

## APPENDICES

### Appendix 1: Results of 4 rounds of the study

The data obtained from the study of bioovicidal activity of *Acalypha indica linn* against *Aedes aegypti* egg

#### 1<sup>st</sup> round

<i>Acalypha indica linn</i> root concentration(%)	The number of unhatched eggs for every 12 hours			
	6 a.m	6 p.m	6 a.m	6 p.m
0.5	1	3	3	2
1.0	4	4	4	5
1.5	4	4	6	6
2.0	7	6	9	12
Abate, K(+)	0	0	0	14
Well water, K(-)	1	2	1	4

Table 5.1 shows total number of unhatched eggs

#### 2<sup>nd</sup> round

<i>Acalypha indica linn</i> root concentration(%)	The number of unhatched eggs for every 12 hours			
	7 a.m	7 p.m	7 a.m	7 p.m
0.5	0	4	2	2
1.0	4	5	4	4
1.5	3	4	4	5
2.0	6	6	6	11
Abate, K(+)	0	1	0	16
Well water, K(-)	0	2	2	2

Table 5.1 shows total number of unhatched eggs

#### 3<sup>rd</sup> round

<i>Acalypha indica linn</i> root concentration(%)	The number of unhatched eggs for every 12 hours			
	7 a.m	7 p.m	7 a.m	7 p.m
0.5	1	2	1	2
1.0	4	3	2	2
1.5	2	4	3	5
2.0	7	5	7	13
Abate, K(+)	0	0	3	10
Well water, K(-)	0	2	3	2

Table 5.1 shows total number of unhatched eggs

4<sup>th</sup> round

<i>Acalypha indica</i> linn root concentration(%)	The number of unhatched eggs for every 12 hours			
	7 a.m	7 p.m	7 a.m	7 p.m
0.5	3	3	1	2
1.0	5	5	3	3
1.5	5	6	4	5
2.0	7	5	6	11
Abate, K(+)	0	0	1	15
Well water, K(-)	0	1	3	2

Table 5.1 shows total number of unhatched eggs

Data of ovicidal activity is calculated at 48 hours.

Formula:

$$\text{Ovicidal activity \%} = \frac{\text{No. of unhatched eggs}}{\text{No. of total eggs}} \times 100$$

(Gabriel, 2015)

Study	Percentage of Ovicidal Activity					
	0.5% extract	1% extract	1.5% extract	2% extract	Control (+)	Control (-)
Study 1	10.00%	25.00%	30.00%	60.00%	70.00%	20.00%
Study 2	10.00%	20.00%	25.00%	55.00%	80.00%	10.00%
Study 3	10.00%	10.00%	25.00%	65.00%	50.00%	10.00%
Study 4	10.00%	15.00%	25.00%	55.00%	75.00%	10.00%

Time	Mean Number of Unhatched Eggs (%)					
	0.5%	1.0%	1.5%	2.0%	K+	K-
12 Hours	1	4	4	7	0	0
24 Hours	3	3	5	6	0	2
36 Hours	2	4	4	7	0	2
48 Hours	2	4	5	12	15	3

## Appendix 2: Descriptive statistic

Ovicidal Activity of *Acalypha indica linn* against number of unhatched *Aedes aegypti* eggs.

### Descriptives of Unhatched Eggs

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					0.5%	16		
1%	16	3.8125	.98107	.24527	3.2897	4.3353	2.00	5.00
1.5%	16	4.3750	1.14746	.28687	3.7636	4.9864	2.00	6.00
2%	16	7.7500	2.59487	.64872	6.3673	9.1327	5.00	13.00
K+ (Abate)	16	3.7500	6.12645	1.53161	.4854	7.0146	0.00	16.00
K- (Well water)	16	1.6875	1.13835	.28459	1.0809	2.2941	0.00	4.00
Total	96	3.8958	3.41969	.34902	3.2029	4.5887	0.00	16.00



### Normality test of unhatched eggs data

Normality test	
Kolmogorov- Smirnov	0.165
Probability	0.000

### Homogeneity test of unhatched eggs data

Homogeneity test	
Levene Statistic	18.957
Probability	0.000

### Test for effect when *Acalypha indica linn* extract was given

Kruskal Wallis	
Chi Square	51.392
Probability	0.000

### Appendix 3: Effect of *Acalypha indica linn* extract against number of unhatched *Aedes aegypti* eggs.

#### Bonferroni Test

#### Multiple Comparisons

Dependent Variable: Bioovicidal activity

(I) Concentration		Mean	Std. Difference (I-J)	Sig.	95% Confidence Interval		
					Error	Lower Bound	Upper Bound
Concentration	1%	-1.81250	1.00942	1.000	-4.8565	1.2315	
	0.5%	-2.37500	1.00942	.312	-5.4190	.6690	
	2%	-5,75000*	1.00942	.000	-8.7940	-2.7060	

K+		-1.75000	1.00942	1.000	-4.7940	1.2940
(Abate)						
K-		.31250	1.00942	1.000	-2.7315	3.3565
(Well water)						
Concentration	0.5%	1.81250	1.00942	1.000	-1.2315	4.8565
	1.5%	-.56250	1.00942	1.000	-3.6065	2.4815
	2%	-3,93750*	1.00942	.003	-6.9815	-.8935
K+		.06250	1.00942	1.000	-2.9815	3.1065
(Abate)						
K-		2.12500	1.00942	.571	-.9190	5.1690
(Well water)						
Concentration	0.5%	2.37500	1.00942	.312	-.6690	5.4190
	1.5%	.56250	1.00942	1.000	-2.4815	3.6065
	2%	-3,37500*	1.00942	.018	-6.4190	-.3310
K+		.62500	1.00942	1.000	-2.4190	3.6690
(Abate)						
K-		2.68750	1.00942	.138	-.3565	5.7315
(Well water)						
Concentration	0.5%	5,75000*	1.00942	.000	2.7060	8.7940
	2%					
	1%	3,93750*	1.00942	.003	.8935	6.9815
	1.5%	3,37500*	1.00942	.018	.3310	6.4190
K+		4,00000*	1.00942	.002	.9560	7.0440
(Abate)						
K-		6,06250*	1.00942	.000	3.0185	9.1065

(Well water)						
Abate (K+)	0.5%	1.75000	1.00942	1.000	-1.2940	4.7940
	1%	-.06250	1.00942	1.000	-3.1065	2.9815
	1.5%	-.62500	1.00942	1.000	-3.6690	2.4190
	2%	-4,00000*	1.00942	.002	-7.0440	-.9560
K-						
(Well water)		2.06250	1.00942	.659	-.9815	5.1065
Well water (K-)	0.5%	-.31250	1.00942	1.000	-3.3565	2.7315
	1%	-2.12500	1.00942	.571	-5.1690	.9190
	1.5%	-2.68750	1.00942	.138	-5.7315	.3565
	2%	-6,06250*	1.00942	.000	-9.1065	-3.0185
K+						
(Abate)		-2.06250	1.00942	.659	-5.1065	.9815

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



## Probability and notation of Bonferroni Test

<i>Acalypha indica</i> linn root concentration	Mean	Probability						Notation
		2%	1.5%	1%	K+	0.5%	K-	
2%	7.75 ± 2.59		0.018	0.003	0.002	0.000	0.000	<b>A</b>
1.5%	4.38 ± 1.15	0.018		1.000	1.000	0.312	0.138	<b>B</b>
1%	3.81 ± 0.98	0.003	1.000		1.000	1.000	0.571	<b>B</b>
K+	3.75 ± 6.13	0.002	1.000	1.000		1.000	1.000	<b>B</b>
0.5%	2 ± 1.03	0.000	0.312	1.000	1.000		1.000	<b>B</b>
K-	1.69 ± 1.14	0.000	0.138	0.571	1.000	1.000		<b>B</b>



Appendix 4: Pictures taken during research



Picture 1: shows powdered form of *Acalypha indica linn* root



Picture 2: shows picture A of *Acalypha indica linn* root extract and picture B of the root extract prepared in different concentration.

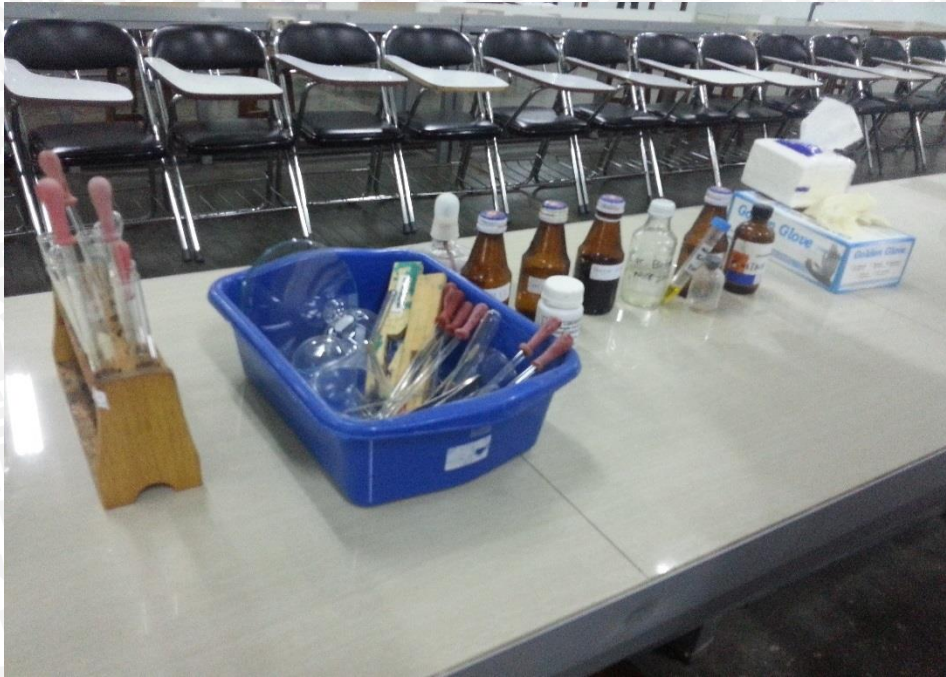




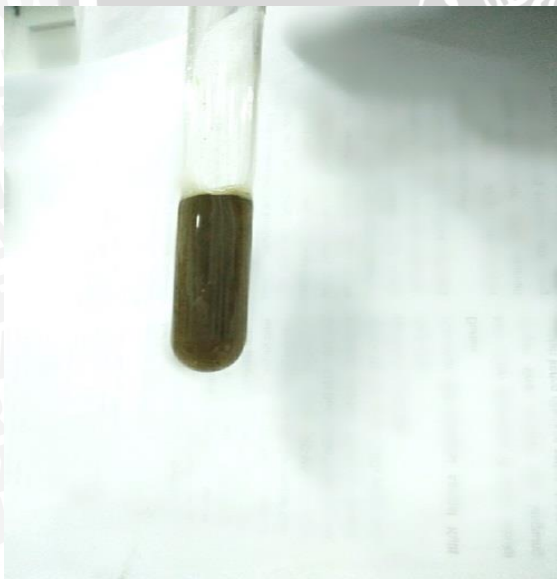
Picture 3: shows me taking the *Aedes aegypti* eggs with a dropping pipette.



Picture 4: shows me observing damages on the *Aedes aegypti* eggs.



**Picture 5: shows apparatus and materials prepared when doing qualitative test on this root extract.**



**Picture 6: shows small amount of root extract used for the qualitative test.**