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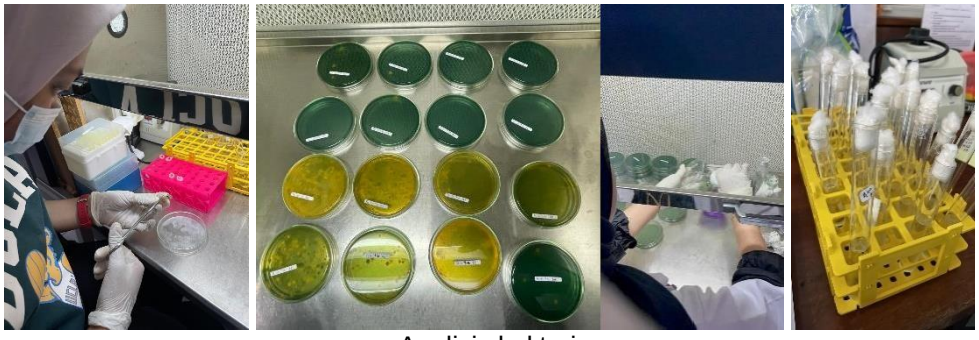
LAMPIRAN

Lampiran 1. Dokumentasi Kegiatan Penelitiian

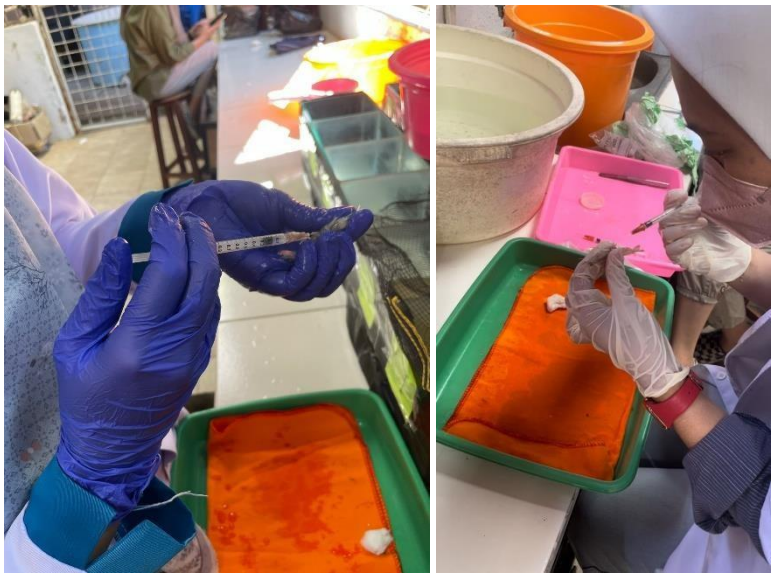
Persiapan hewan uji

Pemeliharaan Udang vaname

Pembuatan pakan

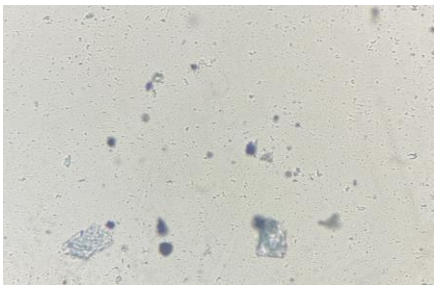


Analisis bakteri



Injeksi bakteri

Analisis parameter imun



Diferensiasi hemosit

Lampiran 2. Hasil Statistik Total Hemosit Count Awal

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY THC_Awal BY Perlakuan /STATISTICS DESCRIPTIVES/MISSING ANALYSIS/POSTHOC= TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.01

Descriptives

THC_Awal

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound
0% (Kontrol)	3	67500000.0000	6614378.27766	3818813.07913	51068973.4807
5%	3	115833333.3333	17736497.21149	10240171.43954	71773431.7359
10%	3	68333333.3333	24537386.44056	14166666.66667	7379086.3285
15%	3	90833333.3333	31655699.85537	18276426.83288	12196215.5308
Total	12	85625000.0000	28004159.59363	8084104.53991	67832005.8750

Descriptives

THC_Awal

	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
0% (Kontrol)	83931026.5193	6.00E+7	7.25E+7
5%	159893234.9308	1.00E+8	1.35E+8
10%	129287580.3381	4.00E+7	8.25E+7
15%	169470451.1359	5.50E+7	1.15E+8

Total	103417994.1250	4.00E+7	1.35E+8

ANOVA

THC_Awal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4701562499999999.000	3	1567187499999999.800	3.194	.084
Within Groups	3925000000000000.000	8	490625000000000.000		
Total	8626562499999999.000	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: THC_Awal
Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
0% (Kontrol)	5%	-48333333.33333	18085445.34518	.106	-106249295.4923
	10%	-833333.33333	18085445.34518	1.000	-58749295.4923
	15%	-23333333.33333	18085445.34518	.593	-81249295.4923
5%	0% (Kontrol)	48333333.33333	18085445.34518	.106	-9582628.8256
	10%	47500000.00000	18085445.34518	.113	-10415962.1589
	15%	25000000.00000	18085445.34518	.542	-32915962.1589
10%	0% (Kontrol)	833333.33333	18085445.34518	1.000	-57082628.8256
	5%	-47500000.00000	18085445.34518	.113	-105415962.1589
	15%	-22500000.00000	18085445.34518	.619	-80415962.1589
15%	0% (Kontrol)	23333333.33333	18085445.34518	.593	-34582628.8256
	5%	-25000000.00000	18085445.34518	.542	-82915962.1589
	10%	22500000.00000	18085445.34518	.619	-35415962.1589

Multiple Comparisons

Dependent Variable: THC_Awal
Tukey HSD

(I) Perlakuan	(J) Perlakuan	95% Confidence Interval Upper Bound
0% (Kontrol)	5%	9582628.8256
	10%	57082628.8256
	15%	34582628.8256
5%	0% (Kontrol)	106249295.4923
	10%	105415962.1589
	15%	82915962.1589
10%	0% (Kontrol)	58749295.4923
	5%	10415962.1589
	15%	35415962.1589
15%	0% (Kontrol)	81249295.4923
	5%	32915962.1589
	10%	80415962.1589

Homogeneous Subsets

THC_Awal

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05
		1

0% (Kontrol)	3	67500000.0000
10%	3	68333333.3333
15%	3	90833333.3333
5%	3	115833333.3333
Sig.		.106

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 3. Hasil Statistik Total Hemosit Count Akhir

Oneway

Notes

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Syntax		ONEWAY THC_Akhir BY Perlakuan /STATISTICS DESCRIPTIVES/MISSING ANALYSIS/POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.02
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Descriptives

THC_Akhir

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean
					Lower Bound
0% (Kontrol)	3	9500000.0000	3072051.43186	1773649.72115	1868601.1857
5%	3	10333333.3333	629152.86961	363241.57863	8770430.9635
10%	3	9750000.0000	1520690.63257	877971.14607	5972395.0517
15%	3	8166666.6667	946484.72430	546453.21036	5815468.2694
Total	12	9437500.0000	1748782.04370	504829.89184	8326376.8997

Descriptives

THC_Akhir

	95% Confidence Interval for Mean		
	Upper Bound	Minimum	Maximum
0% (Kontrol)	17131398.8143	7.25E+6	1.30E+7
5%	11896235.7032	9.75E+6	1.10E+7
10%	13527604.9483	8.00E+6	1.08E+7
15%	10517865.0639	7.50E+6	9.25E+6
Total	10548623.1003	7.25E+6	1.30E+7

ANOVA

THC_Akhir

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7557291666666.668	3	2519097222222.223	.773	.541
Within Groups	26083333333333.336	8	3260416666666.667		
Total	33640625000000.004	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: THC_Akhir

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
0% (Kontrol)	5%	-833333.33333	1474317.16775	.940	-5554615.8712
	10%	-250000.00000	1474317.16775	.998	-4971282.5379
	15%	1333333.33333	1474317.16775	.803	-3387949.2045
5%	0% (Kontrol)	833333.33333	1474317.16775	.940	-3887949.2045
	10%	583333.33333	1474317.16775	.978	-4137949.2045
	15%	2166666.66667	1474317.16775	.496	-2554615.8712
10%	0% (Kontrol)	250000.00000	1474317.16775	.998	-4471282.5379
	5%	-583333.33333	1474317.16775	.978	-5304615.8712
	15%	1583333.33333	1474317.16775	.714	-3137949.2045
15%	0% (Kontrol)	-1333333.33333	1474317.16775	.803	-6054615.8712
	5%	-2166666.66667	1474317.16775	.496	-6887949.2045
	10%	-1583333.33333	1474317.16775	.714	-6304615.8712

Multiple Comparisons

Dependent Variable: THC_Akhir

Tukey HSD

(I) Perlakuan	(J) Perlakuan	95% Confidence Interval Upper Bound
0% (Kontrol)	5%	3887949.2045
	10%	4471282.5379
	15%	6054615.8712
5%	0% (Kontrol)	5554615.8712
	10%	5304615.8712
	15%	6887949.2045
10%	0% (Kontrol)	4971282.5379
	5%	4137949.2045
	15%	6304615.8712
15%	0% (Kontrol)	3387949.2045
	5%	2554615.8712
	10%	3137949.2045

Homogeneous Subsets

THC_Akhir

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05 1
15%	3	8166666.6667
0% (Kontrol)	3	9500000.0000
10%	3	9750000.0000
5%	3	10333333.3333
Sig.		.496

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 4. Hasil Statistik Granular Awal

Oneway

Notes

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Syntax		ONEWAY granular BY Perlakuan /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA (0.05).
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Descriptives

granular

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	25.7533	2.19432	1.26689	20.3023	31.2043
5%	3	37.5500	12.25899	7.07773	7.0970	68.0030
10%	3	26.6700	6.87029	3.96656	9.6033	43.7367
15%	3	35.2600	5.03536	2.90717	22.7515	47.7685
Total	12	31.3083	8.39993	2.42485	25.9713	36.6454

Descriptives

granular

	Minimum	Maximum
0% (Kontrol)	23.35	27.65
5%	29.75	51.68
10%	20.90	34.27
15%	30.19	40.26
Total	20.90	51.68

ANOVA

granular

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	320.839	3	106.946	1.879	.212
Within Groups	455.307	8	56.913		
Total	776.146	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: granular

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	-11.79667	6.15973	.294	-31.5223	7.9290
	10%	-.91667	6.15973	.999	-20.6423	18.8090
	15%	-9.50667	6.15973	.458	-29.2323	10.2190
5%	0% (Kontrol)	11.79667	6.15973	.294	-7.9290	31.5223
	10%	10.88000	6.15973	.354	-8.8456	30.6056
	15%	2.29000	6.15973	.981	-17.4356	22.0156
10%	0% (Kontrol)	.91667	6.15973	.999	-18.8090	20.6423
	5%	-10.88000	6.15973	.354	-30.6056	8.8456
	15%	-8.59000	6.15973	.536	-28.3156	11.1356
15%	0% (Kontrol)	9.50667	6.15973	.458	-10.2190	29.2323
	5%	-2.29000	6.15973	.981	-22.0156	17.4356
	10%	8.59000	6.15973	.536	-11.1356	28.3156

Homogeneous Subsets

granular

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05 1
0% (Kontrol)	3	25.7533
10%	3	26.6700
15%	3	35.2600
5%	3	37.5500
Sig.		.294

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 5. Hasil Statistik Granular Akhir

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Granular BY Perlakuan /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA(0.05).
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Descriptives

Granular

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	27.6333	2.28108	1.31698	21.9668	33.2999
5%	3	33.1533	1.91818	1.10746	28.3883	37.9184
10%	3	38.0633	4.96899	2.86885	25.7197	50.4070
15%	3	40.6800	2.20320	1.27202	35.2069	46.1531
Total	12	34.8825	5.83612	1.68474	31.1744	38.5906

Descriptives

Granular

	Minimum	Maximum
0% (Kontrol)	25.00	29.00
5%	31.53	35.27
10%	34.78	43.78
15%	38.73	43.07
Total	25.00	43.78

ANOVA

Granular

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	297.807	3	99.269	10.333	.004
Within Groups	76.855	8	9.607		
Total	374.663	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Granular
Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	-5.52000	2.53073	.208	-13.6243	2.5843
	10%	-10.43000*	2.53073	.014	-18.5343	-2.3257
	15%	-13.04667*	2.53073	.004	-21.1510	-4.9424
5%	0% (Kontrol)	5.52000	2.53073	.208	-2.5843	13.6243
	10%	-4.91000	2.53073	.285	-13.0143	3.1943
	15%	-7.52667	2.53073	.069	-15.6310	.5776
10%	0% (Kontrol)	10.43000*	2.53073	.014	2.3257	18.5343
	5%	4.91000	2.53073	.285	-3.1943	13.0143
	15%	-2.61667	2.53073	.736	-10.7210	5.4876
15%	0% (Kontrol)	13.04667*	2.53073	.004	4.9424	21.1510
	5%	7.52667	2.53073	.069	-.5776	15.6310
	10%	2.61667	2.53073	.736	-5.4876	10.7210

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

Homogeneous Subsets

Granular

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05	
		1	2
0% (Kontrol)	3	27.6333	
5%	3	33.1533	33.1533
10%	3		38.0633
15%	3		40.6800
Sig.		.208	.069

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 6. Hasil Statistik Semigranular Awal

Oneway

Notes

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	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY semi_granular BY Perlakuan/STATISTICS DESCRIPTIVES/MISSING ANALYSIS/POSTHOC=TUKEY ALPHA (0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03

Descriptives

semi_granular

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	41.5867	4.32631	2.49779	30.8395	52.3338
5%	3	26.7300	11.28463	6.51518	-1.3026	54.7626
10%	3	24.3167	2.42011	1.39725	18.3048	30.3286
15%	3	20.2900	6.82176	3.93854	3.3438	37.2362
Total	12	28.2308	10.33059	2.98218	21.6671	34.7946

Descriptives

semi_granular

	Minimum	Maximum
0% (Kontrol)	37.06	45.68
5%	13.76	34.30
10%	21.91	26.75
15%	14.29	27.71
Total	13.76	45.68

ANOVA

semi_granular

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	777.025	3	259.008	5.221	.027
Within Groups	396.906	8	49.613		
Total	1173.931	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: semi_granular
Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	14.85667	5.75113	.120	-3.5605	33.2738
	10%	17.27000	5.75113	.066	-1.1472	35.6872
	15%	21.29667*	5.75113	.025	2.8795	39.7138
5%	0% (Kontrol)	-14.85667	5.75113	.120	-33.2738	3.5605
	10%	2.41333	5.75113	.974	-16.0038	20.8305
	15%	6.44000	5.75113	.688	-11.9772	24.8572
10%	0% (Kontrol)	-17.27000	5.75113	.066	-35.6872	1.1472
	5%	-2.41333	5.75113	.974	-20.8305	16.0038
	15%	4.02667	5.75113	.894	-14.3905	22.4438
15%	0% (Kontrol)	-21.29667*	5.75113	.025	-39.7138	-2.8795
	5%	-6.44000	5.75113	.688	-24.8572	11.9772
	10%	-4.02667	5.75113	.894	-22.4438	14.3905

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

Homogeneous Subsets

semi_granular

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05	
		1	2
15%	3	20.2900	
10%	3	24.3167	24.3167
5%	3	26.7300	26.7300
0% (Kontrol)	3		41.5867
Sig.		.688	.066

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 7. Hasil Statistik Semigranular Akhir

Oneway

Notes

Output Created		27-NOV-2023 18:54:15
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Semi_Granular BY Perlakuan/STATISTICS DESCRIPTIVES/MISSING ANALYSIS/POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.02

Descriptives

Semi_Granular

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	37.8300	13.61947	7.86321	3.9974	71.6626
5%	3	21.5567	4.67141	2.69704	9.9523	33.1611
10%	3	19.8600	2.31162	1.33462	14.1176	25.6024
15%	3	20.1567	1.95490	1.12866	15.3004	25.0129
Total	12	24.8508	10.05311	2.90208	18.4634	31.2383

Descriptives

Semi_Granular

	Minimum	Maximum
0% (Kontrol)	27.03	53.13
5%	16.18	24.62
10%	17.60	22.22
15%	18.63	22.36
Total	16.18	53.13

ANOVA

Semi_Granular

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	678.762	3	226.254	4.181	.047
Within Groups	432.955	8	54.119		
Total	1111.716	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Semi_Granular

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	16.27333	6.00663	.100	-2.9620	35.5087
	10%	17.97000	6.00663	.067	-1.2653	37.2053
	15%	17.67333	6.00663	.072	-1.5620	36.9087
5%	0% (Kontrol)	-16.27333	6.00663	.100	-35.5087	2.9620
	10%	1.69667	6.00663	.992	-17.5387	20.9320
	15%	1.40000	6.00663	.995	-17.8353	20.6353
10%	0% (Kontrol)	-17.97000	6.00663	.067	-37.2053	1.2653
	5%	-1.69667	6.00663	.992	-20.9320	17.5387
	15%	-.29667	6.00663	1.000	-19.5320	18.9387
15%	0% (Kontrol)	-17.67333	6.00663	.072	-36.9087	1.5620
	5%	-1.40000	6.00663	.995	-20.6353	17.8353
	10%	.29667	6.00663	1.000	-18.9387	19.5320

Homogeneous Subsets

Semi_Granular

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05
		1
10%	3	19.8600
15%	3	20.1567
5%	3	21.5567
0% (Kontrol)	3	37.8300
Sig.		.067

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 8. Hasil Statistik Hialin Awal

Oneway

Notes

Output Created		27-NOV-2023 18:57:28
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY hialin BY Perlakuan /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.03
	Elapsed Time	00:00:00.03

Descriptives

hialin

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	31.7833	3.37159	1.94659	23.4078	40.1588
5%	3	35.7200	1.06381	.61419	33.0773	38.3627
10%	3	49.0100	5.51454	3.18382	35.3111	62.7089
15%	3	44.4467	7.04876	4.06960	26.9366	61.9568
Total	12	40.2400	8.22884	2.37546	35.0116	45.4684

Descriptives

hialin

	Minimum	Maximum
0% (Kontrol)	28.06	34.63
5%	34.56	36.65
10%	43.82	54.80
15%	36.95	50.94
Total	28.06	54.80

ANOVA

hialin

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	559.664	3	186.555	8.059	.008
Within Groups	185.189	8	23.149		
Total	744.853	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: hialin
Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	-3.93667	3.92841	.753	-16.5168	8.6435
	10%	-17.22667*	3.92841	.010	-29.8068	-4.6465
	15%	-12.66333*	3.92841	.049	-25.2435	-.0832
5%	0% (Kontrol)	3.93667	3.92841	.753	-8.6435	16.5168
	10%	-13.29000*	3.92841	.039	-25.8702	-.7098
	15%	-8.72667	3.92841	.197	-21.3068	3.8535
10%	0% (Kontrol)	17.22667*	3.92841	.010	4.6465	29.8068
	5%	13.29000*	3.92841	.039	.7098	25.8702
	15%	4.56333	3.92841	.665	-8.0168	17.1435
15%	0% (Kontrol)	12.66333*	3.92841	.049	.0832	25.2435
	5%	8.72667	3.92841	.197	-3.8535	21.3068
	10%	-4.56333	3.92841	.665	-17.1435	8.0168

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

Homogeneous Subsets

hialin

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05		
		1	2	3
0% (Kontrol)	3	31.7833		
5%	3	35.7200	35.7200	
15%	3		44.4467	44.4467
10%	3			49.0100
Sig.		.753	.197	.665

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 9. Hasil Statistik Hialin Akhir

Oneway

Notes

Output Created		27-NOV-2023 18:55:41
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY hialin BY Perlakuan /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.03

Descriptives

hialin

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	34.5600	11.41583	6.59093	6.2015	62.9185
5%	3	45.2833	2.98110	1.72114	37.8779	52.6888
10%	3	42.0767	3.41059	1.96911	33.6043	50.5490
15%	3	39.1667	3.01676	1.74173	31.6726	46.6607
Total	12	40.2717	6.78594	1.95893	35.9601	44.5832

Descriptives

hialin

	Minimum	Maximum
0% (Kontrol)	21.88	44.02
5%	42.71	48.55
10%	38.63	45.45
15%	37.40	42.65
Total	21.88	48.55

ANOVA

hialin

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	186.657	3	62.219	1.556	.274
Within Groups	319.882	8	39.985		
Total	506.539	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: hialin
Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
0% (Kontrol)	5%	-10.72333	5.16303	.239	-27.2572	5.8105
	10%	-7.51667	5.16303	.503	-24.0505	9.0172
	15%	-4.60667	5.16303	.809	-21.1405	11.9272
5%	0% (Kontrol)	10.72333	5.16303	.239	-5.8105	27.2572
	10%	3.20667	5.16303	.922	-13.3272	19.7405
	15%	6.11667	5.16303	.652	-10.4172	22.6505
10%	0% (Kontrol)	7.51667	5.16303	.503	-9.0172	24.0505
	5%	-3.20667	5.16303	.922	-19.7405	13.3272
	15%	2.91000	5.16303	.940	-13.6238	19.4438
15%	0% (Kontrol)	4.60667	5.16303	.809	-11.9272	21.1405
	5%	-6.11667	5.16303	.652	-22.6505	10.4172
	10%	-2.91000	5.16303	.940	-19.4438	13.6238

Homogeneous Subsets

hialin

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05 1
0% (Kontrol)	3	34.5600
15%	3	39.1667
10%	3	42.0767
5%	3	45.2833
Sig.		.239

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 10. Hasil Statistik Fagositosis Awal

Oneway

Notes

Output Created		27-NOV-2023 18:46:33
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Fagosit_Awal BY Perlakuan/STATISTICS DESCRIPTIVES /MISSING ANALYSIS/POSTHOC=TUKEY ALPHA (0.05).
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.19

Descriptives

Fagosit_Awal

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
0% (Kontrol)	3	9.3333	2.44404	1.41107	3.2620	15.4047
5%	3	12.2667	1.66533	.96148	8.1298	16.4036
10%	3	13.6000	3.20000	1.84752	5.6508	21.5492
15%	3	16.8000	2.88444	1.66533	9.6347	23.9653
Total	12	13.0000	3.57974	1.03338	10.7255	15.2745

Descriptives

Fagosit_Awal

	Minimum	Maximum
0% (Kontrol)	7.20	12.00
5%	10.40	13.60
10%	10.40	16.80
15%	13.60	19.20
Total	7.20	19.20

ANOVA

Fagosit_Awal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	86.347	3	28.782	4.216	.046
Within Groups	54.613	8	6.827		
Total	140.960	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Fagosit_Awal

Tukey HSD

(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0% (Kontrol)	5%	-2.93333	2.13333	.546	-9.7650	3.8984
	10%	-4.26667	2.13333	.264	-11.0984	2.5650
	15%	-7.46667*	2.13333	.033	-14.2984	-.6350
5%	0% (Kontrol)	2.93333	2.13333	.546	-3.8984	9.7650
	10%	-1.33333	2.13333	.921	-8.1650	5.4984
	15%	-4.53333	2.13333	.224	-11.3650	2.2984
10%	0% (Kontrol)	4.26667	2.13333	.264	-2.5650	11.0984
	5%	1.33333	2.13333	.921	-5.4984	8.1650
	15%	-3.20000	2.13333	.480	-10.0317	3.6317
15%	0% (Kontrol)	7.46667*	2.13333	.033	.6350	14.2984
	5%	4.53333	2.13333	.224	-2.2984	11.3650
	10%	3.20000	2.13333	.480	-3.6317	10.0317

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

Homogeneous Subsets

Fagosit_Awal

Tukey HSD[a]

Perlakuan	N	Subset for alpha = 0.05	
		1	2
0% (Kontrol)	3	9.3333	
5%	3	12.2667	12.2667
10%	3	13.6000	13.6000
15%	3		16.8000
Sig.		.264	.224

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 11. Hasil statistik Fagositosis akhir

Oneway

Notes

Output Created		21-MAR-2024 09:44:21
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY AF3 BY Perlakuan /STATISTICS DESCRIPTIVES HOMOGENEITY /MISSING ANALYSIS /CRITERIA= CILEVEL(0.95) /POSTHOC= TUKEY DUNNETTR (1) ALPHA(0.05).
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.03

Descriptives

AF3

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Tanpa Fitooil	3	13.2000	.40000	.23094	12.2063	14.1937
5% Fitooil	3	20.0667	.70238	.40552	18.3219	21.8115
10% Fitooil	3	22.9333	2.72274	1.57198	16.1697	29.6970
15% Fitooil	3	25.0667	4.98130	2.87595	12.6924	37.4409
Total	12	20.3167	5.27530	1.52285	16.9649	23.6684

Descriptives

AF3

	Minimum	Maximum
Tanpa Fitooil	12.80	13.60
5% Fitooil	19.40	20.80
10% Fitooil	20.80	26.00
15% Fitooil	21.80	30.80
Total	12.80	30.80

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
AF3	Based on Mean	7.691	3	8	.010
	Based on Median	.775	3	8	.540
	Based on Median and with adjusted df	.775	3	2.842	.583
	Based on trimmed mean	6.484	3	8	.016

ANOVA

AF3

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	240.357	3	80.119	9.747	.005
Within Groups	65.760	8	8.220		
Total	306.117	11			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: AF3

	(I) Perlakuan	(J) Perlakuan	Mean Difference (I-J)	Std. Error	Sig.
Tukey HSD	Tanpa Fitooil	5% Fitooil	-6.86667	2.34094	.073
		10% Fitooil	-9.73333*	2.34094	.013
		15% Fitooil	-11.86667*	2.34094	.004
	5% Fitooil	Tanpa Fitooil	6.86667	2.34094	.073
		10% Fitooil	-2.86667	2.34094	.630
		15% Fitooil	-5.00000	2.34094	.221
	10% Fitooil	Tanpa Fitooil	9.73333*	2.34094	.013
		5% Fitooil	2.86667	2.34094	.630
		15% Fitooil	-2.13333	2.34094	.800
	15% Fitooil	Tanpa Fitooil	11.86667*	2.34094	.004
		5% Fitooil	5.00000	2.34094	.221
		10% Fitooil	2.13333	2.34094	.800
Dunnett t (>control)[b]	5% Fitooil	Tanpa Fitooil	6.86667*	2.34094	.023
	10% Fitooil	Tanpa Fitooil	9.73333*	2.34094	.004
	15% Fitooil	Tanpa Fitooil	11.86667*	2.34094	.001

Multiple Comparisons

Dependent Variable: AF3

			95% Confidence Interval	
	(I) Perlakuan	(J) Perlakuan	Lower Bound	Upper Bound
Tukey HSD	Tanpa Fitooil	5% Fitooil	-14.3632	.6298
		10% Fitooil	-17.2298	-2.2368
		15% Fitooil	-19.3632	-4.3702
	5% Fitooil	Tanpa Fitooil	-.6298	14.3632
		10% Fitooil	-10.3632	4.6298
		15% Fitooil	-12.4965	2.4965
	10% Fitooil	Tanpa Fitooil	2.2368	17.2298
		5% Fitooil	-4.6298	10.3632
		15% Fitooil	-9.6298	5.3632
	15% Fitooil	Tanpa Fitooil	4.3702	19.3632
		5% Fitooil	-2.4965	12.4965
		10% Fitooil	-5.3632	9.6298
Dunnett t (>control)[b]	5% Fitooil	Tanpa Fitooil	1.2099	
	10% Fitooil	Tanpa Fitooil	4.0766	
	15% Fitooil	Tanpa Fitooil	6.2099	

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

b. Dunnett t-tests treat one group as a control, and compare all other groups against it.

AF3

			Subset for alpha = 0.05	
	Perlakuan	N	1	2
Tukey HSD[a]	Tanpa Fitooil	3	13.2000	
	5% Fitooil	3	20.0667	20.0667
	10% Fitooil	3		22.9333
	15% Fitooil	3		25.0667
	Sig.		.073	.221

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 12. Hasil Statistik Aktifitas Lisozim Awal

Oneway

Notes

Output Created		20-MAR-2024 22:20:41
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Lisosim_awal BY Perlakuan /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=DUNCAN ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.05

Descriptives

Lisosim_awal

	Maximum
A: 0%	1.17
B: 5%	1.22
C: 10%	.72
D: 15%	.89
Total	1.22

ANOVA

Lisosim_awal

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.318	3	.106	3.345	.076
Within Groups	.254	8	.032		
Total	.572	11			

Lisosim_awal

Duncan[a]

		Subset for alpha = 0.05	
Perlakuan	N	1	2
C: 10%	3	.6533	
D: 15%	3	.6767	
A: 0%	3	.8900	.8900
B: 5%	3		1.0500
Sig.		.157	.303

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 13. Hasil Statistik Aktifitas Lisozim Akhir

Oneway

Notes

Output Created		20-MAR-2024 22:18:53
Comments		
Input	Active Dataset	DataSet0
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY Lisosim_akhir BY Perlakuan/STATISTICS DESCRIPTIVES /MISSING ANALYSIS/POSTHOC= DUNCAN ALPHA(0.05).
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.17

Descriptives

Lisosim_akhir

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
A: 0%	3	.6033	.07095	.04096	.4271	.7796	.54
B: 5%	3	.5633	.09238	.05333	.3339	.7928	.51
C: 10%	3	.7100	.13748	.07937	.3685	1.0515	.56
D: 15%	3	.7900	.14177	.08185	.4378	1.1422	.68
Total	12	.6667	.13500	.03897	.5809	.7524	.51

Descriptives

Lisosim_akhir

	Maximum
A: 0%	.68
B: 5%	.67
C: 10%	.83
D: 15%	.95
Total	.95

ANOVA

Lisosim_akhir

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.095	3	.032	2.418	.141
Within Groups	.105	8	.013		
Total	.200	11			

Lisosim_akhir

Duncan[a]

		Subset for alpha = 0.05
Perlakuan	N	1
B: 5%	3	.5633
A: 0%	3	.6033
C: 10%	3	.7100
D: 15%	3	.7900
Sig.		.053

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 14. Total Koloni Bakteri Awal dan Akhir serta Hasil Statistiknya

Perlakuan	Pengenceran	Cawan 1	Cawan 2	∑	Rerata	∑koloni
A	10	166	165	331	165.5	82750
A	100	37	7	44	22	110000
B	10	27	32	59	29.5	14750
B	100	2	1	3	1.5	7500
C	10	1	0	1	0.5	250
C	100	0	0	0	0	0
D	10	1	1	2	1	500
D	100	0	0	0	0	0

Perlakuan	Pengenceran	Cawan 1	Cawan 2	∑	Rerata2	∑koloni
A	10	65	43	108	54	27000
A	100	38	8	46	23	115000
B	10	124	93	217	108.5	54250
B	100	20	37	57	28.5	142500
C	10	0	1	1	0.5	250
C	100	2	1	3	1.5	7500
D	10	3	8	11	5.5	2750
D	100	1	1	2	1	5000

Hasil Statistik Total Koloni Bakteri

ANOVA summary	
F	0.9717
P value	0.4888
P value summary	ns
Significant diff. among means (P < 0.05)?	No
R squared	0.4216

ANOVA table	SS	DF	MS	F (DFn, DFd)	P value
Treatment (between columns)	13263918034	3	4421306011	F (3, 4) = 0.9717	P=0.4888
Residual (within columns)	18200687688	4	4550171922		
Total	31464605722	7			

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
A vs. B	84703	-189897 to 359302	No	ns	0.6302	A-B
A vs. C	97593	-177007 to 372192	No	ns	0.5376	A-C
A vs. D	97468	-177132 to 372067	No	ns	0.5384	A-D
B vs. C	12890	-261709 to 287489	No	ns	0.9971	B-C
B vs. D	12765	-261834 to 287364	No	ns	0.9972	B-D
C vs. D	-125.0	-274724 to 274474	No	ns	>0.9999	C-D

Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.	n1	n2
A vs. B	97795	13093	84703	67455	2	2
A vs. C	97795	202.5	97593	67455	2	2
A vs. D	97795	327.5	97468	67455	2	2
B vs. C	13093	202.5	12890	67455	2	2
B vs. D	13093	327.5	12765	67455	2	2
C vs. D	202.5	327.5	-125.0	67455	2	2

Lampiran 15. Data Kualitas Air

Suhu (°C) rata-rata media pemeliharaan selama penelitian

Perlakuan	Pekan ke							
	I	II	III	IV	V	VI	VII	VIII
A	32	30	30	30	30	30	31	30
B	31	30	30	30	30	29	30	30
C	31	30	30	30	30	30	31	29
D	31	30	30	30	30	30	30	30

Salinitas (ppt) rata-rata media pemeliharaan selama penelitian

Perlakuan	Pekan ke							
	I	II	III	IV	V	VI	VII	VIII
A	30	31	30	30	31	30	32	31
B	31	31	30	31	31	31	30	30
C	31	30	31	31	31	30	30	29
D	30	30	31	31	31	30	31	30

pH rata-rata media pemeliharaan selama penelitian

Perlakuan	Pekan ke							
	I	II	III	IV	V	VI	VII	VIII
A	6.8	6.9	6.9	6.7	6.8	7.0	6.9	6.9
B	6.8	6.8	7.0	6.9	7.0	6.8	7.0	7.0
C	6.6	6.7	6.7	6.8	6.7	6.7	6.7	6.7
D	6.7	6.7	6.8	6.7	6.7	6.7	6.7	6.6

Oksigen terlarut (ppm) rata-rata media pemeliharaan selama penelitian

Perlakuan	Pekan ke							
	I	II	III	IV	V	VI	VII	VIII
A	5.4	5.7	5.8	5.8	5.6	5.6	5.9	5.3
B	5.3	5.8	5.9	5.9	5.7	5.6	5.7	5.0
C	5.1	5.6	5.7	5.7	5.5	5.3	5.5	5.1
D	5.0	5.6	5.7	5.5	5.4	5.2	5.3	4.9

Amoniak (ppm) rata-rata media pemeliharaan selama penelitian

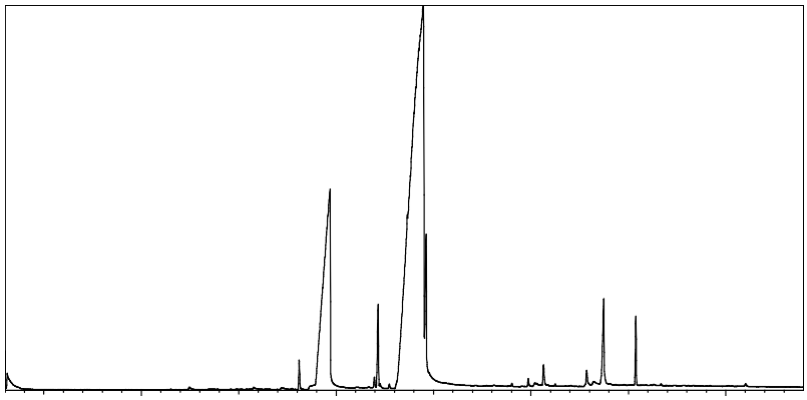
Perlakuan	Hari ke							
	I	II	III	IV	V	VI	VII	VIII
A	0.0065	0.0246	0.0244	0.0184	0.0135	0.1321	0.0147	0.0467
B	0.0061	0.0280	0.0282	0.0149	0.0374	0.1154	0.0156	0.0432
C	0.0098	0.0334	0.0335	0.0399	0.0218	0.0860	0.0969	0.0529
D	0.0098	0.0235	0.0338	0.0190	0.0309	0.0840	0.0765	0.0587

Lampiran 16. Kandungan senyawa minyak buah merah hasil uji GC-MS

Compounds	Other names	Molecular formula	Resistance time (Rt)	%Area
Benzene, 1,2-dimethyl- (CAS)	Etilbenzena	C_8H10	3,118	0.84
Benzene, 1,2-Dimethyl-	Dimethyl benzene	$C_{12}H_{16}O$	3.733	0.05
1,3,6,10-Dodecatetraene, 3,6,11-Trimethyl-	Kariofilen	$C_{15}H_{24}$	12.469	0.06
Hexadecanoic Acid, Methyl Ester	Metil Palmitat	$C_{17}H_{34}O_2$	18.103	0.38
Palmitoleic Acid	Palmitoleic acid	$C_{16}H_{30}O_2$	18.692	0.08
Butyl 9-hexadecenoate			18.750	0.08
(E,E,E)-3,7,11,15-Tetramethylhexadeca-1,3,6,10,14-pentaene	Neocembrene	$C_{20}H_{32}$	18.867	0.09
n-Hexadecanoic acid	Palmitic acid	$C_{16}H_{32}O_2$	19.688	19.63
9,12-)Octadecenoic acid (Z)-, methyl ester (CAS)	Methyl linolenate	$C_{19}H_{32}O_2$	21.960	0.17
9-Octadecenoic acid (Z)-, methyl ester	Methyl oleate	$C_{19}H_{36}O_2$	22.152	1.30
11-Octadecenoic acid, methyl ester	Methyl oleate	$C_{19}H_{36}O_2$	22.254	0.08
Octadecanoic acid, methyl ester	Methyl stearate	$C_{19}H_{38}O_2$	22.729	0.07
9-Octadecenoic acid, (E)-	Oleic acid	$C_{18}H_{34}O_2$	24.460	69.10
Octadecanoic acid	Stearic Acid	$C_{18}H_{36}O_2$	24.615	3.61
Octadecanoic acid,3-oxo-, ethyl ester	Paullinic acid	$C_{20}H_{38}O_2$	29.857	0.13
Decane, 1,9-bis[(trimethylsilyl)oxy]-	Decane	$C_{16}H_{38}O_2Si_2$	30.204	0.11
Eicosane	Eicosane	$C_{20}H_{43}$	30.308	0.08
Hexadecanoic acid. 2-hydroxy-1-(hydroxymethyl)ethyl ester (CAS)	Palmitin	$C_{19}H_{38}O_4$	30.642	0.41
1-Cyclohexyldimenthysilyloxy butane	Lauric Acid	$C_{12}H_{24}O_2$	32.859	0.36
Oleoyl chloride	Oleoyl chloride	$C_{18}H_{33}ClO$	33.203	0.12
1H-Indole, 5-Methyl-	Skatole	C_9H_9N	33.267	0.14
9-Octadecenoid acid (Z)-, 2,3-dihydroxypropyl ester	Glyceryl monooleate	$C_{21}H_{40}O_4$	33.729	2.17

Octadecanoic acid, 2,3-dihydroxypropyl ester	Glyceryl monostearate	$C_{21}H_{42}O_4$	34.083	0.06
2,6,10,14,18,22-Tetracosahexaene, 2,6,10,15,19,23-hexamethyl-, (all-E)-	Tetracosahexaen	$C_{24}H_{38}$	35.384	0.83
Vitamin E	Tokoferol	$C_{29}H_{50}O_2$	41.019	0.05

DATA REPORT GCMS-QP2010 ULTRA SHIMADZU



Lampirann 17. *Curriculum Vitae*

A. Data Pribadi

1. Nama : Nurafiah
2. Tempat, Tanggal Lahir : Malangke, 21 Juli 1999
3. Alamat : Jl. Selayar Blok L/224, Perumnas Sudiang, Kec. Biringkanaya, Kel. Laikang, Makassar
4. Kewarganegaraan : Warga Negara Indonesia

B. Riwayat Pendidikan

1. Tamat SLTA tahun 2017 di SMA Negeri 22 Makassar
2. Sarjana (S1) tahun 2021 di Program Studi Budidaya Perikanan, Universitas Hasanuddin, Makassar.

C. Karya Ilmiah yang telah dipublikasikan

**menunggu manuscript terbit*