

LAMPIRAN

Lampiran 1. Surat Pernyataan

SURAT PERNYATAAN

Yang bertanda tangan di bawah ini,

Nama : Dini Zamzami Salsabilla

N P M : 11181154

adalah mahasiswa Fakultas Farmasi, Universitas Bhakti Kencana, menyatakan dengan sesungguhnya bahwa Skripsi yang saya tulis dengan judul:

FORMULASI DAN EVALUASI SEDIAAN TONER WAJAH KOMBUCHA KUNYIT (*Turmeric Kombucha*) YANG BERPOTENSI SEBAGAI ANTI JERAWAT

adalah benar-benar merupakan hasil karya saya sendiri. Apabila di kemudian hari diketahui bahwa isi Naskah Skripsi ini merupakan hasil plagiasi, maka saya bersedia menerima sanksi berupa pembatalan kelulusan dan atau pencabutan gelar yang saya peroleh.

Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung , Agustus 2022

Yang membuat pernyataan,

(Dini Zamzami Salsabilla)

NPM 11181154

Lampiran 2. Surat Persetujuan untuk dipublikasikan di media online

SURAT PERNYATAAN

Yang bertanda tangan di bawah ini,

Nama : Dini Zamzami Salsabilla

N P M : 11181154

Menyatakan bahwa demi kepentingan perkembangan ilmu pengetahuan,
saya menyetujui abstrak Skripsi yang saya tulis dengan judul:

**FORMULASI DAN EVALUASI SEDIAAN TONER WAJAH KOMBUCHA
KUNYIT (*Turmeric Kombucha*) YANG BERPOTENSI SEBAGAI ANTI
JERAWAT**

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Demikian surat pernyataan ini saya buat untuk dapat dipergunakan sebagaimana mestinya.

Bandung , Agustus 2022

Yang membuat pernyataan,

(Dini Zamzami Salsabilla)

NPM 11181154

Lampiran 3. Hasil cek plagiarisme

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Lampiran 4. Hasil Determinasi Rimpang Kunyit



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Nomor : 1141/IT1.C11.2/TA.00/2022
Hal : Determinasi tumbuhan

10 Maret 2022

Kepada Yth.
Dekan
Fakultas Farmasi
Universitas Bhakti Kencana
Jalan Soekarno Hatta No. 754
Bandung

Memperhatikan surat permintaan Saudara dalam surat No. 0392/03.FF-03/UBK/III/2022 tanggal 07 Maret 2022 mengenai determinasi tumbuhan, dengan ini kami sampaikan bahwa setelah dilakukan determinasi oleh staf kami, sampel tumbuhan yang dikirim oleh Sdr. Dini Zamzami Salsabilla (NPM: 11181154), yaitu:

No	Nama sampel	Hasil determinasi	Famili
1	Kunyit	<i>Curcuma longa</i> L.	Zingiberaceae

Referensi:

1. Backer, C.A., & Bakhuizen van den Brink, Jr. R.C. (1968). *Flora of Java*. Vol. III. Groningen, the Netherlands: N.V.P. Noordhoff. pp. 72.
2. Newman, M., Lhuillier, A., & Poulsen, A. D. (2004). Checklist of the Zingiberaceae of Malesia. *Blumea Supplement*, (16), 1–166.
3. Škorničková, J., Šída, O., Marhold, K. (2010). Back to types! Towards stability of names in Indian *Curcuma* L. (Zingiberaceae). *Taxon*, 59 (1), 269–282.

Demikian yang kami sampaikan. Atas perhatian dan kerjasama yang diberikan, kami ucapkan terima kasih.



Wakil Dekan Bidang Sumber Daya,

Dr. Angga Dwiartama
NIP. 198302052012121002

Tembusan:
Dekan SITH ITB, sebagai laporan.

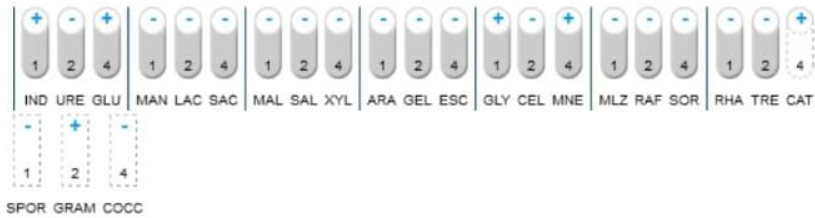
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Lampiran 5. Sertifikat bakteri *Propionibacterium acnes*

SERTIFIKAT UJI BAKTERI

PROPIONIBACTERIUM ACNES Atcc. 1223



Significant taxa	% ID	T	Tests against			
<i>Propionibacterium acnes</i>	99.9	0.94				
Next taxon	% ID	T	Tests against			
<i>Propionibacterium granulosum</i>	0.1	0.34	IND	0%	SAC	82%

Mengetahui,
Kepala Laboratorium Mikrobiologi-
Bioteknologi Farmasi



Dr. Tina Rosnawati, M.Si. Apt.
NIP. 197301032600042001

Lampiran 6. Pengamatan fermentasi



(a)

(b)

(c)

(d)



(e)

(f)

(g)

(h)

Gambar hasil fermentasi kombucha kunyit

(a) fermentasi kombucha 14 hari

(b) fermentasi kombucha 10 hari

(c) fermentasi kombucha 7 hari

(d) SCOBY diangkat jika sudah panen

(e) penambahan kunyit pada fermentasi kombucha 7 hari

(f) penambahan kunyit pada fermentasi kombucha 10 hari

(g) penambahan kunyit pada fermentasi kombucha 14 hari

(h) kombucha kunyit dipanen

Lampiran 7. Evaluasi hasil fermentasi

Tabel hasil uji Ph Kombucha

Hari ke-	pH		
14	2.84	2.88	2.9
		2.87	
10	2.94	2.95	2.97
		2.95	
7	3.15	3.16	3.15
		3.15	

Tabel hasil uji pH kombucha kunyit 14 hari

Konsentrasi kunyit	Replikasi pH		
	1	2	3
10%	2.87	2.85	2.88
	Rata-rata = 2.87		
15%	2.86	2.84	2.86
	Rata-rata = 2.85		
20%	3.09	3.10	2.09
	Rata-rata = 2.76		

Tabel hasil uji pH kombucha kunyit 10 hari

Konsentrasi kunyit	Replikasi pH		
	1	2	3
10%	2.74	2.76	2.75
	Rata-rata = 2.75		
15%	2.92	2.92	2.92
	Rata-rata = 2.92		
20%	3.08	3.06	3.05
	Rata-rata = 3.06		

Tabel hasil uji pH kombucha kunyit 7 hari

Konsentrasi kunyit	Replikasi pH		
	1	2	3
10%	2.82	2.80	2.79
	Rata-rata = 2.80		
15%	2.96	2.93	2.93
	Rata-rata = 2.94		
20%	3.04	3.03	3.02
	Rata-rata = 3.03		

Hasil pengolahan statistik evaluasi pH kombucha kunyit

Test of Homogeneity of Variances

pH

Levene Statistic	df1	df2	Sig.
1.514	8	18	.221

ANOVA

pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.249	8	.031	190.636	.000
Within Groups	.003	18	.000		
Total	.251	26			

Multiple Comparisons

Dependent Variable: pH

	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
	Perlakuan	Perlakuan				Lower Bound	Upper Bound
Tukey HSD	10% 7 HARI	15% 7 hari	-.13667*	.01042	.000	-.1732	-.1001
		20% 7 hari	-.22667*	.01042	.000	-.2632	-.1901
		10% 10 hari	.05333*	.01042	.002	.0168	.0899
		15% 10 hari	-.11667*	.01042	.000	-.1532	-.0801
		20% 10 hari	-.26000*	.01042	.000	-.2965	-.2235
		10% 14 hari	-.06333*	.01042	.000	-.0999	-.0268
		15% 14 hari	-.05000*	.01042	.004	-.0865	-.0135
		20% 14 hari	-.05000*	.01042	.004	-.0865	-.0135
		10% 7 HARI	.13667*	.01042	.000	.1001	.1732
	15% 7 hari	20% 7 hari	-.09000*	.01042	.000	-.1265	-.0535
		10% 10 hari	.19000*	.01042	.000	.1535	.2265
		15% 10 hari	.02000	.01042	.611	-.0165	.0565
		20% 10 hari	-.12333*	.01042	.000	-.1599	-.0868
		10% 14 hari	.07333*	.01042	.000	.0368	.1099
		15% 14 hari	.08667*	.01042	.000	.0501	.1232
		20% 14 hari	.08667*	.01042	.000	.0501	.1232
		10% 7 HARI	.22667*	.01042	.000	.1901	.2632
	20% 7 hari	15% 7 hari	.09000*	.01042	.000	.0535	.1265
		10% 10 hari	.28000*	.01042	.000	.2435	.3165
		15% 10 hari	.11000*	.01042	.000	.0735	.1465
		20% 10 hari	-.03333	.01042	.090	-.0699	.0032
		10% 14 hari	.16333*	.01042	.000	.1268	.1999
		15% 14 hari	.17667*	.01042	.000	.1401	.2132
		20% 14 hari	.17667*	.01042	.000	.1401	.2132
		10% 7 HARI	-.05333*	.01042	.002	-.0899	-.0168
	10% 10 hari	15% 7 hari	-.19000*	.01042	.000	-.2265	-.1535
		20% 7 hari	-.28000*	.01042	.000	-.3165	-.2435
		15% 10 hari	-.17000*	.01042	.000	-.2065	-.1335
		20% 10 hari	-.31333*	.01042	.000	-.3499	-.2768
		10% 14 hari	-.11667*	.01042	.000	-.1532	-.0801
		15% 14 hari	-.10333*	.01042	.000	-.1399	-.0668
		20% 14 hari	-.10333*	.01042	.000	-.1399	-.0668
		10% 7 HARI	.11667*	.01042	.000	.0801	.1532
	15% 10 hari	15% 7 hari	-.02000	.01042	.611	-.0565	.0165
		20% 7 hari	-.11000*	.01042	.000	-.1465	-.0735
		10% 10 hari	.17000*	.01042	.000	.1335	.2065

	20% 10 hari	20% 10 hari	-.14333*	.01042	.000	-.1799	-.1068
		10% 14 hari	.05333*	.01042	.002	.0168	.0899
		15% 14 hari	.06667*	.01042	.000	.0301	.1032
		20% 14 hari	.06667*	.01042	.000	.0301	.1032
		10% 7 HARI	.26000*	.01042	.000	.2235	.2965
		15% 7 hari	.12333*	.01042	.000	.0868	.1599
		20% 7 hari	.03333	.01042	.090	-.0032	.0699
		10% 10 hari	.31333*	.01042	.000	.2768	.3499
		15% 10 hari	.14333*	.01042	.000	.1068	.1799
		10% 14 hari	.19667*	.01042	.000	.1601	.2332
		15% 14 hari	.21000*	.01042	.000	.1735	.2465
		20% 14 hari	.21000*	.01042	.000	.1735	.2465
		10% 7 HARI	.06333*	.01042	.000	.0268	.0999
		15% 7 hari	-.07333*	.01042	.000	-.1099	-.0368
		20% 7 hari	-.16333*	.01042	.000	-.1999	-.1268
	10% 14 hari	10% 10 hari	.11667*	.01042	.000	.0801	.1532
		15% 10 hari	-.05333*	.01042	.002	-.0899	-.0168
		20% 10 hari	-.19667*	.01042	.000	-.2332	-.1601
		15% 14 hari	.01333	.01042	.925	-.0232	.0499
		20% 14 hari	.01333	.01042	.925	-.0232	.0499
	15% 14 hari	10% 7 HARI	.05000*	.01042	.004	.0135	.0865
		15% 7 hari	-.08667*	.01042	.000	-.1232	-.0501
		20% 7 hari	-.17667*	.01042	.000	-.2132	-.1401
		10% 10 hari	.10333*	.01042	.000	.0668	.1399
		15% 10 hari	-.06667*	.01042	.000	-.1032	-.0301
		20% 10 hari	-.21000*	.01042	.000	-.2465	-.1735
		10% 14 hari	-.01333	.01042	.925	-.0499	.0232
		20% 14 hari	.00000	.01042	1.000	-.0365	.0365
		10% 7 HARI	.05000*	.01042	.004	.0135	.0865
		15% 7 hari	-.08667*	.01042	.000	-.1232	-.0501
		20% 7 hari	-.17667*	.01042	.000	-.2132	-.1401
	20% 14 hari	10% 10 hari	.10333*	.01042	.000	.0668	.1399
		15% 10 hari	-.06667*	.01042	.000	-.1032	-.0301
		20% 10 hari	-.21000*	.01042	.000	-.2465	-.1735
		10% 14 hari	-.01333	.01042	.925	-.0499	.0232
		15% 14 hari	.00000	.01042	1.000	-.0365	.0365
Bonferroni	10% 7 HARI	15% 7 hari	-.13667*	.01042	.000	-.1760	-.0973
		20% 7 hari	-.22667*	.01042	.000	-.2660	-.1873

		10% 10 hari	.05333*	.01042	.003	.0140	.0927
		15% 10 hari	-.11667*	.01042	.000	-.1560	-.0773
		20% 10 hari	-.26000*	.01042	.000	-.2993	-.2207
		10% 14 hari	-.06333*	.01042	.000	-.1027	-.0240
		15% 14 hari	-.05000*	.01042	.005	-.0893	-.0107
		20% 14 hari	-.05000*	.01042	.005	-.0893	-.0107
		10% 7 HARI	.13667*	.01042	.000	.0973	.1760
		20% 7 hari	-.09000*	.01042	.000	-.1293	-.0507
	15% 7 hari	10% 10 hari	.19000*	.01042	.000	.1507	.2293
		15% 10 hari	.02000	.01042	1.000	-.0193	.0593
		20% 10 hari	-.12333*	.01042	.000	-.1627	-.0840
		10% 14 hari	.07333*	.01042	.000	.0340	.1127
		15% 14 hari	.08667*	.01042	.000	.0473	.1260
		20% 14 hari	.08667*	.01042	.000	.0473	.1260
		10% 7 HARI	.22667*	.01042	.000	.1873	.2660
	20% 7 hari	15% 7 hari	.09000*	.01042	.000	.0507	.1293
		10% 10 hari	.28000*	.01042	.000	.2407	.3193
		15% 10 hari	.11000*	.01042	.000	.0707	.1493
		20% 10 hari	-.03333	.01042	.179	-.0727	.0060
		10% 14 hari	.16333*	.01042	.000	.1240	.2027
		15% 14 hari	.17667*	.01042	.000	.1373	.2160
		20% 14 hari	.17667*	.01042	.000	.1373	.2160
	10% 10 hari	10% 7 HARI	-.05333*	.01042	.003	-.0927	-.0140
		15% 7 hari	-.19000*	.01042	.000	-.2293	-.1507
		20% 7 hari	-.28000*	.01042	.000	-.3193	-.2407
		15% 10 hari	-.17000*	.01042	.000	-.2093	-.1307
		20% 10 hari	-.31333*	.01042	.000	-.3527	-.2740
		10% 14 hari	-.11667*	.01042	.000	-.1560	-.0773
		15% 14 hari	-.10333*	.01042	.000	-.1427	-.0640
	15% 10 hari	20% 14 hari	-.10333*	.01042	.000	-.1427	-.0640
		10% 7 HARI	.11667*	.01042	.000	.0773	.1560
		15% 7 hari	-.02000	.01042	1.000	-.0593	.0193
		20% 7 hari	-.11000*	.01042	.000	-.1493	-.0707
		10% 10 hari	.17000*	.01042	.000	.1307	.2093
		20% 10 hari	-.14333*	.01042	.000	-.1827	-.1040
		10% 14 hari	.05333*	.01042	.003	.0140	.0927
		15% 14 hari	.06667*	.01042	.000	.0273	.1060
		20% 14 hari	.06667*	.01042	.000	.0273	.1060

20% 10 hari	10% 7 HARI	.26000*	.01042	.000	.2207	.2993
	15% 7 hari	.12333*	.01042	.000	.0840	.1627
	20% 7 hari	.03333	.01042	.179	-.0060	.0727
	10% 10 hari	.31333*	.01042	.000	.2740	.3527
	15% 10 hari	.14333*	.01042	.000	.1040	.1827
	10% 14 hari	.19667*	.01042	.000	.1573	.2360
	15% 14 hari	.21000*	.01042	.000	.1707	.2493
	20% 14 hari	.21000*	.01042	.000	.1707	.2493
	10% 7 HARI	.06333*	.01042	.000	.0240	.1027
10% 14 hari	15% 7 hari	-.07333*	.01042	.000	-.1127	-.0340
	20% 7 hari	-.16333*	.01042	.000	-.2027	-.1240
	10% 10 hari	.11667*	.01042	.000	.0773	.1560
	15% 10 hari	-.05333*	.01042	.003	-.0927	-.0140
	20% 10 hari	-.19667*	.01042	.000	-.2360	-.1573
	15% 14 hari	.01333	.01042	1.000	-.0260	.0527
	20% 14 hari	.01333	.01042	1.000	-.0260	.0527
	10% 7 HARI	.05000*	.01042	.005	.0107	.0893
	15% 7 hari	-.08667*	.01042	.000	-.1260	-.0473
15% 14 hari	20% 7 hari	-.17667*	.01042	.000	-.2160	-.1373
	10% 10 hari	.10333*	.01042	.000	.0640	.1427
	15% 10 hari	-.06667*	.01042	.000	-.1060	-.0273
	20% 10 hari	-.21000*	.01042	.000	-.2493	-.1707
	10% 14 hari	-.01333	.01042	1.000	-.0527	.0260
	20% 14 hari	.00000	.01042	1.000	-.0393	.0393
	10% 7 HARI	.05000*	.01042	.005	.0107	.0893
	15% 7 hari	-.08667*	.01042	.000	-.1260	-.0473
	20% 7 hari	-.17667*	.01042	.000	-.2160	-.1373
20% 14 hari	10% 10 hari	.10333*	.01042	.000	.0640	.1427
	15% 10 hari	-.06667*	.01042	.000	-.1060	-.0273
	20% 10 hari	-.21000*	.01042	.000	-.2493	-.1707
	10% 14 hari	-.01333	.01042	1.000	-.0527	.0260
	15% 14 hari	.00000	.01042	1.000	-.0393	.0393
	10% 7 HARI	.05000*	.01042	.005	.0107	.0893

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

ANOVA

ANOVA - Ph

Cases	Sum of Squares	df	Mean Square	F	p
hari ke	0.125	2	0.062	156.000	< .001
Residuals	0.002	6	4.000e-4		

Note. Type III Sum of Squares

Descriptives

Descriptives - Ph

hari ke	Mean	SD	N
ke 10	2.953	0.015	3
ke 14	2.873	0.031	3
ke 7	3.153	0.006	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
2.970	2.000	6.000	0.127

Post Hoc Tests

Standard

Post Hoc Comparisons - hari ke

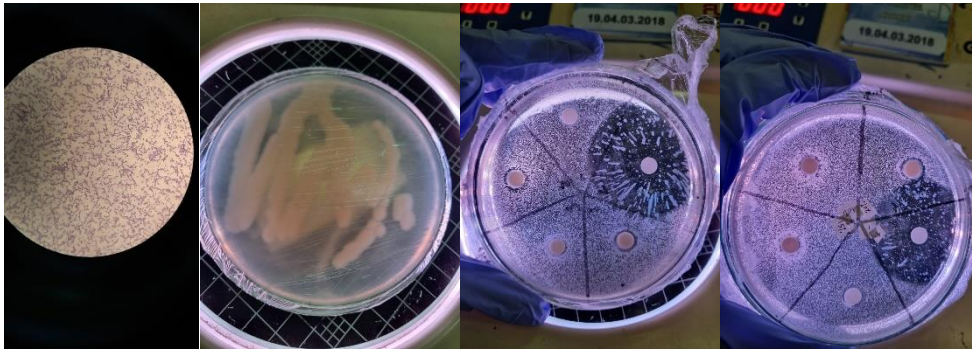
		95% CI for Mean Difference				SE	t	p _{tukey}	p _{bonf}
	Mean Difference	Lower	Upper						
ke 10 ke 14	0.080	0.030	0.130		0.016	4.899	0.006	0.008	
ke 10 ke 7	-0.200	-0.250	-0.150		0.016	-12.247	< .001	< .001	
ke 14 ke 7	-0.280	-0.330	-0.230		0.016	-17.146	< .001	< .001	

Post Hoc Comparisons - hari ke

Mean Difference	95% CI for Mean Difference		SE	t	P _{tukey}	P _{bonf}
	Lower	Upper				

Note. P-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the tukey method).

Lampiran 8. Hasil uji antibakteri kombucha kunyit

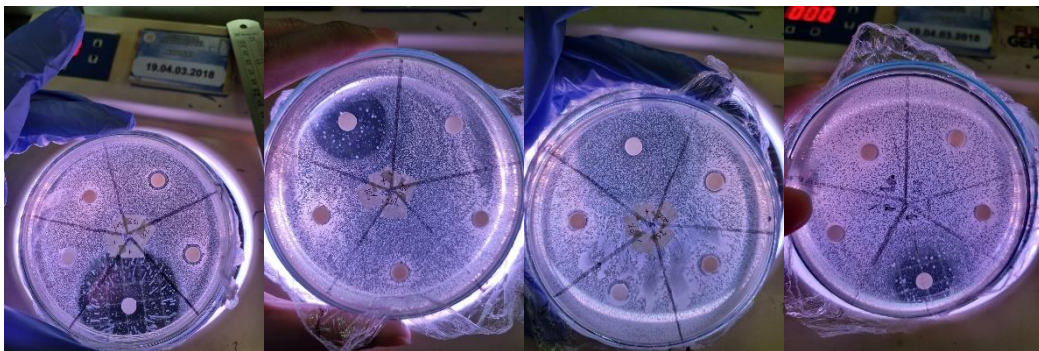


(a)

(b)

(c)

(d)



(e)

(f)

(g)

(h)

(a) Pewarnaan bakteri, *Propionibacterium acnes* termasuk bakteri gram positif

(b) hasil inokulasi bakteri *Propionibacterium acnes*

(c) dan (d) Hasil diameter hambat kombucha kunyit 7 hari

(e) dan (f) Hasil diameter hambat kombucha kunyit 10 hari

(g) dan (h) Hasil diameter hambat kombucha kunyit 14 hari

Tabel Diameter hambat kombucha kunyit 14 hari

Perlakuan	Diameter hambat (mm)		
	7	7	9.5
10%	Rata-rata = 7.83		
15%	8	7	9
20%	7	6	9
(+)	21	24	43
	Rata-rata = 29.33		
(-)	0	0	0
	Rata-rata = 0		

Tabel Diameter hambatan kombucha kunyit 10 hari

Perlakuan	Diameter hambatan (mm)		
	7	7	9
10%	Rata-rata = 7.67		
	7	7	10
15%	Rata-rata = 8.00		
	7	7	9
20%	Rata-rata = 7.67		
	25	23	43
(+)	Rata-rata = 30.33		
	0	0	0
(-)	Rata-rata = 0		

Tabel Diameter hambatan kombucha kunyit 7 hari

Perlakuan	Diameter hambatan (mm)		
	8	7	9
10%	Rata-rata = 8		
	8	7	8.5
15%	Rata-rata = 7.83		
	7	7	10.5
20%	Rata-rata = 8.17		
	25	24	43.5
(+)	Rata-rata = 30.83		
	0	0	0
(-)	Rata-rata = 0		

Lampiran 9. Data Statistik Diameter zona hambat kombucha kunyit

ANOVA - Diameter hambat (mm)

Cases	Sum of Squares	df	Mean Square	F	p
Perlakuan	1347.798	9	149.755	86.397	< .001
Residuals	34.667	20	1.733		

Note. Type III Sum of Squares

Descriptives

Descriptives - Diameter hambat (mm)

Perlakuan	Mean	SD	N
10% 10 hari	7.667	1.155	3
10% 14 hari	7.833	1.443	3
10% 7 hari	8.000	1.000	3
15% 10 hari	8.000	1.732	3
15% 14 hari	8.000	1.000	3
15% 7 hari	7.833	0.764	3
20% 10 hari	7.667	1.155	3
20% 14 hari	7.333	1.528	3
20% 7 hari	8.167	2.021	3
kontrol +	30.163	0.764	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
1.285	9.000	20.000	0.304

Post Hoc Tests

Standard

Post Hoc Comparisons - Perlakuan

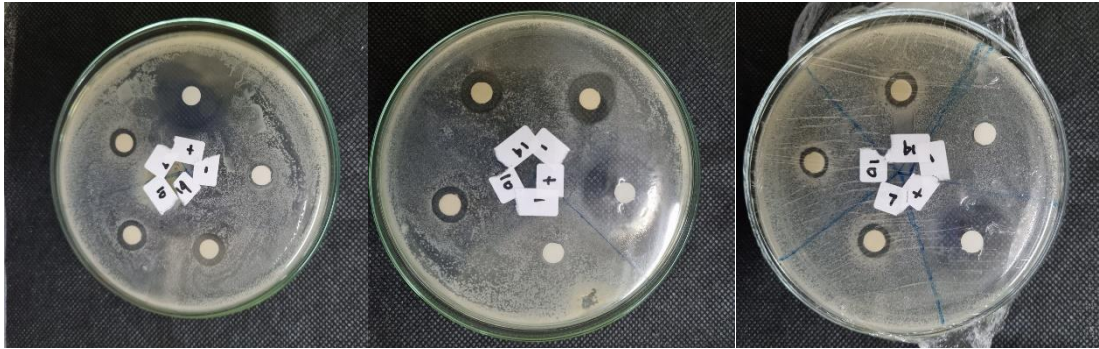
		Mean Difference	SE	t	P _{tukey}	P _{bonf}
10% 10 hari	10% 14 hari	-0.167	1.075	-0.155	1.000	1.000
	10% 7 hari	-0.333	1.075	-0.310	1.000	1.000
	15% 10 hari	-0.333	1.075	-0.310	1.000	1.000
	15% 14 hari	-0.333	1.075	-0.310	1.000	1.000
	15% 7 hari	-0.167	1.075	-0.155	1.000	1.000
	20% 10 hari	-1.776e-15	1.075	-1.652e-15	1.000	1.000
	20% 14 hari	0.333	1.075	0.310	1.000	1.000
	20% 7 hari	-0.500	1.075	-0.465	1.000	1.000
	(kontrol +)	-22.497	1.075	-20.928	< .001	< .001
10% 14 hari	10% 7 hari	-0.167	1.075	-0.155	1.000	1.000
	15% 10 hari	-0.167	1.075	-0.155	1.000	1.000
	15% 14 hari	-0.167	1.075	-0.155	1.000	1.000
	15% 7 hari	4.441e-16	1.075	4.131e-16	1.000	1.000
	20% 10 hari	0.167	1.075	0.155	1.000	1.000
	20% 14 hari	0.500	1.075	0.465	1.000	1.000
	20% 7 hari	-0.333	1.075	-0.310	1.000	1.000
	(kontrol +)	-22.330	1.075	-20.773	< .001	< .001
10% 7 hari	15% 10 hari	-3.553e-15	1.075	-3.305e-15	1.000	1.000
	15% 14 hari	-6.661e-15	1.075	-6.197e-15	1.000	1.000
	15% 7 hari	0.167	1.075	0.155	1.000	1.000
	20% 10 hari	0.333	1.075	0.310	1.000	1.000
	20% 14 hari	0.667	1.075	0.620	1.000	1.000
	20% 7 hari	-0.167	1.075	-0.155	1.000	1.000
	(kontrol +)	-22.163	1.075	-20.618	< .001	< .001
15% 10 hari	15% 14 hari	-3.109e-15	1.075	-2.892e-15	1.000	1.000
	15% 7 hari	0.167	1.075	0.155	1.000	1.000
	20% 10 hari	0.333	1.075	0.310	1.000	1.000
	20% 14 hari	0.667	1.075	0.620	1.000	1.000

Post Hoc Comparisons - Perlakuan

		Mean Difference	SE	t	P _{tukey}	P _{bonf}
	20% 7 hari	-0.167	1.075	-0.155	1.000	1.000
	(kontrol +)	-22.163	1.075	-20.618	< .001	< .001
15% 14 hari	15% 7 hari	0.167	1.075	0.155	1.000	1.000
	20% 10 hari	0.333	1.075	0.310	1.000	1.000
	20% 14 hari	0.667	1.075	0.620	1.000	1.000
	20% 7 hari	-0.167	1.075	-0.155	1.000	1.000
	(kontrol +)	-22.163	1.075	-20.618	< .001	< .001
15% 7 hari	20% 10 hari	0.167	1.075	0.155	1.000	1.000
	20% 14 hari	0.500	1.075	0.465	1.000	1.000
	20% 7 hari	-0.333	1.075	-0.310	1.000	1.000
	(kontrol +)	-22.330	1.075	-20.773	< .001	< .001
20% 10 hari	20% 14 hari	0.333	1.075	0.310	1.000	1.000
	20% 7 hari	-0.500	1.075	-0.465	1.000	1.000
	(kontrol +)	-22.497	1.075	-20.928	< .001	< .001
20% 14 hari	20% 7 hari	-0.833	1.075	-0.775	0.998	1.000
	(kontrol +)	-22.830	1.075	-21.238	< .001	< .001
20% 7 hari	(kontrol +)	-21.997	1.075	-20.463	< .001	< .001

Note. P-value adjusted for comparing a family of 10

Lampiran 10. Hasil pengamatan dan statistik diameter zona hambat kombucha



Gambar hasil pengamatan diameter zona hambat kombucha

Tabel hasil diameter hambat kombucha

Perlakuan	Diameter hambat (mm)		
kontrol +	22	24	23
	Rata-rata = 23		
kontrol -	0	0	0
	Rata-rata = 0		
7 hari	9	9	8
	Rata-rata = 8.67		
10 hari	10	11	9
	Rara-rata = 10		
14 hari	11	13	11
	Rata-rata = 11.67		

ANOVA

ANOVA - Diameter hambat (mm)

Cases	Sum of Squares	df	Mean Square	F	p
Perlakuan	13.556	2	6.778	7.625	0.023
Residuals	5.333	6	0.889		

Note. Type III Sum of Squares

Descriptives

Descriptives - Diameter hambat (mm)

Perlakuan	Mean	SD	N
10 hari	10.000	1.000	3
14 hari	11.667	1.155	3

Descriptives - Diameter hambat (mm)

Perlakuan	Mean	SD	N
7 hari	8.667	0.577	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
0.857	2.000	6.000	0.471

Post Hoc Tests

Standard

Post Hoc Comparisons - Perlakuan

			95% CI for Mean Difference		SE	t	p_{tukey}	p_{bonf}
		Mean Difference	Lower	Upper				
10 hari	14 hari	-1.667	-4.029	0.695	0.770	-2.165	0.157	0.221
	7 hari	1.333	-1.029	3.695	0.770	1.732	0.269	0.402
14 hari	7 hari	3.000	0.638	5.362	0.770	3.897	0.019	0.024

Note. P-value and confidence intervals adjusted for comparing a family of 3 estimates (confidence intervals corrected using the tukey method).

Lampiran 11. Hasil uji evaluasi pH toner kombucha kunyit

Tabel hasil uji pH toner wajah kombucha kunyit

Formula	Hasil		
	7.31	7.46	7.74
F1	Rata-rata = 7.50		
	5.31	5.3	5.31
F2	Rata-rata = 5.31		
	4.99	5.01	4.8
F3	Rata-rata = 4.93		
	8.91	8.99	8.95
F4	Rata-rata = 8.95		

ANOVA

ANOVA - pH

Cases	Sum of Squares	df	Mean Square	F	p
Formula	32.302	3	10.767	686.921	< .001
Residuals	0.125	8	0.016		

Note. Type III Sum of Squares

Descriptives

Descriptives - pH

Formula	Mean	SD	N
F1	7.503	0.218	3
F2	5.307	0.006	3
F3	4.933	0.116	3
F4	8.950	0.040	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
4.588	3.000	8.000	0.038

Post Hoc Tests

Standard

Post Hoc Comparisons - Formula

			95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
	Mean Difference		Lower	Upper				
F1 F2	2.197		1.869	2.524	0.102	21.488	< .001	< .001
	F3	2.570	2.243	2.897	0.102	25.141	< .001	< .001
	F4	-1.447	-1.774	-1.119	0.102	-14.152	< .001	< .001
F2 F3	0.373		0.046	0.701	0.102	3.652	0.027	0.039
	F4	-3.643	-3.971	-3.316	0.102	-35.640	< .001	< .001
F3 F4	-4.017		-4.344	-3.689	0.102	-39.292	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

Kruskal-Wallis Test

Kruskal-Wallis Test

Factor	Statistic	df	p
Formula	10.421	3	0.015

Lampiran 12. Hasil uji evaluasi viskositas toner wajah kombucha kunyit

Tabel hasil uji viskositas toner wajah kombucha kunyit

Formula	Viskositas (cPs)		
	12	13.6	14.8
F1	Rata-rata = 13.47		
	10.8	11.2	12.4
F2	Rata-rata = 11.47		
	12.80	13.20	13.60
F3	Rata-rata = 13.2		
	11.6	11.2	10.8
F4	Rata-rata = 11.2		

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Formula	12.213	3	4.071	5.452	0.025
Residuals	5.973	8	0.747		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

Formula	Mean	SD	N
F1	13.467	1.405	3
F2	11.467	0.833	3
F3	13.200	0.400	3
F4	11.200	0.400	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
1.833	3.000	8.000	0.219

Post Hoc Tests

Standard

Post Hoc Comparisons - Formula

			95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
		Mean Difference	Lower	Upper				
F1	F2	2.000	-0.259	4.259	0.706	2.835	0.084	0.132
	F3	0.267	-1.993	2.526	0.706	0.378	0.980	1.000
	F4	2.267	0.007	4.526	0.706	3.213	0.049	0.074
F2	F3	-1.733	-3.993	0.526	0.706	-2.457	0.143	0.237
	F4	0.267	-1.993	2.526	0.706	0.378	0.980	1.000
F3	F4	2.000	-0.259	4.259	0.706	2.835	0.084	0.132

Note. P-value and confidence intervals adjusted for comparing a family of 4 estimates (confidence intervals corrected using the tukey method).

Lampiran 13. Hasil uji stabilitas suhu ruang F1

Uji pH

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	7.31	7.46	7.74	7.50	0.22
7	7.16	7.13	7.15	7.15	0.02
14	5.07	5.09	5.08	5.08	0.01
21	4.68	4.67	4.67	4.67	0.01
28	4.46	4.47	4.47	4.47	0.01

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	7.31	7.46	7.74	7.50	0.22
7	7.16	7.13	7.15	7.15	0.02
14	5.07	5.09	5.08	5.08	0.01
21	4.68	4.67	4.67	4.67	0.01
28	4.46	4.47	4.47	4.47	0.01

ANOVA

ANOVA - pH

Cases	Sum of Squares	df	Mean Square	F	p
Hari ke-	24.831	4	6.208	646.194	< .001
Residuals	0.096	10	0.010		

Note. Type III Sum of Squares

Descriptives

Descriptives - pH

Hari ke-	Mean	SD	N
0	7.503	0.218	3
14	5.080	0.010	3
21	4.673	0.006	3
28	4.467	0.006	3
7	7.147	0.015	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
6.609	4.000	10.000	0.007

Post Hoc Tests

Standard

Post Hoc Comparisons - Hari ke-

95% CI for Mean Difference								
Mean Difference			Lower	Upper	SE	t	p_{tukey}	p_{bonf}
0	7	0.357	0.093	0.620	0.080	4.457	0.008	0.012
	14	2.423	2.160	2.687	0.080	30.281	< .001	< .001
	21	2.830	2.567	3.093	0.080	35.363	< .001	< .001
	28	3.037	2.773	3.300	0.080	37.945	< .001	< .001
7	14	2.067	1.803	2.330	0.080	25.824	< .001	< .001
	21	2.473	2.210	2.737	0.080	30.906	< .001	< .001
	28	2.680	2.417	2.943	0.080	33.488	< .001	< .001
14	21	0.407	0.143	0.670	0.080	5.082	0.003	0.005
	28	0.613	0.350	0.877	0.080	7.664	< .001	< .001
21	28	0.207	-0.057	0.470	0.080	2.582	0.147	0.273

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

Kruskal-Wallis Test

Kruskal-Wallis Test

Factor	Statistic	df	p
Hari ke-	13.548	4	0.009

Hasil uji evaluasi viskositas stabilitas suhu ruang F1

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		

0	8.00	7.60	7.20	7.60	0.40
7	12.00	13.60	10.40	12.00	1.60
14	7.20	8.00	7.60	7.60	0.40
21	11.20	10.80	11.60	11.20	0.40
28	10.40	10.80	10.80	10.67	0.23

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Hari ke-	51.691	4	12.923	20.888	< .001
Residuals	6.187	10	0.619		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

Hari ke-	Mean	SD	N
0	7.600	0.400	3
14	7.600	0.400	3
21	11.200	0.400	3
28	10.667	0.231	3
7	12.000	1.600	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
2.012	4.000	10.000	0.169

Post Hoc Tests

Standard

Post Hoc Comparisons - Hari ke-

			95% CI for Mean Difference		SE	t	P _{tukey}	P _{bonf}
		Mean Difference	Lower	Upper				
0	7	-4.400	-6.514	-2.286	0.642	-6.851	< .001	< .001
	14	1.776e-15	-2.114	2.114	0.642	2.766e-15	1.000	1.000
	21	-3.600	-5.714	-1.486	0.642	-5.606	0.002	0.002
	28	-3.067	-5.180	-0.953	0.642	-4.775	0.005	0.008
7	14	4.400	2.286	6.514	0.642	6.851	< .001	< .001
	21	0.800	-1.314	2.914	0.642	1.246	0.727	1.000
	28	1.333	-0.780	3.447	0.642	2.076	0.300	0.646
14	21	-3.600	-5.714	-1.486	0.642	-5.606	0.002	0.002
	28	-3.067	-5.180	-0.953	0.642	-4.775	0.005	0.008
21	28	0.533	-1.580	2.647	0.642	0.830	0.915	1.000

Note. P-value and confidence intervals adjusted for comparing a family of 5 estimates (confidence intervals corrected using the tukey method).

Lampiran 14. Hasil uji stabilitas suhu ruang F2

Hasil uji evaluasi pH stabilitas suhu ruang F2

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	5.43	5.71	5.30	5.48	0.21
7	5.05	5.04	5.04	5.04	0.01
14	4.98	4.96	4.96	4.97	0.01
21	4.76	4.76	4.77	4.76	0.01
28	4.59	4.59	4.59	4.59	0.00

Hasil uji evaluasi viskositas stabilitas suhu ruang F2

Hari ke-	Replikasi Viskositas (cPs)			Rata-rata	STD
	1	2	3		
0	10.80	11.20	12.40	11.47	0.83
7	10.80	11.20	12.40	11.47	0.83
14	10.00	11.20	11.40	10.87	0.76
21	12.80	12.00	12.40	12.40	0.40
28	13.20	12.20	12.40	12.60	0.53

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Hari ke-	6.256	4	1.564	3.258	0.059
Residuals	4.800	10	0.480		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

Hari ke-	Mean	SD	N
0	11.467	0.833	3
14	10.867	0.757	3
21	12.400	0.400	3
28	12.600	0.529	3
7	11.467	0.833	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
0.962	4.000	10.000	0.469

Post Hoc Tests

Standard

Post Hoc Comparisons - Hari ke-

		Mean Difference	SE	t	p _{tukey}	p _{bonf}
0	7	-3.386e-15	0.566	-5.986e-15	1.000	1.000
	14	0.600	0.566	1.061	0.822	1.000
	21	-0.933	0.566	-1.650	0.502	1.000
	28	-1.133	0.566	-2.003	0.330	0.730
7	14	0.600	0.566	1.061	0.822	1.000
	21	-0.933	0.566	-1.650	0.502	1.000
	28	-1.133	0.566	-2.003	0.330	0.730
14	21	-1.533	0.566	-2.711	0.122	0.219
	28	-1.733	0.566	-3.064	0.071	0.120
21	28	-0.200	0.566	-0.354	0.996	1.000

Note. P-value adjusted for comparing a family of 5

Lampiran 15. Hasil uji stabilitas suhu ruang F3

Hasil uji evaluasi Ph stabilitas suhu ruang F3

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	4.99	4.99	4.80	4.93	0.11
7	4.64	4.68	4.65	4.66	0.02
14	4.62	4.62	4.62	4.62	0.00
21	4.51	4.49	4.49	4.50	0.01
28	4.34	4.34	4.33	4.34	0.01

Hasil uji evaluasi viskositas stabilitas suhu ruang F3

Hari ke-	Replikasi Viskositas (cPs)			Rata-rata	STD
	1	2	3		
0	12.80	13.20	13.60	13.20	0.40
7	15.60	14.40	14.00	14.67	0.83
14	14.40	13.20	12.80	13.47	0.83
21	15.60	14.40	14.00	14.67	0.83
28	13.20	15.20	14.80	14.40	1.06

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Hari ke-	5.824	4	1.456	2.167	0.147
Residuals	6.720	10	0.672		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

Hari ke-	Mean	SD	N
0	13.200	0.400	3
14	13.467	0.833	3
21	14.667	0.833	3
28	14.400	1.058	3
7	14.667	0.833	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
1.032	4.000	10.000	0.437

Post Hoc Tests

Standard

Post Hoc Comparisons - Hari ke-

		Mean Difference	SE	t	p _{tukey}	p _{bonf}
0	7	-1.467	0.669	-2.191	0.258	0.532
	14	-0.267	0.669	-0.398	0.994	1.000
	21	-1.467	0.669	-2.191	0.258	0.532
	28	-1.200	0.669	-1.793	0.427	1.000
7	14	1.200	0.669	1.793	0.427	1.000
	21	0.000	0.669	0.000	1.000	1.000
	28	0.267	0.669	0.398	0.994	1.000
14	21	-1.200	0.669	-1.793	0.427	1.000
	28	-0.933	0.669	-1.394	0.644	1.000
21	28	0.267	0.669	0.398	0.994	1.000

Note. P-value adjusted for comparing a family of 5

Lampiran 16. Hasil uji stabilitas suhu ruang F4

Hasil uji evaluasi Ph stabilitas suhu ruang F4

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	8.91	8.99	8.95	8.95	0.04
7	8.48	8.49	8.49	8.49	0.01
14	8.52	8.52	8.52	8.52	0.00
21	8.49	8.49	8.49	8.49	0.00
28	8.39	8.40	8.40	8.40	0.01

Hasil uji evaluasi viskositas stabilitas suhu ruang F4

Hari ke-	Replikasi			Rata-rata	STD
	1	2	3		
0	11.00	12.40	11.20	11.53	0.76
7	11.60	11.20	12.40	11.73	0.61
14	11.20	10.40	10.20	10.60	0.53
21	12.00	12.40	12.00	12.13	0.23
28	11.20	10.80	10.80	10.93	0.23

ANOVA

ANOVA - Viskositas

Cases	Sum of Squares	df	Mean Square	F	p
Hari ke-	4.571	4	1.143	4.285	0.028
Residuals	2.667	10	0.267		

Note. Type III Sum of Squares

Descriptives

Descriptives - Viskositas

Hari ke-	Mean	SD	N
0	11.533	0.757	3
14	10.600	0.529	3
21	12.133	0.231	3
28	10.933	0.231	3
7	11.733	0.611	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
2.279	4.000	10.000	0.133

Post Hoc Tests

Standard

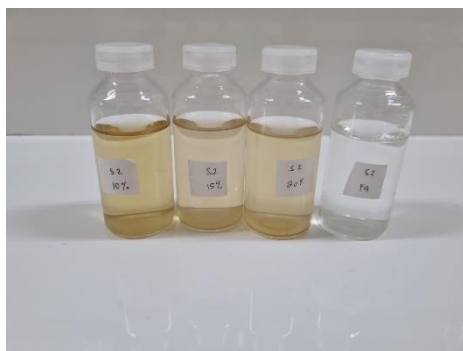
Post Hoc Comparisons - Hari ke-

		Mean Difference	SE	t	p _{tukey}	p _{bonf}
0	7	-0.200	0.422	-0.474	0.988	1.000
	14	0.933	0.422	2.214	0.250	0.512
	21	-0.600	0.422	-1.423	0.628	1.000
	28	0.600	0.422	1.423	0.628	1.000
7	14	1.133	0.422	2.688	0.126	0.228
	21	-0.400	0.422	-0.949	0.871	1.000
	28	0.800	0.422	1.897	0.377	0.870
14	21	-1.533	0.422	-3.637	0.029	0.046
	28	-0.333	0.422	-0.791	0.928	1.000
21	28	1.200	0.422	2.846	0.099	0.174

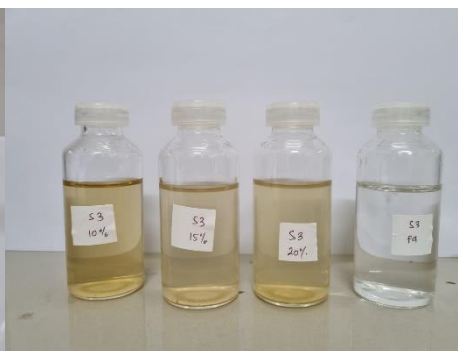
Note. P-value adjusted for comparing a family of 5

Lampiran 17. Hasil pengamatan stabilitas suhu ruang dan cycling test

Gambar hasil pengamatan organoleptik dan homogenitas selama 6 siklus (12hari)



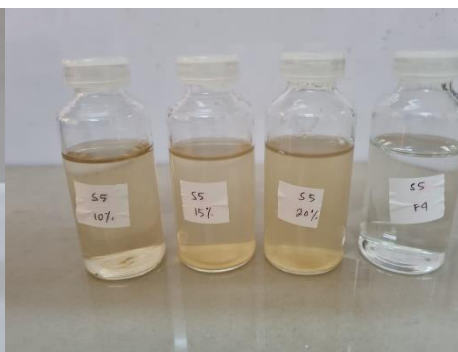
Siklus 1



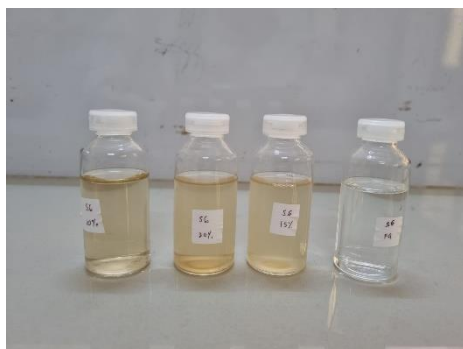
Siklus 2



Siklus 3



Siklus 4



Siklus 5



Siklus 6

Tabel hasil pengamatan uji organoleptik cycling test

Siklus	Organoleptik			
	Aroma			
	F1	F2	F3	F4
1	Asam	Asam	Kunyit dan Asam	Tidak beraroma
2	Asam	Asam	Kunyit dan Asam	Tidak beraroma
3	Asam	Asam	Kunyit dan Asam	Tidak beraroma
4	Asam	Asam	Kunyit dan Asam	Tidak beraroma
5	Asam	Asam	Kunyit dan Asam	Tidak beraroma
6	Asam	Asam	Kunyit dan Asam	Tidak beraroma

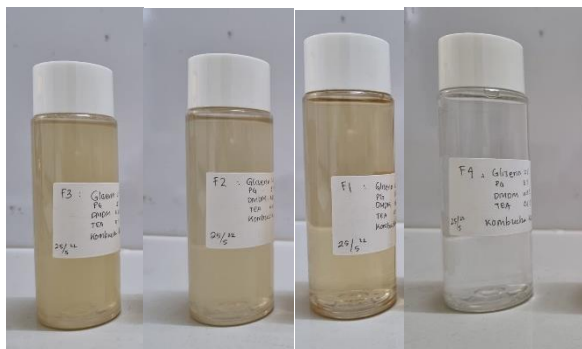
Siklus	Organoleptik			
	Warna			
	F1	F2	F3	F4
1	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna
2	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna
3	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna
4	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna
5	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna
6	Kuning transparan	Bening sedikit keruh	Kuning keruh	Bening tidak berwarna

Siklus	Organoleptik			
	Tekstur			
	F1	F2	F3	F4
1	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
2	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
3	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
4	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
5	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
6	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket

Tabel hasil pengamatan uji homogenitas cycling test

Siklus	Homogenitas			
	F1	F2	F3	F4
1	Homogen	Homogen	Homogen	Homogen
2	Homogen	Homogen	Homogen	Homogen
3	Homogen	Homogen	Homogen	Homogen
4	Homogen	Homogen	Homogen	Homogen
5	Homogen	Homogen	Homogen	Homogen
6	Homogen	Homogen	Homogen	Homogen

Gambar hasil pengamatan organoleptik dan homogenitas stabilitas suhu ruang selama 28 hari



Hari ke-0



Hari ke-7



Hari ke-14



Hari ke -21



Hari ke-28

Tabel hasil pengamatan uji organoleptik selama penyimpanan suhu ruang

Hari ke-	Organoleptis Aroma			
	F1	F2	F3	F4
0	Asam	Asam	Kunyit dan Asam	Tidak beraroma
7	Asam	Asam	Kunyit dan Asam	Tidak beraroma
14	Asam	Asam	Kunyit dan Asam	Tidak beraroma
21	Asam	Asam	Kunyit dan Asam	Tidak beraroma
28	Asam	Asam	Kunyit dan Asam	Tidak beraroma

Hari ke-	Organoleptis Warna			
	F1	F2	F3	F4
0	Kuning transparan	Kuning sedikit keruh	Kuning keruh	Bening tidak berwarna
7	Kuning sedikit keruh	Kuning sedikit keruh	Kuning keruh	Bening tidak berwarna
14	Kuning sedikit keruh	Kuning sedikit keruh	Kuning keruh	Bening tidak berwarna
21	Kuning sedikit keruh	Kuning sedikit keruh	Kuning keruh	Bening tidak berwarna
28	Kuning sedikit keruh	Kuning sedikit keruh	Kuning keruh	Bening tidak berwarna

Hari ke-	Organoleptis Tekstur			
	F1	F2	F3	F4
0	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
7	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
14	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
21	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket
28	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket	Cair dan tidak lengket

Tabel hasil pengamatan uji homogenitas selama penyimpanan suhu ruang

Hari ke-	Homogenitas			
	F1	F2	F3	F4
0	Homogen	Homogen	Homogen	Homogen
7	Homogen	Homogen	Homogen	Homogen
14	Homogen	Homogen	Homogen	Homogen
21	Homogen	Homogen	Homogen	Homogen
28	Homogen	Homogen	Homogen	Homogen

Lampiran 18. Hasil uji pH pada cycling test F1

Siklus	Replikasi pH			Rata-rata	STD
	1	2	3		
1	7.31	7.33	7.33	7.32	0.01
2	7.16	7.13	7.15	7.15	0.02
3	7.06	7.08	7.07	7.07	0.01
4	5.36	5.35	5.34	5.35	0.01
5	5.34	5.33	5.34	5.34	0.01
6	5.22	5.21	5.20	5.21	0.01

ANOVA

ANOVA - pH

Cases	Sum of Squares	df	Mean Square	F	p
F1	16.061	5	3.212	27532.619	< .001
Residuals	0.001	12	1.167e-4		

Note. Type III Sum of Squares

Descriptives

Descriptives - pH

F1	Mean	SD	N
Siklus 1	7.323	0.012	3
Siklus 2	7.147	0.015	3
Siklus 3	7.070	0.010	3
Siklus 4	5.350	0.010	3
Siklus 5	5.337	0.006	3
Siklus 6	5.210	0.010	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
0.569	5.000	12.000	0.723

Post Hoc Tests

Standard

Post Hoc Comparisons - F1

			95% CI for Mean Difference		SE	t	P _{tukey}	P _{bonf}
	Mean Difference		Lower	Upper				
Siklus 1 Siklus 2	0.177		0.147	0.206	0.009	20.032	< .001	< .001
	Siklus 3	0.253	0.224	0.283	0.009	28.725	< .001	< .001
	Siklus 4	1.973	1.944	2.003	0.009	223.755	< .001	< .001
	Siklus 5	1.987	1.957	2.016	0.009	225.267	< .001	< .001
	Siklus 6	2.113	2.084	2.143	0.009	239.629	< .001	< .001
Siklus 2 Siklus 3	0.077		0.047	0.106	0.009	8.693	< .001	< .001
	Siklus 4	1.797	1.767	1.826	0.009	203.723	< .001	< .001
	Siklus 5	1.810	1.780	1.840	0.009	205.235	< .001	< .001
	Siklus 6	1.937	1.907	1.966	0.009	219.597	< .001	< .001
Siklus 3 Siklus 4	1.720		1.690	1.750	0.009	195.030	< .001	< .001
	Siklus 5	1.733	1.704	1.763	0.009	196.542	< .001	< .001
	Siklus 6	1.860	1.830	1.890	0.009	210.904	< .001	< .001
Siklus 4 Siklus 5	0.013		-0.016	0.043	0.009	1.512	0.664	1.000
	Siklus 6	0.140	0.110	0.170	0.009	15.875	< .001	< .001
Siklus 5 Siklus 6	0.127		0.097	0.156	0.009	14.363	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 6 estimates (confidence intervals corrected using the tukey method).

Lampiran 19. Hasil uji pH pada cycling test F2

Siklus	Replikasi pH			Rata-rata	STD
	1	2	3		
1	5.05	5.04	5.04	5.04	0.01
2	5.04	5.03	5.03	5.03	0.01
3	4.87	4.87	4.88	4.87	0.01
4	4.78	4.77	4.77	4.77	0.01
5	4.73	4.72	4.72	4.72	0.01
6	4.67	4.67	4.66	4.67	0.01

ANOVA

ANOVA - pH

Cases	Sum of Squares	df	Mean Square	F	p
F2	0.381	5	0.076	2286.667	< .001
Residuals	4.000e-4	12	3.333e-5		

Note. Type III Sum of Squares

Descriptives

Descriptives - pH

F2	Mean	SD	N
Siklus 1	5.043	0.006	3
Siklus 2	5.033	0.006	3
Siklus 3	4.873	0.006	3
Siklus 4	4.773	0.006	3
Siklus 5	4.723	0.006	3
Siklus 6	4.667	0.006	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
8.350e-26	5.000	12.000	1.000

Post Hoc Tests

Standard

Post Hoc Comparisons - F2

			95% CI for Mean Difference		SE	t	P_{tukey}	P_{bonf}
	Mean Difference		Lower	Upper				
Siklus 1	Siklus 2	0.010	-0.006	0.026	0.005	2.121	0.339	0.831
	Siklus 3	0.170	0.154	0.186	0.005	36.062	< .001	< .001
	Siklus 4	0.270	0.254	0.286	0.005	57.276	< .001	< .001
	Siklus 5	0.320	0.304	0.336	0.005	67.882	< .001	< .001
	Siklus 6	0.377	0.361	0.393	0.005	79.903	< .001	< .001
Siklus 2	Siklus 3	0.160	0.144	0.176	0.005	33.941	< .001	< .001
	Siklus 4	0.260	0.244	0.276	0.005	55.154	< .001	< .001
	Siklus 5	0.310	0.294	0.326	0.005	65.761	< .001	< .001
	Siklus 6	0.367	0.351	0.383	0.005	77.782	< .001	< .001
Siklus 3	Siklus 4	0.100	0.084	0.116	0.005	21.213	< .001	< .001
	Siklus 5	0.150	0.134	0.166	0.005	31.820	< .001	< .001
	Siklus 6	0.207	0.191	0.223	0.005	43.841	< .001	< .001
Siklus 4	Siklus 5	0.050	0.034	0.066	0.005	10.607	< .001	< .001
	Siklus 6	0.107	0.091	0.123	0.005	22.627	< .001	< .001
Siklus 5	Siklus 6	0.057	0.041	0.073	0.005	12.021	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 6 estimates (confidence intervals corrected using the tukey method).

Lampiran 20. Hasil uji pH pada cycling test F3

Siklus	Replikasi pH			Rata-rata	STD
	1	2	3		
1	4.64	4.68	4.65	4.66	0.02
2	4.58	4.59	4.58	4.58	0.01
3	4.43	4.44	4.43	4.43	0.01
4	4.60	4.59	4.59	4.59	0.01
5	4.63	4.62	4.63	4.63	0.01
6	4.57	4.57	4.58	4.57	0.01

ANOVA

ANOVA - pH

Cases	Sum of Squares	df	Mean Square	F	p
F3	0.089	5	0.018	178.622	< .001
Residuals	0.001	12	1.000e-4		

Note. Type III Sum of Squares

Descriptives

Descriptives - pH

F3	Mean	SD	N
Siklus 1	4.657	0.021	3
Siklus 2	4.583	0.006	3
Siklus 3	4.433	0.006	3
Siklus 4	4.593	0.006	3
Siklus 5	4.627	0.006	3
Siklus 6	4.573	0.006	3

Assumption Checks

Test for Equality of Variances (Levene's)

F	df1	df2	p
4.167	5.000	12.000	0.020

Kruskal-Wallis Test

Kruskal-Wallis Test

Factor	Statistic	df	p
F3	16.367	5	0.006

Post Hoc Tests

Standard

Post Hoc Comparisons - F3

			95% CI for Mean Difference		SE	t	p _{tukey}	p _{bonf}
	Mean Difference		Lower	Upper				
Siklus 1 Siklus 2	0.073		0.046	0.101	0.008	8.981	< .001	< .001
	Siklus 3	0.223	0.196	0.251	0.008	27.353	< .001	< .001
	Siklus 4	0.063	0.036	0.091	0.008	7.757	< .001	< .001
	Siklus 5	0.030	0.003	0.057	0.008	3.674	0.029	0.048
	Siklus 6	0.083	0.056	0.111	0.008	10.206	< .001	< .001
Siklus 2 Siklus 3	0.150		0.123	0.177	0.008	18.371	< .001	< .001
	Siklus 4	-0.010	-0.037	0.017	0.008	-1.225	0.817	1.000
	Siklus 5	-0.043	-0.071	-0.016	0.008	-5.307	0.002	0.003
	Siklus 6	0.010	-0.017	0.037	0.008	1.225	0.817	1.000
Siklus 3 Siklus 4	-0.160		-0.187	-0.133	0.008	-19.596	< .001	< .001
	Siklus 5	-0.193	-0.221	-0.166	0.008	-23.678	< .001	< .001
	Siklus 6	-0.140	-0.167	-0.113	0.008	-17.146	< .001	< .001
Siklus 4 Siklus 5	-0.033		-0.061	-0.006	0.008	-4.082	0.015	0.023
	Siklus 6	0.020	-0.007	0.047	0.008	2.449	0.214	0.459
Siklus 5 Siklus 6	0.053		0.026	0.081	0.008	6.532	< .001	< .001

Note. P-value and confidence intervals adjusted for comparing a family of 6 estimates (confidence intervals corrected using the tukey method).

Lampiran 21. Hasil uji pH pada cycling test F4

Siklus	Replikasi pH			Rata-rata	STD
	1	2	3		
1	8.48	8.49	8.49	8.49	0.01
2	8.48	8.48	8.48	8.48	0.00
3	8.38	8.39	8.38	8.38	0.01
4	8.44	8.47	8.45	8.45	0.02
5	8.63	8.63	8.63	8.63	0.00
6	8.62	8.61	8.62	8.62	0.01

Lampiran 22. Hasil Uji iritasi

Sukarelawan	Jam	Reaksi		
		Kemerahan	Gatal	Bengkak
1	1	-	-	-
	24	-	-	-
	48	-	-	-
2	1	-	-	-
	24	-	-	-
	48	-	-	-
3	1	-	-	-
	24	-	-	-
	48	-	-	-
4	1	-	-	-
	24	-	-	-
	48	-	-	-
5	1	-	-	-
	24	-	-	-
	48	-	-	-
6	1	-	-	-
	24	-	-	-
	48	-	-	-
7	1	-	-	-
	24	-	-	-
	48	-	-	-
8	1	-	-	-
	24	-	-	-
	48	-	-	-
9	1	-	-	-
	24	-	-	-
	48	-	-	-
10	1	-	-	-
	24	-	-	-
	48	-	-	-
11	1	-	-	-
	24	-	-	-
	48	-	-	-
12	1	-	-	-

	24	-	-	-
	48	-	-	-
	1	-	-	-
	24	-	-	-
13	48	-	-	-
	1	-	-	-
	24	-	-	-
14	48	-	-	-
	1	-	-	-
	24	-	-	-
15	48	-	-	-
	1	-	-	-
	24	-	-	-
16	48	-	-	-
	1	-	-	-
	24	-	-	-
17	48	-	-	-
	1	-	-	-
	24	-	-	-
18	48	-	-	-
	1	-	-	-
	24	-	-	-
19	48	-	-	-
	1	-	-	-
	24	-	-	-
20	48	-	-	-

Keterangan :

(+) : terjadi reaksi

(-) : tidak terjadi reaksi



Pemakaian toner kombucha kunyit



Setelah pemakaian

Lampiran 23. Hasil uji hedonik

Aroma

Panelis	F1	F2	F3	F4
1	3	3	3	3
2	3	3	2	4
3	2	2	2	4
4	3	2	5	5
5	5	4	4	5
6	2	2	2	5
7	4	4	3	3
8	4	3	3	1
9	4	4	3	2
10	4	4	4	3
11	3	3	3	3
12	3	3	2	3
13	4	3	3	4
14	5	4	4	5
15	2	2	2	2
16	5	4	3	5
17	5	5	5	5
18	4	4	4	4
19	3	3	3	3
20	4	4	3	3
Mean	3,6	3,3	3,2	3,6

Warna

Panelis	F1	F2	F3	F4
1	5	4	4	5

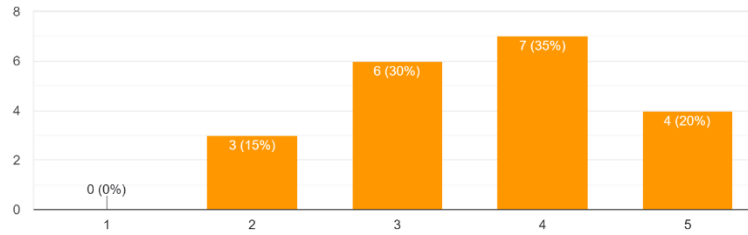
2	4	2	2	4
3	5	4	2	5
4	3	2	5	5
5	4	4	4	5
6	5	2	2	2
7	3	3	3	3
8	4	3	2	5
9	5	3	2	4
10	5	4	4	3
11	5	3	3	2
12	5	3	2	1
13	4	3	3	4
14	4	4	4	5
15	4	4	4	4
16	4	4	4	5
17	5	5	5	5
18	4	4	4	4
19	4	4	4	5
20	5	4	4	4
Mean	4,4	3,45	3,35	4,0

Tekstur

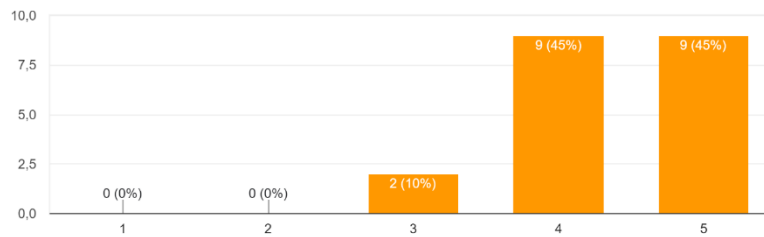
Panelis	F1	F2	F3	F4
1	5	5	5	5
2	3	4	4	4
3	4	4	4	3
4	5	5	5	5
5	4	4	4	5
6	3	4	4	4
7	3	3	3	3
8	5	4	4	4
9	3	4	3	2
10	5	4	4	3
11	3	5	5	2
12	3	4	3	2
13	4	4	4	4
14	5	5	5	5
15	4	4	4	4
16	4	4	4	4
17	5	5	5	5
18	4	4	4	4
19	5	3	3	3
20	5	5	5	5
Mean	4,1	4,2	4,1	3,8

Formula 1 (Kombucha kunyit 10%)

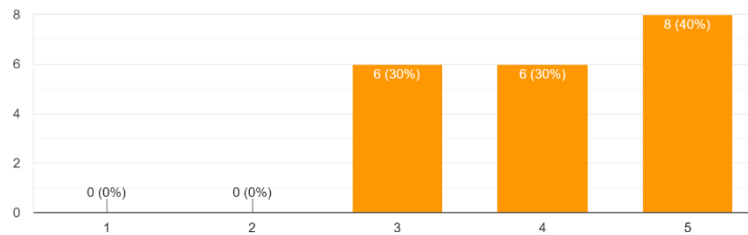
Apakah anda menyukai aroma toner wajah kombucha kunyit?
20 jawaban



Apakah anda menyukai warna toner wajah kombucha kunyit?
20 jawaban



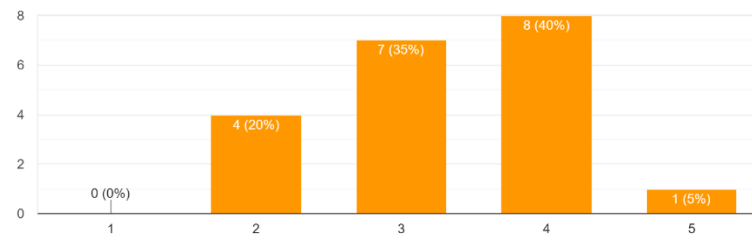
Apakah anda menyukai tekstur toner wajah kombucha kunyit?
20 jawaban



Formula 2 (Kombucha kunyit 15%)

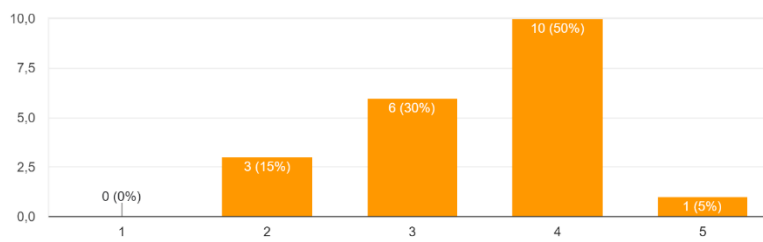
Apakah anda menyukai aroma toner wajah kombucha kunyit?

20 jawaban



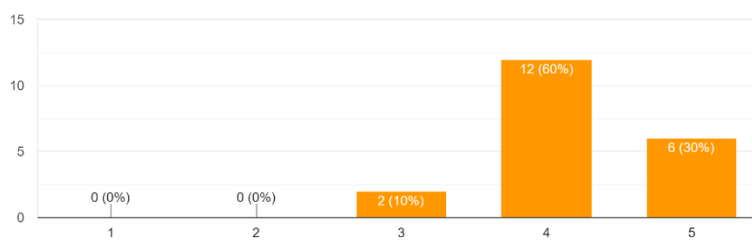
Apakah anda menyukai warna toner wajah kombucha kunyit

20 jawaban



Apakah anda menyukai tekstur toner wajah kombucha kunyit

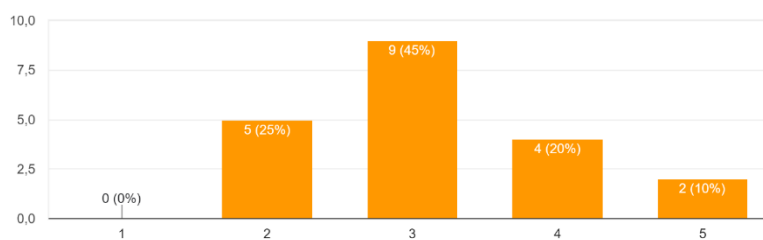
20 jawaban



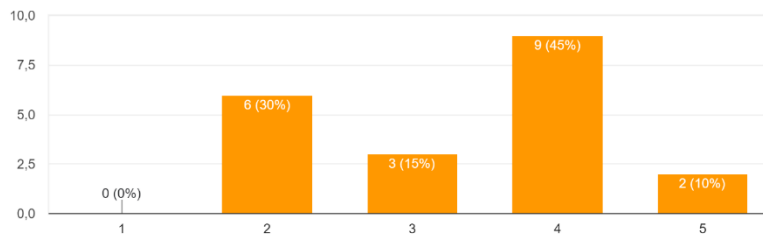
Formula 3 (Kombucha kunyit 20%)

Apakah anda menyukai aroma toner kombucha kunyit

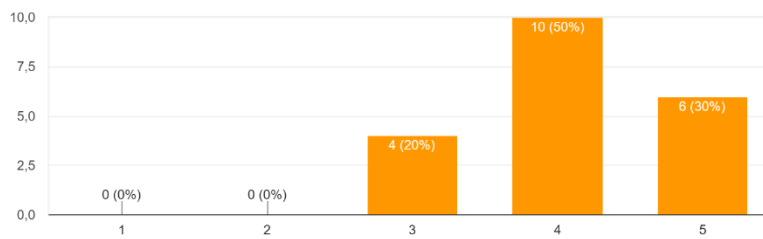
20 jawaban



Apakah anda menyukai warna toner kombucha kunyit
20 jawaban

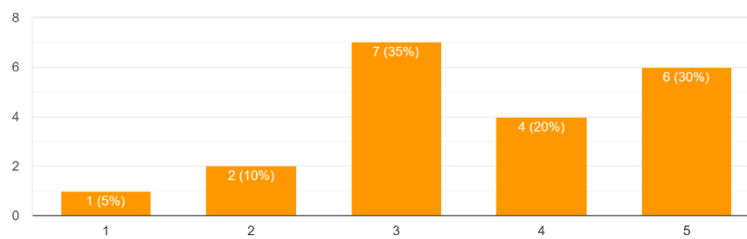


Apakah anda menyukai tekstur toner kombucha kunyit
20 jawaban

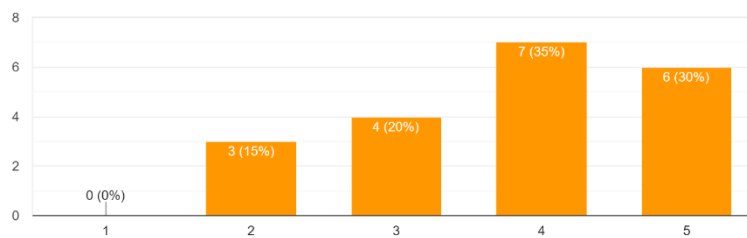


Formula 4 (Kombucha kunyit 0%)

Apakah anda menyukai aroma toner kombucha kunyit?
20 jawaban

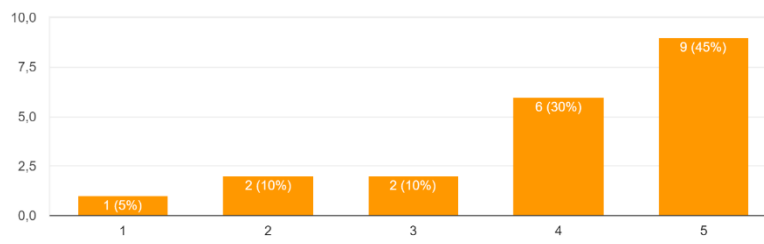


Apakah anda menyukai tekstur toner kombucha kunyit?
20 jawaban



Apakah anda menyukai warna toner kombucha kunyit?

20 jawaban



Lampiran 24. Hasil uji antibakteri toner wajah kombucha kunyit

Tabel hasil diameter hambat toner wajah kombucha kunyit

Perlakuan	Diameter hambat (mm)		
	6	6	7
F1	Rata-rata = 6.33		
	6	6	6
F2	Rata-rata = 6		
	7	7	8
F3	Rata-rata = 7.33		
	6	7	6
F4	Rata-rata = 6.33		
	14	11	8
Kontrol +	Rata-rata = 11		



Gambar hasil pengamatan antibakteri toner wajah kombucha kunyit

Hasil pengolahan statistik diameter hambat toner wajah kombucha kunyit

Descriptives

Diameter hambat (mm)

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
F1	3	6.3333	.57735	.33333	4.8991	7.7676	6.00	7.00
F2	3	6.0000	.00000	.00000	6.0000	6.0000	6.00	6.00
F3	3	7.3333	.57735	.33333	5.8991	8.7676	7.00	8.00
F4	3	6.3333	.57735	.33333	4.8991	7.7676	6.00	7.00
Kontrol +	3	11.0000	3.00000	1.73205	3.5476	18.4524	8.00	14.00
Total	15	7.4000	2.26148	.58391	6.1476	8.6524	6.00	14.00

Test of Homogeneity of Variances

Diameter hambat (mm)

Levene Statistic	df1	df2	Sig.
2.857	4	10	.081

ANOVA

Diameter hambat (mm)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51.600	4	12.900	6.450	.008
Within Groups	20.000	10	2.000		
Total	71.600	14			

Multiple Comparisons

Dependent Variable: Diameter hambat (mm)

	(I)	(J)	Mean	Std.	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	F1	F2	.33333	1.15470	.998	-3.4669	4.1335
		F3	-1.00000	1.15470	.903	-4.8002	2.8002
		F4	.00000	1.15470	1.000	-3.8002	3.8002
		Kontrol +	-4.66667*	1.15470	.016	-8.4669	-.8665
	F2	F1	-.33333	1.15470	.998	-4.1335	3.4669
		F3	-1.33333	1.15470	.775	-5.1335	2.4669
		F4	-.33333	1.15470	.998	-4.1335	3.4669
		Kontrol +	-5.00000*	1.15470	.010	-8.8002	-1.1998
	F3	F1	1.00000	1.15470	.903	-2.8002	4.8002
		F2	1.33333	1.15470	.775	-2.4669	5.1335
		F4	1.00000	1.15470	.903	-2.8002	4.8002
		Kontrol +	-3.66667	1.15470	.060	-7.4669	.1335
	F4	F1	.00000	1.15470	1.000	-3.8002	3.8002
		F2	.33333	1.15470	.998	-3.4669	4.1335
		F3	-1.00000	1.15470	.903	-4.8002	2.8002
		Kontrol +	-4.66667*	1.15470	.016	-8.4669	-.8665
	Kontrol +	F1	4.66667*	1.15470	.016	.8665	8.4669
		F2	5.00000*	1.15470	.010	1.1998	8.8002
		F3	3.66667	1.15470	.060	-.1335	7.4669
		F4	4.66667*	1.15470	.016	.8665	8.4669
Bonferroni	F1	F2	.33333	1.15470	1.000	-3.8021	4.4688
		F3	-1.00000	1.15470	1.000	-5.1355	3.1355

	F4	.00000	1.15470	1.000	-4.1355	4.1355
	Kontrol +	-4.66667*	1.15470	.024	-8.8021	-.5312
	F1	-.33333	1.15470	1.000	-4.4688	3.8021
F2	F3	-1.33333	1.15470	1.000	-5.4688	2.8021
	F4	-.33333	1.15470	1.000	-4.4688	3.8021
	Kontrol +	-5.00000*	1.15470	.015	-9.1355	-.8645
	F1	1.00000	1.15470	1.000	-3.1355	5.1355
	F2	1.33333	1.15470	1.000	-2.8021	5.4688
F3	F4	1.00000	1.15470	1.000	-3.1355	5.1355
	Kontrol +	-3.66667	1.15470	.099	-7.8021	.4688
	F1	.00000	1.15470	1.000	-4.1355	4.1355
	F2	.33333	1.15470	1.000	-3.8021	4.4688
F4	F3	-1.00000	1.15470	1.000	-5.1355	3.1355
	Kontrol +	-4.66667*	1.15470	.024	-8.8021	-.5312
	F1	4.66667*	1.15470	.024	.5312	8.8021
	F2	5.00000*	1.15470	.015	.8645	9.1355
Kontrol +	F3	3.66667	1.15470	.099	-.4688	7.8021
	F4	4.66667*	1.15470	.024	.5312	8.8021

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

Lampiran 25. Dokumentasi penelitian



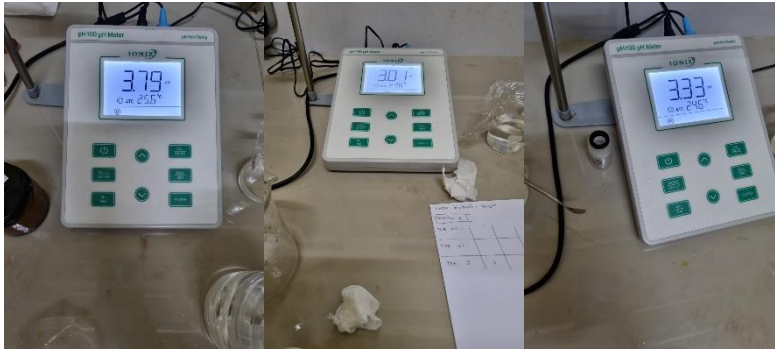
Fermentasi kombucha



Sterilisasi



Pembuatan media MHA



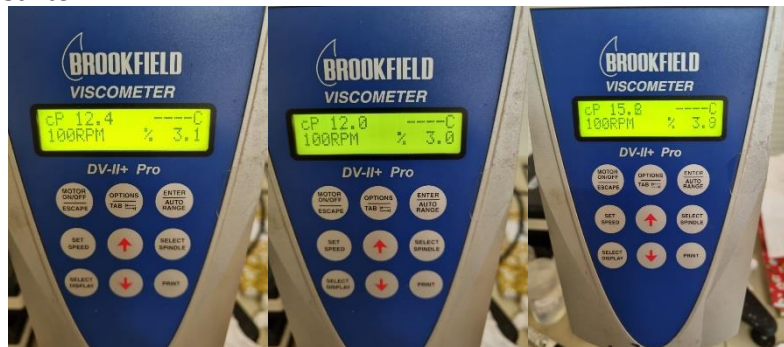
Evaluasi hasil fermentasi



Pengujian antibakteri



Formulasi sediaan



Evaluasi uji viskositas



Evaluasi sediaan uji pH



Evaluasi sediaan uji viskositas