

**L
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Lampiran 1 Hasil Determinasi Tanaman Bawang Merah



KEMENTERIAN KESEHATAN REPUBLIK INDONESIA
BADAN KEBIJAKAN PEMBANGUNAN KESEHATAN
 BALAI BESAR PENELITIAN DAN PENGEMBANGAN
 TANAMAN OBAT DAN OBAT TRADISIONAL
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Nomor : KM.04.02/2/554/2022 04 Maret 2022
 Lampiran : -
 Hal : Keterangan Determinasi

Yth. Dekan Fakultas Farmasi Universitas Setia Budi
 Jalan Letjend. Sutoyo Mojosongo Solo 57127

Merujuk surat Saudara nomor: 254/D3-04/08.02.2022 tanggal 8 Februari 2022 hal permohonan determinasi, dengan ini kami sampaikan bahwa hasil determinasi sampel tanaman sebagai berikut:

Nama Pemohon : Feni Trianjani
 Nama Sampel : Bawang Merah
 Sampel : Tanaman Segar
 Spesies : *Allium ascalonicum* L.
 Sinonim : *Allium carneum* Willd.
 Familia : Amaryllidaceae
 Penanggung Jawab : Galih Septia Amiarti, S.Si.

Hasil determinasi tersebut hanya mencakup sampel tanaman yang telah dikirimkan ke B2P2TOOT.

Atas perhatian Saudara, kami sampaikan terima kasih.

Kepala Balai Besar Penelitian
 dan Pengembangan Tanaman Obat
 dan Obat Tradisional
 Tawangmangu,



**Akhmad Saikhu, S.K.M.,
 M.Sc.PH.**

Tembusan :
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Lampiran 2 Gambar simplisia dan ekstrak kulit bawang merah



1. Rendemen kulit bawang merah kering terhadap kulit bawang merah basah

$$\% \text{ rendemen kering terhadap bobot basah} = \frac{\text{bobot simplisia}}{\text{bobot simplisia segar}} \times 100\%$$

100%

$$= \frac{1000 \text{ gram}}{3000 \text{ gram}} \times 100\%$$

$$= 33,33\%$$

2. Rendemen ekstrak etanol terhadap serbuk kering

$$\% \text{ rendemen ekstrak kulit bawang merah} = \frac{\text{bobot ekstrak}}{\text{bobot serbuk}} \times 100\%$$

$$= \frac{45 \text{ gram}}{800 \text{ gram}} \times 100\%$$

$$= 5,6\%$$

Lampiran 3 Perhitungan rendemen kulit bawang merah

Kadar air simplisia dengan metode sterling bidwell

$$\% \text{ kadar air} = \frac{\text{volume air terbsca}}{\text{bobot sampel}} \times 100\%$$

$$\begin{aligned} \text{Replikasi I} &= \frac{1,8 \text{ ml}}{20 \text{ gram}} \times 100\% \\ &= 9\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi II} &= \frac{1,6}{20 \text{ gram}} \times 100\% \\ &= 8\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi III} &= \frac{1,5 \text{ ml}}{20 \text{ gram}} \times 10\% \\ &= 7,5\% \end{aligned}$$

$$\text{Rata-rata kadar air} = \frac{9\%+8\%+7,5\%}{3}$$

Perhitungan kadar air pada ekstrak

$$\begin{aligned} \% \text{ kadar air} &= \frac{\text{bobot bahan awal sebelum dikeringkan} - \text{bobot setelah dikeringkan}}{\text{bobot bahan awal sebelum dikeringkan}} \\ &\times 100\% \end{aligned}$$

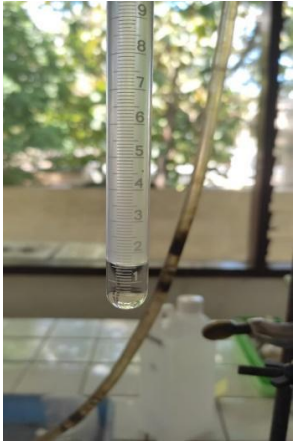
$$\begin{aligned} \text{Replikasi I} &= \frac{7,1304 \text{ g} - 6,4918 \text{ g}}{7,1304 \text{ g}} \times 100\% \\ &= 8,95\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi II} &= \frac{6,9873 \text{ g} - 6,3730 \text{ g}}{6,9873 \text{ g}} \times 100\% \\ &= 8,79\% \end{aligned}$$

$$\begin{aligned} \text{Replikasi III} &= \frac{7,0566 \text{ g} - 6,4481 \text{ g}}{7,0566 \text{ g}} \times 100\% \\ &= 8,62\% \end{aligned}$$

$$\begin{aligned} \text{Rata-rata kadar air} &= \frac{8,95\%+8,79\%+8,62\%}{3} \\ &= 8,79\% \end{aligned}$$

Lampiran 4 Gambar hasil pengujian kadar air simplisia



Replikasi I



Replikasi II



Replikasi III

Lampiran 5 Gambar hasil pengujian fitokimia



Alkaloid



Flavonoid



Saponin



Tanin

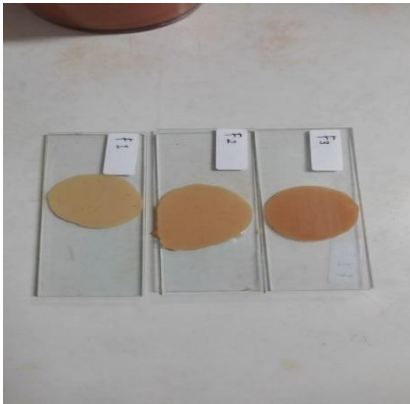


Steroid

Lampiran 6 Pembuatan dan uji mutu fisik krim



Krim ekstrak kulit bawang merah Formula (-), 1, 2, dan 3



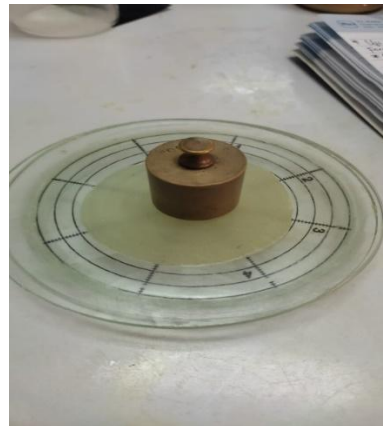
Uji homogenitas



Uji viskositas krim



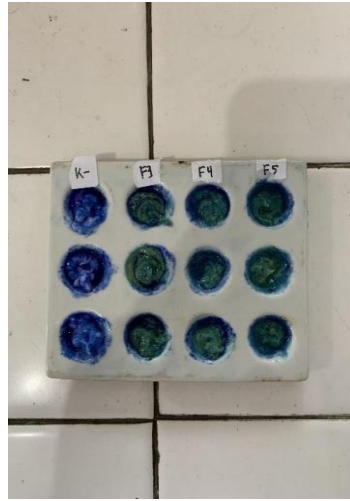
Uji pH krim



Uji daya sebar krim



Uji daya lekat krim

Uji tipe krim dengan *methilen blue*

Uji tipe krim dengan pengenceran air



Uji tipe krim dengan daya hantar listrik

Lampiran 7 Hasil SPSS

HASIL MUTU FISIK VISKOSITAS

Tests of Normality

	Viskositas	Shapiro-Wilk		
		Statistic	Df	Sig.
Formula	Kontrol negatif	.993	3	.843
	F1	.987	3	.780
	F2	.902	3	.391
	F3	.987	3	.780

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

Formula	Levene Statistic	df1	df2	Sig.
	5.155	3	8	.028

ANOVA

Formula	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3336.849	3	1112.283	10.896	.003
Within Groups	816.667	8	102.083		
Total	4153.516	11			

Post Hoc Tests

(I) Viskositas	(J) Viskositas	Mean Difference (I-J)	Std. Error	Sig.
Kontrol negatif	F1	22.08333*	3.11805	.012
	F2	-9.16667	10.93700	.921
	F3	32.50000*	4.42923	.012
F1	Kontrol negatif	-22.08333*	3.11805	.012
	F2	-31.25000	10.79319	.275
	F3	10.41667	4.06116	.279
F2	Kontrol negatif	9.16667	10.93700	.921
	F1	31.25000	10.79319	.275
	F3	41.66667	11.24228	.153
F3	Kontrol negatif	-32.50000*	4.42923	.012
	F1	-10.41667	4.06116	.279
	F2	-41.66667	11.24228	.153

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

DAYA SEBAR SEBELUM STABILITAS

Tests of Normality

		Shapiro-Wilk		
Daya_sebar		Statistic	df	Sig.
Kontrol_negatif	Beban 0 gram	.964	3	.637
	Beban 50 gram	.995	3	.862
	Beban 100 gram	.993	3	.843
	Beban 200 gram	.991	3	.817
F1	Beban 0 gram	.886	3	.342
	Beban 50 gram	.947	3	.554
	Beban 100 gram	.850	3	.241
	Beban 200 gram	.964	3	.637
F2	Beban 0 gram	.887	3	.344
	Beban 50 gram	.789	3	.089
	Beban 100 gram	.964	3	.637
	Beban 200 gram	.902	3	.391
F3	Beban 0 gram	.893	3	.363
	Beban 50 gram	.871	3	.298
	Beban 100 gram	.938	3	.520
	Beban 200 gram	.984	3	.762

a. Lilliefors Significance Correction

Oneway

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Kontrol_negatif	.514	3	8	.684
F1	2.173	3	8	.169
F2	10.017	3	8	.004
F3	1.562	3	8	.272

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Kontrol_negatif	Between Groups	4.263	3	1.421	378.114	.000
	Within Groups	.030	8	.004		
	Total	4.293	11			
F1	Between Groups	8.008	3	2.669	160.960	.000
	Within Groups	.133	8	.017		
	Total	8.140	11			
F2	Between Groups	4.618	3	1.539	19.891	.000
	Within Groups	.619	8	.077		
	Total	5.237	11			

F3	Between Groups	4.148	3	1.383	213.563	.000
	Within Groups	.052	8	.006		
	Total	4.200	11			

Multiple Comparisons

Dunnnett T3

Dependent Variable	(I) Daya_sebar	(J) Daya_sebar	Mean Difference (I-J)	Std. Error	Sig.
Kontrol_negatif	Beban 0 gram	Beban 50 gram	-.66333*	.05821	.002
		Beban 100 gram	-1.28000*	.04069	.000
		Beban 200 gram	-1.54333*	.04955	.000
	Beban 50 gram	Beban 0 gram	.66333*	.05821	.002
		Beban 100 gram	-.61667*	.05055	.007
		Beban 200 gram	-.88000*	.05793	.001
	Beban 100 gram	Beban 0 gram	1.28000*	.04069	.000
		Beban 50 gram	.61667*	.05055	.007
		Beban 200 gram	-.26333*	.04028	.023
	Beban 200 gram	Beban 0 gram	1.54333*	.04955	.000
		Beban 50 gram	.88000*	.05793	.001
		Beban 100 gram	.26333*	.04028	.023
F1	Beban 0 gram	Beban 50 gram	-1.35000*	.12419	.009
		Beban 100 gram	-1.89333*	.13275	.002
		Beban 200 gram	-2.09333*	.12175	.003
	Beban 50 gram	Beban 0 gram	1.35000*	.12419	.009
		Beban 100 gram	-.54333*	.08537	.017
		Beban 200 gram	-.74333*	.06700	.002
	Beban 100 gram	Beban 0 gram	1.89333*	.13275	.002
		Beban 50 gram	.54333*	.08537	.017
		Beban 200 gram	-.20000	.08179	.285
	Beban 200 gram	Beban 0 gram	2.09333*	.12175	.003

		Beban 50 gram	.74333*	.06700	.002
		Beban 100 gram	.20000	.08179	.285
F2	Beban 0 gram	Beban 50 gram	-.58333	.31531	.520
		Beban 100 gram	-1.05333*	.07803	.001
		Beban 200 gram	-1.69000*	.07717	.000
	Beban 50 gram	Beban 0 gram	.58333	.31531	.520
		Beban 100 gram	-.47000	.31180	.652
		Beban 200 gram	-1.10667	.31159	.197
	Beban 100 gram	Beban 0 gram	1.05333*	.07803	.001
		Beban 50 gram	.47000	.31180	.652
		Beban 200 gram	-.63667*	.06128	.002
	Beban 200 gram	Beban 0 gram	1.69000*	.07717	.000
		Beban 50 gram	1.10667	.31159	.197
		Beban 100 gram	.63667*	.06128	.002
F3	Beban 0 gram	Beban 50 gram	-.55667*	.03575	.001
		Beban 100 gram	-.98333*	.06173	.002
		Beban 200 gram	-1.60667*	.07356	.001
	Beban 50 gram	Beban 0 gram	.55667*	.03575	.001
		Beban 100 gram	-.42667*	.05676	.031
		Beban 200 gram	-1.05000*	.06944	.008
	Beban 100 gram	Beban 0 gram	.98333*	.06173	.002
		Beban 50 gram	.42667*	.05676	.031
		Beban 200 gram	-.62333*	.08576	.010

PH SEBELUM STABILITAS

Tests of Normality

pH		Shapiro-Wilk		
Formula		Statistic	df	Sig.
Formula	Kontrol negatif	.997	3	.896
	F1	.936	3	.510
	F2	.842	3	.220
	F3	.996	3	.878

a. Lilliefors Significance Correction

Oneway**Test of Homogeneity of Variances**

Formula	Levene Statistic	df1	df2	Sig.
	2.491	3	8	.134

ANOVA

Formula	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.265	3	1.088	42.073	.000
Within Groups	.207	8	.026		
Total	3.472	11			

Post Hoc Tests**Multiple Comparisons**

Dependent Variable: Formula

Tukey HSD

(I) pH	(J) pH	Mean Difference (I-J)	Std. Error	Sig.
Kontrol negatif	F1	.92667*	.13132	.000
	F2	1.26667*	.13132	.000
	F3	1.28333*	.13132	.000
F1	Kontrol negatif	-.92667*	.13132	.000
	F2	.34000	.13132	.119
	F3	.35667	.13132	.099
F2	Kontrol negatif	-1.26667*	.13132	.000
	F1	-.34000	.13132	.119
	F3	.01667	.13132	.999
F3	Kontrol negatif	-1.28333*	.13132	.000
	F1	-.35667	.13132	.099
	F2	-.01667	.13132	.999

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

DAYA LEKAT SEBELUM STABILITAS

	Formula	Shapiro-Wilk		
		Statistic	df	Sig.
Daya_lekat	Kontrol negatif	.999	3	.927
	F1	.887	3	.344
	F2	1.000	3	.959
	F3	.907	3	.407

Oneway

Test of Homogeneity of Variances

Daya_lekat	Levene Statistic	df1	df2	Sig.
	.353	3	8	.789

ANOVA

Daya_lekat	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.324	3	.108	9.545	.005
Within Groups	.090	8	.011		
Total	.414	11			

Post Hoc Tests

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.
Kontrol negatif	F1	.29333*	.08683	.039
	F2	.30333*	.08683	.033
	F3	.45333*	.08683	.004
F1	Kontrol negatif	-.29333*	.08683	.039
	F2	.01000	.08683	.999
	F3	.16000	.08683	.322
F2	Kontrol negatif	-.30333*	.08683	.033
	F1	-.01000	.08683	.999
	F3	.15000	.08683	.371
F3	Kontrol negatif	-.45333*	.08683	.004
	F1	-.16000	.08683	.322
	F2	-.15000	.08683	.371

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

VISKOSITAS SETELAH STABILITAS

Tests of Normality

		Shapiro-Wilk		
Viskositas		Statistic	df	Sig.
Sebelum_stabilitas	Kontrol Negatif	.993	3	.843
	F1	.987	3	.780
	F2	.902	3	.391
	F3	.987	3	.780
Setelah_stabilitas	Kontrol Negatif	.988	3	.787
	F1	1.000	3	.985
	F2	.959	3	.613
	F3	1.000	3	.959

a. Lilliefors Significance Correction

Paired Samples Test

		t	df	Sig. (2-tailed)			
		Mean	Std. Deviation	Std. Error Mean			
Pair 1	Kontrol Negatif_ sebelum - Kontrol Negatif setelah	10.41667	11.18407	6.45712	1.613	2	.248
Pair 2	F1_sebelum - F1_setelah	-2.33333	8.64701	4.99236	-.467	2	.686
Pair 3	F2_sebelum - F2_setelah	-17.66667	9.22406	5.32552	-	2	.080
Pair 4	F3_sebelum - F3_setelah	-21.08333	3.98696	2.30187	-	2	.012
					3.317		
					9.159		

DAYA LEKAT SETELAH STABILITAS

Tests of Normality

Shapiro-Wilk

		Shapiro-Wilk		
Daya_lekat		Statistic	df	Sig.
Sebelum_stabilitas	F1	.999	3	.927
	F2	1.000	3	1.000
	F3	1.000	3	1.000
	F4	.893	3	.363
Sesudah_stabilitas	F1	.980	3	.726
	F2	.893	3	.363
	F3	.996	3	.878
	F4	.964	3	.637

Paired Samples Test

		T	Df	Std. Error Mean	Sig. (2-tailed)		
		Mean	Std. Deviation				
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Sesudah	.05333	.07234	.04177	1.277	2	.330
Pair 2	F1_Sebelum - F1_Sesudah	.00000	.02646	.01528	.000	2	1.000
Pair 3	F2_Sebelum - F2_Sesudah	-.08667	.05132	.02963	-2.925	2	.100
Pair 4	F3_Sebelum - F3_Sesudah	.00333	.04041	.02333	-.143	2	.899

DAYA SEBAR SETELAH STABILITAS

	Daya_Sebar	Shapiro-Wilk		
		Statistic	df	Sig.
KontrolNegatif_Sebelum	Beban 0 gram	.964	3	.637
	Beban 50 gram	.995	3	.862
	Beban 100 gram	.993	3	.843
	Beban 200 gram	.991	3	.817
KontrolNegatif_Setelah	Beban 0 gram	.750	3	.000
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	1.000	3	1.000
	Beban 200 gram	.964	3	.637
F1_Sebelum	Beban 0 gram	.886	3	.342
	Beban 50 gram	.947	3	.554
	Beban 100 gram	.850	3	.241
	Beban 200 gram	.964	3	.637
F1_Setelah	Beban 0 gram	1.000	3	1.000
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	.964	3	.637
	Beban 200 gram	1.000	3	1.000
F2_Sebelum	Beban 0 gram	.947	3	.554
	Beban 50 gram	.964	3	.637
	Beban 100 gram	.964	3	.637
	Beban 200 gram	1.000	3	1.000
F2_Setelah	Beban 0 gram	.750	3	.000
	Beban 50 gram	.964	3	.637
	Beban 100 gram	1.000	3	1.000
	Beban 200 gram	1.000	3	1.000
F3_Sebelum	Beban 0 gram	.893	3	.363
	Beban 50 gram	.871	3	.298
	Beban 100 gram	.871	3	.298
	Beban 200 gram	.984	3	.762
F3_Setelah	Beban 0 gram	.964	3	.637
	Beban 50 gram	1.000	3	1.000
	Beban 100 gram	.987	3	.780
	Beban 200 gram	.893	3	.363

a. Lilliefors Significance Correction

Paired Samples Test

		Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pair 1	KontrolNegatif_Sebelum - KontrolNegatif_Setelah	.28000	.20876	.06026	4.646	11	.001
Pair 2	F1_Sebelum - F1_Setelah	.60167	.30561	.08822	6.820	11	.000
Pair 3	F2_Sebelum - F2_Setelah	1.22833	.54352	.15690	7.829	11	.000
Pair 4	F3_Sebelum - F3_Setelah	1.30250	.31620	.09128	14.269	11	.000

PH SETELAH STABILITAS

Tests of Normality

		Shapiro-Wilk		
pH		Statistic	df	Sig.
Sebelum_stabilitas	Kontrol negatif	.997	3	.896
	F1	.936	3	.510
	F2	.842	3	.220
	F3	.996	3	.878
Setelah_stabilitas	Kontrol negatif	.999	3	.930
	F1	.984	3	.756
	F2	.981	3	.736
	F3	.953	3	.583

a. Lilliefors Significance Correction