

LAMPIRAN

Lampiran 1. Analisis Deskriptif (Data Jumlah Semut Api (*Solenopsis* sp) yang Mati)

Lama Waktu Penyimpanan

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
1 hari	4	10,00	10,00	10,0000	,00000
2 hari	4	9,00	10,00	9,5000	,57735
3 hari	4	8,00	9,00	8,7500	,50000
4 hari	4	8,00	9,00	8,5000	,57735
5 hari	4	8,00	8,00	8,0000	,00000
kontrol positif	4	10,00	10,00	10,0000	,00000
kontrol negatif	4	,00	,00	,0000	,00000
Valid N (listwise)	4				

Perubahan Kadar Flavonoid

Descriptives

Semut api yang mati

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					241,20 g/L	4		
204,45 g/L	4	9,5000	,57735	,28868	8,5813	10,4187	9,00	10,00
199,10 g/L	4	8,7500	,50000	,25000	7,9544	9,5456	8,00	9,00
189,20 g/L	4	8,5000	,57735	,28868	7,5813	9,4187	8,00	9,00
170,03 g/L	4	8,0000	,00000	,00000	8,0000	8,0000	8,00	8,00
K+	4	10,0000	,00000	,00000	10,0000	10,0000	10,00	10,00
K-	4	,0000	,00000	,00000	,0000	,0000	,00	,00
Total	28	7,8214	3,34502	,63215	6,5244	9,1185	,00	10,00



Lampiran 2. Pengujian Asumsi (Data Jumlah Semut Api (*Solenopsis* sp) yang Mati)

1. Lama Waktu Penyimpanan

Asumsi Normalitas

One-Sample Kolmogorov-Smirnov Test

		semut api yang mati
N		28
Normal Parameters <sup>a,b</sup>	Mean	7,8214
	Std. Deviation	3,34502
Most Extreme Differences	Absolute	,378
	Positive	,257
	Negative	-,378
Kolmogorov-Smirnov Z		2,002
Asymp. Sig. (2-tailed)		,001

a. Test distribution is Normal.

b. Calculated from data.

Asumsi Homogenitas

Test of Homogeneity of Variances

semut api yang mati

Levene Statistic	df1	df2	Sig.
27,667	6	21	,000

**2. Perubahan Kadar Flavonoid  
Asumsi Normalitas**

**One-Sample Kolmogorov-Smirnov Test**

		Semut api yang mati
N		28
Normal Parameters <sup>a,b</sup>	Mean	7,8214
	Std. Deviation	3,34502
	Absolute	,378
Most Extreme Differences	Positive	,257
	Negative	-,378
Kolmogorov-Smirnov Z		2,002
Asymp. Sig. (2-tailed)		,001

a. Test distribution is Normal.

b. Calculated from data.

**Asumsi Homogenitas**

**Test of Homogeneity of Variances**

Semut api yang mati

Levene Statistic	df1	df2	Sig.
27,667	6	21	,000

**Lampiran 3. Pengaruh Lama Waktu Penyimpanan terhadap Jumlah Semut Api (*Solenopsis* sp) yang Mati (Kruskal Wallis)**

**Test Statistics<sup>a,b</sup>**

	semut api yang mati
Chi-square	24,466
df	6
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: waktu penyimpanan



Lampiran 4. Uji Lanjutan (Data Jumlah Semut Api (*Solenopsis sp*) yang Mati (Mann-Whitney Test)

Lama Penyimpanan 1 hari vs 2 hari

		Ranks		
waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	5,50	22,00
	2 hari	4	3,50	14,00
	Total	8		

Test Statistics <sup>b</sup>	
	semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

Lama Penyimpanan 1 hari vs 3 hari

		Ranks		
waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	6,50	26,00
	3 hari	4	2,50	10,00
	Total	8		

Test Statistics <sup>b</sup>	
	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>



- a. Not corrected for ties.
- b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 1 hari vs 4 hari**

Ranks				
waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	6,50	26,00
	4 hari	4	2,50	10,00
Total		8		

Test Statistics <sup>b</sup>	
	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

- a. Not corrected for ties.
- b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 1 hari vs 5 hari**

Ranks				
waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	6,50	26,00
	5 hari	4	2,50	10,00
Total		8		

Test Statistics <sup>b</sup>	
	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

- a. Not corrected for ties.



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 1 hari vs kontrol positif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	4,50	18,00
	kontrol positif	4	4,50	18,00
Total		8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
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 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 1 hari vs kontrol negatif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	1 hari	4	6,50	26,00
	kontrol negatif	4	2,50	10,00
Total		8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 2 hari vs 3 hari**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	2 hari	4	5,75	23,00
	3 hari	4	3,25	13,00
Total		8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	3,000
Wilcoxon W	13,000
Z	-1,667
Asymp. Sig. (2-tailed)	,096
Exact Sig. [2*(1-tailed Sig.)]	,200 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 2 hari vs 4 hari**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	2 hari	4	6,00	24,00
	4 hari	4	3,00	12,00
Total		8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	2,000
Wilcoxon W	12,000
Z	-1,871
Asymp. Sig. (2-tailed)	,061
Exact Sig. [2*(1-tailed Sig.)]	,114 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 2 hari vs 5 hari**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	2 hari	4	6,50	26,00
	5 hari	4	2,50	10,00
	Total	8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 2 hari vs kontrol positif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	2 hari	4	3,50	14,00
	kontrol positif	4	5,50	22,00
	Total	8		





**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 2 hari vs kontrol negatif**

**Ranks**

waktu penyimpanan	N	Mean Rank	Sum of Ranks
semut api yang mati 2 hari	4	6,50	26,00
— kontrol negatif	4	2,50	10,00
Total	8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 3 hari vs 4 hari**

**Ranks**

waktu penyimpanan	N	Mean Rank	Sum of Ranks
semut api yang mati 3 hari	4	5,00	20,00
— 4 hari	4	4,00	16,00
Total	8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	6,000
Wilcoxon W	16,000
Z	-,683
Asymp. Sig. (2-tailed)	,495
Exact Sig. [2*(1-tailed Sig.)]	,686 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 3 hari vs 5 hari**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	3 hari	4	6,00	24,00
	5 hari	4	3,00	12,00
Total		8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	2,000
Wilcoxon W	12,000
Z	-,049
Asymp. Sig. (2-tailed)	,040
Exact Sig. [2*(1-tailed Sig.)]	,114 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 3 hari vs kontrol positif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	3 hari	4	2,50	10,00
	kontrol positif	4	6,50	26,00
Total		8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 3 hari vs kontrol negatif**

**Ranks**

waktu penyimpanan	N	Mean Rank	Sum of Ranks
semut api yang mati 3 hari	4	6,50	26,00
— kontrol negatif	4	2,50	10,00
Total	8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 4 hari vs 5 hari**

**Ranks**

waktu penyimpanan	N	Mean Rank	Sum of Ranks
semut api yang mati 4 hari	4	5,50	22,00
— 5 hari	4	3,50	14,00
Total	8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 4 hari vs kontrol positif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	4 hari	4	2,50	10,00
	_ kontrol positif	4	6,50	26,00
	Total	8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 4 hari vs kontrol negatif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	4 hari	4	6,50	26,00
	_ kontrol negatif	4	2,50	10,00
	Total	8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 5 hari vs kontrol positif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	5 hari	4	2,50	10,00
	_ kontrol positif	4	6,50	26,00
	Total	8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan 5 hari vs kontrol negatif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	5 hari	4	6,50	26,00
	_ kontrol negatif	4	2,50	10,00
	Total	8		



**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan

**Lama Penyimpanan kontrol positif vs kontrol negatif**

**Ranks**

waktu penyimpanan		N	Mean Rank	Sum of Ranks
semut api yang mati	kontrol positif	4	6,50	26,00
	kontrol negatif	4	2,50	10,00
Total		8		

**Test Statistics<sup>b</sup>**

	semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>a</sup>

a. Not corrected for ties.

b. Grouping Variable: waktu penyimpanan



Lampiran 5. Pengujian Korelasi Data Jumlah Semut Api (*Solenopsis sp*) yang Mati dengan Lama Waktu Penyimpanan (Korelasi Speaman)

Correlations			
		Jumlah semut api yang mati	Lama waktu penyimpanan
Spearman's rho	Correlation Coefficient	1,000	-,878**
	Jumlah semut api yang mati Sig. (2-tailed)	.	,000
	N	20	20
Lama waktu penyimpanan	Correlation Coefficient	-,878**	1,000
	Lama waktu penyimpanan Sig. (2-tailed)	,000	.
	N	20	20

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

Lampiran 6. Pengaruh Lama Waktu Penyimpanan Ekstrak Etanol 70% Daun Serai Wangi (*Cymbopogon nardus*) terhadap Jumlah Semut Api (*Solenopsis sp*) yang Mati (Regresi Linier)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,879 <sup>a</sup>	,772	,760	,40483

a. Predictors: (Constant), Lama waktu penyimpanan

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10,000	1	10,000	61,017	,000 <sup>b</sup>
	Residual	2,950	18	,164		
	Total	12,950	19			

a. Dependent Variable: Jumlah semut api yang mati

b. Predictors: (Constant), Lama waktu penyimpanan

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
						(Constant)
1	Lama waktu penyimpanan	-,500	,064	-,879	-7,811	,000

a. Dependent Variable: Jumlah semut api yang mati

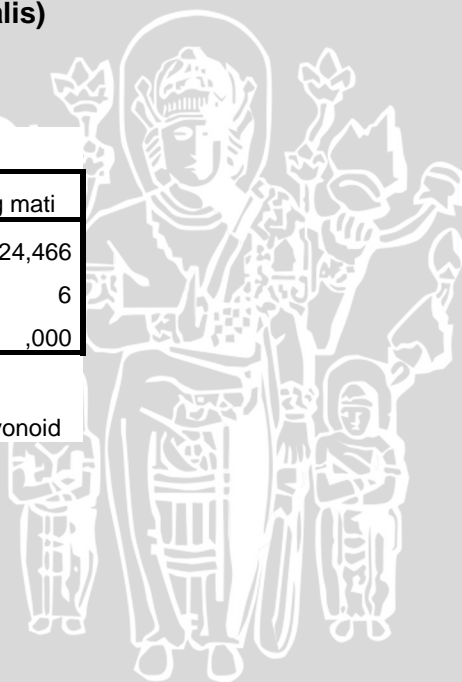
**Lampiran 7. Pengaruh Perubahan Kadar Flavonoid pada Penyimpanan Ekstrak Etanol 70% Daun Serai Wangi (*Cymbopogon nardus*) Terhadap Jumlah Semut Api (*Solenopsis sp*) yang Mati (Kruskal Wallis)**

**Test Statistics<sup>a,b</sup>**

	Semut api yang mati
Chi-Square	24,466
df	6
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: Kadar Flavonoid





### Lampiran 8. Uji Lanjutan (Mann Whitney)

#### Kadar Flavonoid 241,20 g/L vs 204,45 g/L

##### Ranks

	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	5,50	22,00
Semut api yang mati	204,45 g/L	4	3,50	14,00
	Total	8		

##### Test Statistics<sup>a</sup>

	Semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

#### Kadar Flavonoid 241,20 g/L vs 199,10 g/L

##### Ranks

	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	6,50	26,00
Semut api yang mati	199,10 g/L	4	2,50	10,00
	Total	8		

##### Test Statistics<sup>a</sup>

	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 241,20 g/L vs 189,20 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	6,50	26,00
Semut api yang mati	189,20 g/L	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 241,20 g/L vs 170,03 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	6,50	26,00
Semut api yang mati	170,03 g/L	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 241,20 g/L vs Kontrol Positif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	4,50	18,00
Semut api yang mati	K+	4	4,50	18,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
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 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 241,20 g/L vs Kontrol Negatif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	241,20 g/L	4	6,50	26,00
Semut api yang mati	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

**Kadar Flavonoid 204,45 g/L vs 199,10 g/L**

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	204,45 g/L	4	5,75	23,00
Semut api yang mati	199,10 g/L	4	3,25	13,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	3,000
Wilcoxon W	13,000
Z	-1,667
Asymp. Sig. (2-tailed)	,096
Exact Sig. [2*(1-tailed Sig.)]	,200 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

**Kadar Flavonoid 204,45 g/L vs 189,20 g/L**

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	204,45 g/L	4	6,00	24,00
Semut api yang mati	189,20 g/L	4	3,00	12,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	2,000
Wilcoxon W	12,000
Z	-1,871
Asymp. Sig. (2-tailed)	,061
Exact Sig. [2*(1-tailed Sig.)]	,114 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.



### Kadar Flavonoid 204,45 g/L vs 170,03 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	204,45 g/L	4	6,50	26,00
Semut api yang mati	170,03 g/L	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 204,45 g/L vs Kontrol Positif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	204,45 g/L	4	3,50	14,00
Semut api yang mati	K+	4	5,50	22,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 204,45 g/L vs Kontrol Negatif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	204,45 g/L	4	6,50	26,00
Semut api yang mati	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 199,10 g/L vs 189,20 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	199,10 g/L	4	5,00	20,00
Semut api yang mati	189,20 g/L	4	4,00	16,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	6,000
Wilcoxon W	16,000
Z	-,683
Asymp. Sig. (2-tailed)	,495
Exact Sig. [2*(1-tailed Sig.)]	,686 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 199,10 g/L vs 170,03 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	199,10 g/L	4	6,00	24,00
Semut api yang mati	170,03 g/L	4	3,00	12,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	2,000
Wilcoxon W	12,000
Z	-2,049
Asymp. Sig. (2-tailed)	,040
Exact Sig. [2*(1-tailed Sig.)]	,114 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 199,10 g/L vs Kontrol Positif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	199,10 g/L	4	2,50	10,00
Semut api yang mati	K+	4	6,50	26,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 199,10 g/L vs Kontrol Negatif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	199,10 g/L	4	6,50	26,00
Semut api yang mati	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,530
Asymp. Sig. (2-tailed)	,011
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 189,20 g/L vs 170,03 g/L

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	189,20 g/L	4	5,50	22,00
Semut api yang mati	170,03 g/L	4	3,50	14,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	4,000
Wilcoxon W	14,000
Z	-1,528
Asymp. Sig. (2-tailed)	,127
Exact Sig. [2*(1-tailed Sig.)]	,343 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.



### Kadar Flavonoid 189,20 g/L vs Kontrol Positif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	189,20 g/L	4	2,50	10,00
Semut api yang mati	K+	4	6,50	26,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 189,20 g/L vs Kontrol Negatif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	189,20 g/L	4	6,50	26,00
Semut api yang mati	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,494
Asymp. Sig. (2-tailed)	,013
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 170,03 g/L vs Kontrol Positif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	170,03 g/L	4	2,50	10,00
Semut api yang mati	K+	4	6,50	26,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kadar Flavonoid 170,03 g/L vs Kontrol Negatif

Ranks				
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
	170,03 g/L	4	6,50	26,00
Semut api yang mati	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Kontrol Positif vs Kontrol Negatif

		Ranks		
	Kadar Flavonoid	N	Mean Rank	Sum of Ranks
Semut api yang mati	K+	4	6,50	26,00
	K-	4	2,50	10,00
	Total	8		

Test Statistics <sup>a</sup>	
	Semut api yang mati
Mann-Whitney U	,000
Wilcoxon W	10,000
Z	-2,646
Asymp. Sig. (2-tailed)	,008
Exact Sig. [2*(1-tailed Sig.)]	,029 <sup>b</sup>

a. Grouping Variable: Kadar Flavonoid

b. Not corrected for ties.

### Lampiran 9. Korelasi Antara Perubahan Kadar Flavonoid pada Penyimpanan Ekstrak Etanol 70% Daun Serai Wangi (*Cymbopogon nardus*) dan Jumlah Semut Api (*Solenopsis* sp) yang Mati (Korelasi Spearman)

Correlations			
		semut api yang mati	kadar flavonoid
semut api yang mati	Correlation Coefficient	1,000	,878**
	Sig. (2-tailed)	.	,000
	N	20	20
kadar flavonoid	Correlation Coefficient	,878**	1,000
	Sig. (2-tailed)	,000	.
	N	20	20

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

Lampiran 10. Pengaruh Perubahan Kadar Flavonoid pada Penyimpanan Ekstrak Etanol 70% Daun Serai Wangi (*Cymbopogon nardus*) terhadap Jumlah Semut Api (*Solenopsis sp*) yang Mati (Regresi Linier)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,843 <sup>a</sup>	,710	,694	,45668

a. Predictors: (Constant), kadar flavonoid

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9,196	1	9,196	44,094	,000 <sup>b</sup>
	Residual	3,754	18	,209		
	Total	12,950	19			

a. Dependent Variable: semut api yang mati

b. Predictors: (Constant), kadar flavonoid

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,123	,883		3,535	,002
	kadar flavonoid	,029	,004	,843	6,640	,000

a. Dependent Variable: semut api yang mati

Lampiran 11. Hubungan Antara Lama Waktu Penyimpanan dan Perubahan Kadar Flavonoid pada Penyimpanan Ekstrak Etanol 70% Daun Serai Wangi (*Cymbopogon nardus*) (Korelasi Spearman)

Correlations

		Lama Waktu Penyimpanan	Kadar Flavonoid
Spearman's rho	Correlation Coefficient	1,000	-1,000**
	Lama Waktu Penyimpanan	.	.
	N	5	5
Kadar Flavonoid	Correlation Coefficient	-1,000**	1,000
	Sig. (2-tailed)	.	.
	N	5	5

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



Lampiran 12

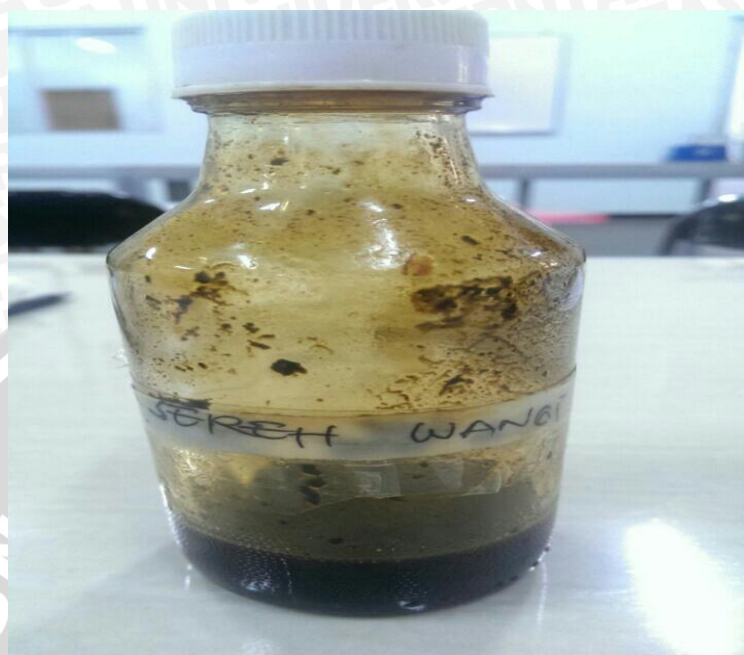
Gambar



Gambar 1 Daun serai dikeringkan



Gambar 2 Proses Evaporasi untuk mendapatkan Ekstrak Daun Serai



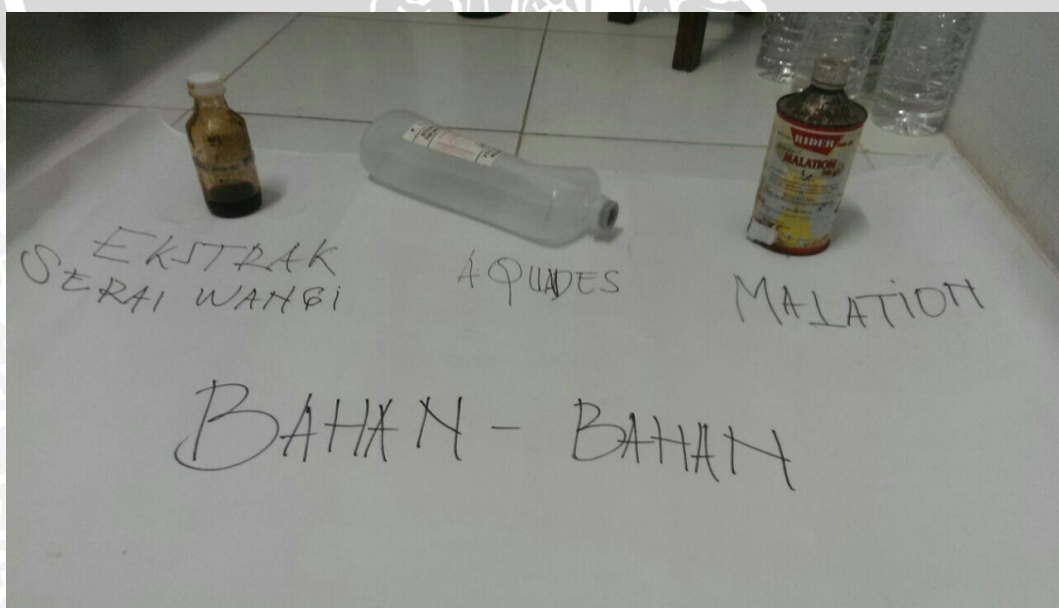
Gambar 3 Ekstrak yang didapat



Gambar 4 Ekstrak yang diencerkan sedia untuk disemprot



Gambar 5 Alat-Alat Penelitian (Spray,Sputit,Lidi,Kandang Kaca ukuran 25cm x 25cm x 25cm)

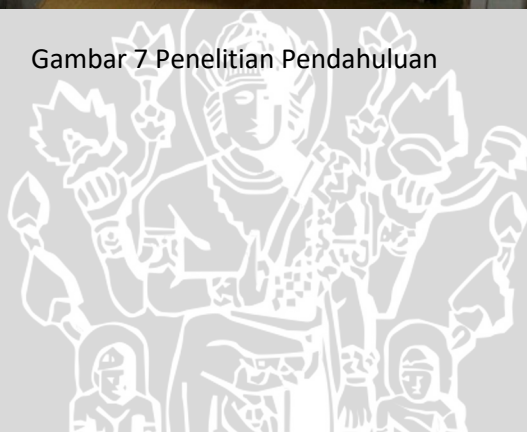


Gambar 6 Bahan-bahan penelitian

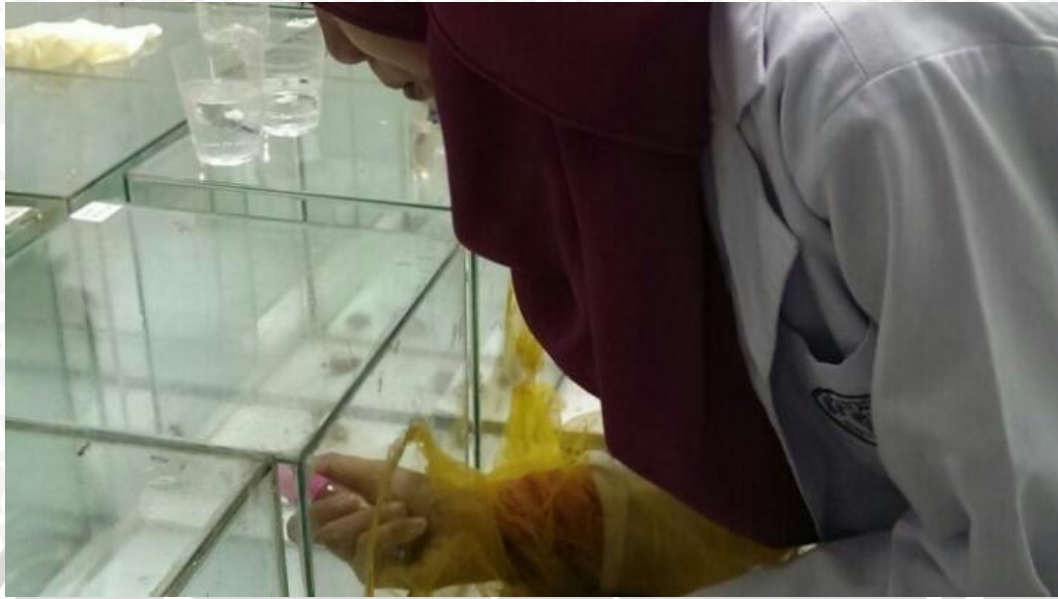




Gambar 7 Penelitian Pendahuluan



Gambar 8 Penelitian utama



Gambar 9 Proses Penyemprotan

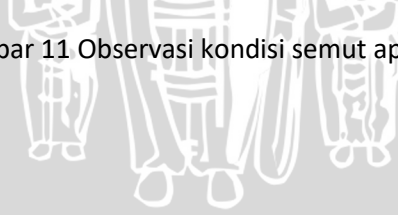


Gambar 10 Proses Pengamatan



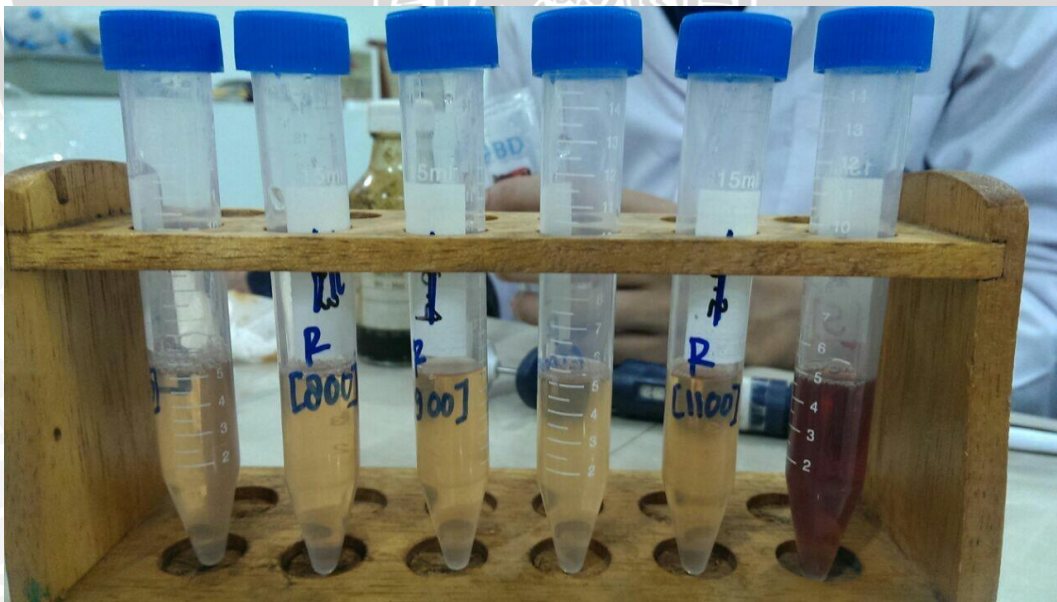


Gambar 11 Observasi kondisi semut api





Gambar 12 Semut api yang mati



Gambar 13 Proses Kurva Kalibrasi Kuersetin

