

**Tabel III.4**  
**Tabel Pengumpulan Data Primer**  
**Penelitian Selama 24 jam**

No.	Replikasi	Jumlah kematian larva nyamuk <i>Aedes aegypti</i>							
		0% (Kontrol)		0,5%		2%		3%	
		n	$\Sigma$	n	$\Sigma$	n	$\Sigma$	n	$\Sigma$
1.	R1	25	0	25	3	25	4	25	8
2.	R2	25	0	25	4	25	4	25	8
3.	R3	25	0	25	4	25	5	25	6
4.	R4	25	0	25	4	25	2	25	8
5.	R5	25	0	25	3	25	4	25	11
6.	R6	25	0	25	2	25	6	25	6
Jumlah		150	0	150	20	150	25	150	47
Rata-rata		25	0	25	3	25	4	25	8
%		100	0	100	13	100	17	100	31

Keterangan :

$\Sigma$  : Jumlah kematian larva nyamuk *Aedes aegypti*

% : Persentasi kematian larva nyamuk *Aedes aegypti*

Nb : Jumlah larva yang digunakan sebesar 25 larva berdasarkan dengan WHO (2005).

**Cara Pembuatan Konsentrasi Campuran Ekstrak Bawang Putih dan Serai  
Dengan Konsentrasi 0,5%, 1%, dan 2%**

1. Konsentrasi 0,5%

$$\begin{aligned}V_1 \cdot N_1 &= V_2 \cdot N_2 \\250 \text{ ml} \cdot 0,5 &= V_2 \cdot 100 \\V_2 &= \frac{250 \text{ ml} \cdot 0,5}{100} \\V_2 &= \frac{125 \text{ ml}}{100} \\V_2 &= 1,25 \text{ ml}\end{aligned}$$

Jadi konsentrasi 0,5% = 1,25 ml diambil dari 0,625 ml ekstrak bawang putih murni dan 0,625 ml ekstrak serai murni kemudian dilarutkan pada media air bersih 248,75 ml (250 – 1,25 ml).

2. Konsentrasi 1%

$$\begin{aligned}V_1 \cdot N_1 &= V_2 \cdot N_2 \\250 \text{ ml} \cdot 1 &= V_2 \cdot 100 \\V_2 &= \frac{250 \text{ ml} \cdot 1}{100} \\V_2 &= \frac{250 \text{ ml}}{100} \\V_2 &= 2,5 \text{ ml}\end{aligned}$$

Jadi konsentrasi 1% = 2,5 ml diambil dari 1,25 ml ekstrak bawang putih murni dan 1,25 ml ekstrak serai murni kemudian dilarutkan pada media air bersih 247,5 ml (250 – 2,5 ml).

3. Konsentrasi 2%

$$\begin{aligned}V_1 \cdot N_1 &= V_2 \cdot N_2 \\250 \text{ ml} \cdot 2 &= V_2 \cdot 100 \\V_2 &= \frac{250 \text{ ml} \cdot 2}{100} \\V_2 &= \frac{500 \text{ ml}}{100} \\V_2 &= 5 \text{ ml}\end{aligned}$$

Jadi konsentrasi 2% = 5 ml diambil dari 2,5 ml ekstrak bawang putih murni dan 2,5ml ekstrak serai murni kemudian dilarutkan pada media air bersih 245 ml (250 – 5 ml).

## Hasil Uji Anova Satu Arah

### Descriptives

Mortalitas Larva

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Konsentrasi 0%	6		
Konsentrasi 0,5%	6	3.33	.816	.333	2.48	4.19	2	4
Konsentrasi 1%	6	4.17	1.329	.543	2.77	5.56	2	6
Konsentrasi 2%	6	7.83	1.835	.749	5.91	9.76	6	11
Total	24	3.83	3.060	.625	2.54	5.13	0	11

### Test of Homogeneity of Variances

Mortalitas Larva

Levene Statistic	df1	df2	Sig.
2.532	3	20	.086

### ANOVA

Mortalitas Larva

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	186.333	3	62.111	42.835	.000
Within Groups	29.000	20	1.450		
Total	215.333	23			

## Post Hoc Tests

### Multiple Comparisons

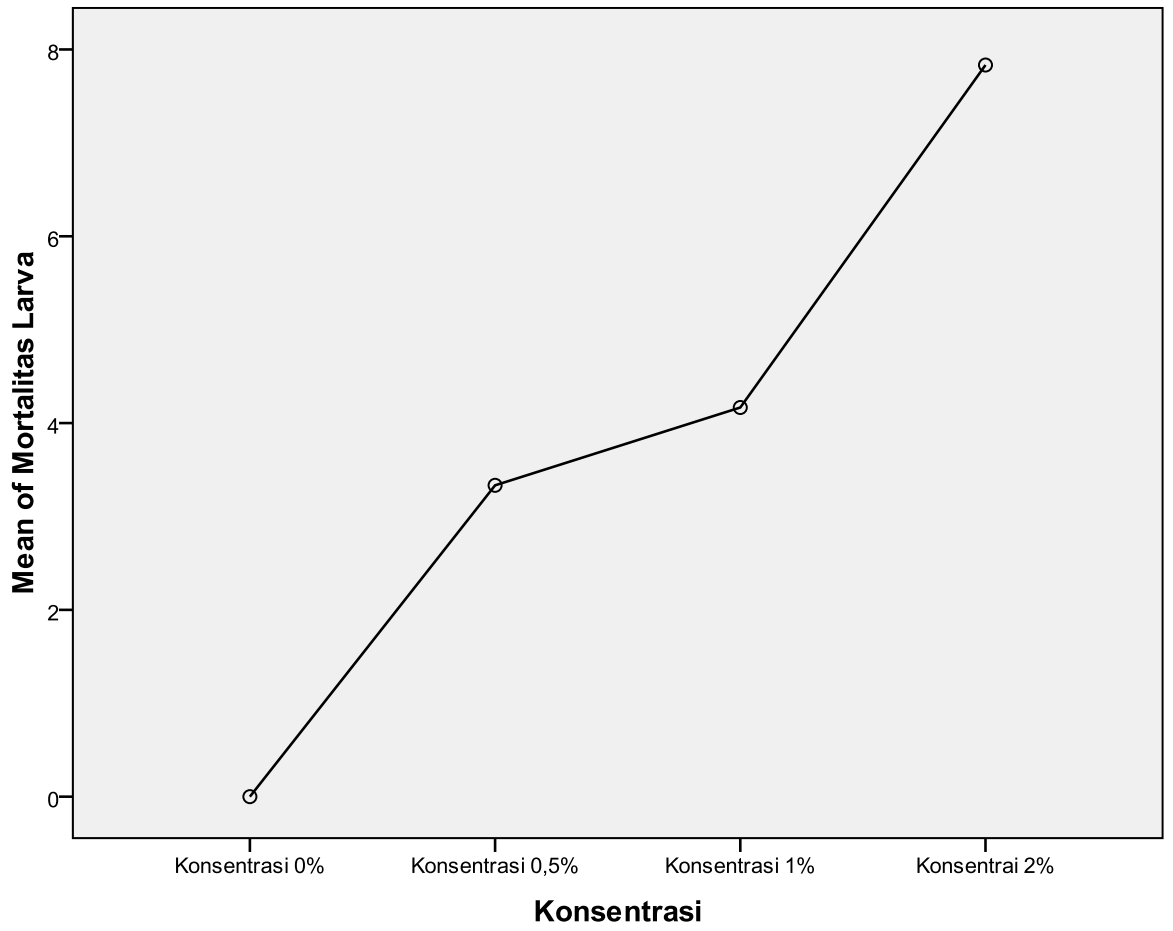
Mortalitas Larva

LSD

(I) Konsentrasi	(J) Konsentrasi	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Konsentrasi 0%	Konsentrasi 0,5%	-3.333*	.695	.000	-4.78	-1.88
	Konsentrasi 1%	-4.167*	.695	.000	-5.62	-2.72
	Konsentrasi 2%	-7.833*	.695	.000	-9.28	-6.38
Konsentrasi 0,5%	Konsentrasi 0%	3.333*	.695	.000	1.88	4.78
	Konsentrasi 1%	-.833	.695	.245	-2.28	.62
	Konsentrasi 2%	-4.500*	.695	.000	-5.95	-3.05
Konsentrasi 1%	Konsentrasi 0%	4.167*	.695	.000	2.72	5.62
	Konsentrasi 0,5%	.833	.695	.245	-.62	2.28
	Konsentrasi 2%	-3.667*	.695	.000	-5.12	-2.22
Konsentrasi 2%	Konsentrasi 0%	7.833*	.695	.000	6.38	9.28
	Konsentrasi 0,5%	4.500*	.695	.000	3.05	5.95
	Konsentrasi 1%	3.667*	.695	.000	2.22	5.12

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

## Means Plots



## Hasil Uji Probit LC<sub>50</sub>

### Data Information

	N of Cases
Valid	24
Rejected Missing	0
LOG Transform Cannot be Done	0
Number of Responses > Number of Subjects	0
Control Group	0

### Convergence Information

	Number of Iterations	Optimal Solution Found
PROBIT	18	Yes

### Parameter Estimates

Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PROBIT <sup>a</sup> Variasi Konsentrasi	2.893	.551	5.251	.000	1.813	3.973
Intercept	-2.227	.388	-5.733	.000	-2.615	-1.838

a. PROBIT model:  $\text{PROBIT}(p) = \text{Intercept} + \text{BX}$  (Covariates X are transformed using the base 10.000 logarithm.)

### Covariances and Correlations of Parameter Estimates

	Variasi Konsentrasi	Natural Response
PROBIT Variasi Konsentrasi	.304	.635
Natural Response	.017	.002

Covariances (below) and Correlations (above).

### Natural Response Rate Estimate<sup>a</sup>

	Estimate	Std. Error
PROBIT	.000	.049

a. Control group is not provided.



### Chi-Square Tests

	Chi-Square	df <sup>a</sup>	Sig.
PROBIT Pearson Goodness-of-Fit Test	13.880	21	.875 <sup>b</sup>

a. Statistics based on individual cases differ from statistics based on aggregated cases.

b. Since the significance level is greater than .500, no heterogeneity factor is used in the calculation of confidence limits.

### Cell Counts and Residuals

	Number	Variasi Konsentrasi	Number of Subjects	Observed Responses	Expected Responses	Residual	Probability
PROBIT 1	1	.000	25	0	.325	-.325	.013
	2	.000	25	0	.325	-.325	.013
	3	.000	25	0	.325	-.325	.013
	4	.000	25	0	.325	-.325	.013
	5	.000	25	0	.325	-.325	.013
	6	.000	25	0	.325	-.325	.013
	7	.301	25	3	2.190	.810	.088
	8	.301	25	4	2.190	1.810	.088
	9	.301	25	4	2.190	1.810	.088
	10	.301	25	4	2.190	1.810	.088
	11	.301	25	3	2.190	.810	.088
	12	.301	25	2	2.190	-.190	.088

13	.477	25	4	4.968	-.968	.199
14	.477	25	4	4.968	-.968	.199
15	.477	25	5	4.968	.032	.199
16	.477	25	2	4.968	-2.968	.199
17	.477	25	4	4.968	-.968	.199
18	.477	25	6	4.968	1.032	.199
19	.602	25	8	7.849	.151	.314
20	.602	25	8	7.849	.151	.314
21	.602	25	6	7.849	-1.849	.314
22	.602	25	8	7.849	.151	.314
23	.602	25	11	7.849	3.151	.314
24	.602	25	6	7.849	-1.849	.314

### Confidence Limits

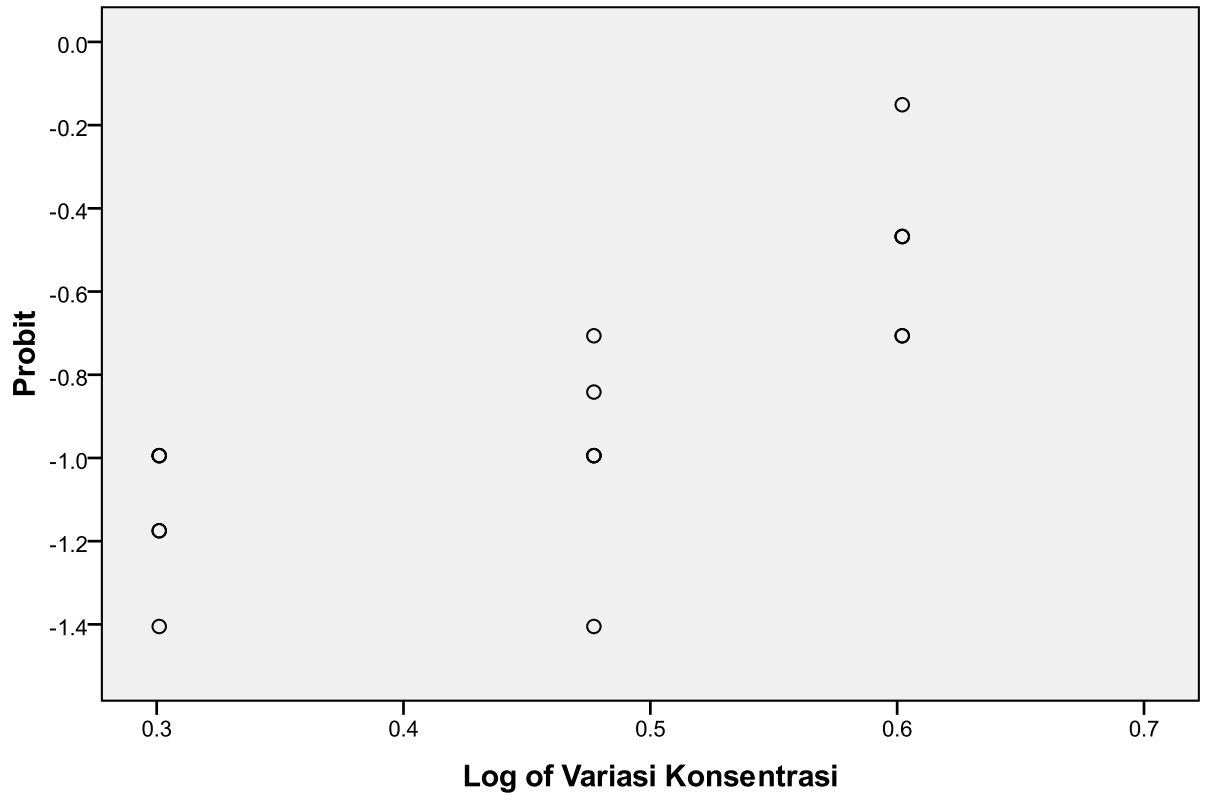
Probability	95% Confidence Limits for Variasi Konsentrasi			95% Confidence Limits for log(Variasi Konsentrasi) <sup>a</sup>		
	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
PROBIT .010	.924	.345	1.482	-.034	-.463	.171
.020	1.148	.484	1.747	.060	-.315	.242
.030	1.317	.600	1.940	.120	-.222	.288
.040	1.461	.705	2.102	.165	-.152	.323
.050	1.589	.803	2.244	.201	-.095	.351

.060	1.707	.897	2.373	.232	-.047	.375
.070	1.818	.987	2.494	.260	-.005	.397
.080	1.923	1.076	2.609	.284	.032	.416
.090	2.024	1.163	2.718	.306	.066	.434
.100	2.122	1.249	2.824	.327	.097	.451
.150	2.578	1.670	3.323	.411	.223	.522
.200	3.011	2.089	3.810	.479	.320	.581
.250	3.439	2.511	4.317	.536	.400	.635
.300	3.875	2.937	4.872	.588	.468	.688
.350	4.329	3.366	5.497	.636	.527	.740
.400	4.808	3.799	6.216	.682	.580	.794
.450	5.323	4.237	7.058	.726	.627	.849
.500	5.883	4.686	8.052	.770	.671	.906
.550	6.501	5.153	9.237	.813	.712	.966
.600	7.196	5.649	10.671	.857	.752	1.028
.650	7.993	6.188	12.434	.903	.792	1.095
.700	8.929	6.790	14.654	.951	.832	1.166
.750	10.062	7.486	17.545	1.003	.874	1.244
.800	11.493	8.324	21.492	1.060	.920	1.332
.850	13.420	9.398	27.291	1.128	.973	1.436
.900	16.311	10.922	36.951	1.212	1.038	1.568
.910	17.098	11.322	39.770	1.233	1.054	1.600

.920	17.996	11.772	43.081	1.255	1.071	1.634
.930	19.037	12.286	47.047	1.280	1.089	1.673
.940	20.272	12.884	51.916	1.307	1.110	1.715
.950	21.779	13.600	58.097	1.338	1.134	1.764
.960	23.693	14.490	66.317	1.375	1.161	1.822
.970	26.277	15.660	78.054	1.420	1.195	1.892
.980	30.155	17.357	96.967	1.479	1.239	1.987
.990	37.460	20.398	136.592	1.574	1.310	2.135

a. Logarithm base = 10.

### Probit Transformed Responses



## Hasil Uji Probit LT<sub>50</sub>

### Data Information

	N of Cases
Valid	72
Rejected Missing	0
LOG Transform Cannot be Done	0
Number of Responses > Number of Subjects	0
Control Group	0

### Convergence Information

	Number of Iterations	Optimal Solution Found
PROBIT	20	No <sup>a</sup>

a. Parameter estimates did not converge.

### Parameter Estimates

Parameter	Estimate	Std. Error	Z	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PROBIT <sup>a</sup> Jam	2.453	.359	6.835	.000	1.750	3.157
Intercept	-4.105	.468	-8.776	.000	-4.573	-3.637

a. PROBIT model:  $\text{PROBIT}(p) = \text{Intercept} + \text{BX}$  (Covariates X are transformed using the base 10.000 logarithm.)

### Covariances and Correlations of Parameter Estimates

	Jam	Natural Response
PROBIT Jam	.129	.641
Natural Response	.002	.000

Covariances (below) and Correlations (above).

### Natural Response Rate Estimate<sup>a</sup>

	Estimate	Std. Error
PROBIT	.000	.009

a. Control group is not provided.

### Chi-Square Tests

	Chi-Square	df <sup>a</sup>	Sig.
PROBIT Pearson Goodness-of-Fit Test	46.006	69	.985 <sup>b</sup>

a. Statistics based on individual cases differ from statistics based on aggregated cases.

b. Since the significance level is greater than .500, no heterogeneity factor is used in the calculation of confidence limits.

### Cell Counts and Residuals

	Number	Jam	Number of Subjects	Observed Responses	Expected Responses	Residual	Probability
PROBIT	1	.000	25	0	.001	.000	.000
	2	.301	25	0	.010	-.010	.000
	3	.477	25	0	.042	-.042	.002
	4	.602	25	0	.107	-.107	.004
	5	.699	25	0	.210	-.210	.008
	6	.778	25	0	.351	-.351	.014
	7	.845	25	0	.527	-.527	.021
	8	.903	25	0	.735	-.735	.029
	9	.954	25	0	.971	-.771	.039
	10	1.000	25	1	1.232	-.532	.049
	11	1.041	25	1	1.513	-.813	.061



12	1.079	25	1	1.811	-1.011	.072
13	1.114	25	1	2.124	-1.124	.085
14	1.146	25	1	2.448	-1.148	.098
15	1.176	25	2	2.781	-.981	.111
16	1.204	25	2	3.120	-1.320	.125
17	1.230	25	2	3.465	-1.265	.139
18	1.255	25	3	3.813	-1.313	.153
19	1.279	25	3	4.162	-1.462	.166
20	1.301	25	3	4.512	-1.512	.180
21	1.322	25	3	4.862	-1.562	.194
22	1.342	25	3	5.210	-1.910	.208
23	1.362	25	3	5.557	-2.257	.222
24	1.380	25	3	5.900	-2.600	.236
25	.000	25	0	.001	.000	.000
26	.301	25	0	.010	-.010	.000
27	.477	25	0	.042	-.042	.002
28	.602	25	0	.107	-.107	.004
29	.699	25	0	.210	-.210	.008
30	.778	25	0	.351	-.351	.014
31	.845	25	0	.527	-.327	.021
32	.903	25	0	.735	-.435	.029
33	.954	25	1	.971	.029	.039

34	1.000	25	1	1.232	-.232	.049
35	1.041	25	1	1.513	-.313	.061
36	1.079	25	2	1.811	-.111	.072
37	1.114	25	2	2.124	.076	.085
38	1.146	25	2	2.448	-.248	.098
39	1.176	25	3	2.781	-.281	.111
40	1.204	25	3	3.120	-.120	.125
41	1.230	25	3	3.465	-.465	.139
42	1.255	25	3	3.813	-.813	.153
43	1.279	25	3	4.162	-.862	.166
44	1.301	25	4	4.512	-.812	.180
45	1.322	25	4	4.862	-1.162	.194
46	1.342	25	4	5.210	-1.410	.208
47	1.362	25	4	5.557	-1.757	.222
48	1.380	25	4	5.900	-1.700	.236
49	.000	25	0	.001	.000	.000
50	.301	25	0	.010	-.010	.000
51	.477	25	0	.042	-.042	.002
52	.602	25	0	.107	.093	.004
53	.699	25	0	.210	.090	.008
54	.778	25	0	.351	.149	.014
55	.845	25	1	.527	.473	.021

56	.903	25	1	.735	.565	.029
57	.954	25	2	.971	1.329	.039
58	1.000	25	3	1.232	1.268	.049
59	1.041	25	3	1.513	1.287	.061
60	1.079	25	4	1.811	1.889	.072
61	1.114	25	4	2.124	2.076	.085
62	1.146	25	5	2.448	2.052	.098
63	1.176	25	5	2.781	2.219	.111
64	1.204	25	6	3.120	2.580	.125
65	1.230	25	6	3.465	2.335	.139
66	1.255	25	7	3.813	2.887	.153
67	1.279	25	7	4.162	2.538	.166
68	1.301	25	7	4.512	2.488	.180
69	1.322	25	7	4.862	2.338	.194
70	1.342	25	8	5.210	2.490	.208
71	1.362	25	8	5.557	2.243	.222
72	1.380	25	8	5.900	1.900	.236

### Cell Counts and Residuals

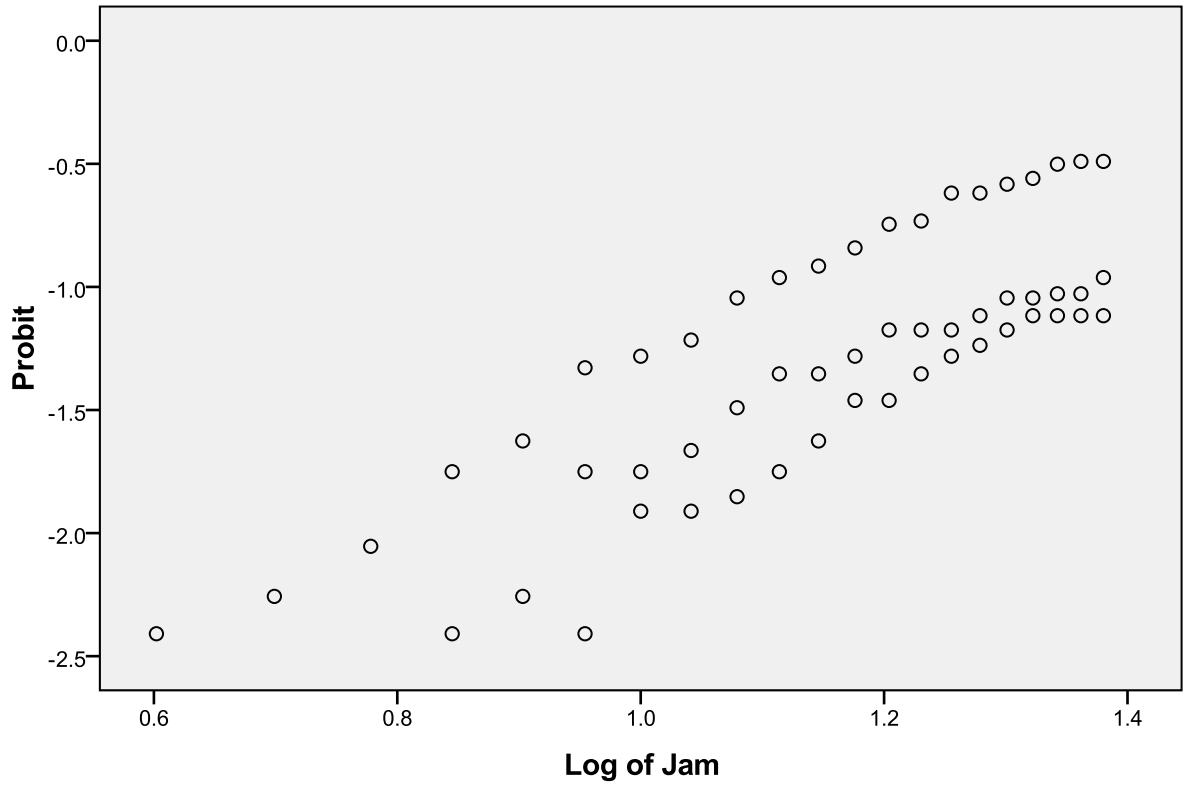
Number	Jam	Number of Subjects	Observed Responses	Expected Responses	Residual	Probability
PROBIT 1	.000	25	0	.001	.000	.000
2	.301	25	0	.010	-.010	.000
3	.477	25	0	.042	-.042	.002
4	.602	25	0	.107	-.107	.004
5	.699	25	0	.210	-.210	.008
6	.778	25	0	.351	-.351	.014
7	.845	25	0	.527	-.527	.021
8	.903	25	0	.735	-.735	.029
9	.954	25	0	.971	-.771	.039
10	1.000	25	1	1.232	-.532	.049
11	1.041	25	1	1.513	-.813	.061
12	1.079	25	1	1.811	-1.011	.072
13	1.114	25	1	2.124	-1.124	.085
14	1.146	25	1	2.448	-1.148	.098
15	1.176	25	2	2.781	-.981	.111
16	1.204	25	2	3.120	-1.320	.125
17	1.230	25	2	3.465	-1.265	.139
18	1.255	25	3	3.813	-1.313	.153
19	1.279	25	3	4.162	-1.462	.166

20	1.301	25	3	4.512	-1.512	.180
21	1.322	25	3	4.862	-1.562	.194
22	1.342	25	3	5.210	-1.910	.208
23	1.362	25	3	5.557	-2.257	.222
24	1.380	25	3	5.900	-2.600	.236
25	.000	25	0	.001	.000	.000
26	.301	25	0	.010	-.010	.000
27	.477	25	0	.042	-.042	.002
28	.602	25	0	.107	-.107	.004
29	.699	25	0	.210	-.210	.008
30	.778	25	0	.351	-.351	.014
31	.845	25	0	.527	-.327	.021
32	.903	25	0	.735	-.435	.029
33	.954	25	1	.971	.029	.039
34	1.000	25	1	1.232	-.232	.049
35	1.041	25	1	1.513	-.313	.061
36	1.079	25	2	1.811	-.111	.072
37	1.114	25	2	2.124	.076	.085
38	1.146	25	2	2.448	-.248	.098
39	1.176	25	3	2.781	-.281	.111
40	1.204	25	3	3.120	-.120	.125
41	1.230	25	3	3.465	-.465	.139

42	1.255	25	3	3.813	-.813	.153
43	1.279	25	3	4.162	-.862	.166
44	1.301	25	4	4.512	-.812	.180
45	1.322	25	4	4.862	-1.162	.194
46	1.342	25	4	5.210	-1.410	.208
47	1.362	25	4	5.557	-1.757	.222
48	1.380	25	4	5.900	-1.700	.236
49	.000	25	0	.001	.000	.000
50	.301	25	0	.010	-.010	.000
51	.477	25	0	.042	-.042	.002
52	.602	25	0	.107	.093	.004
53	.699	25	0	.210	.090	.008
54	.778	25	0	.351	.149	.014
55	.845	25	1	.527	.473	.021
56	.903	25	1	.735	.565	.029
57	.954	25	2	.971	1.329	.039
58	1.000	25	3	1.232	1.268	.049
59	1.041	25	3	1.513	1.287	.061
60	1.079	25	4	1.811	1.889	.072
61	1.114	25	4	2.124	2.076	.085
62	1.146	25	5	2.448	2.052	.098
63	1.176	25	5	2.781	2.219	.111

64	1.204	25	6	3.120	2.580	.125
65	1.230	25	6	3.465	2.335	.139
66	1.255	25	7	3.813	2.887	.153
67	1.279	25	7	4.162	2.538	.166
68	1.301	25	7	4.512	2.488	.180
69	1.322	25	7	4.862	2.338	.194
70	1.342	25	8	5.210	2.490	.208
71	1.362	25	8	5.557	2.243	.222
72	1.380	25	8	5.900	1.900	.236

### Probit Transformed Responses





## Dokumentasi Penelitian



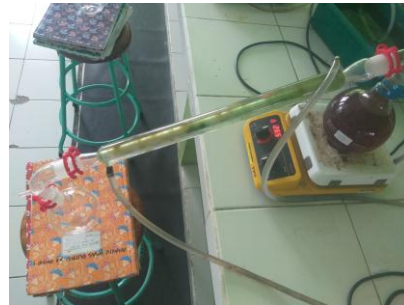
Gambar 1  
Pengupasan Bahan Baku



Gambar 2  
Pembuatan Serbuk Bahan Bku



Gambar 3  
Penyaringan hasil fermentasi ekstrak  
bawang putih dan serai



Gambar 4  
Proses destilasi



Gambar 5  
Hasil destilasi



Gambar 6  
Penetasan larva *Aedes aegypti*



Gambar 7  
Larva *Aedes aegypti*



Gambar 8  
Pencampuran ekstrak bawang putih dan serai



Gambar 9  
Pencampuran ekstrak bawang putih dan serai pada media air bersih



Gambar 10  
Pengambilan larva *Aedes aegypti*



Gambar 11  
Larva *Aedes aegypti* dimasukkan pada  
media uji



Gambar 12  
Pengukuran pH pada media



Gambar 13  
Pengukuran Ph



Gambar 14  
Replikasi pada penelitian