

L A M P I R A N

Lampiran 1. Hasil determinasi daun tanaman bandotan



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN
 BALAI BESAR PENELITIAN DAN PENGEMBANGAN
 TANAMAN OBAT DAN OBAT TRADISIONAL
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Nomor : KM.04.02/2/1191/2022
 Hal : Keterangan Determinasi

27 Juni 2022

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

Merujuk surat Saudara nomor: 774/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 : Diane Askia Amuranda
 Nama Sampel : Bandotan
 Sampel : Tanaman Segar
 Spesies : *Ageratum conyzoides* (L.) L.
 Sinonim : *Eupatorium conyzoides* (L.) E.H.L. Krause
 Familia : Asteraceae
 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 Ethical Clearance

9/15/22, 7:40 AM

KEPK-RSDM



HEALTH RESEARCH ETHICS COMMITTEE
KOMISI ETIK PENELITIAN KESEHATAN

Dr. Moewardi General Hospital
RSUD Dr. Moewardi

ETHICAL CLEARANCE
KELAIKAN ETIK

Nomor : 1.165 / IX / 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 meneliti rancangan penelitian yang diusulkan, dengan ini menyatakan

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

FORMULASI DAN UJI AKTIVITAS PERTUMBUHAN RAMBUT SEDIAAN HAIR TONIC EKSTRAK DAUN BANDOTAN (*Ageratum conyzoides* L.) PADA KELINCI NEW ZEALAND WHITE

Principal investigator : Diane Askia Amranda
Peneliti Utama : 25195896A

Location of research : Laboratorium Universitas Seba Budi
Lokasi Tempat Penelitian

Is ethically approved
Dinyatakan layak etik

Issued on : 15 September 2022


Ketua
Dr. H. Hari Wuloso, SpEM, MAM
19621022 100503 1 001

Alamat Komisi Etik Penelitian Kesehatan: www.komisi-etik-penelitian-kesehatan/RSUDDrMoewardi-1006

Lampiran 3. Gambar bahan penelitian

 Simplisia kering	 Serbuk daun bandotan
 Natur	 Ekstrak daun bandotan
 Sediaan hair tonic	 Veet

Lampiran 4. Perhitungan rendemen serbuk daun bandotan

Serbuk daun bandotan diperoleh dari daun bandotan segar dengan bobot basah 15000 gram, setelah dikeringkan menjadi 1600 gram, serbuk halus yang didapatkan menjadi 1500 gram, rendemen yang didapatkan sebesar :

$$\text{Presentase rendemen} = \frac{\text{serbuk halus (gram)}}{\text{daun kering (gram)}} \times 100\%$$

$$\text{Presentase rendemen} = \frac{1500 \text{ (gram)}}{1600 \text{ (gram)}} \times 100\%$$

$$\text{Presentase rendemen} = 93,75\%$$

Lampiran 5. Perhitungan rendemen ekstrak daun bandotan

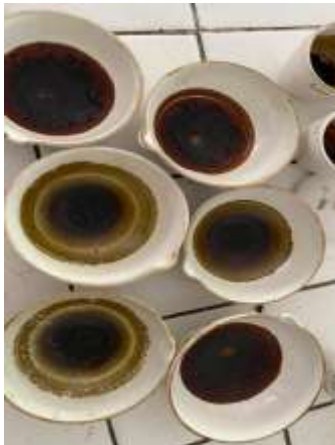
Serbuk daun bandotan yang diesktraksi 1000 gram, berat ekstrak yang didapatkan 238 gram, sehingga rendemen yang didapatkan sebesar :

$$\text{Presentase rendemen} = \frac{\text{berat ekstrak yang didapat}}{\text{berat simplisia yang di ekstraksi}} \times 100\%$$

$$\text{Presentase rendemen} = \frac{238 \text{ (gram)}}{1000 \text{ (gram)}} \times 100\%$$

$$\text{Presentase rendemen} = 23,8\%$$

Lampiran 6. Hasil pengujian kelarutan pada serbuk daun bandotan



Gambar hasil pengujian kelarutan serbuk

Lampiran 7. Hasil penetapan kadar sari larut etanol serbuk

Replikasi	Bobot sampel	Cawan (g)	Cawan+sari (g)	Bobot sari (mg)	Selisih(mg)	Kadar ekstrak larut etanol (%)	Rata-rata
1	5,0003	69,273	69,468 69,468446	195 195,446	0,446	44,57	43,41
2	5,0012	62,544	62,773 62,773424	229 229,424	0,424	42,38	
3	5,0022	60,323	60,538 60,538433	215 215,433	0,433	43,28	

Perhitungan hasil penetapan kadar sari larut etanol

- Replikasi 1
$$= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$$

$$= \frac{0,446}{5,0003} \times 5 \times 100\%$$

$$= 44,57$$
- Replikasi 2
$$= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$$

$$= \frac{0,424}{5,0012} \times 5 \times 100\%$$

$$= 42,38$$
- Replikasi 3
$$= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$$

$$= \frac{0,433}{5,0022} \times 5 \times 100\%$$

$$= 43,28$$

Lampiran 8. Hasil penetapan kadar sari larut air serbuk

Replikasi	Bobot sampel	Cawan (g)	Cawan+sari (g)	Bobot sari (mg)	Selisi h (mg)	Kadar ekstrak larut air (%)	Rata-rata
1	5,0017	49,062	49,225 49,225321	163 163,321	0,321	32,08	32,18
2	5,0005	68,834	68,993	159 159,318	0,318	31,79	
3	5,0009	57,266	57,421	155 155,327	0,327	32,69	

Perhitungan hasil penetapan kadar sari larut air

- Replikasi 1 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,321}{5,0017} \times 5 \times 100\%$
 $= 32,08$
- Replikasi 2 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,318}{5,0005} \times 5 \times 100\%$
 $= 31,79$
- Replikasi 3 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,327}{5,0009} \times 5 \times 100\%$
 $= 32,69$

Lampiran 9. Susut pengeringan serbuk



Gambar hasil pengujian susut pengeringan serbuk

Bobot serbuk (g)	Susut pengeringan (%)
2	4,8
2	4,3
2	5,9
Rata – rata ± SD	5 ± 0,82

Lampiran 10. Hasil pengujian kelarutan pada ekstrak daun bandotan



hasil pengujian kadar sari larut air ekstrak daun bandotan

hasil pengujian kadar sari larut etanol ekstrak daun bandotan

Lampiran 11. Hasil penetapan kadar sari larut etanol ekstrak

Replikasi	Bobot sampel	Cawan (g)	Cawan+sari (g)	Bobot sari (mg)	Selisih (mg)	Kadar ekstrak larut etanol (%)	Rata-rata
1	0,503	41,437	41,515	78 78,08	0,08	79,52	78,56
2	0,500	40,094	40,166	72 72,075	0,075	75	
3	0,505	45,488	45,557	69 69,082	0,082	81,188	

Perhitungan hasil penetapan kadar sari larut air

- Replikasi 1 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,08}{0,503} \times 5 \times 100\%$
 $= 79,52\%$
- Replikasi 2 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,075}{0,500} \times 5 \times 100\%$
 $= 75\%$
- Replikasi 3 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,082}{0,505} \times 5 \times 100\%$
 $= 81,188\%$

Lampiran 12. Hasil penetapan kadar sari larut air ekstrak

Replikasi	Bobot sampel	Cawan (g)	Cawan+sari (g)	Bobot sari (mg)	Selisih (mg)	Kadar ekstrak larut air (%)	Rata-rata
1	0,507	40,326	40,399	73 73,068	0,068	67,06	63,47
2	0,504	40,543	40,611	68 68,061	0,061	60,51	
3	0,509	27,895	27,956	61 61,064	0,064	59	

Perhitungan hasil penetapan kadar sari larut air

- Replikasi 1 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,068}{0,507} \times 5 \times 100\%$
 $= 67,06\%$
- Replikasi 2 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,061}{0,504} \times 5 \times 100\%$
 $= 60,51\%$
- Replikasi 3 $= \frac{\text{bobot sari}}{\text{bobot sampel}} \times \frac{100}{20} \times 100\%$
 $= \frac{0,064}{0,509} \times 5 \times 100\%$
 $= 62,86\%$

Lampiran 13. Susut pengeringan ekstrak



Gambar pengujian susut pengeringan ekstrak

Bobot serbuk (g)	Susut pengeringan (%)
2,02	3,5
2,02	2,8
2,05	2
Rata – rata $\pm$ SD	2,77 $\pm$0,75

Lampiran 14. Uji identifikasi kandungan kimia serbuk dan ekstrak

Uji Identifikasi	Reagen	Serbuk	Ekstrak	Hasil
Flavonoid	Serbuk magnesium+asam hidroklorida pekat+amil alcohol			Jingga (+)
Saponin	Air panas+asam klorida 2N			Berbusa (+)
Tanin	FeCl ₃			Hijau kehitaman (+)
Steroid	Kloroform+asam asetat anhidrat+asam sulfat pekat			Hijau kebiruan (+)

Lampiran 15. Uji Fisik hair tonic

Uji Organoleptis

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



Uji pH



Uji Viskositas



Uji Bobot Jenis

Lampiran 16. Uji pH

Sediaan hair tonic	Replikasi	Minggu 1	Minggu 4
Kontrol negatif	1	6,29	6,31
	2	6,61	6,60
	3	6,81	6,79
	Mean±SD	6,57±0,26	6,57±0,24
Formula 1	1	5,27	5,29
	2	5,23	5,22
	3	5,21	5,18
	Mean±SD	5,24±0,03	5,23±0,06
Formula 2	1	6,03	6,05
	2	6,04	6,03
	3	6,04	6,01
	Mean±SD	6,04±0,01	6,03±0,02
Formula 3	1	6,04	6,06
	2	6,05	6,04
	3	6,05	6,03
	Mean±SD	6,05±0,01	6,04±0,02

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 1 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 1 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 4	3	100,0%	0	0,0%	3	100,0%

Descriptives

	Kelompok	Statistic		Std. Error
pH	kontrol negatif minggu 1	Mean	6,5700	,15144
		95% Confidence Interval for Mean	Lower Bound	5,9184
			Upper Bound	7,2216
		5% Trimmed Mean	.	.
		Median	6,6100	.
		Variance	,069	.
		Std. Deviation	,26230	.
		Minimum	6,29	.
		Maximum	6,81	.

kontrol negatif minggu 4	Range		,52	
	Interquartile Range		.	
	Skewness		-,670	1,225
	Kurtosis		.	.
	Mean		6,5667	,13956
	95% Confidence Interval for Mean	Lower Bound	5,9662	
		Upper Bound	7,1672	
	5% Trimmed Mean		.	
	Median		6,6000	
	Variance		,058	
	Std. Deviation		,24173	
	Minimum		6,31	
	Maximum		6,79	
	Range		,48	
	Interquartile Range		.	
	Skewness		-,609	1,225
	Kurtosis		.	.
formula 1 minggu 1	Mean		5,2367	,01764
	95% Confidence Interval for Mean	Lower Bound	5,1608	
		Upper Bound	5,3126	
	5% Trimmed Mean		.	
	Median		5,2300	
	Variance		,001	
	Std. Deviation		,03055	
	Minimum		5,21	
	Maximum		5,27	
	Range		,06	
	Interquartile Range		.	
	Skewness		,935	1,225
	Kurtosis		.	.
formula 1 minggu 4	Mean		5,2300	,03215
	95% Confidence Interval for Mean	Lower Bound	5,0917	
		Upper Bound	5,3683	
	5% Trimmed Mean		.	
	Median		5,2200	
	Variance		,003	
	Std. Deviation		,05568	
	Minimum		5,18	
	Maximum		5,29	
	Range		,11	

formula 2 minggu 1	Interquartile Range		.	
	Skewness		,782	1,225
	Kurtosis		.	.
	Mean		6,0367	,00333
	95% Confidence Interval for Mean	Lower Bound	6,0223	
		Upper Bound	6,0510	
	5% Trimmed Mean		.	
	Median		6,0400	
	Variance		,000	
	Std. Deviation		,00577	
	Minimum		6,03	
	Maximum		6,04	
	Range		,01	
	Interquartile Range		.	
	Skewness		-1,732	1,225
	Kurtosis		.	.
formula 2 minggu 4	Mean		6,0300	,01155
	95% Confidence Interval for Mean	Lower Bound	5,9803	
		Upper Bound	6,0797	
	5% Trimmed Mean		.	
	Median		6,0300	
	Variance		,000	
	Std. Deviation		,02000	
	Minimum		6,01	
	Maximum		6,05	
	Range		,04	
	Interquartile Range		.	
	Skewness		,000	1,225
	Kurtosis		.	.
formula 3 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		.	

formula 3 minggu 4	Skewness	-1,732	1,225
	Kurtosis	.	.
	Mean	6,0433	,00882
	95% Confidence Interval for Mean	Lower Bound	6,0054
		Upper Bound	6,0813
	5% Trimmed Mean	.	.
	Median	6,0400	.
	Variance	,000	.
	Std. Deviation	,01528	.
	Minimum	6,03	.
	Maximum	6,06	.
	Range	,03	.
	Interquartile Range	.	.
	Skewness	,935	1,225
	Kurtosis	.	.

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
pH	kontrol negatif minggu 1	,227	3	.	,983	3	.
	kontrol negatif minggu 4	,222	3	.	,986	3	.
	formula 1 minggu 1	,253	3	.	,964	3	.
	formula 1 minggu 4	,238	3	.	,976	3	.
	formula 2 minggu 1	,385	3	.	,750	3	.
	formula 2 minggu 4	,175	3	.	1,000	3	.
	formula 3 minggu 1	,385	3	.	,750	3	.
	formula 3 minggu 4	,253	3	.	,964	3	.

a. Lilliefors Significance Correction

Ranks

	Kelompok	N	Mean Rank
pH	kontrol negatif minggu 1	3	21,67
	kontrol negatif minggu 4	3	21,33
	formula 1 minggu 1	3	3,67
	formula 1 minggu 4	3	3,33
	formula 2 minggu 1	3	11,33
	formula 2 minggu 4	3	10,67
	formula 3 minggu 1	3	14,83
	formula 3 minggu 4	3	13,17
	Total	24	

Test Statistics^{a,b}

	pH
Kruskal-Wallis H	20,242
df	7
Asymp. Sig.	,005

a. Kruskal Wallis Test

b. Grouping Variable: Kelompok

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5,462	7	,780	47,303	,000
Within Groups	,264	16	,016		
Total	5,726	23			

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	,00333	,10487	1,000	-,3597	,3664
	formula 1 minggu 1	1,33333*	,10487	,000	,9703	1,6964
	formula 1 minggu 4	1,34000*	,10487	,000	,9769	1,7031
	formula 2 minggu 1	,53333*	,10487	,002	,1703	,8964
	formula 2 minggu 4	,54000*	,10487	,002	,1769	,9031
	formula 3 minggu 1	,52333*	,10487	,003	,1603	,8864
	formula 3 minggu 4	,52667*	,10487	,002	,1636	,8897
kontrol negatif minggu 4	kontrol negatif minggu 1	-,00333	,10487	1,000	-,3664	,3597
	formula 1 minggu 1	1,33000*	,10487	,000	,9669	1,6931
	formula 1 minggu 4	1,33667*	,10487	,000	,9736	1,6997
	formula 2 minggu 1	,53000*	,10487	,002	,1669	,8931
	formula 2 minggu 4	,53667*	,10487	,002	,1736	,8997
	formula 3 minggu 1	,52000*	,10487	,003	,1569	,8831
	formula 3 minggu 4	,52333*	,10487	,003	,1603	,8864
formula 1 minggu 1	kontrol negatif minggu 1	-1,33333*	,10487	,000	-1,6964	-,9703
	kontrol negatif minggu 4	-1,33000*	,10487	,000	-1,6931	-,9669
	formula 1 minggu 4	,00667	,10487	1,000	-,3564	,3697
	formula 2 minggu 1	-,80000*	,10487	,000	-1,1631	-,4369
	formula 2 minggu 4	-,79333*	,10487	,000	-1,1564	-,4303
	formula 3 minggu 1	-,81000*	,10487	,000	-1,1731	-,4469
	formula 3 minggu 4	-,80667*	,10487	,000	-1,1697	-,4436
formula 1 minggu 4	kontrol negatif minggu 1	-1,34000*	,10487	,000	-1,7031	-,9769

	kontrol negatif minggu 4	-1,33667*	,10487	,000	-1,6997	-,9736
	formula 1 minggu 1	-,00667	,10487	1,000	-,3697	,3564
	formula 2 minggu 1	-,80667*	,10487	,000	-1,1697	-,4436
	formula 2 minggu 4	-,80000*	,10487	,000	-1,1631	-,4369
	formula 3 minggu 1	-,81667*	,10487	,000	-1,1797	-,4536
	formula 3 minggu 4	-,81333*	,10487	,000	-1,1764	-,4503
formula 2 minggu 1	kontrol negatif minggu 1	-,53333*	,10487	,002	-,8964	-,1703
	kontrol negatif minggu 4	-,53000*	,10487	,002	-,8931	-,1669
	formula 1 minggu 1	,80000*	,10487	,000	,4369	1,1631
	formula 1 minggu 4	,80667*	,10487	,000	,4436	1,1697
	formula 2 minggu 4	,00667	,10487	1,000	-,3564	,3697
	formula 3 minggu 1	-,01000	,10487	1,000	-,3731	,3531
formula 2 minggu 4	formula 3 minggu 4	-,00667	,10487	1,000	-,3697	,3564
	kontrol negatif minggu 1	-,54000*	,10487	,002	-,9031	-,1769
	kontrol negatif minggu 4	-,53667*	,10487	,002	-,8997	-,1736
	formula 1 minggu 1	,79333*	,10487	,000	,4303	1,1564
	formula 1 minggu 4	,80000*	,10487	,000	,4369	1,1631
	formula 2 minggu 1	-,00667	,10487	1,000	-,3697	,3564
formula 3 minggu 1	formula 3 minggu 1	-,01667	,10487	1,000	-,3797	,3464
	formula 3 minggu 4	-,01333	,10487	1,000	-,3764	,3497
	kontrol negatif minggu 1	-,52333*	,10487	,003	-,8864	-,1603
	kontrol negatif minggu 4	-,52000*	,10487	,003	-,8831	-,1569
	formula 1 minggu 1	,81000*	,10487	,000	,4469	1,1731
	formula 1 minggu 4	,81667*	,10487	,000	,4536	1,1797
formula 3 minggu 4	formula 2 minggu 1	,01000	,10487	1,000	-,3531	,3731
	formula 2 minggu 4	,01667	,10487	1,000	-,3464	,3797
	formula 3 minggu 4	,00333	,10487	1,000	-,3597	,3664
	kontrol negatif minggu 1	-,52667*	,10487	,002	-,8897	-,1636
	kontrol negatif minggu 4	-,52333*	,10487	,003	-,8864	-,1603
	formula 1 minggu 1	,80667*	,10487	,000	,4436	1,1697
	formula 1 minggu 4	,81333*	,10487	,000	,4503	1,1764
	formula 2 minggu 1	,00667	,10487	1,000	-,3564	,3697
	formula 2 minggu 4	,01333	,10487	1,000	-,3497	,3764
	formula 3 minggu 1	-,00333	,10487	1,000	-,3664	,3597

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

pHTukey HSD^a

Kelompok	N	Subset for alpha = 0.05		
		1	2	3
formula 1 minggu 4	3	5,2300		
formula 1 minggu 1	3	5,2367		
formula 2 minggu 4	3		6,0300	
formula 2 minggu 1	3		6,0367	
formula 3 minggu 4	3		6,0433	
formula 3 minggu 1	3		6,0467	
kontrol negatif minggu 4	3			6,5667
kontrol negatif minggu 1	3			6,5700
Sig.		1,000	1,000	1,000

Means for groups in homogeneous subsets are displayed.

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

Lampiran 17. Uji Viskositas

Sediaan hair tonic	Replikasi	Minggu 1	Minggu 4
Kontrol negative	1	4,735cp	4,731cp
	2	4,760cp	4,745cp
Mean±SD	3	4,755cp	4,732cp
		4,75±0,01	4,74±0,01
Formula 1	1	2,424cp	2,412cp
	2	2,550cp	2,487cp
	3	2,655cp	2,575cp
Mean±SD		2,54±0,12	2,49±0,08
Formula 2	1	3,345cp	3,329cp
	2	3,290cp	3,266cp
	3	3,265cp	3,240cp
Mean±SD		3,330±0,04	3,28±0,05
Formula 3	1	4,672cp	4,632cp
	2	4,710cp	4,550cp
	3	4,610cp	4,580cp
Mean±SD		4,66±0,05	4,59±0,04

Case Processing Summary							
		Cases					
		Valid		Missing		Total	
	Kelompok	N	Percent	N	Percent	N	Percent
Viskositas	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 1 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 1 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 4	3	100,0%	0	0,0%	3	100,0%

Descriptives

	Kelompok	Statistic	Std. Error
Viskositas	kontrol negatif minggu 1	Mean	4,7500
		95% Confidence Interval for Mean	Lower Bound 4,7171
			Upper Bound 4,7829
		5% Trimmed Mean	.
		Median	4,7550
		Variance	,000
		Std. Deviation	,01323
		Minimum	4,74

kontrol negatif minggu 4	Maximum	4,76	
	Range	,02	
	Interquartile Range	.	
	Skewness	-1,458	1,225
	Kurtosis	.	.
	Mean	4,7360	,00451
	95% Confidence Interval for Mean	Lower Bound 4,7166	
		Upper Bound 4,7554	
	5% Trimmed Mean	.	
	Median	4,7320	
	Variance	,000	
	Std. Deviation	,00781	
	Minimum	4,73	
	Maximum	4,75	
	Range	,01	
	Interquartile Range	.	
	Skewness	1,700	1,225
	Kurtosis	.	.
	Mean	2,5430	,06678
	95% Confidence Interval for Mean	Lower Bound 2,2557	
		Upper Bound 2,8303	
	5% Trimmed Mean	.	
	Median	2,5500	
	Variance	,013	
	Std. Deviation	,11566	
	Minimum	2,42	
	Maximum	2,66	
	Range	,23	
	Interquartile Range	.	
	Skewness	-,271	1,225
	Kurtosis	.	.
formula 1 minggu 1	Mean	2,4913	,04710
	95% Confidence Interval for Mean	Lower Bound 2,2887	
		Upper Bound 2,6940	
	5% Trimmed Mean	.	
	Median	2,4870	
	Variance	,007	
	Std. Deviation	,08159	
	Minimum	2,41	
	Maximum	2,58	
	Range	,16	
	Interquartile Range	.	
	Skewness	,238	1,225
	Kurtosis	.	.
formula 1 minggu 4	Mean	2,4913	,04710
	95% Confidence Interval for Mean	Lower Bound 2,2887	
		Upper Bound 2,6940	
	5% Trimmed Mean	.	
	Median	2,4870	
	Variance	,007	
	Std. Deviation	,08159	
	Minimum	2,41	
	Maximum	2,58	
	Range	,16	
	Interquartile Range	.	
	Skewness	,238	1,225
	Kurtosis	.	.

formula 2 minggu 1	Mean		3,3000	,02363
	95% Confidence Interval for Mean	Lower Bound	3,1983	
		Upper Bound	3,4017	
	5% Trimmed Mean		.	
	Median		3,2900	
	Variance		,002	
	Std. Deviation		,04093	
	Minimum		3,27	
	Maximum		3,35	
	Range		,08	
	Interquartile Range		.	
	Skewness		1,034	1,225
	Kurtosis		.	.
formula 2 minggu 4	Mean		3,2783	,02642
	95% Confidence Interval for Mean	Lower Bound	3,1646	
		Upper Bound	3,3920	
	5% Trimmed Mean		.	
	Median		3,2660	
	Variance		,002	
	Std. Deviation		,04576	
	Minimum		3,24	
	Maximum		3,33	
	Range		,09	
	Interquartile Range		.	
	Skewness		1,125	1,225
	Kurtosis		.	.
formula 3 minggu 1	Mean		4,6640	,02914
	95% Confidence Interval for Mean	Lower Bound	4,5386	
		Upper Bound	4,7894	
	5% Trimmed Mean		.	
	Median		4,6720	
	Variance		,003	
	Std. Deviation		,05048	
	Minimum		4,61	
	Maximum		4,71	
	Range		,10	
	Interquartile Range		.	
	Skewness		-,695	1,225
	Kurtosis		.	.
formula 3 minggu 4	Mean		4,5873	,02395
	95% Confidence Interval for Mean	Lower Bound	4,4843	
		Upper Bound	4,6904	
	5% Trimmed Mean		.	
	Median		4,5800	

	Variance	,002	
	Std. Deviation	,04149	
	Minimum	4,55	
	Maximum	4,63	
	Range	,08	
	Interquartile Range	.	
	Skewness	,771	1,225
	Kurtosis	.	.

Tests of Normality

		Kolmogorov-Smirnova			Shapiro-Wilk		
	Kelompok	Statistic	df	Sig.	Statistic	df	Sig.
Viskositas	kontrol negatif minggu 1	,314	3	.	,893	3	,363
	kontrol negatif minggu 4	,362	3	.	,803	3	,122
	formula 1 minggu 1	,191	3	.	,997	3	,900
	formula 1 minggu 4	,188	3	.	,998	3	,912
	formula 2 minggu 1	,263	3	.	,955	3	,593
	formula 2 minggu 4	,273	3	.	,946	3	,550
	formula 3 minggu 1	,230	3	.	,981	3	,737
	formula 3 minggu 4	,237	3	.	,977	3	,706

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	4,7500	,01323	,00764	4,7171	4,7829	4,74	4,76
kontrol negatif minggu 4	3	4,7360	,00781	,00451	4,7166	4,7554	4,73	4,75
formula 1 minggu 1	3	2,5430	,11566	,06678	2,2557	2,8303	2,42	2,66
formula 1 minggu 4	3	2,4913	,08159	,04710	2,2887	2,6940	2,41	2,58
formula 2 minggu 1	3	3,3000	,04093	,02363	3,1983	3,4017	3,27	3,35
formula 2 minggu 4	3	3,2783	,04576	,02642	3,1646	3,3920	3,24	3,33

formula 3 minggu 1	3	4,6640	,05048	,02914	4,5386	4,7894	4,61	4,71
formula 3 minggu 4	3	4,5873	,04149	,02395	4,4843	4,6904	4,55	4,63
Total	24	3,7937	,95405	,19475	3,3909	4,1966	2,41	4,76

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Viskositas	Based on Mean	1,753	7	16	,167
	Based on Median	1,282	7	16	,320
	Based on Median and with adjusted df	1,282	7	7,483	,370
	Based on trimmed mean	1,726	7	16	,173

ANOVA

Viskositas

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20,878	7	2,983	842,908	,000
Within Groups	,057	16	,004		
Total	20,935	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	,01400	,04857	1,000	-,1542	,1822
	formula 1 minggu 1	2,20700*	,04857	,000	2,0388	2,3752
	formula 1 minggu 4	2,25867*	,04857	,000	2,0905	2,4268
	formula 2 minggu 1	1,45000*	,04857	,000	1,2818	1,6182
	formula 2 minggu 4	1,47167*	,04857	,000	1,3035	1,6398
	formula 3 minggu 1	,08600	,04857	,646	-,0822	,2542
	formula 3 minggu 4	,16267	,04857	,062	-,0055	,3308
kontrol negatif minggu 4	kontrol negatif minggu 1	-,01400	,04857	1,000	-,1822	,1542
	formula 1 minggu 1	2,19300*	,04857	,000	2,0248	2,3612
	formula 1 minggu 4	2,24467*	,04857	,000	2,0765	2,4128
	formula 2 minggu 1	1,43600*	,04857	,000	1,2678	1,6042
	formula 2 minggu 4	1,45767*	,04857	,000	1,2895	1,6258
	formula 3 minggu 1	,07200	,04857	,806	-,0962	,2402
	formula 3 minggu 4	,14867	,04857	,104	-,0195	,3168
formula 1 minggu 1	kontrol negatif minggu 1	-2,20700*	,04857	,000	-2,3752	-2,0388

	kontrol negatif minggu 4	-2,19300*	,04857	,000	-2,3612	-2,0248
	formula 1 minggu 4	,05167	,04857	,956	-,1165	,2198
	formula 2 minggu 1	-,75700*	,04857	,000	-,9252	-,5888
	formula 2 minggu 4	-,73533*	,04857	,000	-,9035	-,5672
	formula 3 minggu 1	-2,12100*	,04857	,000	-2,2892	-1,9528
	formula 3 minggu 4	-2,04433*	,04857	,000	-2,2125	-1,8762
formula 1 minggu 4	kontrol negatif minggu 1	-2,25867*	,04857	,000	-2,4268	-2,0905
	kontrol negatif minggu 4	-2,24467*	,04857	,000	-2,4128	-2,0765
	formula 1 minggu 1	-,05167	,04857	,956	-,2198	,1165
	formula 2 minggu 1	-,80867*	,04857	,000	-,9768	-,6405
	formula 2 minggu 4	-,78700*	,04857	,000	-,9552	-,6188
	formula 3 minggu 1	-2,17267*	,04857	,000	-2,3408	-2,0045
	formula 3 minggu 4	-2,09600*	,04857	,000	-2,2642	-1,9278
formula 2 minggu 1	kontrol negatif minggu 1	-1,45000*	,04857	,000	-1,6182	-1,2818
	kontrol negatif minggu 4	-1,43600*	,04857	,000	-1,6042	-1,2678
	formula 1 minggu 1	,75700*	,04857	,000	,5888	,9252
	formula 1 minggu 4	,80867*	,04857	,000	,6405	,9768
	formula 2 minggu 4	,02167	,04857	1,000	-,1465	,1898
	formula 3 minggu 1	-1,36400*	,04857	,000	-1,5322	-1,1958
	formula 3 minggu 4	-1,28733*	,04857	,000	-1,4555	-1,1192
formula 2 minggu 4	kontrol negatif minggu 1	-1,47167*	,04857	,000	-1,6398	-1,3035
	kontrol negatif minggu 4	-1,45767*	,04857	,000	-1,6258	-1,2895
	formula 1 minggu 1	,73533*	,04857	,000	,5672	,9035
	formula 1 minggu 4	,78700*	,04857	,000	,6188	,9552
	formula 2 minggu 1	-,02167	,04857	1,000	-,1898	,1465
	formula 3 minggu 1	-1,38567*	,04857	,000	-1,5538	-1,2175
	formula 3 minggu 4	-1,30900*	,04857	,000	-1,4772	-1,1408
formula 3 minggu 1	kontrol negatif minggu 1	-,08600	,04857	,646	-,2542	,0822
	kontrol negatif minggu 4	-,07200	,04857	,806	-,2402	,0962
	formula 1 minggu 1	2,12100*	,04857	,000	1,9528	2,2892
	formula 1 minggu 4	2,17267*	,04857	,000	2,0045	2,3408
	formula 2 minggu 1	1,36400*	,04857	,000	1,1958	1,5322
	formula 2 minggu 4	1,38567*	,04857	,000	1,2175	1,5538
	formula 3 minggu 4	,07667	,04857	,756	-,0915	,2448
formula 3 minggu 4	kontrol negatif minggu 1	-,16267	,04857	,062	-,3308	,0055

kontrol negatif minggu 4	-,14867	,04857	,104	-,3168	,0195
formula 1 minggu 1	2,04433*	,04857	,000	1,8762	2,2125
formula 1 minggu 4	2,09600*	,04857	,000	1,9278	2,2642
formula 2 minggu 1	1,28733*	,04857	,000	1,1192	1,4555
formula 2 minggu 4	1,30900*	,04857	,000	1,1408	1,4772
formula 3 minggu 1	-,07667	,04857	,756	-,2448	,0915

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

Viskositas

Tukey HSDa

Kelompok	N	Subset for alpha = 0.05		
		1	2	3
formula 1 minggu 4	3	2,4913		
formula 1 minggu 1	3	2,5430		
formula 2 minggu 4	3		3,2783	
formula 2 minggu 1	3		3,3000	
formula 3 minggu 4	3			4,5873
formula 3 minggu 1	3			4,6640
kontrol negatif minggu 4	3			4,7360
kontrol negatif minggu 1	3			4,7500
Sig.		,956	1,000	,062

Means for groups in homogeneous subsets are displayed.

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

Lampiran 18. Perhitungan uji bobot jenis

Sediaan hair tonic	Replikasi	Minggu 1	Minggu 4
Kontrol negative	1	0,999375	0,99108
	2	0,999054	0,969148
	3	0,9997	0,982076
	Mean±SD	0,9994±0,0003	0,9808±0,0110
Formula 1	1	0,948294	0,903034
	2	0,9462	0,928766
	3	0,947322	0,908072
	Mean±SD	0,95±0,001	0,91±0,0136
Formula 2	1	0,982296	0,956638
	2	0,979188	0,958522
	3	0,979854	0,959744
	Mean±SD	0,980±1,6E-03	0,96±2E-03
Formula 3	1	0,98508	0,980252
	2	0,988	0,964464
	3	0,98	0,967146
	Mean±SD	0,984±4E-03	0,971±0,008

Berat pikno kosong = 31,4195

Berat pikno + air = 81,5018

1. Bobot jenis kontrol negatif**Minggu ke-1**

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{81,3883-31,4195}{50} \\
 &= 0,999375
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{81,3722-31,4195}{50} \\
 &= 0,999054
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{81,3722-31,4195}{50} \\
 &= 0,9997
 \end{aligned}$$

Minggu ke-4

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}}
 \end{aligned}$$

$$\begin{aligned}
 &= \frac{80,9735-31,4195}{50} \\
 &= 0,99108 \\
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,8769-31,4195}{50} \\
 &= 0,969148 \\
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,5233-31,4195}{50} \\
 &= 0,982076
 \end{aligned}$$

2. Bobot jenis formula 1

Minggu ke-1

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,8342-31,4195}{50} \\
 &= 0,948294 \\
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,7339-31,4195}{50} \\
 &= 0,9462 \\
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{78,7856-31,4195}{50} \\
 &= 0,947322
 \end{aligned}$$

Minggu ke-4

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{76,5712-31,4195}{50} \\
 &= 0,903034
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{77,8578-31,4195}{50} \\
 &= 0,928766 \\
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{76,8231-31,4195}{50} \\
 &= 0,908072
 \end{aligned}$$

3. Bobot jenis formula 2

Minggu ke-1

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,5343-31,4195}{50} \\
 &= 0,982296 \\
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,3789-31,4195}{50} \\
 &= 0,979188 \\
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,4122-31,4195}{50} \\
 &= 0,979854
 \end{aligned}$$

Minggu ke-4

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,2514-31,4195}{50} \\
 &= 0,956638 \\
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,3456-31,4195}{50} \\
 &= 0,958522
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,4067-31,4195}{50} \\
 &= 0,959744
 \end{aligned}$$

4. Bobot jenis formula 3

Minggu ke-1

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,6735-31,4195}{50} \\
 &= 0,99508
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,8589-31,4195}{50} \\
 &= 0,988
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,7133-31,4195}{50} \\
 &= 0,98
 \end{aligned}$$

Minggu ke-4

$$\begin{aligned}
 \text{Replikasi 1} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{80,4321-31,4195}{50} \\
 &= 0,980252
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 2} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,6427-31,4195}{50} \\
 &= 0,964464
 \end{aligned}$$

$$\begin{aligned}
 \text{Replikasi 3} &= \frac{\text{piko sampel-pikno kosong}}{\text{volume pikno}} \\
 &= \frac{79,7768-31,4195}{50} \\
 &= 0,967146
 \end{aligned}$$

Case Processing Summary							
		Cases		Missing		Total	
		Valid					
	Kelompok	N	Percent	N	Percent	N	Percent
BobotJenis	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 1 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 1 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 2 minggu 4	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 1	3	100,0%	0	0,0%	3	100,0%
	formula 3 minggu 4	3	100,0%	0	0,0%	3	100,0%

Descriptives

		Kelompok		Statistic	Std. Error
BobotJenis	kontrol negatif minggu 1	Mean		,9994	,00019
		95% Confidence Interval for Mean	Lower Bound	,9986	
			Upper Bound	1,0002	
		5% Trimmed Mean		.	
		Median		,9994	
		Variance		,000	
		Std. Deviation		,00032	
		Minimum		1,00	
		Maximum		1,00	
		Range		,00	
		Interquartile Range		.	
		Skewness		,019	1,225
		Kurtosis		.	.
	kontrol negatif minggu 4	Mean		,9808	,00636
		95% Confidence Interval for Mean	Lower Bound	,9534	
			Upper Bound	1,0082	
		5% Trimmed Mean		.	
		Median		,9821	
		Variance		,000	
		Std. Deviation		,01102	
		Minimum		,97	
		Maximum		,99	

formula 1 minggu 1	Range		,02	
	Interquartile Range		.	
	Skewness		-,526	1,225
	Kurtosis		.	.
	Mean		,9803	,00088
	95% Confidence Interval for Mean	Lower Bound	,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		.	.
formula 1 minggu 4	Mean		,9583	,00090
	95% Confidence Interval for Mean	Lower Bound	,9544	
		Upper Bound	,9622	
	5% Trimmed Mean		.	
	Median		,9585	
	Variance		,000	
	Std. Deviation		,00156	
	Minimum		,96	
	Maximum		,96	
	Range		,00	
	Interquartile Range		.	
	Skewness		-,622	1,225
	Kurtosis		.	.
formula 2 minggu 1	Mean		,9473	,00061
	95% Confidence Interval for Mean	Lower Bound	,9447	
		Upper Bound	,9499	
	5% Trimmed Mean		.	
	Median		,9473	
	Variance		,000	
	Std. Deviation		,00105	

formula 2 minggu 4	Minimum		,95	
	Maximum		,95	
	Range		,00	
	Interquartile Range		.	
	Skewness		-,214	1,225
	Kurtosis		.	.
	Mean		,9133	,00787
	95% Confidence Interval for Mean	Lower Bound	,8794	
		Upper Bound	,9472	
	5% Trimmed Mean		.	
	Median		,9081	
	Variance		,000	
	Std. Deviation		,01364	
	Minimum		,90	
	Maximum		,93	
	Range		,03	
	Interquartile Range		.	
	Skewness		1,470	1,225
	Kurtosis		.	.
formula 3 minggu 1	Mean		,9843	,00233
	95% Confidence Interval for Mean	Lower Bound	,9743	
		Upper Bound	,9944	
	5% Trimmed Mean		.	
	Median		,9850	
	Variance		,000	
	Std. Deviation		,00404	
	Minimum		,98	
	Maximum		,99	
	Range		,01	
	Interquartile Range		.	
	Skewness		-,722	1,225
	Kurtosis		.	.
formula 3 minggu 4	Mean		,9706	,00488
	95% Confidence Interval for Mean	Lower Bound	,9496	
		Upper Bound	,9916	
	5% Trimmed Mean		.	
	Median		,9671	

Variance	,000	
Std. Deviation	,00845	
Minimum	,96	
Maximum	,98	
Range	,02	
Interquartile Range	.	
Skewness	1,538	1,225
Kurtosis	.	.

Tests of Normality

	Kelompok	Kolmogorov-Smirnova			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
BobotJenis	kontrol negatif minggu 1	,175	3	.	1,000	3	,993
	kontrol negatif minggu 4	,214	3	.	,989	3	,803
	formula 1 minggu 1	,253	3	.	,964	3	,637
	formula 1 minggu 4	,223	3	.	,985	3	,766
	formula 2 minggu 1	,186	3	.	,998	3	,921
	formula 2 minggu 4	,316	3	.	,890	3	,355
	formula 3 minggu 1	,232	3	.	,980	3	,726
	formula 3 minggu 4	,326	3	.	,873	3	,304

a. Lilliefors Significance Correction

Descriptives

BobotJenis

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
kontrol negatif minggu 1	3	,9994	,00032	,00019	,9986	1,0002	1,00	1,00
kontrol negatif minggu 4	3	,9808	,01102	,00636	,9534	1,0082	,97	,99
formula 1 minggu 1	3	,9803	,00153	,00088	,9765	,9841	,98	,98
formula 1 minggu 4	3	,9583	,00156	,00090	,9544	,9622	,96	,96
formula 2 minggu 1	3	,9473	,00105	,00061	,9447	,9499	,95	,95

formula 2 minggu 3		,9133	,01364	,00787	,8794	,9472	,90	,93
4								
formula 3 minggu 3		,9843	,00404	,00233	,9743	,9944	,98	,99
1								
formula 3 minggu 3		,9706	,00845	,00488	,9496	,9916	,96	,98
4								
Total	24	,9668	,02641	,00539	,9556	,9779	,90	1,00

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
BobotJenis	Based on Mean	4,843	7	16	,004
	Based on Median	1,183	7	16	,366
	Based on Median and with adjusted df	1,183	7	5,280	,437
	Based on trimmed mean	4,450	7	16	,006

ANOVA

BobotJenis

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	,015	7	,002	43,400	,000
Within Groups	,001	16	,000		
Total	,016	23			

Multiple Comparisons

Dependent Variable: BobotJenis

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	,01861	,00578	,078	-,0014	,0386
	formula 1 minggu 1	,01904	,00578	,068	-,0010	,0391
	formula 1 minggu 4	,04107*	,00578	,000	,0211	,0611
	formula 2 minggu 1	,05210*	,00578	,000	,0321	,0721
	formula 2 minggu 4	,08609*	,00578	,000	,0661	,1061
	formula 3 minggu 1	,01504	,00578	,224	-,0050	,0351
	formula 3 minggu 4	,02876*	,00578	,003	,0087	,0488
kontrol negatif minggu 4	kontrol negatif minggu 1	-,01861	,00578	,078	-,0386	,0014
	formula 1 minggu 1	,00043	,00578	1,000	-,0196	,0205
	formula 1 minggu 4	,02247*	,00578	,022	,0024	,0425
	formula 2 minggu 1	,03350*	,00578	,001	,0135	,0535

	formula 2 minggu 4	,06748*	,00578	,000	,0475	,0875
	formula 3 minggu 1	-,00357	,00578	,998	-,0236	,0165
	formula 3 minggu 4	,01015	,00578	,655	-,0099	,0302
formula 1 minggu 1	kontrol negatif minggu 1	-,01904	,00578	,068	-,0391	,0010
	kontrol negatif minggu 4	-,00043	,00578	1,000	-,0205	,0196
	formula 1 minggu 4	,02203*	,00578	,026	,0020	,0421
	formula 2 minggu 1	,03306*	,00578	,001	,0130	,0531
	formula 2 minggu 4	,06704*	,00578	,000	,0470	,0871
	formula 3 minggu 1	-,00400	,00578	,996	-,0240	,0160
	formula 3 minggu 4	,00971	,00578	,699	-,0103	,0297
	kontrol negatif minggu 1	-,04107*	,00578	,000	-,0611	-,0211
	kontrol negatif minggu 4	-,02247*	,00578	,022	-,0425	-,0024
formula 1 minggu 4	formula 1 minggu 1	-,02203*	,00578	,026	-,0421	-,0020
	formula 2 minggu 1	,01103	,00578	,565	-,0090	,0310
	formula 2 minggu 4	,04501*	,00578	,000	,0250	,0650
	formula 3 minggu 1	-,02603*	,00578	,007	-,0461	-,0060
	formula 3 minggu 4	-,01232	,00578	,437	-,0323	,0077
	kontrol negatif minggu 1	-,05210*	,00578	,000	-,0721	-,0321
	kontrol negatif minggu 4	-,03350*	,00578	,001	-,0535	-,0135
	formula 1 minggu 1	-,03306*	,00578	,001	-,0531	-,0130
	formula 1 minggu 4	-,01103	,00578	,565	-,0310	,0090
formula 2 minggu 1	formula 2 minggu 4	,03398*	,00578	,000	,0140	,0540
	formula 3 minggu 1	-,03706*	,00578	,000	-,0571	-,0170
	formula 3 minggu 4	-,02335*	,00578	,017	-,0434	-,0033
	kontrol negatif minggu 1	-,08609*	,00578	,000	-,1061	-,0661
	kontrol negatif minggu 4	-,06748*	,00578	,000	-,0875	-,0475
	formula 1 minggu 1	-,06704*	,00578	,000	-,0871	-,0470
	formula 1 minggu 4	-,04501*	,00578	,000	-,0650	-,0250
	formula 2 minggu 1	-,03398*	,00578	,000	-,0540	-,0140
	formula 3 minggu 1	-,07104*	,00578	,000	-,0911	-,0510
formula 2 minggu 4	formula 3 minggu 4	-,05733*	,00578	,000	-,0773	-,0373
	kontrol negatif minggu 1	-,01504	,00578	,224	-,0351	,0050
	kontrol negatif minggu 4	,00357	,00578	,998	-,0165	,0236
	formula 1 minggu 1	,00400	,00578	,996	-,0160	,0240
	formula 1 minggu 4	,02603*	,00578	,007	,0060	,0461

	formula 2 minggu 1	,03706*	,00578	,000	,0170	,0571
	formula 2 minggu 4	,07104*	,00578	,000	,0510	,0911
	formula 3 minggu 4	,01371	,00578	,317	-,0063	,0337
formula 3 minggu 4	kontrol negatif minggu 1	-,02876*	,00578	,003	-,0488	-,0087
	kontrol negatif minggu 4	-,01015	,00578	,655	-,0302	,0099
	formula 1 minggu 1	-,00971	,00578	,699	-,0297	,0103
	formula 1 minggu 4	,01232	,00578	,437	-,0077	,0323
	formula 2 minggu 1	,02335*	,00578	,017	,0033	,0434
	formula 2 minggu 4	,05733*	,00578	,000	,0373	,0773
	formula 3 minggu 1	-,01371	,00578	,317	-,0337	,0063

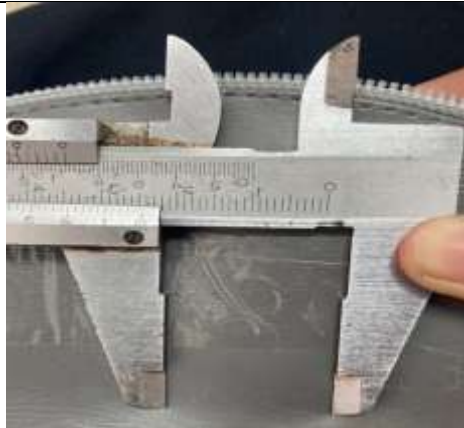
*. The mean difference is significant at the 0.05 level.

BobotJenis Tukey HSDa

Kelompok	N	Subset for alpha = 0.05				
		1	2	3	4	5
formula 2 minggu 4	3	,9133				
formula 2 minggu 1	3		,9473			
formula 1 minggu 4	3		,9583	,9583		
formula 3 minggu 4	3			,9706	,9706	
formula 1 minggu 1	3				,9803	,9803
kontrol negatif minggu 4	3				,9808	,9808
formula 3 minggu 1	3				,9843	,9843
kontrol negatif minggu 1	3					,9994
Sig.		1,000	,565	,437	,317	,068

Means for groups in homogeneous subsets are displayed.

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

Lampiran 19. Hasil uji aktivitas pertumbuhan rambut

Uji panjang rambut
dengan jangka sorong



Uji bobot rambut dengan
neraca analitik



Kelinci hari ke- 11



Kelinci hari ke 21

Blanko	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	19,50	19,10	8,90	22,90	8,80
	27,10	19,15	9,20	21,95	9,25
	23,30	12,10	9,35	22,00	9,45
	19,60	12,25	11,10	21,60	9,40
	19,95	18,75	11,25	11,80	8,85
	24,35	19,65	18,70	11,95	7,65
	21,70	19,60	17,90	23,35	7,50
	22,20	17,75	12,10	22,40	8,95
	19,80	18,85	12,45	22,10	9,15
	25,35	19,05	11,15	11,75	9,55
Mean	22,285	17,625	12,21	19,18	8,855
SD	2,683597	2,919879	3,432508	5,094071	0,720
Hari ke-11	3,30	3,32	2,55	2,13	3,01
	3,21	3,46	2,40	2,10	3,04
	3,09	3,44	2,32	2,06	3,12
	3,55	3,27	2,37	2,01	2,92
	3,49	3,06	2,33	1,87	2,73
	3,42	3,12	2,44	1,78	2,83
	3,38	3,26	2,21	1,65	2,97
	3,30	3,37	2,18	1,70	2,65
	3,26	3,02	2,31	1,82	2,58
	3,24	3,24	2,42	1,95	2,76
Mean	3,324	3,256	2,353	1,907	2,861
SD	0,137	0,1511	0,109	0,168	0,179
Hari ke-21	7,25	5,10	4,95	8,10	5,05
	7,90	5,50	5,20	9,95	5,35
	6,57	5,32	5,05	9,67	5,43
	7,1	5,78	4,70	7,89	4,98
	6,55	5,60	4,55	9,45	5,12
	6,20	5,47	5,23	9,23	5,55
	7,38	5,39	5,34	9,38	5,48
	6,32	5,42	4,89	8,14	4,87
	6,54	5,85	4,96	8,94	5,08
	7,40	5,95	5,40	8,92	5,24
Mean	6,921	5,538	5,027	8,967	5,215
SD	0,560	0,260	0,273	0,709	0,230

Kontrol negative	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	28,9	19,40	9,155	24,10	8,15
	28,9	16,70	9,50	23,95	9,20
	28,80	17,75	8,55	23,80	9,35
	28,70	19,65	8,20	11,90	8,55
	29,81	12,10	11,35	24,15	8,75
	28,9	15,95	11,60	21,65	8,90
	28,25	15,75	12,35	23,70	9,10
	28,82	16,70	11,75	24,05	9,65
	28,41	16,35	18,50	24,75	9,30

	28,90	18,25	18,55	11,95	8,95
Mean	28,839	16,86	11,950	21,4	8,99
SD	0,409	2,159	3,750	5,058	0,432
Hari ke-11	4,45	3,56	2,67	3,42	3,12
	4,32	4,03	3,23	3,12	3,06
	3,98	3,87	2,55	3,26	3,19
	3,86	3,94	2,79	3,44	3,23
	4,14	4,01	2,98	3,56	3,28
	4,23	4,15	2,87	3,21	3,36
	4,56	4,20	3,33	3,56	3,31
	4,09	3,75	3,43	3,41	3,26
	3,65	3,93	3,42	3,30	3,22
	3,77	3,88	3,35	3,27	3,07
Mean	4,105	3,932	3,062	3,355	3,21
SD	0,295	0,186	0,329	0,146	0,100
Hari ke-21	12,10	10,25	5,35	10,15	5,65
	12,05	9,05	5,15	12,25	6,10
	14,47	8,13	5,40	11,98	6,24
	11,08	6,28	5,08	10,88	5,82
	11,25	7,96	5,27	16,34	5,79
	12,86	8,10	4,98	12,29	6,35
	13,54	6,18	4,87	11,46	6,22
	14,32	8,32	5,46	12,76	6,16
	13,56	8,87	5,23	10,84	6,42
	13,34	7,75	5,14	12,05	6,08
Mean	12,857	8,089	5,193	12,1	6,083
SD	1,197	1,215	0,186	1,692	0,253

Natur	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	21,20	24,60	21,15	29,85	20,30
	19,30	25,10	20,1	27,80	20,25
	22,30	27,90	20,36	28,85	20,23
	24,10	24,55	20,22	29,30	20,44
	23,20	23,00	21,08	29,65	20,32
	21,15	19,65	21,37	27,65	20,12
	19,35	17,75	21,46	28,40	20,19
	22,75	19,90	20,59	26,95	20,38
	24,35	21,15	20,43	27,70	20,46
	23,25	18,90	20,55	27,95	20,50
Mean	22,095	22,25	20,731	28,41	20,359
SD	1,800	3,272	0,491	0,96	0,159
Hari ke-11	10,86	11,23	10,54	9,89	10,33
	10,77	11,09	10,32	9,77	10,21
	10,98	11,35	10,48	10,05	10,45
	10,59	11,42	10,95	10,12	10,73
	11,23	11,56	10,37	10,03	10,89
	11,21	11,87	10,66	9,74	10,56
	11,43	11,31	10,47	9,64	10,37
	10,74	11,98	10,55	10,23	10,43

	10,88	11,77	10,82	10,12	10,21
	10,93	11,83	10,88	10,24	10,27
Mean	10,962	11,541	10,604	9,983	9,467
SD	0,257	0,305	0,216	0,211	3,181
Hari ke-21	21,50	22,30	19,15	26,15	20,30
	19,95	22,56	19,02	27,45	20,65
	20,87	22,34	20,36	24,33	20,23
	20,96	22,08	20,22	22,27	19,44
	21,39	21,97	21,08	28,04	17,32
	21,40	22,15	19,37	24,36	18,12
	19,89	22,23	17,46	25,40	19,19
	19,77	22,45	19,59	26,44	20,38
	20,88	22,17	20,85	27,37	20,46
	20,98	22,37	20,59	25,32	20,50
Mean	20,759	20,262	19,787	25,713	19,659
SD	0,655	1,088	1,071	1,755	1,139

Formula 1	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	19,50	16,10	9,35	25,95	9,15
	23,30	23,70	9,10	24,80	8,75
	23,10	24,10	9,65	24,00	8,80
	18,55	17,05	8,75	23,85	9,35
	22,25	18,15	11,20	24,25	9,60
	24,35	17,75	10,95	24,45	8,95
	23,35	23,35	10,75	23,70	8,60
	16,30	19,95	9,80	24,10	9,95
	19,55	17,70	10,60	23,65	11,10
	21,00	16,90	10,85	25,50	11,25
Mean	21,125	19,475	10,5	24,425	10,905
SD	2,588	3,095	1,275	0,774	1,260
Hari ke-11	5,67	5,78	4,78	5,21	5,65
	5,43	5,43	4,43	5,43	5,78
	5,31	5,21	4,50	5,11	5,66
	5,89	5,64	4,89	4,85	5,31
	5,77	5,07	4,62	4,67	5,47
	5,98	5,11	4,21	4,32	5,25
	6,31	5,98	4,95	4,76	5,09
	6,25	6,05	5,12	5,17	5,80
	6,44	5,56	4,66	4,90	5,98
	6,50	5,32	4,38	5,37	5,02
Mean	5,955	5,515	4,654	4,979	5,501
SD	0,415	0,348	0,283	0,343	0,324
Hari ke-21	17,10	14,90	9,15	18,25	7,35
	16,05	14,85	7,35	16,10	9,85
	16,21	13,70	7,23	18,08	7,20
	16,34	14,32	8,56	19,13	7,03
	14,87	11,08	7,49	17,98	6,96
	15,58	13,47	7,88	16,36	9,77
	15,38	11,43	9,71	16,44	10,69

	17,56	14,23	8,53	17,59	8,56
	14,6	15,77	7,95	16,43	8,93
	14,09	11,84	7,54	16,23	9,15
Mean	15,778	13,559	8,139	17,259	8,549
SD	1,093	1,600	0,826	1,072	1,348

Formula 2	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	19,20	19,40	9,20	26,80	11,23
	17,65	23,40	9,35	29,75	11,75
	18,10	21,25	9,55	29,40	11,5
	19,15	22,30	11,20	28,80	11,82
	18,35	23,35	11,10	27,65	11,77
	19,10	21,00	8,75	28,70	11,65
	18,40	20,95	8,60	29,95	11,54
	19,25	18,75	11,75	26,75	11,57
	21,15	17,65	8,80	25,55	11,96
	18,85	24,10	7,95	24,50	11,45
Mean	18,92	21,215	11,428	27,785	11,624
SD	0,950	2,135	0,237	1,852	0,2108
Hari ke-11	7,12	6,50	5,41	5,75	5,50
	6,96	6,87	5,23	5,43	5,12
	6,75	6,54	5,38	5,21	5,89
	7,43	6,13	5,49	5,12	5,78
	7,69	5,87	5,97	5,63	5,34
	7,54	5,46	5,62	5,89	5,63
	6,55	5,76	6,07	5,93	5,23
	6,89	5,88	6,22	6,16	5,70
	7,18	6,20	6,37	6,25	5,93
	7,56	6,31	6,23	6,31	5,81
Mean	7,167	6,152	5,799	5,768	5,593
SD	0,381	0,421	0,417	0,419	0,283
Hari ke-21	13,05	16,11	7,2	19,42	9,55
	14,70	15,95	7,35	19,85	9,7
	13,85	14,05	9,55	20,10	9,95
	13,40	16,23	11,2	20,08	7,65
	13,55	16,37	7,1	22,97	9,35
	14,34	11,88	8,75	22,65	8,8
	14,89	11,98	8,6	20,34	9,6
	14,77	16,46	9,75	21,28	8,75
	14,65	16,33	8,8	22,77	9,1
	13,98	16,08	7,95	20,09	11,05
Mean	14,118	15,144	8,625	20,955	9,35
SD	0,646	1,830	1,301	1,355	0,887

Formula 3	Panjang rambut (mm)				
	K1	K2	K3	K4	K5
Sebelum perlakuan	19,10	23,70	15,6	28,75	11,95
	15,60	24,10	16,75	27,70	20,1
	17,65	26,05	15,75	28,80	11,88
	18,80	21,15	15,87	26,95	11,75
	16,35	19,95	15,93	29,10	20,08
	17,55	18,70	16,21	29,35	20,23
	21,00	22,85	16,39	26,80	20,35
	20,95	21,75	16,44	29,90	20,12
	21,15	20,95	16,56	27,45	20,07
	22,10	21,10	16,55	27,30	20,04
Mean	19,025	22,03	16,205	28,21	17,693
SD	22,225	2,165	0,393	1,096	4,02
Hari ke-11	7,52	10,96	7,43	7,12	10,32
	7,61	10,11	8,20	7,56	10,22
	7,44	10,23	7,66	7,89	10,56
	7,74	10,56	7,28	7,68	10,78
	7,90	10,73	7,39	8,12	10,95
	8,21	10,87	7,59	8,32	11,23
	8,11	11,05	7,65	8,64	11,43
	8,34	11,22	7,88	8,76	11,38
	8,56	10,96	8,35	8,97	11,67
	8,50	10,65	8,44	7,77	10,46
Mean	7,99	10,734	7,787	8,083	10,9
SD	0,409	0,355	0,413	0,587	0,509
Hari ke-21	15,95	17,15	13,60	22,70	11,95
	13,55	18,70	10,55	23,95	20,10
	15,23	17,78	13,75	21,03	15,88
	13,96	14,93	11,87	23,88	13,95
	12,82	15,98	13,93	20,32	15,02
	13,37	17,03	14,6	19,20	14,23
	15,48	15,22	11,39	24,44	14,25
	11,69	17,33	10,04	23,58	16,1
	15,77	19,30	11,56	24,39	14,02
	16,30	17,10	14,55	24,21	16,2
Mean	14,412	17,052	12,584	22,77	15,15
SD	1,547	1,390	1,690	1,901	2,145

Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
PanjangRambut	blanko	5	100.0%	0	0.0%	5	100.0%
	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	nature	5	100.0%	0	0.0%	5	100.0%
	formula 1	5	100.0%	0	0.0%	5	100.0%
	formula 2	5	100.0%	0	0.0%	5	100.0%
	formula 3	5	100.0%	0	0.0%	5	100.0%

Descriptives

	Kelompok	Statistic	Std. Error
PanjangRambut	Blanko	Mean	58.1420
		Lower Bound	43.7146
		95% Confidence Interval for Mean	72.5694
		Upper Bound	
		5% Trimmed Mean	58.4883
		Median	58.8300
		Variance	135.011
		Std. Deviation	11.61941
		Minimum	41.11
		Maximum	68.94
		Range	27.83
		Interquartile Range	21.58
	kontrol negatif	Skewness	-.707
		Kurtosis	-.444
		Mean	47.9680
		Lower Bound	35.3832
		95% Confidence Interval for Mean	60.5528
		Upper Bound	
		5% Trimmed Mean	48.3594
		Median	52.0200
		Variance	102.726
		Std. Deviation	10.13541
		Minimum	32.34
		Maximum	56.55
	Nature	Range	24.21
		Interquartile Range	18.11
		Skewness	-1.116
		Kurtosis	.164
	Nature	Mean	6.5260
			1.19946

formula 1	95% Confidence Interval for Mean	Lower Bound	3.1958	
		Upper Bound	9.8562	
	5% Trimmed Mean		6.5367	
	Median		6.0500	
	Variance		7.193	
	Std. Deviation		2.68207	
	Minimum		3.43	
	Maximum		9.43	
	Range		6.00	
	Interquartile Range		5.27	
	Skewness		.110	.913
	Kurtosis		-2.611	2.000
	Mean		25.9580	1.70545
			21.2229	
	95% Confidence Interval for Mean	Lower Bound	30.6931	
		Upper Bound		
	5% Trimmed Mean		25.9533	
	Median		25.3100	
	Variance		14.543	
	Std. Deviation		3.81350	
formula 2	Minimum		21.62	
	Maximum		30.38	
	Range		8.76	
	Interquartile Range		7.48	
	Skewness		.157	.913
	Kurtosis		-2.500	2.000
	Mean		24.5340	1.45179
			20.5032	
	95% Confidence Interval for Mean	Lower Bound	28.5648	
		Upper Bound		
	5% Trimmed Mean		24.5833	
	Median		24.5800	
	Variance		10.538	
	Std. Deviation		3.24630	
	Minimum		19.56	
	Maximum		28.62	
	Range		9.06	
	Interquartile Range		4.96	
	Skewness		-.661	.913

formula 3	Kurtosis	2.032	2.000
	Mean	20.6640	1.74844
	95% Confidence Interval for Mean	Lower Bound	15.8096
		Upper Bound	25.5184
	5% Trimmed Mean	20.8144	
	Median	22.5700	
	Variance	15.285	
	Std. Deviation	3.90963	
	Minimum	14.37	
	Maximum	24.25	
	Range	9.88	
	Interquartile Range	6.48	
	Skewness	-1.328	.913
	Kurtosis	1.435	2.000

Tests of Normality

	Kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
PanjangRambut	Blanko	.215	5	.200*	.912	5	.482
	kontrol negatif	.255	5	.200*	.878	5	.299
	Nature	.234	5	.200*	.898	5	.400
	formula 1	.212	5	.200*	.921	5	.535
	formula 2	.300	5	.162	.920	5	.529
	formula 3	.287	5	.200*	.873	5	.281

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

a. Lilliefors Significance Correction

ONE WAY ANOVA

Descriptives

PanjangRambut

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
blanko	5	58.1420	11.61941	5.19636	43.7146	72.5694	41.11	68.94
kontrol negatif	5	47.9680	10.13541	4.53269	35.3832	60.5528	32.34	56.55
nature	5	6.5260	2.68207	1.19946	3.1958	9.8562	3.43	9.43
formula 1	5	25.9580	3.81350	1.70545	21.2229	30.6931	21.62	30.38
formula 2	5	24.5340	3.24630	1.45179	20.5032	28.5648	19.56	28.62
formula 3	5	20.6640	3.90963	1.74844	15.8096	25.5184	14.37	24.25
Total	30	30.6320	18.68554	3.41150	23.6547	37.6093	3.43	68.94

Test of Homogeneity of Variances

PanjangRambut

Levene Statistic	df1	df2	Sig.
3.792	5	24	.011

ANOVA

PanjangRambut

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8984.146	5	1796.829	37.789	.000
Within Groups	1141.188	24	47.550		
Total	10125.334	29			

POST HOC TEST**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
blanko	kontrol negatif	10.17400	4.36117	.220	-3.3104	23.6584
	nature	51.61600*	4.36117	.000	38.1316	65.1004
	formula 1	32.18400*	4.36117	.000	18.6996	45.6684
	formula 2	33.60800*	4.36117	.000	20.1236	47.0924
	formula 3	37.47800*	4.36117	.000	23.9936	50.9624
kontrol negatif	blanko	-10.17400	4.36117	.220	-23.6584	3.3104
	nature	41.44200*	4.36117	.000	27.9576	54.9264
	formula 1	22.01000*	4.36117	.000	8.5256	35.4944
	formula 2	23.43400*	4.36117	.000	9.9496	36.9184
	formula 3	27.30400*	4.36117	.000	13.8196	40.7884
Nature	blanko	-51.61600*	4.36117	.000	-65.1004	-38.1316
	kontrol negatif	-41.44200*	4.36117	.000	-54.9264	-27.9576
	formula 1	-19.43200*	4.36117	.002	-32.9164	-5.9476
	formula 2	-18.00800*	4.36117	.005	-31.4924	-4.5236
	formula 3	-14.13800*	4.36117	.036	-27.6224	-.6536
formula 1	blanko	-32.18400*	4.36117	.000	-45.6684	-18.6996
	kontrol negatif	-22.01000*	4.36117	.000	-35.4944	-8.5256
	nature	19.43200*	4.36117	.002	5.9476	32.9164
	formula 2	1.42400	4.36117	.999	-12.0604	14.9084
	formula 3	5.29400	4.36117	.826	-8.1904	18.7784
formula 2	blanko	-33.60800*	4.36117	.000	-47.0924	-20.1236
	kontrol negatif	-23.43400*	4.36117	.000	-36.9184	-9.9496
	Nature	18.00800*	4.36117	.005	4.5236	31.4924
	formula 1	-1.42400	4.36117	.999	-14.9084	12.0604
	formula 3	3.87000	4.36117	.946	-9.6144	17.3544
formula 3	Blanko	-37.47800*	4.36117	.000	-50.9624	-23.9936
	kontrol negatif	-27.30400*	4.36117	.000	-40.7884	-13.8196
	nature	14.13800*	4.36117	.036	.6536	27.6224
	formula 1	-5.29400	4.36117	.826	-18.7784	8.1904
	formula 2	-3.87000	4.36117	.946	-17.3544	9.6144

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

PanjangRambutTukey HSD^a

Kelompok	N	Subset for alpha = 0.05		
		1	2	3
Nature	5	6.5260		
formula 3	5		20.6640	
formula 2	5		24.5340	
formula 1	5		25.9580	
kontrol negatif	5			47.9680
blanko	5			58.1420
Sig.		1.000	.826	.220

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.

Lampiran 20. Data hasil uji aktivitas pertumbuhan rambut

Kelinci	Bobot Rambut Akhir (mg)					
	Blanko	Kontrol -	Natur	Formula 1	Formula 2	Formula 3
1	42,77	44,65	176,45	94,65	95,42	97,32
2	42,53	44,21	185,6	94,63	95,55	97,55
3	41,59	43,78	201,75	94,5	94,72	96,89
4	42,87	43,43	192,55	93,85	94,66	97,8
5	43,76	44,9	172,5	94,32	96,69	96,4
Mean	42,69	44,19	185,77	94,39	95,41	97,19
SD	0,90	0,60	10,62	0,33	0,82	0,56

Kelinci	Bobot Rambut Akhir (mg)					
	Blanko	Kontrol -	Natur	Formula 1	Formula 2	Formula 3
1	243,55	250,61	250,55	260,67	243,32	254,97
2	256,4	234,66	244,6	257,32	274,91	266,73
3	230,45	247,9	260,73	253,4	262,3	245,39
4	265,21	256,25	255,92	246,78	257,69	277,31
5	247,89	260,78	249,73	249,7	256,47	266,4
Mean	248,7	250,04	252,31	253,57	254,95	260,36
SD	13,15	9,94	6,19	5,60	8,15	14,10

Case Processing Summary

	kelompok	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
BobotRambut	Blanko	5	100.0%	0	0.0%	5	100.0%
	kontrol negatif	5	100.0%	0	0.0%	5	100.0%
	nature	5	100.0%	0	0.0%	5	100.0%
	formula 1	5	100.0%	0	0.0%	5	100.0%
	formula 2	5	100.0%	0	0.0%	5	100.0%
	formula 3	5	100.0%	0	0.0%	5	100.0%

Descriptives

kelompok		Statistic	Std. Error
Blanko	Mean	82.7980	.35414
	95% Confidence Interval for Mean	Lower Bound Upper Bound	81.8148 83.7812
	5% Trimmed Mean	82.7872	
	Median	82.4400	
	Variance	.627	
	Std. Deviation	.79188	
	Minimum	81.95	
	Maximum	83.84	
	Range	1.89	
	Interquartile Range	1.48	
	Skewness	.516	.913
	Kurtosis	-1.982	2.000
	Mean	82.3020	.32469
	95% Confidence Interval for Mean	Lower Bound Upper Bound	81.4005 83.2035
	5% Trimmed Mean	82.3239	
	Median	82.3400	
kontrol negatif	Variance	.527	
	Std. Deviation	.72603	
	Minimum	81.16	
	Maximum	83.05	
	Range	1.89	
	Interquartile Range	1.25	
	Skewness	-1.049	.913
	Kurtosis	1.296	2.000
	Mean	26.4000	1.62398
	95% Confidence Interval for Mean	Lower Bound Upper Bound	21.8911 30.9089
	5% Trimmed Mean	26.3583	
	Median	24.7600	
	Variance	13.187	
	Std. Deviation	3.63133	
	Minimum	22.62	
	Maximum	30.93	
Bobot Rambut	Range	8.31	
	Interquartile Range	6.88	
	Skewness	.475	.913
	Kurtosis	-2.533	2.000
	Mean	63.0960	.75016
	95% Confidence Interval for Mean	Lower Bound Upper Bound	61.0132 65.1788
	5% Trimmed Mean	63.1056	
	Median	63.2700	
	Variance	2.814	
	Std. Deviation	1.67742	
	Minimum	60.78	
	Maximum		
	Range		
	Interquartile Range		
	Skewness		
	Kurtosis		
nature	Mean	26.4000	1.62398
	95% Confidence Interval for Mean	Lower Bound Upper Bound	21.8911 30.9089
	5% Trimmed Mean	26.3583	
	Median	24.7600	
	Variance	13.187	
	Std. Deviation	3.63133	
	Minimum	22.62	
	Maximum	30.93	
	Range	8.31	
	Interquartile Range	6.88	
	Skewness	.475	.913
	Kurtosis	-2.533	2.000
	Mean	63.0960	.75016
	95% Confidence Interval for Mean	Lower Bound Upper Bound	61.0132 65.1788
	5% Trimmed Mean	63.1056	
	Median	63.2700	
formula 1	Variance	2.814	
	Std. Deviation	1.67742	
	Minimum	60.78	
	Maximum		
	Range		
	Interquartile Range		
	Skewness		
	Kurtosis		
	Mean	63.0960	.75016
	95% Confidence Interval for Mean	Lower Bound Upper Bound	61.0132 65.1788
	5% Trimmed Mean	63.1056	
	Median	63.2700	
	Variance	2.814	
	Std. Deviation	1.67742	
	Minimum	60.78	
	Maximum		

formula 2	Maximum	65.24	
	Range	4.46	
	Interquartile Range	3.03	
	Skewness	-.227	.913
	Kurtosis	.005	2.000
	Mean	62.7640	.31495
	95% Confidence Interval for Mean	Lower Bound Upper Bound	61.8895 63.6385
	5% Trimmed Mean	62.7567	
	Median	62.7100	
	Variance	.496	
	Std. Deviation	.70426	
	Minimum	61.97	
	Maximum	63.69	
	Range	1.72	
formula 3	Interquartile Range	1.36	
	Skewness	.281	.913
	Kurtosis	-1.611	2.000
	Mean	62.5840	.88668
	95% Confidence Interval for Mean	Lower Bound Upper Bound	60.1222 65.0458
	5% Trimmed Mean	62.5844	
	Median	63.4300	
	Variance	3.931	
	Std. Deviation	1.98267	
	Minimum	60.43	
	Maximum	64.73	
	Range	4.30	
	Interquartile Range	3.80	
	Skewness	-.345	.913
	Kurtosis	-2.851	2.000

Tests of Normality

	kelompok	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Bobot Rambut	Blanko	.274	5	.200*	.911	5	.476
	kontrol negatif	.233	5	.200*	.931	5	.602
	nature	.274	5	.200*	.887	5	.340
	formula 1	.141	5	.200*	.996	5	.996
	formula 2	.176	5	.200*	.963	5	.828
	formula 3	.265	5	.200*	.848	5	.189

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

a. Lilliefors Significance Correction

ONEWAY

Descriptives

BobotRambut

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
Blanko	5	82.7980	.79188	.35414	81.8148	83.7812	81.95	83.84
kontrol negatif	5	82.3020	.72603	.32469	81.4005	83.2035	81.16	83.05
Nature	5	26.4000	3.63133	1.62398	21.8911	30.9089	22.62	30.93
formula 1	5	63.0960	1.67742	.75016	61.0132	65.1788	60.78	65.24
formula 2	5	62.7640	.70426	.31495	61.8895	63.6385	61.97	63.69
formula 3	5	62.5840	1.98267	.88668	60.1222	65.0458	60.43	64.73
Total	30	63.3240	19.12284	3.49134	56.1834	70.4646	22.62	83.84

Test of Homogeneity of Variances

BobotRambut

Levene Statistic	df1	df2	Sig.
9.903	5	24	.000

ANOVA

BobotRambut

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10518.481	5	2103.696	584.863	.000
Within Groups	86.326	24	3.597		
Total	10604.806	29			

POST HOC

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
Blanko	kontrol negatif	.49600	1.19948	.998	-3.2127	4.2047
	nature	56.39800*	1.19948	.000	52.6893	60.1067
	formula 1	19.70200*	1.19948	.000	15.9933	23.4107
	formula 2	20.03400*	1.19948	.000	16.3253	23.7427
	formula 3	20.21400*	1.19948	.000	16.5053	23.9227
kontrol negatif	Blanko	-.49600	1.19948	.998	-4.2047	3.2127
	nature	55.90200*	1.19948	.000	52.1933	59.6107
	formula 1	19.20600*	1.19948	.000	15.4973	22.9147
	formula 2	19.53800*	1.19948	.000	15.8293	23.2467
	formula 3	19.71800*	1.19948	.000	16.0093	23.4267
Nature	Blanko	-56.39800*	1.19948	.000	-60.1067	-52.6893
	kontrol negatif	-55.90200*	1.19948	.000	-59.6107	-52.1933
	formula 1	-36.69600*	1.19948	.000	-40.4047	-32.9873
	formula 2	-36.36400*	1.19948	.000	-40.0727	-32.6553
	formula 3	-36.18400*	1.19948	.000	-39.8927	-32.4753
formula 1	Blanko	-19.70200*	1.19948	.000	-23.4107	-15.9933
	kontrol negatif	-19.20600*	1.19948	.000	-22.9147	-15.4973
	nature	36.69600*	1.19948	.000	32.9873	40.4047
	formula 2	.33200	1.19948	1.000	-3.3767	4.0407

formula 2	formula 3	.51200	1.19948	.998	-3.1967	4.2207
	Blanko	-20.03400*	1.19948	.000	-23.7427	-16.3253
	kontrol negatif	-19.53800*	1.19948	.000	-23.2467	-15.8293
	nature	36.36400*	1.19948	.000	32.6553	40.0727
	formula 1	-.33200	1.19948	1.000	-4.0407	3.3767
	formula 3	.18000	1.19948	1.000	-3.5287	3.8887
formula 3	Blanko	-20.21400*	1.19948	.000	-23.9227	-16.5053
	kontrol negatif	-19.71800*	1.19948	.000	-23.4267	-16.0093
	nature	36.18400*	1.19948	.000	32.4753	39.8927
	formula 1	-.51200	1.19948	.998	-4.2207	3.1967
	formula 2	-.18000	1.19948	1.000	-3.8887	3.5287

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

BobotRambut

Tukey HSD^a

Kelompok	N	Subset for alpha = 0.05		
		1	2	3
Nature	5	26.4000		
formula 3	5		62.5840	
formula 2	5		62.7640	
formula 1	5		63.0960	
kontrol negatif	5			82.3020
Blanko	5			82.7980
Sig.		1.000	.998	.998

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 5.000.