



Lampiran 1. *Total Haemocyte Count***A. THC Pretest**

Kelompok	Ulangan	Nilai THC
A	1	6920000
	2	6140000
	3	7760000
B	1	6660000
	2	7720000
	3	7340000
C	1	6280000
	2	7580000
	3	7460000
K+	1	7840000
	2	7760000
	3	6580000
K-	1	5980000
	2	8480000
	3	7200000

- Uji Normalitas *Shapiro Wilk*

Tests of Normality

		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Perlakuan		Statistic	df	Sig.	Statistic	df	Sig.
THC	Posttest A	.178	3	.	1.000	3	.959
	Posttest B	.241	3	.	.974	3	.691
	Posttest C	.355	3	.	.819	3	.160
	Posttest K+	.365	3	.	.797	3	.108
	Posttest K-	.177	3	.	1.000	3	.974

a. Lilliefors Significance Correction

- Uji Homogenitas *Levene Test*

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
THC	Based on Mean	.454	4	10	.768
	Based on Median	.315	4	10	.862
	Based on Median and with adjusted df	.315	4	8.384	.861
	Based on trimmed mean	.446	4	10	.773

- Uji ANOVA

ANOVA

THC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.411E+11	4	8.527E+10	.121	.972
Within Groups	7.043E+12	10	7.043E+11		
Total	7.384E+12	14			

B. THC Posttest

Kelompok	Ulangan	Nilai THC
A	1	10100000
	2	11960000
	3	10820000
B	1	12040000
	2	14820000
	3	13700000
C	1	14380000
	2	15140000
	3	15720000
K+	1	5200000
	2	6240000
	3	5120000
K-	1	8500000
	2	8200000
	3	9080000

- Uji Normalitas *Shapiro Wilk*

Tests of Normality

Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
THC Posttest A	.226	3	.	.983	3	.752
Posttest B	.218	3	.	.988	3	.787
Posttest C	.202	3	.	.994	3	.852
Posttest K+	.362	3	.	.803	3	.122
Posttest K-	.249	3	.	.967	3	.653

a. Lilliefors Significance Correction

- Uji Homogenitas *Levene Test*

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
THC	Based on Mean	1.062	4	10	.424
	Based on Median	.583	4	10	.682
	Based on Median and with adjusted df	.583	4	6.881	.685
	Based on trimmed mean	1.029	4	10	.439

- Uji ANOVA

ANOVA

THC

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.754E+14	4	4.385E+13	56.537	.000
Within Groups	7.756E+12	10	7.756E+11		
Total	1.832E+14	14			

- Uji Lanjut Duncan

THC

Duncan^a

		Subset for alpha = 0.05			
Perlakuan	N	1	2	3	4
Posttest K+	3	5520000.00			
Posttest K-	3		8593333.33		
Posttest A	3			10960000.00	
Posttest B	3				13520000.00
Posttest C	3				15080000.00
Sig.		1.000	1.000	1.000	.055

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 2. *Differential Haemocyte Count***A. DHC Pretest**

Kelompok	Ulangan	Granular	Granular (%)	Hialin	Hialin (%)
A	1	94	47,00%	106	53,00%
	2	68	34,00%	132	66,00%
	3	82	41,00%	118	59,00%
B	1	71	35,50%	129	64,50%
	2	80	40,00%	120	60,00%
	3	66	33,00%	134	67,00%
C	1	77	38,50%	123	61,50%
	2	86	43,00%	114	57,00%
	3	88	44,00%	112	56,00%
K+	1	80	40,0%	120	60,00%
	2	79	39,50%	121	60,50%
	3	84	42,00%	116	58,00%
K-	1	88	44,00%	112	56,00%
	2	63	31,50%	137	68,50%
	3	86	43,00%	114	57,00%

- Uji Normalitas *Shapiro Wilk*

Tests of Normality

Perlakuan		Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Granular	Pretest A	.187	3	.	.998	3	.915
	Pretest B	.241	3	.	.974	3	.688
	Pretest C	.321	3	.	.881	3	.328
	Pretest K+	.314	3	.	.893	3	.363
	Pretest K-	.359	3	.	.810	3	.138
Hialin	Pretest A	.187	3	.	.998	3	.915
	Pretest B	.241	3	.	.974	3	.688
	Pretest C	.321	3	.	.881	3	.328
	Pretest K+	.314	3	.	.893	3	.363
	Pretest K-	.359	3	.	.810	3	.138

a. Lilliefors Significance Correction

- Uji Homogenitas *Levene Test*

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Granular	Based on Mean	2.045	4	10	.164
	Based on Median	.517	4	10	.726
	Based on Median and with adjusted df	.517	4	4.652	.729
	Based on trimmed mean	1.889	4	10	.189
Hialin	Based on Mean	2.045	4	10	.164
	Based on Median	.517	4	10	.726
	Based on Median and with adjusted df	.517	4	4.652	.729
	Based on trimmed mean	1.889	4	10	.189

- Uji ANOVA

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Granular	Between Groups	223.733	4	55.933	.616	.661
	Within Groups	908.000	10	90.800		
	Total	1131.733	14			
Hialin	Between Groups	223.733	4	55.933	.616	.661
	Within Groups	908.000	10	90.800		
	Total	1131.733	14			

B. DHC *Posttest*

Kelompok	Ulangan	Granular	Granular (%)	Hialin	Hialin (%)
A	1	108	54,00%	92	46,00%
	2	117	58,50%	83	41,50%
	3	113	56,50%	87	43,50%
B	1	118	59,00%	82	41,00%
	2	124	62,00%	76	38,00%
	3	122	61,00%	78	39,00%
C	1	128	64,00%	72	36,00%
	2	131	65,50%	69	34,50%
	3	135	67,50%	65	32,50%
K+	1	48	24,00%	152	76,00%
	2	43	21,50%	157	78,50%
	3	52	26,00%	148	74,00%
K-	1	82	41,00%	118	59,00%
	2	78	39,00%	122	61,00%
	3	90	45,00%	110	55,00%

- Uji Normalitas *Shapiro Wilk*

Tests of Normality							
	Perlakuan	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Granular	Pretest A	.196	3	.	.996	3	.878
	Pretest B	.253	3	.	.964	3	.637
	Pretest C	.204	3	.	.993	3	.843
	Pretest K+	.196	3	.	.996	3	.878
	Pretest K-	.253	3	.	.964	3	.637
Hialin	Pretest A	.196	3	.	.996	3	.878
	Pretest B	.253	3	.	.964	3	.637
	Pretest C	.204	3	.	.993	3	.843
	Pretest K+	.196	3	.	.996	3	.878
	Pretest K-	.253	3	.	.964	3	.637

a. Lilliefors Significance Correction

- Uji Homogenitas *Levene Test*

Test of Homogeneity of Variances					
		Levene Statistic	df1	df2	Sig.
Granular	Based on Mean	.457	4	10	.766
	Based on Median	.230	4	10	.915
	Based on Median and with adjusted df	.230	4	7.559	.913
	Based on trimmed mean	.441	4	10	.777
Hialin	Based on Mean	.457	4	10	.766
	Based on Median	.230	4	10	.915
	Based on Median and with adjusted df	.230	4	7.559	.913
	Based on trimmed mean	.441	4	10	.777

- Uji ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Granular	Between Groups	13833.600	4	3458.400	173.498	.000
	Within Groups	199.333	10	19.933		
	Total	14032.933	14			
Hialin	Between Groups	13833.600	4	3458.400	173.498	.000
	Within Groups	199.333	10	19.933		
	Total	14032.933	14			

- Uji Lanjut Duncan Sel Hialin

Hialin

Duncan^a

Perlakuan	N	Subset for alpha = 0.05				
		1	2	3	4	5
Pretest C	3	68.67				
Pretest B	3		78.67			
Pretest A	3			87.33		
Pretest K-	3				116.67	
Pretest K+	3					152.33
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

- Uji Lanjut Duncan Sel Granular

Granular

Duncan^a

Perlakuan	N	Subset for alpha = 0.05				
		1	2	3	4	5
Pretest K+	3	47.67				
Pretest K-	3		83.33			
Pretest A	3			112.67		
Pretest B	3				121.33	
Pretest C	3					131.33
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 3. *Survival Rate*

Kelompok	Ulangan	Total Udang Awal (ekor)	Total Udang Akhir (ekor)
A	1	40	24
	2	40	27
	3	40	26
B	1	40	28
	2	40	30
	3	40	29
C	1	40	30
	2	40	32
	3	40	33
K+	1	40	20
	2	40	21
	3	40	17
K-	1	40	38
	2	40	38
	3	40	39

- Uji Normalitas *Shapiro Wilk*

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
SR	.117	15	.200 [*]	.964	15	.757

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

a. Lilliefors Significance Correction

- Uji Homogenitas *Levene Test*

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
SR	Based on Mean	1.382	4	10	.308
	Based on Median	.433	4	10	.782
	Based on Median and with adjusted df	.433	4	6.522	.781
	Based on trimmed mean	1.292	4	10	.337

- Uji ANOVA

ANOVA

SR

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	595.733	4	148.933	72.065	.000
Within Groups	20.667	10	2.067		
Total	616.400	14			

- Uji Lanjut Duncan

SR

Duncan^a

Perlakuan	N	Subset for alpha = 0.05				
		1	2	3	4	5
K+	3	19.33				
A	3		25.67			
B	3			29.00		
C	3				31.67	
K-	3					38.33
Sig.		1.000	1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.



Lampiran 4. Pengamatan Kualitas Air

- Dissolved Oxygen (DO) Pagi*

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	5.1	5.1	5.2	5.6	5.8	5.6	5.4	5.4
A2	5.3	5.6	5.4	5.4	5.8	5.5	5.8	5.5
A3	5.7	5.7	5.6	5.1	5.3	5.7	5.1	5.5
B1	5.6	5.9	5.3	5.3	5.1	5.9	5.7	5.5
B2	5.6	5.5	5.2	5.5	5.2	5.6	5.3	5.4
B3	5.7	5.4	5.2	5.9	6.0	5.4	5.7	5.6
C1	5.2	5.9	5.8	5.5	5.8	5.8	5.7	5.7
C2	5.7	5.5	5.5	5.3	5.3	6.0	5.6	5.6
C3	5.8	5.8	5.6	5.6	5.2	5.9	5.8	5.7
K1+	5.5	5.9	6.0	6.1	6.0	5.9	6.1	5.9
K2+	5.4	5.2	5.7	5.2	5.5	5.3	5.4	5.4
K3+	5.5	5.3	5.2	5.5	5.1	5.8	5.4	5.4
K1-	5.7	5.9	5.7	5.6	5.5	5.5	5.7	5.7
K2-	5.5	5.6	5.2	5.8	6.0	5.4	5.7	5.6
K3-	5.4	5.3	5.6	5.4	5.9	5.5	5.1	5.5

- Dissolved Oxygen (DO) Sore*

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	5.3	5.3	5.4	5.8	6.0	6.0	6.1	5.7
A2	5.4	5.7	5.5	5.5	5.9	5.6	5.9	5.6
A3	5.8	5.9	5.8	5.3	5.4	5.9	5.3	5.6
B1	5.7	6.0	5.4	5.4	5.2	6.0	5.8	5.6
B2	5.8	5.6	5.3	5.6	5.3	5.7	5.3	5.5
B3	5.9	5.5	5.3	6.1	6.1	5.5	5.8	5.7
C1	5.4	6.1	5.9	5.6	5.9	6.0	5.8	5.8
C2	5.8	5.6	5.6	5.4	5.4	6.1	5.8	5.7
C3	5.9	6.0	5.7	5.7	5.4	6.0	5.9	5.8
K1+	5.6	6.0	6.1	6.2	6.1	6.1	6.2	6.0
K2+	5.7	5.5	6.3	5.5	5.9	6.0	6.1	5.9
K3+	6.1	5.9	6.1	6.3	5.6	6.1	5.9	6.0
K1-	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
K2-	5.9	6.0	5.9	6.2	6.4	6.3	6.3	6.1
K3-	5.7	5.6	5.8	6.2	6.0	6.2	6.2	6.0

- Suhu Pagi

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	28.8	28.9	28.8	29.0	28.9	28.9	29.0	28.9
A2	28.9	28.9	28.9	29.0	29.0	28.9	29.2	29.0
A3	29.0	29.0	29.0	29.0	29.0	29.0	29.0	28.9
B1	28.8	28.9	28.8	28.9	28.9	28.8	29.0	28.9
B2	28.8	29.0	29.0	29.0	28.8	28.8	29.0	28.9
B3	29.0	28.9	28.8	29.0	29.0	28.9	29.1	29.0
C1	29.0	29.1	29.0	29.1	29.1	29.1	29.0	29.1
C2	28.8	29.0	28.8	29.0	28.9	29.0	29.0	28.9
C3	28.9	28.8	28.8	29.0	28.8	29.0	29.0	28.9
K1+	28.9	28.8	28.8	29.0	28.8	29.0	29.0	28.9
K2+	29.0	29.0	28.9	28.9	28.8	28.9	28.8	28.9
K3+	28.9	28.9	29.0	29.1	29.0	28.9	29.0	29.0
K1-	29.0	28.9	28.8	28.9	29.0	28.9	29.0	28.9
K2-	28.8	28.9	28.9	29.0	28.8	29.1	28.9	28.9
K3-	29.1	29.1	29.1	29.0	29.1	28.9	29.1	29.1

- Suhu Sore

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	30.0	30.1	29.9	30.2	29.9	29.8	30.0	29.0
A2	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
A3	30.1	30.1	29.9	30.0	30.0	29.8	30.0	29.0
B1	30.0	29.9	29.8	30.1	29.9	30.0	29.8	29.9
B2	30.1	30.0	30.0	30.1	29.8	29.9	30.1	30.0
B3	30.4	29.9	29.9	30.1	29.9	29.8	30.4	30.1
C1	30.2	30.1	29.9	30.2	29.9	29.9	30.0	30.0
C2	29.9	30.1	29.8	30.2	29.9	29.0	30.0	29.8
C3	30.0	30.0	29.9	30.3	29.8	29.8	30.1	30.0
K1+	30.1	30.0	30.1	30.1	29.8	29.8	30.1	30.0
K2+	30.1	30.2	30.2	30.1	30.0	30.2	30.3	30.2
K3+	30.1	30.1	30.1	30.1	29.9	29.8	30.0	30.0
K1-	30.1	30.2	29.9	30.0	30.3	29.8	29.8	30.0
K2-	29.9	29.9	30.1	30.0	29.8	29.9	30.0	29.9
K3-	30.3	30.0	30.2	30.1	30.0	30.1	30.0	30.1

- Derajat Keasaman (pH) Pagi

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	8.2	8.3	8.3	8.3	8.3	8.3	8.2	8.3
A2	8.1	8.2	8.2	8.2	8.1	8.2	8.0	8.1
A3	8.2	8.1	8.0	8.1	8.2	8.2	8.2	8.1
B1	8.3	8.2	8.1	8.3	8.1	8.1	8.2	8.1
B2	8.2	8.2	8.1	8.2	8.1	8.2	8.3	8.2
B3	8.1	8.0	8.2	8.2	8.1	8.2	8.2	8.2
C1	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.1
C2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
C3	8.2	8.2	8.2	8.2	8.2	8.3	8.2	8.2
K1+	8.2	8.3	8.2	8.3	8.3	8.2	8.2	8.2
K2+	8.3	8.3	8.1	8.2	8.2	8.3	8.1	8.2
K3+	8.1	8.0	8.0	8.1	8.0	8.0	8.0	8.0
K1-	8.2	8.2	8.3	8.3	8.1	8.1	8.0	8.2
K2-	8.0	8.2	8.1	8.3	8.2	8.0	8.0	8.1
K3-	8.0	8.1	8.0	8.0	8.1	8.0	8.1	8.0

- Derajat Keasaman (pH) Sore

[illegible]

- Salinitas Pagi

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	31	31	31	31	31	31	31	31
A2	31	31	31	31	31	31	31	31
A3	31	31	31	31	31	31	31	31
B1	31	31	31	31	31	31	31	31
B2	31	31	31	31	31	31	31	31
B3	31	31	31	31	31	31	31	31
C1	31	31	31	31	31	31	31	31
C2	31	31	31	31	31	31	31	31
C3	31	31	31	31	31	31	31	31
K1+	31	31	31	31	31	31	31	31
K2+	31	31	31	31	31	31	31	31
K3+	31	31	31	31	31	31	31	31
K1-	31	31	31	31	31	31	31	31
K2-	31	31	31	31	31	31	31	31
K3-	31	31	31	31	31	31	31	31

- Salinitas Sore

Kelompok	Hari							Rata - rata
	1	2	3	4	5	6	7	
A1	31	31	31	31	31	31	31	31
A2	31	31	31	31	31	31	31	31
A3	31	31	31	31	31	31	31	31
B1	31	31	31	31	31	31	31	31
B2	31	31	31	31	31	31	31	31
B3	31	31	31	31	31	31	31	31
C1	31	31	31	31	31	31	31	31
C2	31	31	31	31	31	31	31	31
C3	31	31	31	31	31	31	31	31
K1+	31	31	31	31	31	31	31	31
K2+	31	31	31	31	31	31	31	31
K3+	31	31	31	31	31	31	31	31
K1-	31	31	31	31	31	31	31	31
K2-	31	31	31	31	31	31	31	31
K3-	31	31	31	31	31	31	31	31

Lampiran 5. Dokumentasi Penelitian



Pemetikan Daun Jeruju



Pengeringan Daun Jeruju



Penghalusan Daun Jeruju



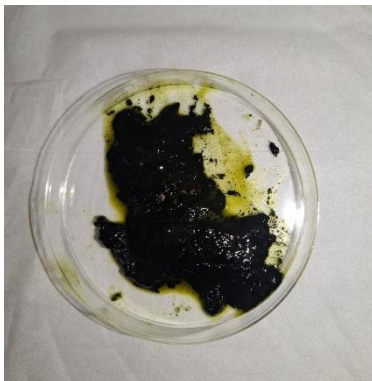
Maserasi Daun Jeruju



Penyaringan Larutan Ekstrak



Pemisahan Larutan dengan Ekstrak



Hasil Ekstraksi Daun Jeruju



Pengambilan Udang di Tambak



Persiapan Wadah



Aklimatisasi



Proses Uji LC_{50} Ekstrak Jeruju



Perendaman Udang pada Ekstrak



Siphon dan Ganti Air Harian



Pakan Udang



Pengamatan Kualitas Air



Pengambilan Hemolim



Pengamatan Parameter Imun



Lampiran 6. Riwayat Hidup



Devan Rengga Purwanto, lahir di Singaraja pada tanggal 06 Mei 2003 sebagai anak pertama dari pasangan Bapak Puryanto dan Ibu Juhana. Penulis berkebangsaan Indonesia dan beragama islam. Penulis beralamat di Banjar Dinas Sekeling, Desa Penyabangan, Kecamatan Gerokgak, Kabupaten Buleleng, Provinsi Bali. Penulis menyelesaikan pendidikan dasar di MI Negeri Gondol pada tahun 2015.

Penulis melanjutkan sekolah menengah pertama di MTs Negeri 1 Buleleng pada 2018. Pada tahun 2021, penulis lulus dari MA Negeri Buleleng. Penulis melanjutkan pendidikannya pada program studi Akuakultur, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Pendidikan Ganesha pada tahun 2021. Pada semester ini penulis menyelesaikan skripsi yang berjudul "Pengaruh Perendaman Udang Vaname (*Litopenaeus vannamei*) di dalam Ekstrak Daun Jeruju (*Acanthus ilicifolius*) Terhadap Imunitas dan Sintasan Udang Vaname yang Terinfeksi Bakteri *Vibrio parahaemolyticus*."

