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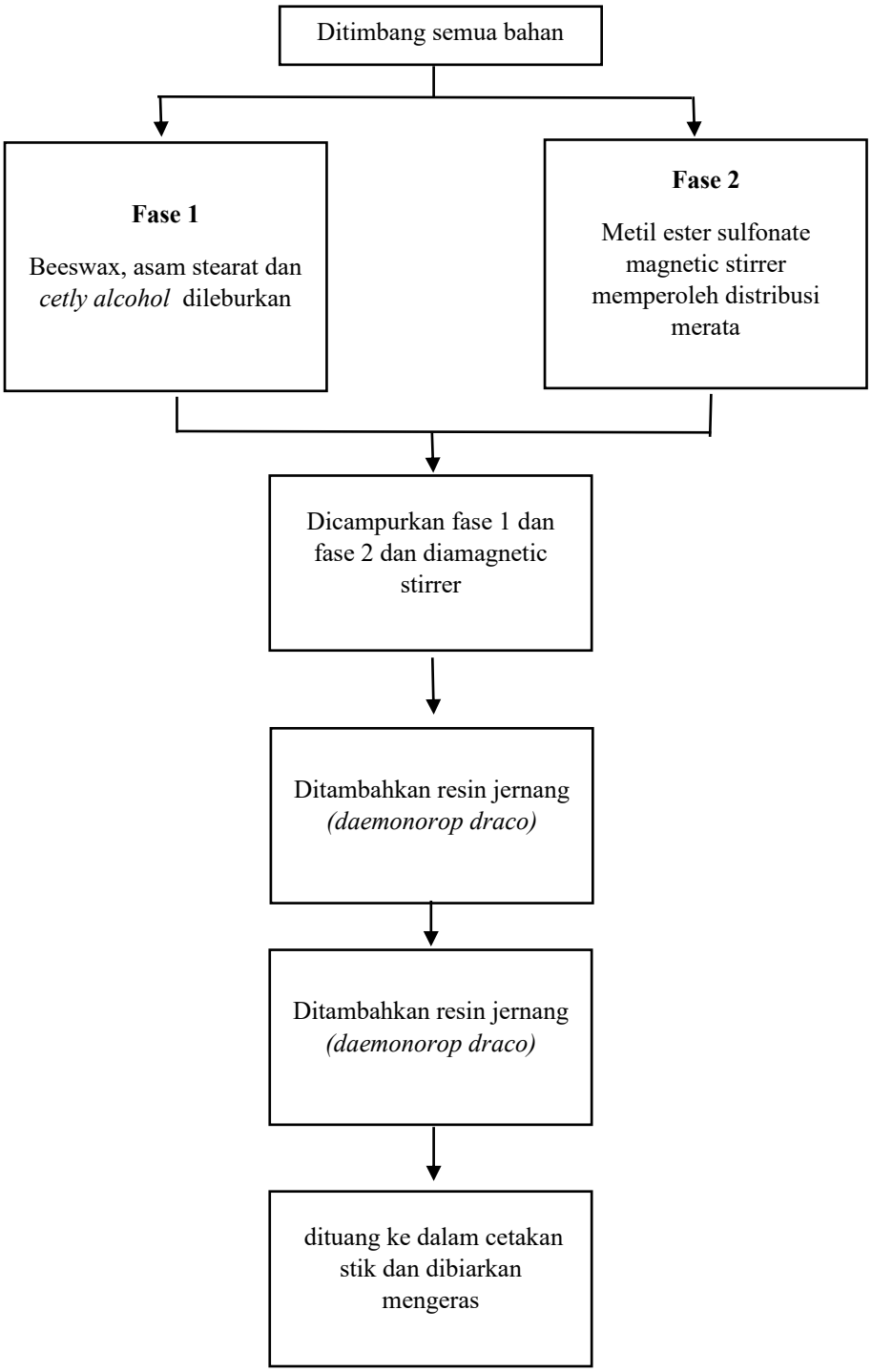
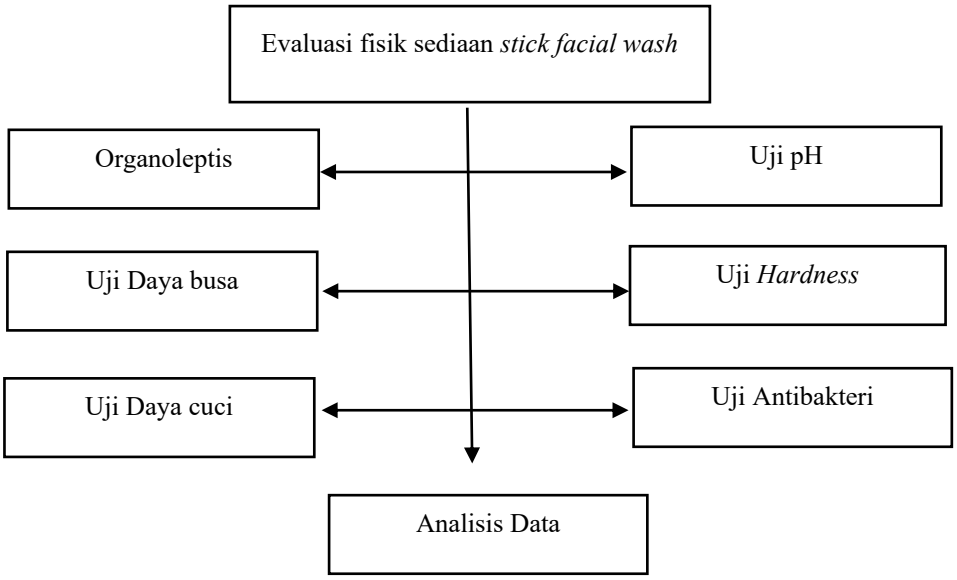
LAMPIRAN

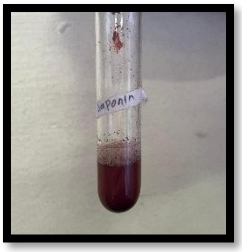
Lampiran 1 Skema Pembuatan *stick facial wash*



Lanjutan….


Evaluasi fisik sediaan *stick facial wash*
Organoleptis
Uji pH
Uji Daya busa
Uji *Hardness*
Uji Daya cuci
Uji Antibakteri
Analisis Data

Lampiran 2 Hasil Skrining Fitokimia

Pemeriksaan	Reagen	Hasil uji	Keterangan	Gambar
Alkaloid	Pareaksi Mayer	(-)	Terdapat warna Keruh mengendap	
Uji Flavonoid	Serbuk Mg, HCl pekat,	(+)	Terdapat warna jingga/kuning	
Uji Saponin	Aquadest Panas dan HCl pekat	(+)	Terbentuk busa	
Uji Tanin	$FeCl_3$	(+)	Berwarna biru/hijau kehitaman	
Terpenoid Steroid	H_2SO_4 dan Asetan Anhidrat	(-)	Terdapat warna Ungu→ (steroid) Terdapat warna coklat dioemrukaan (terpenoid)	

Lampiran 3 Perhitungan Formulasi Sediaan *Stick Facial Wash*

Perhitungan formulasi sediaan *stick facial wash* dengan bobot 15gr dilebihkan 10% = 16,5gr

1. Fomulasi 1 (2% Ekstrak Resin Jernang)

Metil ester sulfornat	$\frac{20}{100}\ x\ 16{,}5\ g = \ 3{,}3g$
Resin jernang	$\frac{2}{100}\ x\ 16{,}5\ g = 0{,}33g$
Beeswax	$\frac{16{,}67}{100}\ x\ 16{,}5\ g = 2{,}7g$
Asam stearat	$\frac{6{,}67}{100}\ x\ 16{,}5\ g = 1{,}1g$
Cetyl alcohol	$\frac{3}{100}\ x\ 16{,}5\ g = 0{,}495g$
Gliserin	$\frac{51{,}66}{100}\ x\ 16{,}5\ g = 8{,}5g$

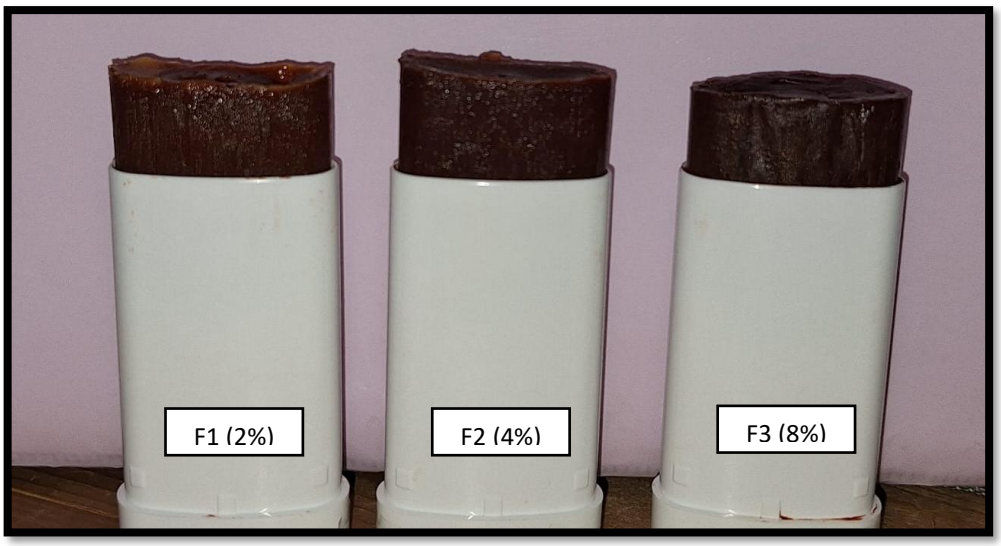
2. Formulasi 2 (4% Ekstrak Resin Jernang)

Metil ester sulfornat	$\frac{30}{100}\ x\ 16{,}5\ g = 4{,}95g$
Resin jernang	$\frac{4}{100}\ x\ 16{,}5\ g = 0{,}66g$
Beeswax	$\frac{16{,}67}{100}\ x\ 16{,}5\ g = 2{,}7g$
Asam stearat	$\frac{6{,}67}{100}\ x\ 16{,}5\ g = 1{,}1g$
Cetyl alcohol	$\frac{3}{100}\ x\ 16{,}5\ g = 0{,}495g$
Gliserin	$\frac{39{,}66}{100}\ x\ 16{,}5\ g = 6{,}5g$

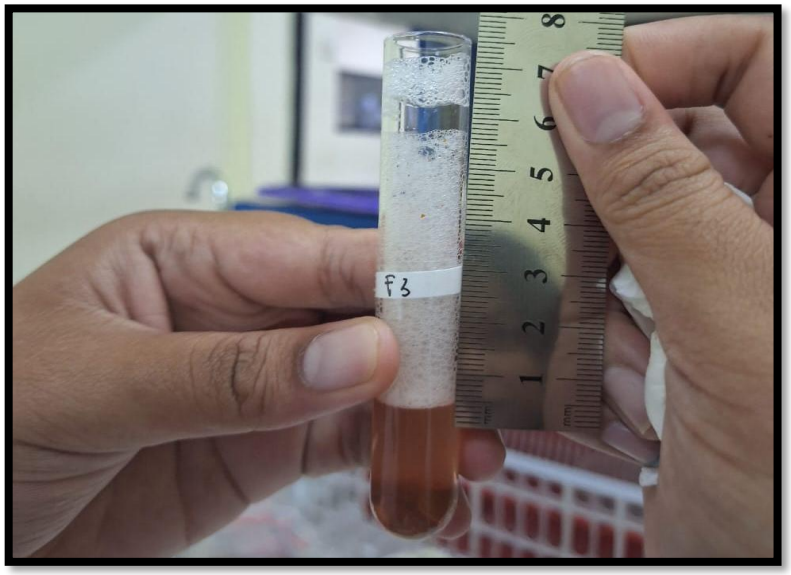
3. Formulasi 3 (8% ekstrak resin jernang)

Metil ester sulfornat	$\frac{40}{100}\ x\ 16{,}5\ g = \ 6{,}6g$
Resin jernang	$\frac{8}{100}\ x\ 16{,}5\ g = 1{,}3g$
Beeswax	$\frac{16{,}67}{100}\ x\ 16{,}5\ g = 2{,}7g$
Asam stearat	$\frac{6{,}67}{100}\ x\ 16{,}5\ g = 1{,}1g$
Cetyl alcohol	$\frac{3}{100}\ x\ 16{,}5\ g = 0{,}495g$
Gliserin	$\frac{25{,}67}{100}\ x\ 16{,}5\ g = 4{,}2g$

Lampiran 4 Hasil Evaluasi Uji Organoleptis

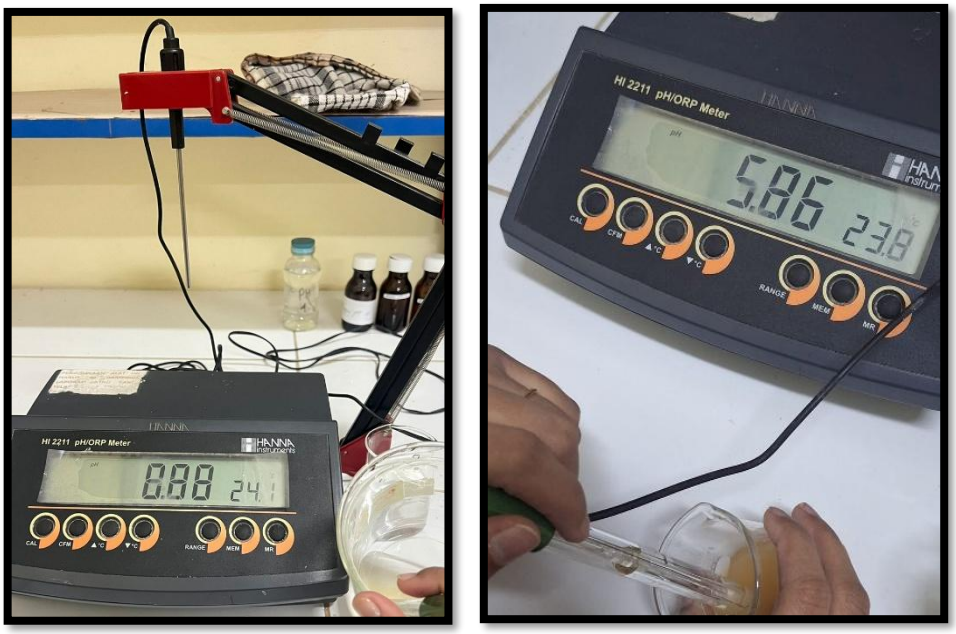


Lampiran 5 Hasil Evaluasi Uji Daya Busa



Lampiran 6 Hasil Evaluasi Uji Daya Cuci

Lampiran 7 Hasil Evaluasi Uji Daya Cuci



Lampiran 8 Hasil Evaluasi Uji Kekerasan

Lampiran 9 Perhitungan Media Agar (NA)

1. **Perhitungan Media Cawan Petri**

$$\frac{\textbf{εCP X ε yang dituang X 20gr}}{\textbf{1000}}$$

$$\frac{\textbf{3 X 15ml X 20gr}}{\textbf{1000}} = \mathbf{1,26}\ \boldsymbol{g}$$

2. **Perthitungan Aquadest**

Jumlah dituang x jumlah cawan

15ml x 3 = 45ml

Lampiran 10 Perhitungan Ekstrak Resin jernang (*Daemonorop draco*) dalam 20%

20% $= \frac{\mathbf{b}}{\mathbf{5ml}} \mathbf{x\ 100\%}$

20% $= \frac{\mathbf{100\ \%\ x\ b}}{\mathbf{5ml}}$

100% X b = 20 % x 5ml

100 X b = 100

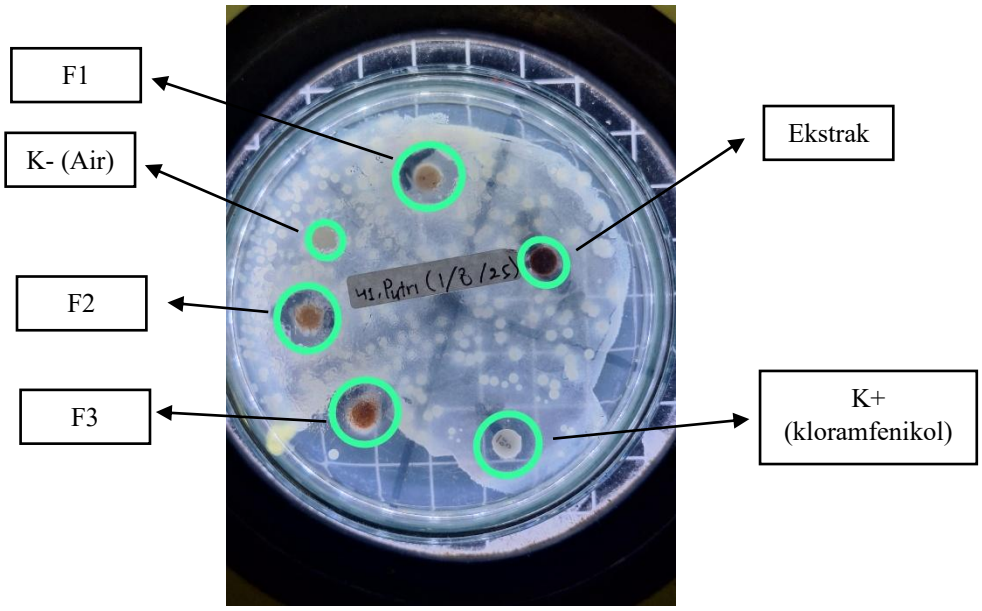
b $= \frac{\mathbf{100}}{\mathbf{100}} = \mathbf{1\ g}$

Lampiran 11 Perhitungan kandungan sediaan Ekstrak Resin Jernang (*Daemnorop draco*) dalam 1 paperdisk

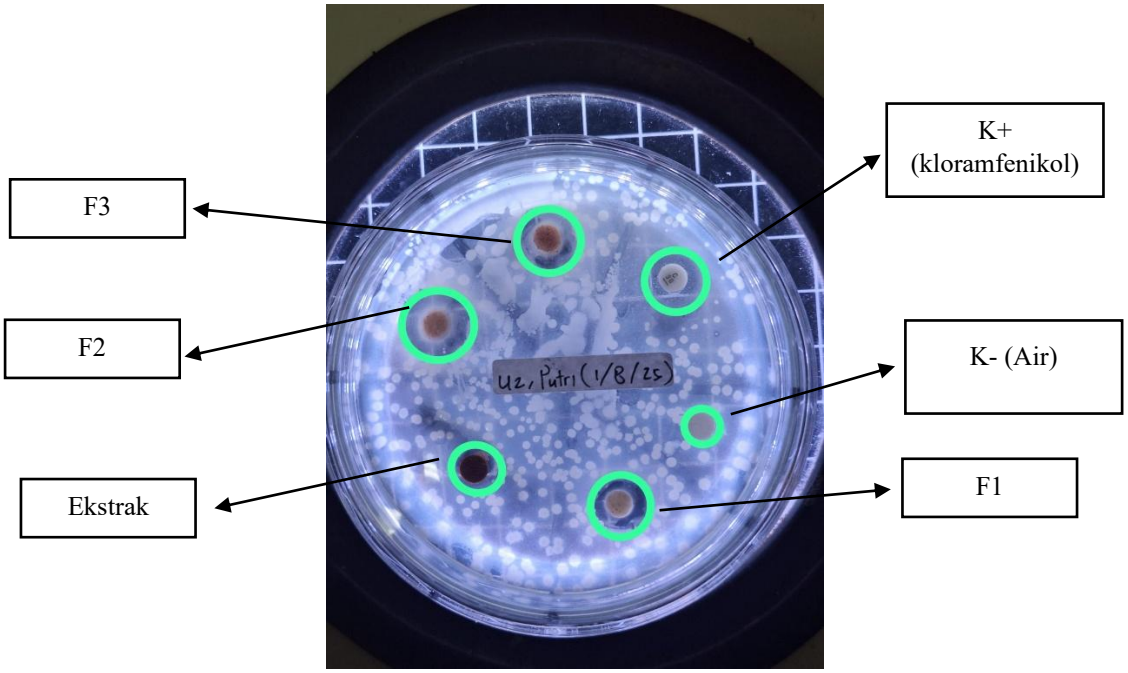
F1 $= \frac{\mathbf{0,3}}{\mathbf{100}}$ x 15 $= \frac{\mathbf{0,045}}{\mathbf{15}}$ = 0,003 gr = $\frac{\mathbf{3mg}}{\mathbf{5ml}}$ $= \frac{\mathbf{3000}}{\mathbf{5000 : 20 = 250}}$ $= = \frac{\mathbf{3000}}{\mathbf{250}} = \mathbf{12}\ \boldsymbol{ug}$
F2 $= \frac{\mathbf{0,6}}{\mathbf{100}}$ x 15 $= \frac{\mathbf{0,09}}{\mathbf{15}}$ = 0,006 gr = $\frac{\mathbf{6mg}}{\mathbf{5ml}}$ $= \frac{\mathbf{6000}}{\mathbf{5000 : 20 = 250}}$ $= = \frac{\mathbf{6000}}{\mathbf{250}} = \mathbf{24}\ \boldsymbol{ug}$
F3 $= \frac{\mathbf{1,2}}{\mathbf{100}}$ x 15 $= \frac{\mathbf{0,18}}{\mathbf{15}}$ = 0,012 gr = $\frac{\mathbf{12mg}}{\mathbf{5ml}}$ $= \frac{\mathbf{12000}}{\mathbf{5000 : 20 = 250}}$

$$= = \frac{3000}{250} = 48\ ug$$

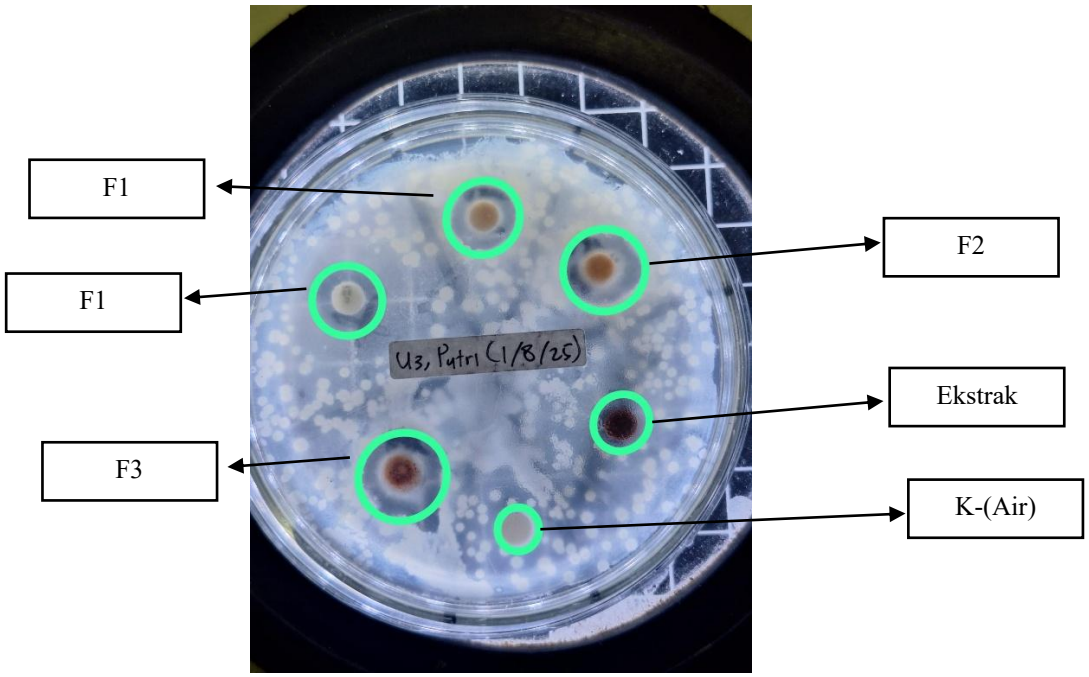
Lampiran 12 Hasil Uji Antibakteri Alami



Pengujian ke-1



Pengujian ke-2



Pengujian ke-3

Lampiran 13 Analisis Data Hasil Statistik Uji Evaluasi Daya Busa

1. **Uji Normalitas *Shapiro-Wilk***

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Formula Stick	Statistic	df	Sig.	Statistic	df	Sig.
Daya Busa	F1	.328	3	.	.871	3	.298
	F2	.353	3	.	.824	3	.174
	F3	.321	3	.	.881	3	.328

a. Lilliefors Significance Correction

2. **Uji Homogenitas**

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya Busa	Based on Mean	.075	2	6	.928
	Based on Median	.013	2	6	.987
	Based on Median and with adjusted df	.013	2	5.947	.987
	Based on trimmed mean	.065	2	6	.937

3. **Uji *One Way Anova***

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya Busa

Bonferroni

(I) Formula Stick	(J) Formula Stick	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	1.00000	4.85341	1.000	-14.9554	16.9554
	F3	.33333	4.85341	1.000	-15.6220	16.2887
F2	F1	-1.00000	4.85341	1.000	-16.9554	14.9554
	F3	-.66667	4.85341	1.000	-16.6220	15.2887
F3	F1	-.33333	4.85341	1.000	-16.2887	15.6220
	F2	.66667	4.85341	1.000	-15.2887	16.6220

Lampiran 14 Analisis Data Hasil Statistik Uji Evaluasi Daya Cuci

1. Uji Normalitas *Shapiro-Wilk*

Tests of Normality

	Formulasi	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya Cuci	Formulasi 1	.385	3	.	.750	3	.000
	Formulasi 2	.292	3	.	.923	3	.463
	Formulasi 3	.219	3	.	.987	3	.780

a. Lilliefors Significance Correction

2. Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Daya Cuci	Based on Mean	1.612	2	6	.275
	Based on Median	.330	2	6	.731
	Based on Median and with adjusted df	.330	2	4.434	.735
	Based on trimmed mean	1.454	2	6	.306

3. **Uji *One Way Anova***

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Daya Cuci

Bonferroni

(I) Formulasi	(J) Formulasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formulasi 1	Formulasi 2	.16667	.60919	1.000	-1.8360	2.1693
	Formulasi 3	-.63333	.60919	1.000	-2.6360	1.3693
Formulasi 2	Formulasi 1	-.16667	.60919	1.000	-2.1693	1.8360
	Formulasi 3	-.80000	.60919	.711	-2.8027	1.2027
Formulasi 3	Formulasi 1	.63333	.60919	1.000	-1.3693	2.6360
	Formulasi 2	.80000	.60919	.711	-1.2027	2.8027

Lampiran 15 Analisis Data Hasil Statistik Uji Evaluasi pH

1. **Uji Normalitas *Shapiro-Wilk***

Tests of Normality

	Formula Stick	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
pH	F1	.269	3	.	.949	3	.567
	F2	.263	3	.	.955	3	.593
	F3	.263	3	.	.955	3	.593

a. Lilliefors Significance Correction

2. **Uji Homogenitas**

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
pH	Based on Mean	1.842	2	6	.238
	Based on Median	.595	2	6	.581
	Based on Median and with adjusted df	.595	2	4.388	.591
	Based on trimmed mean	1.723	2	6	.256

3. Uji *One Way Anova*

Multiple Comparisons

Dependent Variable: pH

Bonferroni

(I) Formula Stick	(J) Formula Stick	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	-.66667	17.18095	1.000	-57.1483	55.8149
	F3	-13.66667	17.18095	1.000	-70.1483	42.8149
F2	F1	.66667	17.18095	1.000	-55.8149	57.1483
	F3	-13.00000	17.18095	1.000	-69.4816	43.4816
F3	F1	13.66667	17.18095	1.000	-42.8149	70.1483
	F2	13.00000	17.18095	1.000	-43.4816	69.4816

Lampiran 16 Analisis Data Hasil Statistik Uji Evaluasi *Hardness*

1. Uji Normalitas *Shapiro-Wilk*

Tests of Normality

	Formula Stick	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Hardness	F1	.356	3	.	.818	3	.157
	F2	.356	3	.	.818	3	.157
	F3	.356	3	.	.818	3	.157

a. Lilliefors Significance Correction

2. Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Hardness	Based on Mean	.000	2	6	1.000
	Based on Median	.000	2	6	1.000
	Based on Median and with adjusted df	.000	2	6.000	1.000
	Based on trimmed mean	.000	2	6	1.000

3. Uji *One Way Anova*

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Hardness

Bonferroni

(I) Formula Stick	(J) Formula Stick	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
F1	F2	.00000	297.99329	1.000	-979.6396	979.6396
	F3	.00000	297.99329	1.000	-979.6396	979.6396
F2	F1	.00000	297.99329	1.000	-979.6396	979.6396
	F3	.00000	297.99329	1.000	-979.6396	979.6396
F3	F1	.00000	297.99329	1.000	-979.6396	979.6396
	F2	.00000	297.99329	1.000	-979.6396	979.6396

Lampiran 18 Analisis Data Hasil Statistik Uji Evaluasi Antibakteri

1. Uji Normalitas *Shapiro-Wilk*

Tests of Normality

	Perlakuan	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
AntiBakteri	Kontrol Negatif	.	3	.	.	3	.
	Kontrol Positif	.225	3	.	.984	3	.756
	F1	.369	3	.	.789	3	.089
	F2	.385	3	.	.750	3	.000
	F3	.219	3	.	.987	3	.780
	Ekstrak	.191	3	.	.997	3	.900

a. Lilliefors Significance Correction

2. Uji Homogenitas

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
AntiBakteri	Based on Mean	2.329	5	12	.107
	Based on Median	.684	5	12	.645
	Based on Median and with adjusted df	.684	5	6.692	.652
	Based on trimmed mean	2.173	5	12	.126

3. Uji *One Way Anova*

Post Hoc Tests

Multiple Comparisons

Dependent Variable: AntiBakteri

Bonferroni

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol Negatif	Kontrol Positif	-104.33333*	6.76866	<.001	-129.0314	-79.6352
	F1	-111.33333*	6.76866	<.001	-136.0314	-86.6352
	F2	-134.00000*	6.76866	<.001	-158.6981	-109.3019
	F3	-141.33333*	6.76866	<.001	-166.0314	-116.6352
	Ekstrak	-91.66667*	6.76866	<.001	-116.3648	-66.9686
Kontrol Positif	Kontrol Negatif	104.33333*	6.76866	<.001	79.6352	129.0314
	F1	-7.00000	6.76866	1.000	-31.6981	17.6981
	F2	-29.66667*	6.76866	.013	-54.3648	-4.9686
	F3	-37.00000*	6.76866	.002	-61.6981	-12.3019
	Ekstrak	12.66667	6.76866	1.000	-12.0314	37.3648
F1	Kontrol Negatif	111.33333*	6.76866	<.001	86.6352	136.0314
	Kontrol Positif	7.00000	6.76866	1.000	-17.6981	31.6981
	F2	-22.66667	6.76866	.087	-47.3648	2.0314
	F3	-30.00000*	6.76866	.012	-54.6981	-5.3019
	Ekstrak	19.66667	6.76866	.198	-5.0314	44.3648
F2	Kontrol Negatif	134.00000*	6.76866	<.001	109.3019	158.6981
	Kontrol Positif	29.66667*	6.76866	.013	4.9686	54.3648
	F1	22.66667	6.76866	.087	-2.0314	47.3648
	F3	-7.33333	6.76866	1.000	-32.0314	17.3648
	Ekstrak	42.33333*	6.76866	<.001	17.6352	67.0314
F3	Kontrol Negatif	141.33333*	6.76866	<.001	116.6352	166.0314
	Kontrol Positif	37.00000*	6.76866	.002	12.3019	61.6981
	F1	30.00000*	6.76866	.012	5.3019	54.6981
	F2	7.33333	6.76866	1.000	-17.3648	32.0314
	Ekstrak	49.66667*	6.76866	<.001	24.9686	74.3648
Ekstrak	Kontrol Negatif	91.66667*	6.76866	<.001	66.9686	116.3648
	Kontrol Positif	-12.66667	6.76866	1.000	-37.3648	12.0314
	F1	-19.66667	6.76866	.198	-44.3648	5.0314
	F2	-42.33333*	6.76866	<.001	-67.0314	-17.6352
	F3	-49.66667*	6.76866	<.001	-74.3648	-24.9686

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

Lampiran 17 Lembar Surat Keterangan Ethical

YAYASAN HARAPAN BUNDA BATAM
INSTITUT KESEHATAN MITRA BUNDA
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SURAT KEPUTUSAN MENTERI PENDIDIKAN DAN KEBUDAYAAN REPUBLIK INDONESIA No. 284/M/2020

KOMITE ETIK PENELITIAN
INSTITUT KESEHATAN MITRA BUNDA
THE RESEARCH ETHICAL COMMITTEE INSTITUT KESEHATAN MITRA BUNDA

SURAT KETERANGAN
ETHICAL APPROVAL
No. 022/K/KEP/IKMB/VII/2025

Komite Etik Penelitian Institut Kesehatan Mitra Bunda, menyatakan dengan ini bahwa penelitian dengan judul :
The Research Ethical Committee of Institut Kesehatan Mitra Bunda states hereby that the following proposal :

"Formulasi dan Karakterisasi Stik Facial Wash Berbahan Dasar Turunan Minyak Sawit Yang Mengandung Ekstrak Resin Jernang (Daermonorop draco) Sebagai Antibakteri Alami"
"Formulation and Characterization of Facial Wash Stick Based on Palm Oil Derivatives Containing Jernang Resin Extract (Daermonorop draco) as a Natural Antibacterial"

Peneliti Utama *Principal Investigato* : Putri Usami

Lokasi Penelitian *Research Location* : Laboratorium Teknologi Farmasi Institut Kesehatan Mitra Bunda

Waktu Penelitian *Time Schedule* : Juni - Agustus 2025

Responden/Subjek Penelitian *Respondent/Research Subject* : 3 Formula

Telah melalui prosedur kaji etik dan dinyatakan layak untuk dilaksanakan
Has proceeded the ethichal assessment procedure and been approved fot implementation

Batam, 18 Juli 2025
Ketua / *Chairman*,

dr. Ibnu Rushd, M.K.M