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LAMPIRAN

- **Lampiran 1.** Data Kelimpahan Total Bakteri Pada Media Budidaya Ikan Nila (*Oreochromis niloticus)* dengan Pemberian Vitomolt plus

Perlakuan	Ulangan	Kelimpahan Bakteri (10^2 CFU/ml)		
		Hari-0	Hari-6	Hari-12
A	1	24.1	3.8	7
	2	24.1	2.2	3.7
	3	24.1	3.1	2.7
	Rata-rata	**24.1**	**3**	**4.5**
	Stdev	**0**	**0.8**	**2.3**
		24,1 ± 0,0	**3,0 ± 0,8**	**4,5 ± 2,3**
B	1	24.1	3.3	2.4
	2	24.1	2.2	2.4
	3	24.1	3	2.4
	Rata-rata	**24.1**	**2.8**	**2.4**
	Stdev	**0**	**0.6**	**0**
		24,1 ± 0,0	**2,8 ± 0,6**	**2,4 ± 0,0**
C	1	24.1	1.9	1
	2	24.1	1.9	1.7
	3	24.1	1.9	1.9
	Rata-rata	**24.1**	**1.9**	**1.5**
	Stdev	**0**	**0**	**0.5**
		24,1 ± 0,0	**1,9 ± 0,0**	**1,5 ± 0,5**
D	1	24.1	1.7	1
	2	24.1	1.8	1.3
	3	24.1	1.3	1
	Rata-rata	**24.1**	**1.6**	**1.1**
	Stdev	**0**	**0.3**	**0.2**
		24,1 ± 0,0	**1,6 ± 0,3**	**1,1 ± 0,2**
E	1	24.1	1.8	1.6
	2	24.1	1.8	1.5
	3	24.1	2	1.3
	Rata-rata	**24.1**	**1.9**	**1.5**
	Stdev	**0**	**0.1**	**0.2**
		24,1 ± 0,0	**1,9 ± 0,1**	**1,5 ± 0,2**
F	1	24.1	1.9	1.7
	2	24.1	1.7	1.9
	3	24.1	2.1	1.1
	Rata-rata	**24.1**	**1.9**	**1.6**
	Stdev	**0**	**0.2**	**0.4**
		24,1 ± 0,0	**1,9 ± 0,2**	**1,6 ± 0,4**

- **Lampiran 2.** Data Kelimpahan Total Bakteri Teridentifikasi Pada Media Budidaya Ikan Nila (*Oreochromis niloticus)* dengan Pemberian Vitomolt Plus.

Perlakuan	Ulangan	Rata-rata kelimpahan Bakteri (CFU/ml)						
		S. sciuri	S. paucimobilis	A. hydrophilla	Y. pseudotuborculosis	A. sobria	S. haemolyticus	M. luteus
A	1	2.1	1.3	0.9	1.7	1.7	1.8	1.4
	2	1.5	1.3	1.7	1.8	1.3	1.5	1.2
	3	1.6	1.4	1.7	1.9	1.6	1.1	1.3
	Rata-rata	1.7	1.3	1.4	1.8	1.5	1.5	1.3
	stDev	0.3	0.1	0.4	0.1	0.2	0.3	0.1
	Persentase	16.5	12.7	13.3	17.0	14.3	14.0	12.2
B	1	1.4	1.0	1.0	1.6	1.5	0.9	1.2
	2	1.5	1.3	2.0	1.8	1.9	1.5	0.9
	3	1.3	1.4	1.0	2.0	1.3	1.8	1.6
	Rata-rata	1.4	1.2	1.3	1.8	1.5	1.4	1.2
	StDev	0.1	0.2	0.6	0.2	0.3	0.5	0.3
	Persentase	14.1	12.4	13.5	17.9	15.6	14.1	12.4
C	1	0.8	1.3	0.8	1.8	1.4	1.5	1.2
	2	1.1	1.5	1.4	1.7	1.4	0.8	1.0
	3	1.8	1.0	1.4	1.2	1.3	1.8	1.4
	Rata-rata	1.2	1.3	1.2	1.6	1.3	1.4	1.2
	StDev	0.5	0.2	0.3	0.3	0.1	0.5	0.2
	Persentase	13.3	13.7	13.0	17.3	14.6	15.0	13.2
D	1	1.5	1.4	0.9	1.7	0.9	0.8	1.5
	2	1.3	1.3	1.2	1.5	1.6	1.3	1.3
	3	0.8	1.4	1.1	1.4	1.3	1.4	1.2
	Rata-rata	1.2	1.4	1.1	1.5	1.3	1.2	1.4
	StDev	0.3	0.1	0.2	0.1	0.3	0.3	0.2
	Persentase	13.3	15.3	12.1	17.2	14.1	13.1	15.1
E	1	1.3	1.6	1.2	2.0	1.3	1.3	1.6
	2	0.9	0.6	1.2	1.3	1.3	1.6	1.5
	3	1.2	1.7	0.9	1.2	1.9	0.8	0.8
	Rata-rata	1.1	1.3	1.1	1.5	1.5	1.2	1.3
	StDev	0.2	0.6	0.2	0.4	0.3	0.4	0.4
	Persentase	12.6	14.1	12.2	16.7	16.7	13.6	14.1
F	1	1.0	2.0	1.2	1.6	1.7	0.9	1.5
	2	1.4	0.9	1.0	1.8	1.0	1.1	0.8
	3	1.1	1.5	0.9	1.6	1.5	1.4	1.3
	Rata-rata	1.2	1.5	1.0	1.7	1.4	1.1	1.2
	StDev	0.2	0.6	0.2	0.1	0.4	0.3	0.4
	Persentase	12.8	16.1	11.4	18.3	15.6	12.5	13.2

- **Lampiran 3.** Data Statistik Kelimpahan Bakteri Berdasarkan Hari

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
D6	Between Groups	5.120	5	1.024	5.637	.007
	Within Groups	2.180	12	.182		
	Total	7.300	17			
D12	Between Groups	22.523	5	4.505	4.902	.011
	Within Groups	11.027	12	.919		
	Total	33.549	17			
Total	Between Groups	46.849	5	9.370	6.352	.004
	Within Groups	17.700	12	1.475		
	Total	64.549	17			

POST HOC TESTS

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Kelimpahan Bakteri	(J) Kelimpahan Bakteri	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
D6	0 PPM	2 PPM	.2000	.3480	.991	-.969	1.369
		4 PPM	1.1333	.3480	.059	-.036	2.302
		6 PPM	1.4333*	.3480	.014	.264	2.602
		8 PPM	1.1000	.3480	.070	-.069	2.269
		10 PPM	1.1333	.3480	.059	-.036	2.302
	2 PPM	0 PPM	-.2000	.3480	.991	-1.369	.969
		4 PPM	.9333	.3480	.150	-.236	2.102
		6 PPM	1.2333*	.3480	.037	.064	2.402
		8 PPM	.9000	.3480	.174	-.269	2.069
		10 PPM	.9333	.3480	.150	-.236	2.102
	4 PPM	0 PPM	-1.1333	.3480	.059	-2.302	.036
		2 PPM	-.9333	.3480	.150	-2.102	.236
		6 PPM	.3000	.3480	.949	-.869	1.469
		8 PPM	-.0333	.3480	1.000	-1.202	1.136
		10 PPM	.0000	.3480	1.000	-1.169	1.169
	6 PPM	0 PPM	-1.4333*	.3480	.014	-2.602	-.264
		2 PPM	-1.2333*	.3480	.037	-2.402	-.064
		4 PPM	-.3000	.3480	.949	-1.469	.869
		8 PPM	-.3333	.3480	.923	-1.502	.836

		10 PPM	-.3000	.3480	.949	-1.469	.869
	8 PPM	0 PPM	-1.1000	.3480	.070	-2.269	.069
		2 PPM	-.9000	.3480	.174	-2.069	.269
		4 PPM	.0333	.3480	1.000	-1.136	1.202
		6 PPM	.3333	.3480	.923	-.836	1.502
		10 PPM	.0333	.3480	1.000	-1.136	1.202
	10 PPM	0 PPM	-1.1333	.3480	.059	-2.302	.036
		2 PPM	-.9333	.3480	.150	-2.102	.236
		4 PPM	.0000	.3480	1.000	-1.169	1.169
		6 PPM	.3000	.3480	.949	-.869	1.469
		8 PPM	-.0333	.3480	1.000	-1.202	1.136
D12	0 PPM	2 PPM	2.0667	.7827	.160	-.562	4.696
		4 PPM	2.9333*	.7827	.026	.304	5.562
		6 PPM	3.2667*	.7827	.013	.638	5.896
		8 PPM	3.0000*	.7827	.022	.371	5.629
		10 PPM	2.9000*	.7827	.028	.271	5.529
	2 PPM	0 PPM	-2.0667	.7827	.160	-4.696	.562
		4 PPM	.8667	.7827	.869	-1.762	3.496
		6 PPM	1.2000	.7827	.652	-1.429	3.829
		8 PPM	.9333	.7827	.832	-1.696	3.562
		10 PPM	.8333	.7827	.886	-1.796	3.462
	4 PPM	0 PPM	-2.9333*	.7827	.026	-5.562	-.304
		2 PPM	-.8667	.7827	.869	-3.496	1.762
		6 PPM	.3333	.7827	.998	-2.296	2.962
		8 PPM	.0667	.7827	1.000	-2.562	2.696
		10 PPM	-.0333	.7827	1.000	-2.662	2.596
	6 PPM	0 PPM	-3.2667*	.7827	.013	-5.896	-.638
		2 PPM	-1.2000	.7827	.652	-3.829	1.429
		4 PPM	-.3333	.7827	.998	-2.962	2.296
		8 PPM	-.2667	.7827	.999	-2.896	2.362
		10 PPM	-.3667	.7827	.996	-2.996	2.262
	8 PPM	0 PPM	-3.0000*	.7827	.022	-5.629	-.371
		2 PPM	-.9333	.7827	.832	-3.562	1.696
		4 PPM	-.0667	.7827	1.000	-2.696	2.562
		6 PPM	.2667	.7827	.999	-2.362	2.896
		10 PPM	-.1000	.7827	1.000	-2.729	2.529
	10 PPM	0 PPM	-2.9000*	.7827	.028	-5.529	-.271
		2 PPM	-.8333	.7827	.886	-3.462	1.796
		4 PPM	.0333	.7827	1.000	-2.596	2.662
		6 PPM	.3667	.7827	.996	-2.262	2.996
		8 PPM	.1000	.7827	1.000	-2.529	2.729

Total	0 PPM	2 PPM	2.2667	.9916	.271	-1.064	5.597
		4 PPM	4.0667*	.9916	.014	.736	7.397
		6 PPM	4.7000*	.9916	.005	1.369	8.031
		8 PPM	4.1000*	.9916	.014	.769	7.431
		10 PPM	4.0333*	.9916	.015	.703	7.364
	2 PPM	0 PPM	-2.2667	.9916	.271	-5.597	1.064
		4 PPM	1.8000	.9916	.492	-1.531	5.131
		6 PPM	2.4333	.9916	.213	-.897	5.764
		8 PPM	1.8333	.9916	.474	-1.497	5.164
		10 PPM	1.7667	.9916	.510	-1.564	5.097
	4 PPM	0 PPM	-4.0667*	.9916	.014	-7.397	-.736
		2 PPM	-1.8000	.9916	.492	-5.131	1.531
		6 PPM	.6333	.9916	.986	-2.697	3.964
		8 PPM	.0333	.9916	1.000	-3.297	3.364
		10 PPM	-.0333	.9916	1.000	-3.364	3.297
	6 PPM	0 PPM	-4.7000*	.9916	.005	-8.031	-1.369
		2 PPM	-2.4333	.9916	.213	-5.764	.897
		4 PPM	-.6333	.9916	.986	-3.964	2.697
		8 PPM	-.6000	.9916	.989	-3.931	2.731
		10 PPM	-.6667	.9916	.982	-3.997	2.664
	8 PPM	0 PPM	-4.1000*	.9916	.014	-7.431	-.769
		2 PPM	-1.8333	.9916	.474	-5.164	1.497
		4 PPM	-.0333	.9916	1.000	-3.364	3.297
		6 PPM	.6000	.9916	.989	-2.731	3.931
		10 PPM	-.0667	.9916	1.000	-3.397	3.264
	10 PPM	0 PPM	-4.0333*	.9916	.015	-7.364	-.703
		2 PPM	-1.7667	.9916	.510	-5.097	1.564
		4 PPM	.0333	.9916	1.000	-3.297	3.364
		6 PPM	.6667	.9916	.982	-2.664	3.997
		8 PPM	.0667	.9916	1.000	-3.264	3.397

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

Homogeneous Subsets

D6

Tukey HSD[a]

		Subset for alpha = 0.05	
Kelimpahan Bakteri	N	1	2
6 PPM	3	1.600	
4 PPM	3	1.900	1.900
10 PPM	3	1.900	1.900

8 PPM	3	1.933	1.933
2 PPM	3		2.833
0 PPM	3		3.033
Sig.		.923	.059

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

D12

Tukey HSD[a]

		Subset for alpha = 0.05	
Kelimpahan Bakteri	N	1	2
6 PPM	3	1.200	
8 PPM	3	1.467	
4 PPM	3	1.533	
10 PPM	3	1.567	
2 PPM	3	2.400	2.400
0 PPM	3		4.467
Sig.		.652	.160

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Total

Tukey HSD[a]

		Subset for alpha = 0.05	
Kelimpahan Bakteri	N	1	2
6 PPM	3	2.800	
8 PPM	3	3.400	
4 PPM	3	3.433	
10 PPM	3	3.467	
2 PPM	3	5.233	5.233
0 PPM	3		7.500
Sig.		.213	.271

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

- **Lampiran 4.** Data Statistik Kelimpahan Bakteri Berdasarkan jenis bakteri

Bakteri *Stphylococcus sciuri*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.8	2	3.50	.707	.500	-2.85	9.85	3	4
.9	1	5.00	.	.	.	.	5	5
1.0	1	6.00	.	.	.	.	6	6
1.1	2	4.50	2.121	1.500	-14.56	23.56	3	6
1.2	1	5.00	.	.	.	.	5	5
1.3	3	3.67	1.528	.882	-.13	7.46	2	5
1.4	2	4.00	2.828	2.000	-21.41	29.41	2	6
1.5	3	2.33	1.528	.882	-1.46	6.13	1	4
1.6	1	1.00	.	.	.	.	1	1
1.8	1	3.00	.	.	.	.	3	3
2.1	1	1.00	.	.	.	.	1	1
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	2.255	4	7	.164
	Based on Median	1.167	4	7	.402
	Based on Median and with adjusted df	1.167	4	4.000	.442
	Based on trimmed mean	2.168	4	7	.175

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	30.167	10	3.017	.946	.548
Within Groups	22.333	7	3.190		
Total	52.500	17			

Bakteri *Sphingomonas paucimobilis*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.6	1	5.00	.	.	.	.	5	5
.9	1	6.00	.	.	.	.	6	6
1.0	2	2.50	.707	.500	-3.85	8.85	2	3
1.3	5	2.20	1.304	.583	.58	3.82	1	4
1.4	4	2.75	1.500	.750	.36	5.14	1	4
1.5	2	4.50	2.121	1.500	-14.56	23.56	3	6
1.6	1	5.00	.	.	.	.	5	5
1.7	1	5.00	.	.	.	.	5	5
2.0	1	6.00	.	.	.	.	6	6
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	1.819	3	9	.214
	Based on Median	1.280	3	9	.339
	Based on Median and with adjusted df	1.280	3	6.368	.359
	Based on trimmed mean	1.753	3	9	.226

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	33.950	8	4.244	2.059	.151
Within Groups	18.550	9	2.061		
Total	52.500	17			

Bakteri *Aeromonas hydrophilla*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.8	1	3.00	.	.	.	.	3	3
.9	4	4.00	2.160	1.080	.56	7.44	1	6
1.0	3	3.33	2.309	1.333	-2.40	9.07	2	6
1.1	1	4.00	.	.	.	.	4	4
1.2	4	5.00	.816	.408	3.70	6.30	4	6
1.4	2	3.00	.000	.000	3.00	3.00	3	3
1.7	2	1.00	.000	.000	1.00	1.00	1	1
2.0	1	2.00	.	.	.	.	2	2
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	2.655	4	10	.096
	Based on Median	.811	4	10	.546
	Based on Median and with adjusted df	.811	4	4.509	.572
	Based on trimmed mean	2.508	4	10	.109

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.833	7	3.690	1.384	.309
Within Groups	26.667	10	2.667		
Total	52.500	17			

Bakteri *Yersinia pseudotuborculosis*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1.2	2	4.00	1.414	1.000	-8.71	16.71	3	5
1.3	1	5.00	.	.	.	.	5	5
1.4	1	4.00	.	.	.	.	4	4
1.5	1	4.00	.	.	.	.	4	4
1.6	3	4.67	2.309	1.333	-1.07	10.40	2	6
1.7	3	2.67	1.528	.882	-1.13	6.46	1	4
1.8	4	3.00	2.160	1.080	-.44	6.44	1	6
1.9	1	1.00	.	.	.	.	1	1
2.0	2	3.50	2.121	1.500	-15.56	22.56	2	5
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	.333	4	9	.849
	Based on Median	.083	4	9	.986
	Based on Median and with adjusted df	.083	4	4.915	.984
	Based on trimmed mean	.305	4	9	.867

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.667	8	2.083	.523	.813
Within Groups	35.833	9	3.981		
Total	52.500	17			

Bakteri *Aeromonas sobria*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.9	1	4.00	.	.	.	.	4	4
1.0	1	6.00	.	.	.	.	6	6
1.3	6	3.33	1.633	.667	1.62	5.05	1	5
1.4	2	3.00	.000	.000	3.00	3.00	3	3
1.5	2	4.00	2.828	2.000	-21.41	29.41	2	6
1.6	2	2.50	2.121	1.500	-16.56	21.56	1	4
1.7	2	3.50	3.536	2.500	-28.27	35.27	1	6
1.9	2	3.50	2.121	1.500	-15.56	22.56	2	5
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	5.328	5	10	.012
	Based on Median	5.015	5	10	.015
	Based on Median and with adjusted df	5.015	5	5.000	.051
	Based on trimmed mean	5.312	5	10	.012

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.667	7	1.381	.322	.927
Within Groups	42.833	10	4.283		
Total	52.500	17			

Bakteri *Staphylococcus haemolyticus*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.8	3	4.00	1.000	.577	1.52	6.48	3	5
.9	2	4.00	2.828	2.000	-21.41	29.41	2	6
1.1	2	3.50	3.536	2.500	-28.27	35.27	1	6
1.3	2	4.50	.707	.500	-1.85	10.85	4	5
1.4	2	5.00	1.414	1.000	-7.71	17.71	4	6
1.5	3	2.00	1.000	.577	-.48	4.48	1	3
1.6	1	5.00	.	.	.	.	5	5
1.8	3	2.00	1.000	.577	-.48	4.48	1	3
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	6.618	6	10	.005
	Based on Median	6.618	6	10	.005
	Based on Median and with adjusted df	6.618	6	6.000	.018
	Based on trimmed mean	6.618	6	10	.005

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23.500	7	3.357	1.158	.403
Within Groups	29.000	10	2.900		
Total	52.500	17			

Bakteri *Micrococcus luteus*

Descriptives

Sampel

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
.8	2	5.50	.707	.500	-.85	11.85	5	6
.9	1	2.00	.	.	.	.	2	2
1.0	1	3.00	.	.	.	.	3	3
1.2	4	2.50	1.291	.645	.45	4.55	1	4
1.3	3	3.67	2.517	1.453	-2.58	9.92	1	6
1.4	2	2.00	1.414	1.000	-10.71	14.71	1	3
1.5	3	5.00	1.000	.577	2.52	7.48	4	6
1.6	2	3.50	2.121	1.500	-15.56	22.56	2	5
Total	18	3.50	1.757	.414	2.63	4.37	1	6

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Sampel	Based on Mean	1.252	5	10	.355
	Based on Median	.822	5	10	.561
	Based on Median and with adjusted df	.822	5	3.505	.598
	Based on trimmed mean	1.224	5	10	.366

ANOVA

Sampel

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.833	7	3.690	1.384	.309
Within Groups	26.667	10	2.667		
Total	52.500	17			