



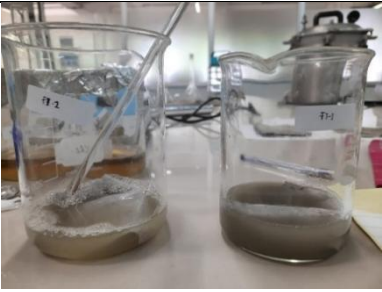


LAMPIRAN

Lampiran 1

Gambar Hasil Penelitian

	
<p>Gambar 4.4 Proses perajangan dan pengeringan daging buah lerak</p>	<p>Gambar 4.5 Proses maserasi buah lerak menggunakan pelarut metanol p.a</p>
	
<p>Gambar 4.6 Proses pemekatan ekstrak metanol buah lerak menggunakan <i>Rotary Evaporator</i></p>	
	
<p>Gambar 4.7 Hasil pembuatan formulasi sediaan detergen cair ekstrak buah lerak</p>	<p>Gambar 4.8 Proses uji daya detergensi kain substrat</p>



Gambar 4.9 Hasil uji daya detergensi pada masing-masing kain substrat secara duplo

Lampiran 2

Tabel Data Hasil Penelitian

Tabel 4.2. Data berat kain bersih (awal) sebelum pencucian

No.	Kain Substrat	Replikasi (gram)	
		1	2
1	Kain Formulasi 1	1.622	1.630
2	Kain Formulasi 2	1.603	1.612
3	Kain Formulasi 3	1.618	1.613
4	Kain Formulasi 4	1.595	1.605
5	Kain Formulasi 5	1.607	1.523
6	Kain Form. SLS 20%	1.596	1.646

Tabel 4.3. Data berat kain kotor

No.	Kain Substrat	Replikasi (gram)	
		1	2
1	Kain Formulasi 1	2.118	1.892
2	Kain Formulasi 2	2.018	2.050
3	Kain Formulasi 3	1.982	2.133
4	Kain Formulasi 4	2.053	2.097
5	Kain Formulasi 5	2.236	1.974
6	Kain Form. SLS 20%	1.969	1.986

Tabel 4.4. Data berat kain bersih setelah pencucian

No.	Kain Substrat	Replikasi (gram)	
		1	2
1	Kain Formulasi 1	1.810	1.692
2	Kain Formulasi 2	1.752	1.663
3	Kain Formulasi 3	1.736	1.724
4	Kain Formulasi 4	1.719	1.700
5	Kain Formulasi 5	2.020	1.640
6	Kain Form. SLS 20%	1.669	1.713

Tabel 4.5. Data % kotoran yang menempel pada tiap kain substrat

No.	Kain Substrat	Replikasi (%)	
		1	2
1	Kain Formulasi 1	23.4183192	13.8477801
2	Kain Formulasi 2	20.5649158	21.3658537
3	Kain Formulasi 3	18.3652876	24.3788092
4	Kain Formulasi 4	22.3088164	23.4620887
5	Kain Formulasi 5	28.1305903	22.8470111
6	Kain Form. SLS 20%	18.9436262	17.1198389

Tabel 4.6. Data % kotoran yang hilang pada tiap kain substrat

No.	Kain Substrat	Replikasi (%)	
		1	2
1	Kain Formulasi 1	14.54202	10.57082
2	Kain Formulasi 2	13.18137	18.87805
3	Kain Formulasi 3	12.41171	19.17487
4	Kain Formulasi 4	16.26887	18.93181
5	Kain Formulasi 5	9.660107	16.91996
6	Kain Form. SLS 20%	15.23616	13.74622

Tabel 4.7. Data daya detergensi pada masing-masing formulasi detergen cair

No.	Formulasi	Replikasi (%)		Rata-rata (%)
		1	2	
1	Formulasi 1	62.09677	76.33588	69.22
2	Formulasi 2	64.09639	88.35616	76.23
3	Formulasi 3	67.58242	78.65385	73.12
4	Formulasi 4	72.92576	80.69106	76.81
5	Formulasi 5	34.34022	74.05765	54.20
6	Formulasi SLS 20%	80.42895	80.29412	80.36

Lampiran 3

Rangkaian Perhitungan Daya Detergensi

Perhitungan pada kain substrat formulasi 1 replikasi 1

a. Perhitungan % kotoran yang menempel

$$\% \text{ kotoran} = \frac{\text{Berat kain kotor} - \text{berat kain bersih (awal)}}{\text{berat kain kotor}} \times 100\%$$

$$\% \text{ kotoran} = \frac{2,118 \text{ gram} - 1,622 \text{ gram}}{2,118 \text{ gram}} \times 100\%$$

$$\% \text{ kotoran} = 23,4183192\%$$

b. Perhitungan % kotoran yang hilang

% kotoran hil.

$$= \frac{\text{Berat kain kotor} - \text{berat kain sesudah dicuci}}{\text{berat kain kotor}} \times 100\%$$

$$\% \text{ kotoran hil.} = \frac{2.118 \text{ gram} - 1.810 \text{ gram}}{2.118 \text{ gram}} \times 100\%$$

$$\% \text{ kotoran hil.} = 14.54202\%$$

c. Perhitungan % daya detergensi

$$\% \text{ deterjensi} = \frac{\% \text{ kotoran hilang}}{\% \text{ kotoran menempel}} \times 100\%$$

$$\% \text{ deterjensi} = \frac{14.54202\%}{23.4183192\%} \times 100\%$$

$$\% \text{ deterjensi} = 62.09677\%$$

Berikut rangkaian perhitungan daya detergensi pada kain substrat berikutnya:

a. Perhitungan % kotoran menempel

Tabel 4.8. Perhitungan % kotoran menempel

KAIN	%KOTORAN YANG MENEMPEL	
	R1	R2
1-II	0.262	13.8477801
2-I	0.415	20.5649158
2-II	0.438	21.3658537
3-I	0.364	18.3652876
3-II	0.52	24.3788092
4-I	0.458	22.3088164
4-II	0.492	23.4620887
5-I	0.629	28.1305903
5-II	0.451	22.8470111
6-I	0.373	18.9436262
6-II	0.34	17.1198389

Keterangan :

R1 = Berat kain kotor – berat kain bersih (A)

$$R2 = \frac{R1}{\text{berat kain kotor}} \times 100\%$$

b. Perhitungan % kotoran hilang

Tabel 4.9. Perhitungan % kotoran hilang

KAIN	%KOTORAN HILANG	
	R1	R2
1-II	0.200	10.57082
2-I	0.266	13.18137
2-II	0.387	18.87805
3-I	0.246	12.41171
3-II	0.409	19.17487
4-I	0.334	16.26887
4-II	0.397	18.93181
5-I	0.216	9.660107
5-II	0.334	16.91996
6-I	0.300	15.23616
6-II	0.273	13.74622

Keterangan :

R1 = Berat kain kotor – berat kain bersih setelah pencucian

$$R2 = \frac{R1}{\text{berat kain kotor}} \times 100\%$$

c. Perhitungan % daya detergensi

Tabel 4.10. Perhitungan % daya detergensi

KAIN	DD
1-II	76.33588
2-I	64.09639
2-II	88.35616
3-I	67.58242
3-II	78.65385
4-I	72.92576
4-II	80.69106
5-I	34.34022
5-II	74.05765
6-I	80.42895
6-II	80.29412

Keterangan :

$$DD = \frac{\% \text{ kotoran hilang}}{\% \text{ kotoran menempel}} \times 100\%$$

Lampiran 4

Uji Statistika Daya Detergeni Formulasi Detergen Cair Ekstrak Buah Lerak

1. Uji Normalitas Data

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistik	df	Sig.	Statistik	df	Sig.
Detergeni	0.198	10	.200 [*]	0.870	10	0.099
*. This is a lower bound of the true significance.						
a. Lilliefors Significance Correction						

2. Uji Homogenitas

Test of Homogeneity of Variances					
		Levene Statistik	df1	df2	Sig.
Detergeni	Based on Mean	1.83705E+30	4	5	0.000
	Based on Median	1.83705E+30	4	5	0.000
	Based on Median and with adjusted df	1.83705E+30	4	2.455	0.000
	Based on trimmed mean	7.87308E+29	4	5	0.000

3. Uji Non Parametrik Kruskal Wallis

Ranks		
Formulasi	N	Mean Rank
Daya Detergensi	Formulasi 1	4.50
	Formulasi 2	6.50
	Formulasi 3	6.00
	Formulasi 4	7.00
	Formulasi 5	3.50
	Total	10
Test Statistiks ^{a,b}		
	Daya Detergensi	
Kruskal-Wallis H	1.855	
Df	4	
Asymp. Sig.	0.762	
a. Kruskal Wallis Test		
b. Grouping Variabel: Formulasi		

Lampiran 5

Uji Statistika Daya Detergensi Formulasi Sediaan Detergen Cair Ekstrak

Buah Lerak dan Pembanding SLS 20%

1. Uji Normalitas

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistik	df	Sig.	Statistik	df	Sig.
Daya Detergensi	0.203	12	0.186	0.829	12	0.021
a. Lilliefors Significance Correction						

2. Uji Homogenitas

Test of Homogeneity of Variances					
		Levene Statistik	df1	df2	Sig.
Daya Detergensi	Based on Mean	2.58128E+30	5	6	0.000
	Based on Median	2.58128E+30	5	6	0.000
	Based on Median and with adjusted df	2.58128E+30	5	2.455	0.000
	Based on trimmed mean	2.58128E+30	5	6	0.000

3. Uji Non-Parametrik Kruskal Wallis

Ranks			
Formulasi		N	Mean Rank
Daya Detergensi	Formulasi 1	2	4.50
	Formulasi 2	2	7.50
	Formulasi 3	2	6.00
	Formulasi 4	2	8.00
	Formulasi 5	2	3.50
	Formulasi SLS 20%	2	9.50
	Total	12	
Test Statistiks^{a,b}			
			Daya Detergensi
Kruskal-Wallis H			3.923
Df			5
Asymp. Sig.			0.561
a. Kruskal Wallis Test			
b. Grouping Variabel: Formulasi			