841
formula C minggu 1	kontrol negatif minggu 1	-,13033*	,00612	,000	-,1515	-,1091
	kontrol negatif minggu 4	,10033*	,00612	,000	,0791	,1215
	formula A minggu 1	,43467*	,00612	,000	,4135	,4559
	formula A minggu 4	,69400*	,00612	,000	,6728	,7152
	formula B minggu 1	,26967*	,00612	,000	,2485	,2909
	formula B minggu 4	,51667*	,00612	,000	,4955	,5379
	formula C minggu 4	,21133*	,00612	,000	,1901	,2325
formula C minggu 4	kontrol negatif minggu 1	-,34167*	,00612	,000	-,3629	-,3205
	kontrol negatif minggu 4	-,11100*	,00612	,000	-,1322	-,0898
	formula A minggu 1	,22333*	,00612	,000	,2021	,2445
	formula A minggu 4	,48267*	,00612	,000	,4615	,5039
	formula B minggu 1	,05833*	,00612	,000	,0371	,0795
	formula B minggu 4	,30533*	,00612	,000	,2841	,3265
	formula C minggu 1	-,21133*	,00612	,000	-,2325	-,1901

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

Viskositas

Tukey HSD^a

Kelompok	N	Subset for alpha = 0.05							
		1	2	3	4	5	6	7	8
formula A minggu 4	3	3,5323							
formula B minggu 4	3		3,7097						
formula A minggu 1	3			3,7917					
formula B minggu 1	3				3,9567				
formula C minggu 4	3					4,0150			
kontrol negatif minggu 4	3						4,1260		
formula C minggu 1	3							4,2263	
kontrol negatif minggu 1	3								4,3567
Sig.		1,000	1,000	1,000	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 14. Perhitungan Uji bobot jenis

Sediaan hair tonic	Replikasi	Minggu ke-1	Minggu ke-4
Kontrol negative	1	0,97905	0,97526
	2	0,97486	0,96832
	3	0,97459	0,968392
Formula A	1	0,95179	0,94625
	2	0,95138	0,92614
	3	0,92425	0,920479
Formula B	1	0,947794	0,93255
	2	0,948448	0,9521
	3	0,946754	0,9527
Formula C	1	0,95491	0,94972
	2	0,95335	0,94939
	3	0,953706	0,94797

Bobot pikno kosong = 31, 0270 g/ml

Bobot pikno + air = 81,1423 g/ml

Perhitungan miggu ke-1

- Kontrol negatif

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,8759 - 31,1329}{50} \\
 &= \frac{48,743}{50} \\
 &= 0,97486 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,8611 - 31,1316}{50} \\
 &= \frac{48,7295}{50} \\
 &= 0,97459 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,8611 - 31,1316}{50} \\
 &= \frac{48,7295}{50} \\
 &= 0,97459 \text{ g/ml}
 \end{aligned}$$

- Formula A

$$\text{Replikasi 1} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,7215 - 31,1320}{50}$$

$$= \frac{47,5895}{50}$$

$$= 0,95179 \text{ g/ml}$$

$$\text{Replikasi 2} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,7012 - 31,1321}{50}$$

$$= \frac{47,56921}{50}$$

$$= 0,95138 \text{ g/ml}$$

$$\text{Replikasi 3} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{77,3430 - 31,1315}{50}$$

$$= \frac{46,2125}{50}$$

$$= 0,92425 \text{ g/ml}$$

- Formula B

$$\text{Replikasi 1} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,5112 - 31,1215}{50}$$

$$= \frac{47,3897}{50}$$

$$= 0,947794 \text{ g/ml}$$

$$\text{Replikasi 2} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,5349 - 31,1125}{50}$$

$$= \frac{47,4224}{50}$$

$$= 0,948448 \text{ g/ml}$$

$$\text{Replikasi 3} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,4630 - 31,1253}{50}$$

$$= \frac{47,3377}{50}$$

$$= 0,946754 \text{ g/ml}$$

- Formula C

$$\text{Replikasi 1} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,8900 - 31,1442}{50}$$

$$= \frac{47,7458}{50}$$

$$= 0,95491 \text{ g/ml}$$

$$\text{Replikasi 2} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,7990 - 31,1312}{50}$$

$$= \frac{47,6678}{50}$$

$$= 0,95335 \text{ g/ml}$$

$$\text{Replikasi 3} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{78,8170 - 31,1317}{50}$$

$$= \frac{47,6853}{50}$$

$$= 0,953706 \text{ g/ml}$$

Perhitungan minggu ke-4

- Kontrol negatif

$$\text{Replikasi 1} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{79,8950 - 31,1320}{50}$$

$$= \frac{48,763}{50}$$

$$= 0,97526 \text{ g/ml}$$

$$\text{Replikasi 2} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{79,5790 - 31,1330}{50}$$

$$= \frac{48,446}{50}$$

$$= 0,96832 \text{ g/ml}$$

$$\text{Replikasi 3} = \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}}$$

$$= \frac{79,5511 - 31,1315}{50}$$

$$= \frac{48,4196}{50}$$

$$= 0,968329 \text{ g/ml}$$

- Formula A

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,4315 - 31,1190}{50} \\
 &= \frac{47,3125}{50} \\
 &= 0,94625 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{77,4340 - 31,1250}{50} \\
 &= \frac{46,307}{50} \\
 &= 0,92614 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{77,1390 - 31,1153}{50} \\
 &= \frac{46,0237}{50} \\
 &= 0,920474 \text{ g/ml}
 \end{aligned}$$

- Formula B

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{77,7730 - 31,1451}{50} \\
 &= \frac{46,6279}{50} \\
 &= 0,93255 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,7531 - 31,1440}{50} \\
 &= \frac{47,60921}{50} \\
 &= 0,9521 \text{ g/ml}
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,7832 - 31,1148}{50} \\
 &= \frac{47,6389}{50} \\
 &= 0,9527 \text{ g/ml}
 \end{aligned}$$

- Formula C

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,4230 - 31,1370}{50} \\
 &= \frac{47,486}{50} \\
 &= 0,94972 \text{ g/ml} \\
 \text{Replikasi 2} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,5990 - 31,1295}{50} \\
 &= \frac{47,4695}{50} \\
 &= 0,94939 \text{ g/ml} \\
 \text{Replikasi 3} &= \frac{\text{bobot sampel} - \text{bobot pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,5135 - 31,1150}{50} \\
 &= \frac{47,3985}{50} \\
 &= 0,94797 \text{ g/ml}
 \end{aligned}$$

BOBOT JENIS

Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
BobotJenis	Kontrol negatif minggu ke 1	3	100.0%	0	0.0%	3	100.0%
	Kontrol negatif minggu 4	3	100.0%	0	0.0%	3	100.0%
	Formula A minggu ke 1	3	100.0%	0	0.0%	3	100.0%
	Formula A minggu 4	3	100.0%	0	0.0%	3	100.0%
	Formula B minggu ke 1	3	100.0%	0	0.0%	3	100.0%
	Formula B minggu ke 4	3	100.0%	0	0.0%	3	100.0%
	Formula C minggu ke 1	3	100.0%	0	0.0%	3	100.0%
	Formula C minggu 4	3	100.0%	0	0.0%	3	100.0%

Descriptives

	Kelompok		Statistic	Std. Error
BobotJenis	Kontrol negatif minggu ke 1	Mean	.9803	.00088
		95% Confidence Interval Lower Bound for Mean	.9765	
		Upper Bound	.9841	
		5% Trimmed Mean	.	
		Median	.9800	
		Variance	.000	
		Std. Deviation	.00153	
		Minimum	.98	
		Maximum	.98	
		Range	.00	
		Interquartile Range	.	
		Skewness	.935	1.225
		Kurtosis	.	.
		Mean	.9779	.00062
		95% Confidence Interval Lower Bound for Mean	.9752	
		Upper Bound	.9805	
	Kontrol negatif minggu 4	5% Trimmed Mean	.	
		Median	.9784	
		Variance	.000	
		Std. Deviation	.00107	
		Minimum	.98	
		Maximum	.98	
		Range	.00	
		Interquartile Range	.	
		Skewness	-1.723	1.225
		Kurtosis	.	.
		Mean	.9368	.00877
		95% Confidence Interval Lower Bound for Mean	.8991	
		Upper Bound	.9746	
		5% Trimmed Mean	.	
		Median	.9326	
	Formula A minggu ke 1	Variance	.000	
		Std. Deviation	.01519	
		Minimum	.92	
		Maximum	.95	
		Range	.03	
		Interquartile Range	.	
		Skewness	1.169	1.225
		Kurtosis	.	.
	Formula A minggu 4	Mean	.9334	.00819
		95% Confidence Interval Lower Bound	.8981	

Formula B minggu ke 1	for Mean	Upper Bound	.9686	
	5% Trimmed Mean		.	
	Median		.9261	
	Variance		.000	
	Std. Deviation		.01419	
	Minimum		.92	
	Maximum		.95	
	Range		.03	
	Interquartile Range		.	
	Skewness		1.698	1.225
	Kurtosis		.	.
	Mean		.9598	.00754
	95% Confidence Interval for Mean	Lower Bound	.9273	
		Upper Bound	.9922	
	5% Trimmed Mean		.	
	Median		.9527	
	Variance		.000	
	Std. Deviation		.01306	
	Minimum		.95	
	Maximum		.97	
Formula B minggu ke 4	Range		.02	
	Interquartile Range		.	
	Skewness		1.723	1.225
	Kurtosis		.	.
	Mean		.9554	.00748
	95% Confidence Interval for Mean	Lower Bound	.9232	
		Upper Bound	.9875	
	5% Trimmed Mean		.	
	Median		.9480	
	Variance		.000	
Formula C minggu ke 1	Std. Deviation		.01296	
	Minimum		.95	
	Maximum		.97	
	Range		.02	
	Interquartile Range		.	
	Skewness		1.732	1.225
	Kurtosis		.	.
	Mean		.9676	.00352
	95% Confidence Interval for Mean	Lower Bound	.9525	
		Upper Bound	.9827	
	5% Trimmed Mean		.	
	Median		.9649	
	Variance		.000	

Formula C minggu 4	Std. Deviation	.00609	
	Minimum	.96	
	Maximum	.97	
	Range	.01	
	Interquartile Range	.	
	Skewness	1.605	1.225
	Kurtosis	.	.
	Mean	.9654	.00377
	95% Confidence Interval Lower Bound for Mean	.9492	
	Upper Bound	.9816	
	5% Trimmed Mean	.	
	Median	.9678	
	Variance	.000	
	Std. Deviation	.00652	
	Minimum	.96	
	Maximum	.97	
	Range	.01	
	Interquartile Range	.	
	Skewness	-1.444	1.225
	Kurtosis	.	.

Tests of Normality

	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
BobotJenis	Kontrol negatif minggu ke 1	.253	3	.	.964	3	.637
	Kontrol negatif minggu 4	.373	3	.	.779	3	.066
	Formula A minggu ke 1	.278	3	.	.940	3	.528
	Formula A minggu 4	.361	3	.	.805	3	.127
	Formula B minggu ke 1	.373	3	.	.780	3	.067
	Formula B minggu ke 4	.382	3	.	.756	3	.013
	Formula C minggu ke 1	.338	3	.	.852	3	.245
	Formula C minggu 4	.312	3	.	.896	3	.373

a. Lilliefors Significance Correction

KRUSKALL WALLIS**Ranks**

	kelompok	N	Mean Rank
BobotJenis	Kontrol negatif minggu ke 1	3	23.00
	Kontrol negatif minggu 4	3	20.00
	Formula A minggu ke 1	3	5.17
	Formula A minggu 4	3	3.83
	Formula B minggu ke 1	3	11.67
	Formula B minggu ke 4	3	8.83
	Formula C minggu ke 1	3	14.00
	Formula C minggu 4	3	13.50
	Total	24	

Test Statistics^{a,b}

	BobotJenis
Chi-Square	18.783
df	7
Asymp. Sig.	.009

a. Kruskal Wallis Test

b. Grouping Variable:
kelompok**POST HOC TUCKEY****Multiple Comparisons**

Dependent Variable: BobotJenis

Tukey HSD

(I) kelompok	(J) kelompok	Mean Differen ce (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol negatif minggu ke 1	Kontrol negatif minggu 4	.00246	.00844	1.000	-.0267	.0317
	Formula A minggu ke 1	.04350*	.00844	.002	.0143	.0727
	Formula A minggu 4	.04696*	.00844	.001	.0178	.0762
	Formula B minggu ke 1	.02055	.00844	.288	-.0087	.0498
	Formula B minggu ke 4	.02497	.00844	.124	-.0042	.0542
	Formula C minggu ke 1	.01272	.00844	.793	-.0165	.0419
	Formula C minggu 4	.01497	.00844	.643	-.0142	.0442
	Kontrol negatif minggu ke 1	-.00246	.00844	1.000	-.0317	.0267
Kontrol negatif minggu 4	Formula A minggu ke 1	.04103*	.00844	.003	.0118	.0702
	Formula A minggu 4	.04450*	.00844	.002	.0153	.0737
	Formula B minggu ke 1	.01809	.00844	.430	-.0111	.0473
	Formula B minggu ke 4	.02251	.00844	.202	-.0067	.0517
	Formula C minggu ke 1	.01025	.00844	.916	-.0190	.0395
	Formula C minggu 4	.01251	.00844	.805	-.0167	.0417

Formula A minggu ke 1	Kontrol negatif minggu ke 1	-.04350*	.00844	.002	-.0727	-.0143
	Kontrol negatif minggu 4	-.04103*	.00844	.003	-.0702	-.0118
	Formula A minggu 4	.00347	.00844	1.000	-.0257	.0327
	Formula B minggu ke 1	-.02295	.00844	.186	-.0521	.0063
	Formula B minggu ke 4	-.01852	.00844	.402	-.0477	.0107
	Formula C minggu ke 1	-.03078*	.00844	.035	-.0600	-.0016
	Formula C minggu 4	-.02852	.00844	.058	-.0577	.0007
Formula A minggu 4	Kontrol negatif minggu ke 1	-.04696*	.00844	.001	-.0762	-.0178
	Kontrol negatif minggu 4	-.04450*	.00844	.002	-.0737	-.0153
	Formula A minggu ke 1	-.00347	.00844	1.000	-.0327	.0257
	Formula B minggu ke 1	-.02641	.00844	.092	-.0556	.0028
	Formula B minggu ke 4	-.02199	.00844	.223	-.0512	.0072
	Formula C minggu ke 1	-.03425*	.00844	.016	-.0634	-.0050
	Formula C minggu 4	-.03199*	.00844	.027	-.0612	-.0028
Formula B minggu ke 1	Kontrol negatif minggu ke 1	-.02055	.00844	.288	-.0498	.0087
	Kontrol negatif minggu 4	-.01809	.00844	.430	-.0473	.0111
	Formula A minggu ke 1	.02295	.00844	.186	-.0063	.0521
	Formula A minggu 4	.02641	.00844	.092	-.0028	.0556
	Formula B minggu ke 4	.00442	.00844	.999	-.0248	.0336
	Formula C minggu ke 1	-.00783	.00844	.978	-.0370	.0214
	Formula C minggu 4	-.00558	.00844	.997	-.0348	.0236
Formula B minggu ke 4	Kontrol negatif minggu ke 1	-.02497	.00844	.124	-.0542	.0042
	Kontrol negatif minggu 4	-.02251	.00844	.202	-.0517	.0067
	Formula A minggu ke 1	.01852	.00844	.402	-.0107	.0477
	Formula A minggu 4	.02199	.00844	.223	-.0072	.0512
	Formula B minggu ke 1	-.00442	.00844	.999	-.0336	.0248
	Formula C minggu ke 1	-.01226	.00844	.820	-.0415	.0169
	Formula C minggu 4	-.01000	.00844	.925	-.0392	.0192
Formula C minggu ke 1	Kontrol negatif minggu ke 1	-.01272	.00844	.793	-.0419	.0165
	Kontrol negatif minggu 4	-.01025	.00844	.916	-.0395	.0190
	Formula A minggu ke 1	.03078*	.00844	.035	.0016	.0600
	Formula A minggu 4	.03425*	.00844	.016	.0050	.0634
	Formula B minggu ke 1	.00783	.00844	.978	-.0214	.0370
	Formula B minggu ke 4	.01226	.00844	.820	-.0169	.0415
	Formula C minggu 4	.00226	.00844	1.000	-.0269	.0315
Formula C minggu 4	Kontrol negatif minggu ke 1	-.01497	.00844	.643	-.0442	.0142
	Kontrol negatif minggu 4	-.01251	.00844	.805	-.0417	.0167
	Formula A minggu ke 1	.02852	.00844	.058	-.0007	.0577
	Formula A minggu 4	.03199*	.00844	.027	.0028	.0612
	Formula B minggu ke 1	.00558	.00844	.997	-.0236	.0348
	Formula B minggu ke 4	.01000	.00844	.925	-.0192	.0392
	Formula C minggu ke 1	-.00226	.00844	1.000	-.0315	.0269

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

BobotJenisTukey HSD^a

kelompok	N	Subset for alpha = 0.05		
		1	2	3
Formula A minggu 4	3	.9334		
Formula A minggu ke 1	3	.9368	.9368	
Formula B minggu ke 4	3	.9554	.9554	.9554
Formula B minggu ke 1	3	.9598	.9598	.9598
Formula C minggu 4	3		.9654	.9654
Formula C minggu ke 1	3			.9676
Kontrol negatif minggu 4	3			.9779
Kontrol negatif minggu ke 1	3			.9803
Sig.		.092	.058	.124

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 15. Hasil uji aktivitas pertumbuhan rambut

**Uji panjang rambut dengan
jangka sorong**



**Uji bobot rambut dengan
neraca analitik**



Hari 11



Hari 21



Hari ke 11



Hari ke 21



Har ke 11



Hari ke 21

Kontrol negatif	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	22,4	23,8	19,15	20,1	22,1
	21,25	22,5	21,9	19,45	23,75
	22,5	22,15	21,25	21,1	22,9
	20,5	22,3	21,6	19,25	20,75
	20,3	24,5	18,35	17,6	20,55
	23,8	22,25	19,9	21,25	19,95
	20,9	20,7	17,35	16,9	20,15
	22,95	20,25	19,45	18,25	20,45
	19,3	21,15	22,1	19,75	21,7
	21,55	22,45	20,75	18,4	19,25
Mean	21,51	22,195	20,18	19,205	21,155
SD	1,4035273	1,2789861	1,6041959	1,4291509	1,4176369
Hari ke-11	3,2	9,35	5,35	3,55	8,7
	3,35	7,25	4,2	3,75	8,65
	2,1	5,1	4,55	2,3	9,45
	3,9	7,95	3,95	3,05	6,95
	4,2	8,15	4,8	3,15	8,4
	4,15	5,35	4,4	4,5	5,55
	2,85	7,8	4,25	3,2	5,6
	3,75	9,85	3,05	3,85	4,95
	2,5	6,05	3,25	3,15	5,25
	4,65	8,2	4,45	3,25	9,85
Mean	3,465	7,505	4,45	3,375	7,335
SD	0,8124209	1,5880544	0,6824181	0,5841661	1,8828244
Hari ke-21	7,2	9,5	9,95	6,25	14,2
	7,95	11,65	8,1	6,4	14,2
	6,4	13,1	8,45	4,4	15,4
	5,25	12,4	7,25	5,85	13,1
	9,15	12,3	9,15	5,5	15,5
	10,5	8,8	8,5	6,35	15,25
	5,55	10,7	8,25	5,75	13,4
	7,25	11,35	7,1	6,45	16,8
	5,1	9,95	7,35	5,55	12,35
	9,9	7,4	8,65	5,95	13,1
Mean	7,425	10,71	8,235	5,845	14,33
SD	1,9326507	1,7942501	0,8107096	0,6152913	1,3866827
Formula A	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	22,7	22,7	21,25	19,5	23,2
	21,9	22,45	19,45	18,45	21,95
	22,45	20,95	21,35	19,7	22,45
	22,65	22,15	19,55	18,25	21,35

	21,8	21,5	18,6	18,3	21,15
	21,15	20,8	21,1	20,65	20,15
	20,95	20,45	20,45	17,6	19,9
	21,8	22,35	20,55	20,6	20,5
	20,3	22,1	21,15	18,85	21,5
	20,95	22,4	19,35	21,4	20,25
Mean	21,665	21,785	20,28	19,33	21,24
SD	0,80968101	0,75764438	0,87209836	1,24859922	1,07543273
Hari ke-11	3,35	7,6	5,25	4,25	8,25
	3,15	6,5	5,2	4,75	7,15
	3,2	8,55	4,35	3,35	5,5
	5,2	7,2	4,3	2,95	7,5
	4,1	7,15	6,15	4,4	8,25
	5,15	7,25	6,6	4,25	7,15
	5,8	6,25	4,55	3,3	9,25
	2,2	9,16	5,7	3,95	6,15
	4,05	8,15	4,25	2,8	9,15
	2,1	9,1	4,9	3,7	7,1
Mean	3,83	7,691	5,125	3,77	7,545
SD	1,263197	1,0178021	0,81692173	0,65540488	1,20725814
Hari ke-21	8,45	17,15	11,5	8,95	16,7
	7,6	16,25	11,75	8,8	15,7
	10,9	16,4	14,3	7,25	16,8
	9,6	16,8	12,95	11,55	17,8
	8,35	19,1	12,6	10,9	18,15
	11,1	17,25	12,8	9,4	17,25
	12,4	17,2	14,75	12,9	17,2
	7,3	16,25	15,45	8,55	18,1
	10,3	15,4	15,6	6,7	16,7
	6,5	15,65	14,7	7,25	14,2
Mean	9,25	16,745	13,64	9,225	16,86
SD	1,90991565	1,0430857	1,50273824	2,0175962	1,19391978
Formula B	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	21,15	21,4	21,2	21,75	23,2
	23,05	23,25	21,9	21,45	21,8
	20,85	22,25	21,5	19,48	21,25
	22,8	20,4	19,4	21,1	19,4
	21,05	22,55	21,1	21,3	19,3
	20,05	21,85	19,65	18,15	22,6
	21,1	21,2	19,7	17,7	20,9

	22,45	22,35	20,5	19,2	23,1
	23,25	22,75	19,25	17,25	19,8
	22,9	21,55	18,95	17,6	19,35
Mean	21,865	21,955	20,315	19,498	21,07
SD	1,13994396	0,8417739 2	1,0543692 2	1,77921206	1,5665248 2
Hari ke-11	5,1	10,55	6,75	5,5	9,5
	4,95	7,6	6,2	5,2	8,1
	6,15	9,5	7,15	6,3	8,2
	6,9	7,85	7,25	5,85	9,3
	3,95	8,45	5,1	7,1	7,45
	7,15	6,35	8,55	6,35	7,25
	5,2	7,5	7,4	5,4	9,35
	6,3	7,65	6,95	6,15	8,4
	3,9	9,45	5,7	4,2	6,2
	4,95	9,9	5,9	5,1	6,85
Mean	5,455	8,48	6,695	5,715	8,06
SD	1,1324629	1,3182901 4	0,996229	0,81344603	1,1236844 2
Hari ke-21	10,5	14,15	16,4	13,15	12,5
	9,95	16,8	15,3	11,5	12,7
	13,5	18,2	11,95	16,2	15,55
	11,1	13,35	18,5	14,2	11,15
	11,2	16,2	12,5	12,3	15,7
	9,4	14,3	13,4	11,85	16,7
	9,95	15,55	14,35	10,55	15,6
	15,55	17,8	14,75	13,7	14,15
	13,1	13,15	16,5	13,1	15,7
	14,2	14,15	16,3	14,85	13,55
Mean	11,845	15,365	14,995	13,14	14,33
SD	2,09569002	1,8199587 9	2,0231232 7	1,68305278	1,8021900 3
Formula C	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	22,2	23,25	19,95	17,4	23,5
	21,15	21,8	19,2	19,25	23,4
	20,95	21,45	22,1	21,65	20,65
	22,5	21,2	22,45	21,55	20,2
	22,65	20,25	20,15	21,8	22,85
	20,15	22,6	20,6	18,95	23,05
	23,05	22,1	21,25	20,1	21,15
	23,55	22,8	21,15	20,6	23,95
	21,7	23,4	18,95	18,15	20,15
	22,05	21,55	18,55	17,25	22,45

Mean	21,995	22,04	20,435	19,67	22,135
SD	1,03049341	0,98680179	1,3180478	1,73384608	1,45545907
Hari ke-11	5,25	8,95	8,25	5,95	9,1
	6,5	9,5	8,05	6,85	9,25
	6,15	8,5	8,7	6,55	9,2
	5,95	7,15	8,55	6,2	6,2
	5,8	5,7	6,2	6,25	10,25
	6,55	7,95	5,35	6,9	9,4
	4,75	9,1	5,3	5,55	7,2
	6,75	10,25	6,3	6,95	7,85
	4,1	9,25	6,95	4,35	8,5
	5,2	9,15	5,3	5,7	8,15
Mean	5,7	8,55	6,895	6,125	8,51
SD	0,85990956	1,31444961	1,39372602	0,79590968	1,19298878
Hari ke-21	13,4	11,6	17,3	12,9	14,7
	14,05	14,45	10,55	12,2	18,65
	15,3	12,2	12,95	14,8	18,35
	15,1	15,7	11,5	11,3	11,7
	12,15	11,95	13,25	19,2	13,5
	11,2	13,9	11,95	14,35	14,6
	17,3	12,1	14,1	16,15	12,75
	16,45	17,2	10,85	15,9	17,2
	13,2	13,45	12,2	16,75	17,3
	16,1	14,2	14,1	14,95	17,3
Mean	14,425	13,675	12,875	14,85	15,605
SD	1,96246019	1,80865972	1,98427849	2,33369045	2,46660473
kontrol +	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	21,55	23,9	21,15	19,55	22,5
	21,9	22,15	20,85	21,9	21,6
	22,5	22,5	19,8	19,95	23,55
	22,65	21,15	20,8	20,55	21,15
	20,15	20,8	22,95	20,1	23,7
	22,8	24,55	21,35	21,7	20,95
	21,9	22,05	21,15	18,5	22,65
	23,95	21,6	20,5	18,25	20,25
	20,95	21,2	19,55	18,1	24,95
	21,7	22,6	18,65	21,2	21,75
Mean	22,005	22,25	20,675	19,98	22,305
SD	1,0515729	1,20577315	1,1686293	1,38948432	1,44711399

Hari ke-11	5,95	9,75	7,5	6,6	8,95
	6,15	8,65	7,35	6,35	8,8
	5,7	9,1	7,95	5,75	9,7
	8,1	10,1	8,8	7,9	9,25
	5,85	8,25	8,4	6,5	8,65
	7,55	8,5	5,9	7,8	8,1
	6,95	8,2	8,1	7,25	10,95
	7,15	7,45	6,25	7,15	9,2
	5,55	8,8	6,6	5,95	7,15
	5,7	7,9	5,1	5,75	7,1
Mean	6,465	8,67	7,195	6,7	8,785
SD	0,90094087	0,8111035	1,19476869	0,7954733	1,15182223
Hari ke-21	20,95	19,25	20,65	16,25	17,4
	22,55	18,15	21,9	17,6	17,6
	19,15	19,75	19,75	14,45	19,55
	21,2	21,9	17,4	15,25	19,15
	21,1	22,65	18,7	18,75	18,65
	20,55	23,5	19,95	19,8	18,2
	23,4	22,25	20,25	15,75	16,7
	19,2	22,75	21,65	15,4	19,2
	20,75	19,85	18,1	13,2	15,15
	17,9	22,5	15,35	19,75	15,8
Mean	20,675	21,255	19,37	16,62	17,74
SD	1,62262647	1,82809099	2,0164876	2,26252072	1,49532605

Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
PanjangRambu t	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	formula A	5	100.0%	0	0.0%	5	100.0%
	formula B	5	100.0%	0	0.0%	5	100.0%
	formula C	5	100.0%	0	0.0%	5	100.0%
	Kontrol positif	5	100.0%	0	0.0%	5	100.0%

Descriptives

	Kelompok		Statistic	Std. Error
PanjangRambut	kontrol negatif	Mean	55.6240	6.60047
		95% Confidence Lower Bound	37.2982	
		Interval for Mean Upper Bound	73.9498	
		5% Trimmed Mean	56.1544	
		Median	59.1900	
		Variance	217.831	
		Std. Deviation	14.75910	
		Minimum	32.13	
		Maximum	69.57	
		Range	37.44	
		Interquartile Range	25.59	
		Skewness	-1.207	.913
		Kurtosis	1.281	2.000
		Mean	37.2160	7.49629
		95% Confidence Lower Bound	16.4030	
		Interval for Mean Upper Bound	58.0290	
	formula A	5% Trimmed Mean	37.0222	
		Median	32.7400	
		Variance	280.972	
		Std. Deviation	16.76221	
		Minimum	20.62	
		Maximum	57.30	
		Range	36.68	
		Interquartile Range	32.91	
		Skewness	.360	.913
		Kurtosis	-2.779	2.000
		Mean	33.3460	3.31946
		95% Confidence Lower Bound	24.1297	
		Interval for Mean Upper Bound	42.5623	
		5% Trimmed Mean	33.0500	
		Median	31.9900	
	formula B	Variance	55.094	
		Std. Deviation	7.42255	
		Minimum	26.19	
		Maximum	45.83	
		Range	19.64	
		Interquartile Range	11.16	
		Skewness	1.569	.913
		Kurtosis	3.134	2.000
	formula C	Mean	32.7640	2.53200
		95% Confidence Lower Bound	25.7340	

Kontrol positif	Interval for Mean	Upper Bound	39.7940	
	5% Trimmed Mean		32.9350	
	Median		34.8700	
	Variance		32.055	
	Std. Deviation		5.66173	
	Minimum		24.50	
	Maximum		37.95	
	Range		13.45	
	Interquartile Range		10.48	
	Skewness		-.859	.913
	Kurtosis		-.893	2.000
	Mean		10.8220	3.26062
	95% Confidence	Lower Bound	1.7691	
	Interval for Mean	Upper Bound	19.8749	
	5% Trimmed Mean		10.6389	
	Median		6.3100	
	Variance		53.158	
	Std. Deviation		7.29098	
	Minimum		4.47	
	Maximum		20.47	
	Range		16.00	
	Interquartile Range		13.39	
	Skewness		.706	.913
	Kurtosis		-2.460	2.000

Tests of Normality

	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
PanjangRambut	kontrol negatif	.196	5	.200*	.913	5	.483
	formula A	.216	5	.200*	.878	5	.300
	formula B	.335	5	.070	.852	5	.200
	formula C	.245	5	.200*	.901	5	.417
	Kontrol positif	.332	5	.075	.824	5	.125

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

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ONE WAY ANOVA

Descriptives

PanjangRambut

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol negatif	5	55.6240	14.75910	6.60047	37.2982	73.9498	32.13	69.57
formula A	5	37.2160	16.76221	7.49629	16.4030	58.0290	20.62	57.30
formula B	5	33.3460	7.42255	3.31946	24.1297	42.5623	26.19	45.83
formula C	5	32.7640	5.66173	2.53200	25.7340	39.7940	24.50	37.95
Kontrol positif	5	10.8220	7.29098	3.26062	1.7691	19.8749	4.47	20.47
Total	25	33.9544	17.84419	3.56884	26.5887	41.3201	4.47	69.57

Test of Homogeneity of Variances

PanjangRambut

Levene Statistic	df1	df2	Sig.
3.173	4	20	.036

ANOVA

PanjangRambut

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5085.524	4	1271.381	9.946	.000
Within Groups	2556.442	20	127.822		
Total	7641.966	24			

POST HOC TUCKEY

Multiple Comparisons

Dependent Variable: PanjangRambut

Tukey HSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol negatif	formula A	18.40800	7.15044	.114	-2.9888	39.8048
	formula B	22.27800*	7.15044	.039	.8812	43.6748
	formula C	22.86000*	7.15044	.033	1.4632	44.2568
	Kontrol positif	44.80200*	7.15044	.000	23.4052	66.1988
	kontrol negatif	-18.40800	7.15044	.114	-39.8048	2.9888
formula A	formula B	3.87000	7.15044	.982	-17.5268	25.2668
	formula C	4.45200	7.15044	.970	-16.9448	25.8488
	Kontrol positif	26.39400*	7.15044	.011	4.9972	47.7908
	kontrol negatif	-22.27800*	7.15044	.039	-43.6748	-.8812
formula B	formula A	-3.87000	7.15044	.982	-25.2668	17.5268
	formula C	.58200	7.15044	1.000	-20.8148	21.9788
	Kontrol positif	22.52400*	7.15044	.036	1.1272	43.9208
	kontrol negatif	-22.86000*	7.15044	.033	-44.2568	-1.4632
formula C	formula A	-4.45200	7.15044	.970	-25.8488	16.9448
	formula B	-.58200	7.15044	1.000	-21.9788	20.8148
	Kontrol positif	21.94200*	7.15044	.043	.5452	43.3388
	kontrol negatif	-44.80200*	7.15044	.000	-66.1988	-23.4052
Kontrol positif	formula A	-26.39400*	7.15044	.011	-47.7908	-4.9972
	formula B	-22.52400*	7.15044	.036	-43.9208	-1.1272
	formula C	-21.94200*	7.15044	.043	-43.3388	-.5452

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

PanjangRambut

Tukey HSD^a

kelompok	N	Subset for alpha = 0.05		
		1	2	3
Kontrol positif	5	10.8220		
formula C	5		32.7640	
formula B	5		33.3460	
formula A	5		37.2160	37.2160
kontrol negatif	5			55.6240
Sig.		1.000	.970	.114

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.

Lampiran 16. Data hasil uji aktivitas pertumbuhan rambut

Kelinci	Bobot Sebelum Perlakuan (mg)				
	Kontrol -	Formula A	formula B	formula C	kontrol +
1	246,17	231,25	239,95	255,25	260,3
2	258,7	245,3	245,95	261,14	263,12
3	231,52	228,32	229,76	232,2	233,48
4	219,92	207,6	210,14	220,02	221,19
5	248,3	240,12	242,95	258,7	261,78
Mean	240,922	230,518	233,75	245,462	247,974
SD	15,22757	14,50265	14,53678	18,30318	17,31702

Kelinci	Bobot Rambut Akhir (mg)				
	Kontrol -	Formula A	formula B	formula C	kontrol +
1	20,9	66,2	68,1	121,1	104,6
2	43,2	75,3	80,2	115,9	132,9
3	33,5	67,3	70,9	100,9	135,5
4	25,5	58,6	69,2	122,2	103,5
5	35,4	76,7	87,5	121,8	115,3
Mean	31,7	68,82	75,18	116,38	118,36
SD	8,721525	7,377466	8,384331	9,019257	15,20454

Bobot rambut

Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
BobotRambut	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	formula A	5	100.0%	0	0.0%	5	100.0%
	formula B	5	100.0%	0	0.0%	5	100.0%
	Formula C	5	100.0%	0	0.0%	5	100.0%
	Kontrol Positif	5	100.0%	0	0.0%	5	100.0%

Descriptives

		Kelompok	Statistic	Std. Error
Bobot Rambut	kontrol negatif	Mean	86.8960	1.40863
		95% Confidence Interval for Mean	82.9850	
		Lower Bound	90.8070	
		Upper Bound	86.8394	
		5% Trimmed Mean	85.7400	
		Median	9.921	
		Variance	3.14978	
		Std. Deviation	83.30	
		Minimum	91.51	
		Maximum	8.21	
		Range	5.54	
		Interquartile Range	.680	.913
		Skewness	.011	2.000
		Kurtosis	70.2040	.68285
		Mean	68.3081	
	formula A	95% Confidence Interval for Mean	72.0999	
		Lower Bound	70.2361	
		Upper Bound	70.5200	
		5% Trimmed Mean	2.331	
		Median	1.52690	
		Variance	68.06	
		Std. Deviation	71.77	
		Minimum	3.71	
		Maximum	2.89	
		Range	-.601	.913
		Interquartile Range	-1.177	2.000
		Skewness	67.8400	1.25844
		Kurtosis	64.3460	
		Mean	71.3340	
	formula B	95% Confidence Interval for Mean	67.8444	
		Lower Bound	67.3900	
		Upper Bound	7.918	
		5% Trimmed Mean	2.81396	
		Median	63.98	
		Variance	71.62	
		Std. Deviation	7.64	
		Minimum	4.86	
		Maximum	-.035	.913
		Range	.561	2.000
		Interquartile Range	66.9380	1.22807
		Skewness	63.5283	
		Kurtosis		
		Mean		
	Formula C	95% Confidence	Lower Bound	

Kontrol Positif	Interval for Mean	Upper Bound	70.3477	
	5% Trimmed Mean		67.0400	
	Median		67.6100	
	Variance		7.541	
	Std. Deviation		2.74606	
	Minimum		62.64	
	Maximum		69.40	
	Range		6.76	
	Interquartile Range		4.88	
	Skewness		-1.125	.913
	Kurtosis		.742	2.000
	Mean		52.0900	3.04268
	95% Confidence	Lower Bound	43.6422	
	Interval for Mean	Upper Bound	60.5378	
	5% Trimmed Mean		52.2228	
	Median		53.2100	
	Variance		46.290	
	Std. Deviation		6.80365	
	Minimum		41.97	
	Maximum		59.82	
	Range		17.85	
	Interquartile Range		12.16	
	Skewness		-.705	.913
	Kurtosis		.360	2.000

Tests of Normality

	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
BobotRambut	kontrol negatif	.243	5	.200*	.953	5	.758
	formula A	.182	5	.200*	.943	5	.687
	formula B	.192	5	.200*	.982	5	.946
	Formula C	.197	5	.200*	.902	5	.423
	Kontrol Positif	.165	5	.200*	.973	5	.897

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

ONE WAY ANOVA

Descriptives

BobotRambut

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol negatif	5	86.8960	3.14978	1.40863	82.9850	90.8070	83.30	91.51
formula A	5	70.2040	1.52690	.68285	68.3081	72.0999	68.06	71.77
formula B	5	67.8400	2.81396	1.25844	64.3460	71.3340	63.98	71.62
Formula C	5	66.9380	2.74606	1.22807	63.5283	70.3477	62.64	69.40
Kontrol Positif	5	52.0900	6.80365	3.04268	43.6422	60.5378	41.97	59.82
Total	25	68.7936	11.83436	2.36687	63.9086	73.6786	41.97	91.51

Test of Homogeneity of Variances

BobotRambut

Levene Statistic	df1	df2	Sig.
2.507	4	20	.075

ANOVA

BobotRambut

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3065.245	4	766.311	51.777	.000
Within Groups	296.006	20	14.800		
Total	3361.250	24			

POST HOC TUCKEY

Multiple Comparisons

Dependent Variable: BobotRambut

Tukey HSD

(I) kelompok	(J) kelompok	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
kontrol negatif	formula A	16.69200*	2.43313	.000	9.4112	23.9728
	formula B	19.05600*	2.43313	.000	11.7752	26.3368
	Formula C	19.95800*	2.43313	.000	12.6772	27.2388
	Kontrol Positif	34.80600*	2.43313	.000	27.5252	42.0868
formula A	kontrol negatif	-16.69200*	2.43313	.000	-23.9728	-9.4112
	formula B	2.36400	2.43313	.865	-4.9168	9.6448
	Formula C	3.26600	2.43313	.669	-4.0148	10.5468
	Kontrol Positif	18.11400*	2.43313	.000	10.8332	25.3948
formula B	kontrol negatif	-19.05600*	2.43313	.000	-26.3368	-11.7752
	formula A	-2.36400	2.43313	.865	-9.6448	4.9168
	Formula C	.90200	2.43313	.996	-6.3788	8.1828
	Kontrol Positif	15.75000*	2.43313	.000	8.4692	23.0308
Formula C	kontrol negatif	-19.95800*	2.43313	.000	-27.2388	-12.6772
	formula A	-3.26600	2.43313	.669	-10.5468	4.0148
	formula B	-.90200	2.43313	.996	-8.1828	6.3788
	Kontrol Positif	14.84800*	2.43313	.000	7.5672	22.1288
Kontrol Positif	kontrol negatif	-34.80600*	2.43313	.000	-42.0868	-27.5252
	formula A	-18.11400*	2.43313	.000	-25.3948	-10.8332
	formula B	-15.75000*	2.43313	.000	-23.0308	-8.4692
	Formula C	-14.84800*	2.43313	.000	-22.1288	-7.5672

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

BobotRambut

Tukey HSD^a

kelompok	N	Subset for alpha = 0.05		
		1	2	3
Kontrol Positif	5	52.0900		
Formula C	5		66.9380	
formula B	5		67.8400	
formula A	5		70.2040	
kontrol negatif	5			86.8960
Sig.		1.000	.669	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.