

LAMPIRAN 1 Uji Asumsi Data

1. Uji Normalitas Sebaran Data untuk Jumlah Koloni

Untuk mengetahui apakah sampel penelitian mempunyai sebaran data yang normal, maka dalam penelitian ini digunakan uji *Saphiro Wilk* karena jumlah sampel kurang dari 50.

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
potensi jam 1	.460	20	.000	.520	20	.000
potensi jam 2	.409	20	.000	.574	20	.000
potensi jam 3	.369	20	.000	.638	20	.000
potensi jam 4	.296	20	.000	.731	20	.000
potensi jam 5	.234	20	.005	.826	20	.002
potensi jam 6	.139	20	.200*	.907	20	.055
potensi jam 24	.230	20	.007	.823	20	.002

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

2. Uji Homogenitas Variansi Data untuk Jumlah Koloni

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
potensi jam 1	.	4	.	.
potensi jam 2	19.000	4	15	.000
potensi jam 3	4.500	4	15	.014
potensi jam 4	9.000	4	15	.001
potensi jam 5	1.988	4	15	.148
potensi jam 6	4.109	4	15	.019
potensi jam 24	54.000	4	15	.000



LAMPIRAN 2
UJI NON PARAMETRIK

1. Waktu Pengamatan Jam 1

a. Uji Kruskal Wallis

Ranks			
	perlakuan	N	Mean Rank
potensi jam 1	Kontrol Negatif	4	6.50
	Konsentrasi 30 %	4	6.50
	Konsentrasi 40 %	4	6.50
	Konsentrasi 50 %	4	14.50
	Kontrol Positif	4	18.50
	Total	20	

Test Statistics ^{a,b}	
	potensi jam 1
Chi-Square	19.000
df	4
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

b. Uji Mann Whitney

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Kontrol Negatif	4	4.50	18.00
	Konsentrasi 30 %	4	4.50	18.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	8.000
Wilcoxon W	18.000
Z	.000
Asymp. Sig. (2-tailed)	1.000



Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b
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- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Kontrol Negatif	4	4.50	18.00
	Konsentrasi 40 %	4	4.50	18.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	8.000
Wilcoxon W	18.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan



b. Not corrected for ties.

Ranks				
perlakuan	N	Mean Rank	Sum of Ranks	
potensi jam 1	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks				
perlakuan	N	Mean Rank	Sum of Ranks	
potensi jam 1	Konsentrasi 30 %	4	4.50	18.00
	Konsentrasi 40 %	4	4.50	18.00
Total		8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	8.000
Wilcoxon W	18.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.



Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b



- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Konsentrasi 40 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan



b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 1	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 1
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

2. Waktu Pengamatan Jam 2

a. Uji Kruskal Wallis

Ranks			
	perlakuan	N	Mean Rank
potensi jam 2	Kontrol Negatif	4	4.50
	Konsentrasi 30 %	4	4.50
	Konsentrasi 40 %	4	10.75
	Konsentrasi 50 %	4	14.25
	Kontrol Positif	4	18.50
Total		20	

Test Statistics ^{a,b}	
	potensi jam 2
Chi-Square	18.597
df	4
Asymp. Sig.	.001

- a. Kruskal Wallis Test
- b. Grouping Variable: perlakuan
- b. Uji Mann Whitney**

		Ranks		
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Kontrol Negatif	4	4.50	18.00
	Konsentrasi 30 %	4	4.50	18.00
Total		8		

Test Statistics ^a	
	potensi jam 2
Mann-Whitney U	8.000
Wilcoxon W	18.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

		Ranks		
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b



- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

		Ranks		
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

		Ranks		
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b



- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494



Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 40 %	4	2.75	11.00
	Konsentrasi 50 %	4	6.25	25.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	1.000
Wilcoxon W	11.000
Z	-2.139



Asymp. Sig. (2-tailed)	.032
Exact Sig. [2*(1-tailed Sig.)]	.057 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 2	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 2
Mann-Whitney U	.000
Wilcoxon W	10.000



Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

3. Waktu Pengamatan Jam 3
a. Uji Kruskal Wallis

Ranks			
	perlakuan	N	Mean Rank
potensi jam 3	Kontrol Negatif	4	2.50
	Konsentrasi 30 %	4	6.88
	Konsentrasi 40 %	4	10.13
	Konsentrasi 50 %	4	14.50
	Kontrol Positif	4	18.50
	Total	20	

Test Statistics ^{a,b}	
	potensi jam 3
Chi-Square	18.504
df	4
Asymp. Sig.	.001

- a. Kruskal Wallis Test
- b. Grouping Variable: perlakuan

b. Uji Mann Whitney

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 30 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3
Mann-Whitney U	.000



Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 3	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3
Mann-Whitney U	.000



Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 30 %	4	2.88	11.50
	Konsentrasi 40 %	4	6.13	24.50
	Total	8		

Test Statistics^a

	potensi jam 3
Mann-Whitney U	1.500
Wilcoxon W	11.500



Z	-2.055
Asymp. Sig. (2-tailed)	.040
Exact Sig. [2*(1-tailed Sig.)]	.057 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.428
Asymp. Sig. (2-tailed)	.015
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3



Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 40 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.428
Asymp. Sig. (2-tailed)	.015
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a



	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 3	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 3
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

4. Waktu Pengamatan Jam 4

a. Uji Kruskal Wallis

Ranks			
	perlakuan	N	Mean Rank
potensi jam 4	Kontrol Negatif	4	2.50
	Konsentrasi 30 %	4	6.50
	Konsentrasi 40 %	4	10.50
	Konsentrasi 50 %	4	14.50
	Kontrol Positif	4	18.50



Total	20
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Test Statistics^{a,b}

	potensi jam 4
Chi-Square	18.679
df	4
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

b. Uji Mann Whitney

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 30 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		



Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00



Total	8		
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Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 4	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
Total		8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.397
Asymp. Sig. (2-tailed)	.017
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 4	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00



Total	8		
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Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.366
Asymp. Sig. (2-tailed)	.018
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Konsentrasi 40 %	4	2.50	10.00



Konsentrasi 50 %	4	6.50	26.00
Total	8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.397
Asymp. Sig. (2-tailed)	.017
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 4	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
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potensi jam 4	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

	potensi jam 4
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

5. Waktu Pengamatan Jam 5

a. Uji Kruskal Wallis

	perlakuan	N	Mean Rank
potensi jam 5	Kontrol Negatif	4	2.50
	Konsentrasi 30 %	4	7.00
	Konsentrasi 40 %	4	10.00
	Konsentrasi 50 %	4	14.50
	Kontrol Positif	4	18.50
	Total		20

	potensi jam 5
Chi-Square	18.284
df	4
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

b. Uji Mann Whitney

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 30 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- b
- a. Grouping Variable: perlakuan
 - b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks



	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.



Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 30 %	4	3.00	12.00
	Konsentrasi 40 %	4	6.00	24.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	2.000
Wilcoxon W	12.000
Z	-1.786
Asymp. Sig. (2-tailed)	.074
Exact Sig. [2*(1-tailed Sig.)]	.114 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.381
Asymp. Sig. (2-tailed)	.017
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.



Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 40 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.381
Asymp. Sig. (2-tailed)	.017
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.



Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 5	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 5
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.530
Asymp. Sig. (2-tailed)	.011
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan



b. Not corrected for ties.

6. Waktu Pengamatan Jam 6

a. Uji Kruskal Wallis

Ranks			
	konsentrasi	N	Mean Rank
potensi jam 6	Kontrol Negatif	4	2.50
	Konsentrasi 30 %	4	6.75
	Konsentrasi 40 %	4	10.25
	Konsentrasi 50 %	4	14.50
	Kontrol Positif	4	18.50
	Total	20	

Test Statistics ^{a,b}	
	potensi jam 6
Chi-Square	18.418
df	4
Asymp. Sig.	.001

a. Kruskal Wallis Test

b. Grouping Variable: konsentrasi

b. Uji Mann Whitney

Ranks				
	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 30 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b



- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.460
Asymp. Sig. (2-tailed)	.014
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b



- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 30 %	4	2.75	11.00
	Konsentrasi 40 %	4	6.25	25.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	1.000
Wilcoxon W	11.000
Z	-2.071
Asymp. Sig. (2-tailed)	.038
Exact Sig. [2*(1-tailed Sig.)]	.057 ^b



- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.337
Asymp. Sig. (2-tailed)	.019
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks

	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics^a

	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013



Exact Sig. [2*(1-tailed Sig.)]	.029 ^b
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- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

		Ranks		
	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 40 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.323
Asymp. Sig. (2-tailed)	.020
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

		Ranks		
	konsentrasi	N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.460



Asymp. Sig. (2-tailed)	.014
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

Ranks				
konsentrasi		N	Mean Rank	Sum of Ranks
potensi jam 6	Konsentrasi 50 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 6
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: konsentrasi
- b. Not corrected for ties.

7. Waktu Pengamatan Jam 24

a. Uji Kruskal Wallis

Ranks			
perlakuan		N	Mean Rank
potensi jam 24	Kontrol Negatif	4	2.50
	Konsentrasi 30 %	4	6.50
	Konsentrasi 40 %	4	10.50
	Konsentrasi 50 %	4	16.50
	Kontrol Positif	4	16.50
	Total	20	

Test Statistics^{a,b}



	potensi jam 24
Chi-Square	18.738
df	4
Asymp. Sig.	.001

- a. Kruskal Wallis Test
- b. Grouping Variable: perlakuan

b. Uji Mann Whitney

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 30 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000



Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 24	Kontrol Negatif	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 24	Kontrol Negatif	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000



Wilcoxon W	10.000
Z	-2.646
Asymp. Sig. (2-tailed)	.008
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

		Ranks		
perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 40 %	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.352
Asymp. Sig. (2-tailed)	.019
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

		Ranks		
perlakuan		N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 30 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
Total		8		

Test Statistics ^a	
	potensi jam 24



Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 30 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 40 %	4	2.50	10.00
	Konsentrasi 50 %	4	6.50	26.00
	Total	8		

Test Statistics ^a	
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.477
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

- a. Grouping Variable: perlakuan
- b. Not corrected for ties.



	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 40 %	4	2.50	10.00
	Kontrol Positif	4	6.50	26.00
	Total	8		

Test Statistics ^a	
	potensi jam 24
Mann-Whitney U	.000
Wilcoxon W	10.000
Z	-2.494
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.029 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Ranks				
	perlakuan	N	Mean Rank	Sum of Ranks
potensi jam 24	Konsentrasi 50 %	4	4.50	18.00
	Kontrol Positif	4	4.50	18.00
	Total	8		

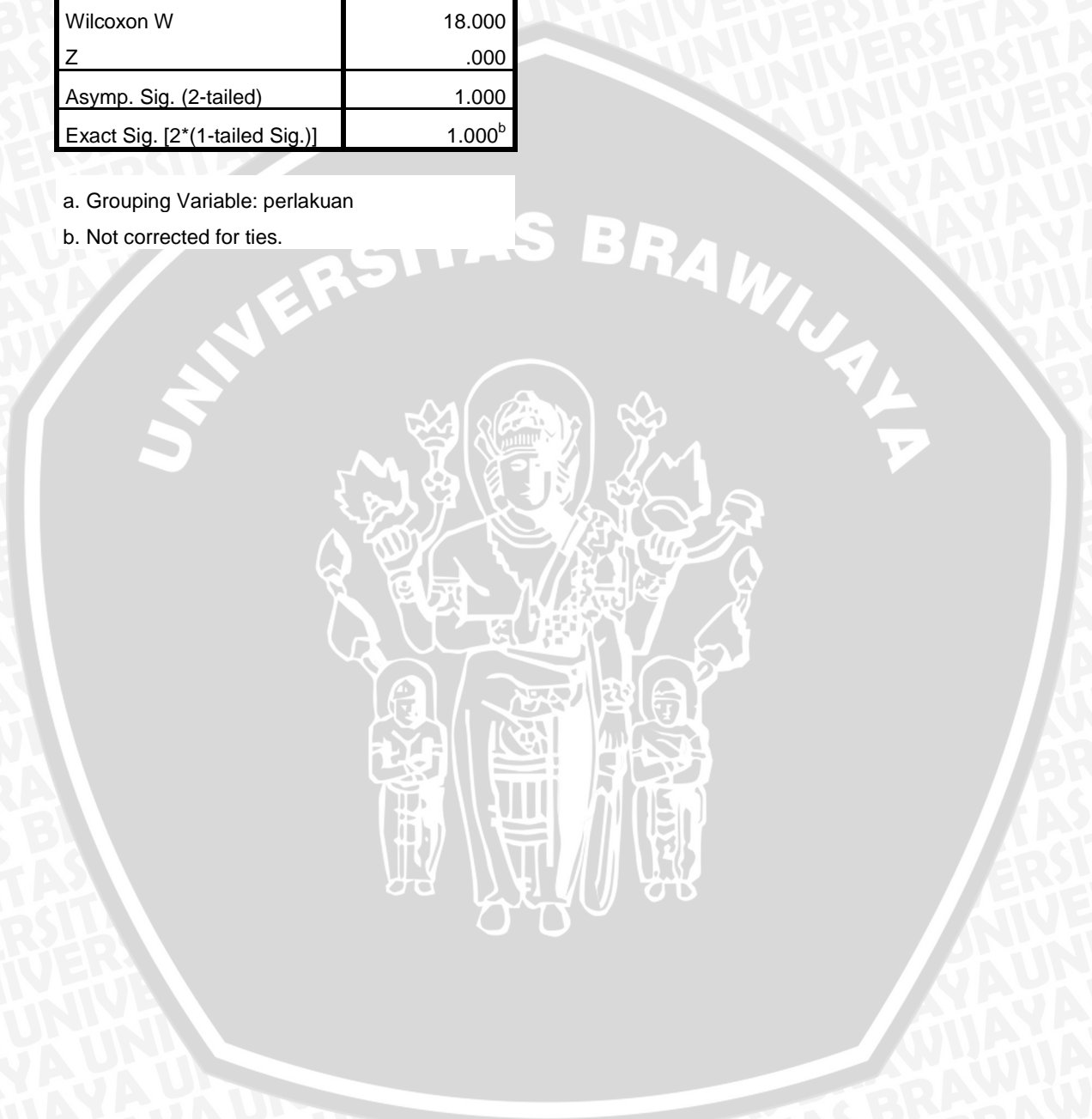


Test Statistics^a

	potensi jam 24
Mann-Whitney U	8.000
Wilcoxon W	18.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.



Lampiran 3

Uji Korelasi

1. Konsentrasi 30 %

Correlations			konsentrasi 30 %	waktu pengamatan
Spearman's rho	Potensi insektisida	Correlation Coefficient	1,000	,983**
		Sig. (2-tailed)	.	,000
		N	28	28
	waktu pengamatan	Correlation Coefficient	,983**	1,000
		Sig. (2-tailed)	,000	.
		N	28	28

** . Correlation is significant at the 0.01 level (2-tailed).

2. Konsentrasi 40 %

Correlations			waktu pengamatan	konsentrasi 40%
Spearman's rho	waktu pengamatan	Correlation Coefficient	1,000	,987**
		Sig. (2-tailed)	.	,000
		N	28	28
	Potensi insektisida	Correlation Coefficient	,987**	1,000
		Sig. (2-tailed)	,000	.
		N	28	28

** . Correlation is significant at the 0.01 level (2-tailed).

3. Konsentrasi 50 %

Correlations

			waktu pengamatan	konsentrasi 50 %
Spearman's rho	waktu pengamatan	Correlation Coefficient	1,000	,995**
		Sig. (2-tailed)	.	,000
		N	28	28
	konsentrasi 50 %	Correlation Coefficient	,995**	1,000
		Sig. (2-tailed)	,000	.
		N	28	28

** . Correlation is significant at the 0.01 level (2-tailed).

