

L A M P I R A N

Lampiran 1. Hasil determinasi daunjeruk bali



**PEMERINTAH PROVINSI JAWA TIMUR
DINAS KESEHATAN
UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU**

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Nomor : 074/ 210/ 102.20-A/ 2022
Sifat : Biasa
Perihal : **Determinasi Tanaman Jeruk Bali**

Mementuhi permohonan saudara :

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1. Perihal determinasi tanaman jeruk bali

Kingdom : Plantae (Tumbuhan)
Divisi : Magnoliophyta (Tumbuhan berbunga)
Kelas : Dicotyledonae
Bangsa : Rutales
Suku : Rutaceae
Marga : Citrus
Jenis : *Citrus maxima* (Burm.) Merr.
Sinonim : *Citrus grandis* (L.) Osbeck
Nama Daerah : Jeruk bali, jeruk besar, jeruk cikoneng, jeruk limau besar, jeruk limau makan, jeruk pamelu.
Kunci Determinasi : 1b-2b-3b-4b-6b-7b-9b-10b-11b-12b-13b-14b-15b-197b-208b- 219b-220b-224b-225b-227b-229a:Rutaceae-1a:Citrus-1a-2a:C.*maxima*.

2. Morfologi : Habitus: Perdu, tinggi $\pm$ 3 m. Batang: Berkulit agak tebal, kulit bagian luar berwarna coklat kekuningan, bagian dalam berwarna kuning, cabang yang masih muda bersudut dan berwarna hijau, namun lama-lama menjadi berbentuk bulat dan berwarna hijau tua. Daun: Bulat telur dan berukuran besar, dengan bagian puncak atau ujung tumpul dan bagian tepi hampir rata, serta bagian dekat ujung agak berombak. Bunga: Majemuk, tersusun dalam malai yang keluar dari ketiak daun, bunga berbentuk bintang, diameter 1.5 – 2.5 cm, bunga berwarna putih, dan baunya harum. Buah: Berukuran besar dan berkulit tebal, berbentuk bulat atau bola, daging buah merah muda atau merah jambu, daging buah memiliki tekstur keras sampai lunak, rasa manis sampai sedikit asam, dan berbiji sedikit. Akar: Akar tunggang.
3. Bagian yang digunakan : Daun.
4. Penggunaan : Penelitian (Skripsi).
5. Daftar Pustaka

- Van Steenis, CGGJ. 2008. *FLORA: untuk Sekolah di Indonesia*. Pradnya Paramita, Jakarta.

Demikian surat keterangan determinasi ini kami buat untuk dipergunakan sebagaimana mestinya.

Batu, 14 Maret 2022

KEPALA UPT LABORATORIUM HERBAL
MATERIA MEDICA BATU

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Lampiran 2. Daun jeruk bali



- Hasil perhitungan rendemen simplisia daun jeruk bali

Perhitungan rendemen serbuk :

$$\text{Rendemen (\%)} = \frac{\text{Bobot serbuk kering}}{\text{Bobot simplisia basah}} \times 100\%$$

$$\begin{aligned} &= \frac{1348}{4000} \times 100\% \\ &= 33,7\% \end{aligned}$$

Lampiran 3. Perhitungan kadar air serbuk

- Replikasi 1

$$\begin{aligned}\text{Rumus: } & \frac{V}{BS} \times 100\% \\ &= \frac{1}{20} \times 100\% \\ &= 5\%\end{aligned}$$

- Replikasi 2

$$\begin{aligned}\text{Rumus : } & \frac{V}{BS} \times 100\% \\ &= \frac{1,2}{20} \times 100\% \\ &= 6\%\end{aligned}$$

- Replikasi 3

$$\begin{aligned}\text{Rumus: } & \frac{V}{BS} \times 100\% \\ &= \frac{1,3}{20} \times 100\% \\ &= 6,5\%\end{aligned}$$

Lampiran 4. Hasil pengujian susut pengeringan

Lampiran 5. Pembuatan ekstrak



- Hasil perhitungan rendemen ekstrak daun jeruk bali

Perhitungan Rendemen ekstrak :

$$\begin{aligned} \text{Rendemen (\%)} &= \frac{\text{bobot ekstrak}}{\text{bobot serbuk}} \times 100\% \\ &= \frac{75}{600} \times 100\% \end{aligned}$$

Lampiran 6. Hasil perhitungan kadar air ekstrak**1. Replikasi 1**

Berat kurs porselin kosong = 26,41 gram

Berat kurs + ekstrak = 36,52 gram

Berat awal ekstrak = 10,11 gram

((Berat kurs + ekstrak) – (Berat kurs porselin kosong))

= (36,52- 26,41)

= 10,11

Berat kurs + ekstrak setelah dioven = 35,67 gram

Berat ekstrak setelah dioven = 9,26 gram

((Berat kurs+ ekstrak setelah dioven) – (Berat kurs porselin kosong))

= (35,67 - 26,41)

= 9,26

$$\text{Kadar air} = \frac{W1 - W2}{W1} \times 100\%$$

= 10,11 – 9,26 / 10,11 x 100%

= 8,40 %

2. Replikasi 2

Berat kurs porselin kosong = 26,04 gram

Berat kurs + ekstrak = 36,16 gram

Berat awal ekstrak = 10,11 gram

((Berat kurs + ekstrak) – (Berat kurs porselin kosong))

= (36,16 - 26,04)

= 10,12

Berat kurs + ekstrak setelah dioven = 35,31 gram

Berat ekstrak setelah dioven = 9,27 gram

((Berat kurs + ekstrak setelah dioven) – (Berat kurs porselin kosong))

= (35,31- 26,04)

= 9,27

$$\text{Kadar air} = \frac{W1 - W2}{W1} \times 100\%$$

= 10,12 – 9,27 / 10,12 x 100%

= 8,39

3. Replikasi

Berat kurs porselin kosong = 26,57 gram

Berat kurs + ekstrak = 36,16 gram

Berat awal ekstrak = 10,09 gram

((Berat kurs + ekstrak) – (Berat kurs porselin kosong))

= (36,16 – 26,57)

= 10,116

Berat kurs + ekstrak setelah dioven = 38,82 gram

Berat ekstrak setelah dioven = 9,25 gram

((Berat kurs + ekstrak setelah dioven) – (Berat kurs porselin kosong))

= (38,82 – 26,57)

= 9,25

$$\text{Kadar air} = \frac{W1 - W2}{W1} \times 100\%$$

= 10,16 – 9,25 / 10,16 x 100%

= 8,32%

Lampiran 7. Hasil pengujian bebas etanol ekstrak

Lampiran 8. Hasil pengujian fitokimia



**Uji flavonoid pada ekstrak
daun jeruk bali**



**Uji saponin pada ekstrak
daun jeruk bali**



**Uji alkaloid pada ekstrak
daun jeruk bali**

Lampiran 9. Hasil daya hambat antibakteri ekstrak**Replikasi 1****Replikasi 2****Replikasi 3**

Lampiran 10. Hasil statistik daya hambat antibakteri ekstrak

Konsentrasi (%)	Diameter hambat (mm)			Rata – rata ± SD
	Replikasi 1	Replikasi 2	Replikasi 3	
1	6	6,2	6,4	6,2±0,21
3	8	8,2	8,5	8,2±0,25
5	11,3	11,1	11,7	11,3±0,30
Kontrol + (Ciprofloxacin)	23,6	23,3	23,7	23,3±0,20
Kontrol – (DMSO 3%)	0	0	0	0±0

Tests of Normality^a

	Perlakuan	Kolmogorov-Smirnov ^b			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
	Ekstrak 1%	,175	3	.	1,000	3	1,000
	Ekstrak 3%	,219	3	.	,987	3	,780
	Ekstrak 5%	,253	3	.	,964	3	,637
	Kontrol Positif Sabun Detol	,292	3	.	,923	3	,463

a. Daya_hambat is constant when Perlakuan = Kontrol Negatif. It has been omitted.

b. Lilliefors Significance Correction

Test of Homogeneity of Variances

Daya_hambat

Levene Statistic	df1	df2	Sig.
1,893	4	10	,188

ANOVA

Daya_hambat

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1415.916	4	353.979	1430.218	.000
Within Groups	2.475	10	.247		
Total	1418.391	14			

Multiple Comparisons

Dependent Variable: Daya_hambat

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Kontrol Negatif	Ekstrak 1%	-11,20000*	,17889	,000	-11,7887	-10,6113
	Ekstrak 3%	-13,23333*	,17889	,000	-13,8221	-12,6446
	Ekstrak 5%	-15,36667*	,17889	,000	-15,9554	-14,7779
	Kontrol Positif Sabun Detol	-23,53333*	,17889	,000	-24,1221	-22,9446
Ekstrak 1%	Kontrol Negatif	11,20000*	,17889	,000	10,6113	11,7887
	Ekstrak 3%	-2,03333*	,17889	,000	-2,6221	-1,4446
	Ekstrak 5%	-4,16667*	,17889	,000	-4,7554	-3,5779
	Kontrol Positif Sabun Detol	-12,33333*	,17889	,000	-12,9221	-11,7446
Ekstrak 3%	Kontrol Negatif	13,23333*	,17889	,000	12,6446	13,8221
	Ekstrak 1%	2,03333*	,17889	,000	1,4446	2,6221
	Ekstrak 5%	-2,13333*	,17889	,000	-2,7221	-1,5446
	Kontrol Positif Sabun Detol	-10,30000*	,17889	,000	-10,8887	-9,7113
Ekstrak 50%	Kontrol Negatif	15,36667*	,17889	,000	14,7779	15,9554
	Ekstrak 10%	4,16667*	,17889	,000	3,5779	4,7554
	Ekstrak 30%	2,13333*	,17889	,000	1,5446	2,7221
	Kontrol Positif Sabun Detol	-8,16667*	,17889	,000	-8,7554	-7,5779
Kontrol Positif Sabun Detol	Kontrol Negatif	23,53333*	,17889	,000	22,9446	24,1221
	Ekstrak 1%	12,33333*	,17889	,000	11,7446	12,9221
	Ekstrak 3%	10,30000*	,17889	,000	9,7113	10,8887
	Ekstrak 5%	8,16667*	,17889	,000	7,5779	8,7554

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

Lampiran 11. Pengujian mutu fisik homogenitas**Uji homogenitas****Formula 1****Formula 2****Formula 3****Basis**

Lampiran 12. Hasil perhitungan kadar air sediaan

- Formula 1

Replikasi 1

Berat awal = 26,00

Berat akhir = 25,07

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,00 - 25,08}{26,00} \times 100\% \\ &= 3,53 \end{aligned}$$

Repikasi 2

Berat awal = 26,00

Berat akhir = 25,07

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,00 - 25,07}{26,00} \times 100\% \\ &= 3,57 \end{aligned}$$

Repikasi 3

Berat awal = 26,00

Berat akhir = 25,078

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,00 - 25,078}{26,00} \times 100\% \\ &= 3,54 \end{aligned}$$

- Formula 2

Replikasi 1

Berat awal = 34,00

Berat akhir = 32,835

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{34,00 - 32,835}{34,00} \times 100\% \\ &= 3,42 \end{aligned}$$

Repikasi 2

Berat awal = 34,00

Berat akhir = 32,83

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{34,00 - 32,83}{34,00} \times 100\% \\ &= 3,44 \end{aligned}$$

Repikasi 3

Berat awal = 34,00

Berat akhir = 32,833

$$\begin{aligned} \text{Kadar air} &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{34,00 - 32,833}{34,00} \times 100\% \\ &= 3,44 \end{aligned}$$

- Formula 3
Replikasi 1

Berat awal = 26,47

Berat akhir = 25,635

$$\begin{aligned} Kadar\ air &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,47 - 25,635}{26,47} \times 100\% \\ &= 3,16 \end{aligned}$$

Replikasi 2

Berat awal = 26,47

Berat akhir = 25,609

$$\begin{aligned} Kadar\ air &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,47 - 25,609}{26,47} \times 100\% \\ &= 3,26 \end{aligned}$$

Replikasi 3

Berat awal = 26,47

Berat akhir = 25,58

$$\begin{aligned} Kadar\ air &= \frac{b1 - b2}{b1} \times 100\% \\ &= \frac{26,47 - 25,58}{26,47} \times 100\% \\ &= 3,36 \end{aligned}$$

Lampiran 13. Hasil statistik pengujian mutu fisik kadar air

Uji kadar air				
Replikasi	F1	F2	F3	F4
1	3,53	3,42	3,16	3,59
2	3,57	3,44	3,26	3,69
3	3,54	3,45	3,36	3,79
Rata – rata	3,54	3,43	3,26	3,59
SD	0,02	0,01	0,01	0,01

Tests of Normality

	Uji_KadarAir	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Sebelum_cyclingtest	Formula 1	,292	3	.	,923	3	,463
	Formula 2	,253	3	.	,964	3	,637
	Formula 3	,175	3	.	1,000	3	1,000
	Formula 4	,175	3	.	1,000	3	1,000

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Sebelum_cyclingtest

Levene Statistic	df1	df2	Sig.
1,683	3	8	,247

ANOVA

Nilai uji kadar air

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.112	3	5.040	11624.7	.000
Within Groups	.006	8	.001	37	
Total	15.118	11			

Multiple Comparisons

Dependent Variable: Sebelum_cyclingtest

Tukey HSD

(I) Uji_KadarAir	(J) Uji_KadarAir	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	,11000	,05869	,310	-,0779	,2979
	Formula 3	,28667*	,05869	,005	,0987	,4746
	Formula 4	-,14333	,05869	,146	-,3313	,0446
Formula 2	Formula 1	-,11000	,05869	,310	-,2979	,0779
	Formula 3	,17667	,05869	,066	-,0113	,3646
	Formula 4	-,25333*	,05869	,011	-,4413	-,0654
Formula 3	Formula 1	-,28667*	,05869	,005	-,4746	-,0987
	Formula 2	-,17667	,05869	,066	-,3646	,0113
	Formula 4	-,43000*	,05869	,000	-,6179	-,2421
Formula 4	Formula 1	,14333	,05869	,146	-,0446	,3313
	Formula 2	,25333*	,05869	,011	,0654	,4413
	Formula 3	,43000*	,05869	,000	,2421	,6179

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

Lampiran 14. Hasil pengujian statistik mutu fisik pH

Uji pH				
Replikasi	F1	F2	F3	F4
1	9,89	9,58	9,48	9,63
2	9,85	9,54	9,44	9,61
3	9,86	9,53	9,42	9,64
Rata – rata	9,88	9,55	9,44	9,62
SD	0,02	0,02	0,03	0,01

Tests of Normality

	Uji pH	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Sebelum_cyclingtest	Formula 1	,292	3	.	,923	3	,463
	Formula 2	,314	3	.	,893	3	,363
	Formula 3	,253	3	.	,964	3	,637
	Formula 4	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Sebelum_cyclingtest

Levene Statistic	df1	df2	Sig.
,709	3	8	,573

ANOVA

Nilai uji pH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,890	3	1.160	346.200	,000
Within Groups	,006	8	,012		
Total	,690	11			

Multiple Comparisons

Dependent Variable: Sebelum_cyclingtest

Tukey HSD

(I) Uji pH	(J) Uji pH	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	,31667*	,01958	,000	,2540	,3794
	Formula 3	,42000*	,01958	,000	,3573	,4827
	Formula 4	,24000*	,01958	,000	,1773	,3027
Formula 2	Formula 1	-,31667*	,01958	,000	-,3794	-,2540
	Formula 3	,10333*	,01958	,003	,0406	,1660
	Formula 4	-,07667*	,01958	,019	-,1394	-,0140
Formula 3	Formula 1	-,42000*	,01958	,000	-,4827	-,3573
	Formula 2	-,10333*	,01958	,003	-,1660	-,0406
	Formula 4	-,18000*	,01958	,000	-,2427	-,1173
Formula 4	Formula 1	-,24000*	,01958	,000	-,3027	-,1773
	Formula 2	,07667*	,01958	,019	,0140	,1394
	Formula 3	,18000*	,01958	,000	,1173	,2427

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

Lampiran 15. Hasil statistik pengujian daya busa

Uji daya busa				
Replikasi	F1	F2	F3	F4
1	63,5	65,1	68,3	62,1
2	63,6	65,4	68,1	62,4
3	63,8	65,5	68,6	62,2
Rata – rata	63,63	65,25	68,33	62,23
SD	0,15	0,20	0,25	0,15

Tests of Normality

	Uji daya busa	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Sebelum_cyclingtest	Formula 1	,253	3	.	,964	3	,637
	Formula 2	,292	3	.	,923	3	,463
	Formula 3	,219	3	.	,987	3	,780
	Formula 4	,253	3	.	,964	3	,637

a. Lilliefors Significance Correction

Test of Homogeneity of Variances

Sebelum_cyclingtest

Levene Statistic	df1	df2	Sig.
,409	3	8	,751

ANOVA

Nilai uji daya busa

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.837	3	,691	630.513	,000
Within Groups	,018	8	,001		
Total	4.854	11			

Multiple Comparisons

Dependent Variable: Sebelum_cyclingtest

Tukey HSD

(I) Uji daya busa	(J) Uji daya busa	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	-1,7000*	,1599	,000	-2,212	-1,188
	Formula 3	-4,7000*	,1599	,000	-5,212	-4,188
	Formula 4	1,4000*	,1599	,000	,888	1,912
Formula 2	Formula 1	1,7000*	,1599	,000	1,188	2,212
	Formula 3	-3,0000*	,1599	,000	-3,512	-2,488
	Formula 4	3,1000*	,1599	,000	2,588	3,612
Formula 3	Formula 1	4,7000*	,1599	,000	4,188	5,212
	Formula 2	3,0000*	,1599	,000	2,488	3,512
	Formula 4	6,1000*	,1599	,000	5,588	6,612
Formula 4	Formula 1	-1,4000*	,1599	,000	-1,912	-,888
	Formula 2	-3,1000*	,1599	,000	-3,612	-2,588
	Formula 3	-6,1000*	,1599	,000	-6,612	-5,588

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

Lampiran 16. Hasil perhitungan kadar alkali bebas

1. Perhitungan pembakuan HCl

- HCl Stock: 11,3 N

$$V1 \times N1 = V2 \times N2$$

$$V1 \times 11,3 = 100 \times 0,1$$

$$V1 \times 11,3 = 10$$

$$V1 = \frac{10}{11,3}$$

$$V1 = 0,88 \text{ ml}$$

Kemudian hasil pengenceran HCl pekat ad pada aquades 100 ml.

2. Perhitungan Kadar Alkali Bebas

- Formula 1

$$\begin{aligned} \text{Kadar alkai bebas} &= \frac{40 \times V \times N}{B} \times 100\% \\ &= \frac{40 \times 0,4 \times 0,1}{10000} \times 100\% \\ &= 0,016 \% \end{aligned}$$

Keterangan:

V = Volume

N = Normalitas HCl

B = Berat sediaan

- Formula 2

$$\begin{aligned} \text{Kadar alkai bebas} &= \frac{40 \times V \times N}{B} \times 100\% \\ &= \frac{40 \times 0,4 \times 0,1}{10000} \times 100\% \\ &= 0,016 \% \end{aligned}$$

Keterangan:

V = Volume

N = Normalitas HCl

B = Berat sediaan

- Formula 3

$$\begin{aligned} \text{Kadar alkai bebas} &= \frac{40 \times V \times N}{B} \times 100\% \\ &= \frac{40 \times 0,4 \times 0,1}{10000} \times 100\% \\ &= 0,016 \% \end{aligned}$$

Keterangan:

V = Volume

N = Normalitas HCl

B = Berat sediaan

- Formula 4

$$\begin{aligned} \text{Kadar alkai bebas} &= \frac{40 \times V \times N}{B} \times 100\% \\ &= \frac{40 \times 0,4 \times 0,1}{10000} \times 100\% \\ &= 0,016 \% \end{aligned}$$

Keterangan:

V = Volume

N = Normalitas HCl

B = Berat sediaan

Lampiran 17. Hasil statistik pengujian stailitas kadar air

Sebelum <i>Cycling test</i>					Setelah <i>Cycling test</i>				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	3,53	3,42	3,16	3,59	1	2,12	1,16	1	2,48
2	3,57	3,44	3,26	3,69	2	1,34	1,26	1,11	2,35
3	3,54	3,45	3,36	3,79	3	2,37	1,36	1,21	1,45
Rata – rata	3,54	3,43	3,26	3,59	Rata – rata	1,9	1,26	1,11	2,48
SD	0,02	0,01	0,01	0,01	SD	0,41	0,1	0,1	0,56

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	F1T1 - F1T2	1,60333	,55582	,32090	,22261	2,98406	4,996	2	,038
Pair 2	F2T1 - F2T2	2,17667	,08505	,04910	1,96539	2,38794	44,329	2	,001
Pair 3	F3T1 - F3T2	2,15333	,00577	,00333	2,13899	2,16768	646,000	2	,000
Pair 4	F4T1 - F4T2	1,59667	,65394	,37755	-,02780	3,22114	4,229	2	,052

Lampiran 18. Hasil statistik pengujian stabilitas pH

Uji Stabilitas pH									
Sebelum <i>Cycling test</i>					Setelah <i>Cycling test</i>				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	9,89	9,58	9,48	9,63	1	9,45	9,32	9	9,64
2	9,85	9,54	9,44	9,61	2	9,42	9,35	9,15	9,65
3	9,86	9,53	9,42	9,64	3	9,41	9,31	9,11	9,63
Rata – rata	9,866667	9,55	9,44	9,62	Rata – rata	9,42	9,32	9	9,64
SD	0,02	0,02	0,03	0,01	SD	0,02	0,02	0,07	0,01

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	F1T1 - F1T2	,44000	,01000	,00577	,41516	,46484	76,210	2	,000
Pair 2	F2T1 - F2T2	,22333	,03512	,02028	,13609	,31057	11,015	2	,008
Pair 3	F3T1 - F3T2	,36000	,10440	,06028	,10065	,61935	5,972	2	,027
Pair 4	F4T1 - F4T2	,02333	,01155	,00667	-,00535	,05202	3,500	2	,073

Lampiran 19. Hasil statistik pengujian stailitas daya busa

Uji Stabilitas Daya Busa									
Sebelum <i>Cycling test</i>					Setelah <i>Cycling test</i>				
Replikasi	F1	F2	F3	F4	Replikasi	F1	F2	F3	F4
1	63,5	65,1	68,3	62,1	1	62,4	63,3	65,3	60,3
2	63,6	65,4	68,1	62,4	2	61,5	64,2	65,1	60,5
3	63,8	65,5	68,6	62,2	3	62,8	63,9	65,7	60,8
Rata – rata	63,63	65,25	68,33	62,23	Rata – rata	62,23	63,8	65,36	60,53
SD	0,15	0,20	0,25	0,15	SD	0,66	0,45	0,30	0,25

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 F1T1 - F1T2	1,40000	,60828	,35119	-,11104	2,91104	3,986	2	,058
Pair 2 F2T1 - F2T2	1,53333	,30551	,17638	,77442	2,29225	8,693	2	,013
Pair 3 F3T1 - F3T2	2,96667	,05774	,03333	2,82324	3,11009	89,000	2	,000
Pair 4 F4T1 - F4T2	1,70000	,26458	,15275	1,04276	2,35724	11,129	2	,008

Lampiran 20. Hasil pengujian daya hambat antibakteri sediaan**Replikasi 1****Replikasi 2****Replikasi 3**

Lampiran 21. Hasil statistik pengujian daya hambat antibakteri sediaan

FORMULA	Diameter hambat (mm)			Rata – rata ± SD
	Replikasi 1	Replikasi 2	Replikasi 3	
1	5	5,9	5,7	5,6±0,21
2	7,4	7,2	7,9	7±0,25
3	11	10,5	10,9	10,8±0,26
Kontrol + (Sediaan+ ciprofloxacin)	20	20,5	20,9	20,4±0,36
Kontrol – (Basis)	0	0	0	0±0

Tests of Normality^b

	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Daya_hambat	Formula 1	,292	3	.	,923	3	,463
	Formula 2	,219	3	.	,987	3	,780
	Formula 3	,314	3	.	,893	3	,363
	K+ Sabun Detol	,196	3	.	,996	3	,878

a. Lilliefors Significance Correction

b. Daya_hambat is constant when Perlakuan = K-. It has been omitted.

Test of Homogeneity of Variances

Daya_hambat

Levene Statistic	df1	df2	Sig.
2,057	4	10	,162

ANOVA

Daya hambat
sediaan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1415.916	4	.691	630.513	.000
Within Groups	2.475	10	.001		
Total	1418.391	14			

Multiple Comparisons

Dependent Variable: Daya_hambat

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Formula 1	Formula 2	-2,10000*	,22509	,000	-2,8408	-1,3592
	Formula 3	-3,73333*	,22509	,000	-4,4741	-2,9925
	K-	7,06667*	,22509	,000	6,3259	7,8075
	K+ Sabun Detol	-13,40000*	,22509	,000	-14,1408	-12,6592
Formula 2	Formula 1	2,10000*	,22509	,000	1,3592	2,8408
	Formula 3	-1,63333*	,22509	,000	-2,3741	-,8925
	K-	9,16667*	,22509	,000	8,4259	9,9075
	K+ Sabun Detol	-11,30000*	,22509	,000	-12,0408	-10,5592
Formula 3	Formula 1	3,73333*	,22509	,000	2,9925	4,4741
	Formula 2	1,63333*	,22509	,000	,8925	2,3741
	K-	10,80000*	,22509	,000	10,0592	11,5408
	K+ Sabun Detol	-9,66667*	,22509	,000	-10,4075	-8,9259
K-	Formula 1	-7,06667*	,22509	,000	-7,8075	-6,3259
	Formula 2	-9,16667*	,22509	,000	-9,9075	-8,4259
	Formula 3	-10,80000*	,22509	,000	-11,5408	-10,0592
	K+ Sabun Detol	-20,46667*	,22509	,000	-21,2075	-19,7259
K+ Sabun Detol	Formula 1	13,40000*	,22509	,000	12,6592	14,1408
	Formula 2	11,30000*	,22509	,000	10,5592	12,0408
	Formula 3	9,66667*	,22509	,000	8,9259	10,4075
	K-	20,46667*	,22509	,000	19,7259	21,2075

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

Lampiran 22. Peralatan penelitian

Lampiran 23. Perhitungan SAP value

- Nilai SAP Value VCO yang akan digunakan.
 Nilai SAP NaOH/ g VCO = 0,183.
 Pada Formula menggunakan VCO sebanyak = 25 g
 Maka: $25\text{g} \times 0,183 = 4,6\text{ g}.$
 Jadi NaOH yang digunakan didalam Formulasi ini sebanyak 4,6g untuk 25g minyak VCO.
- Menghitung Nilai NaOH melalui Range SAP.
 Range nilai SAP VCO : 248-268
 Nilai tengah : 256,5
 Nilai SAP NaOH VCO = $256,5 \times \frac{1}{1402,5}$

$$= 0,183\text{ gr NaOH/gr minyak}$$

$$\frac{1}{1402,5} = \text{Merupakan nilai konversi KOH menjadi NaOH}$$

Perhitungan NaOH untuk 25 gram minyak VCO yang akan digunakan.

Maka: berat minyak x nilai SAP VCO
 $= 25 \times 0,183$
 $= 4,6\text{ gr}$

Jadi NaOH yang dibutuhkan untuk membuat sabun dengan menggunakan minyak VCO sebanyak 25 gr yaitu 4,6 gr

Lampiran 24. Hasil pengujian mutu fisik sediaan sabun mandi padat



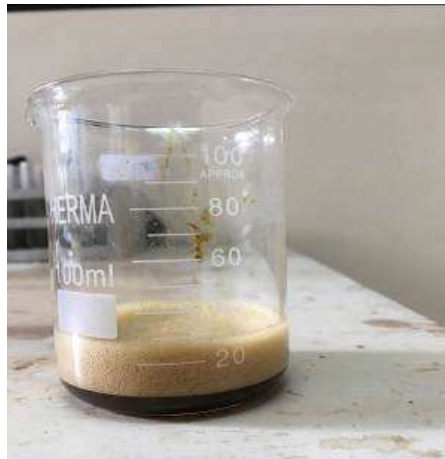
Uji alkali bebas



Uji kadar air



Uji pH



Uji stabilitas busa