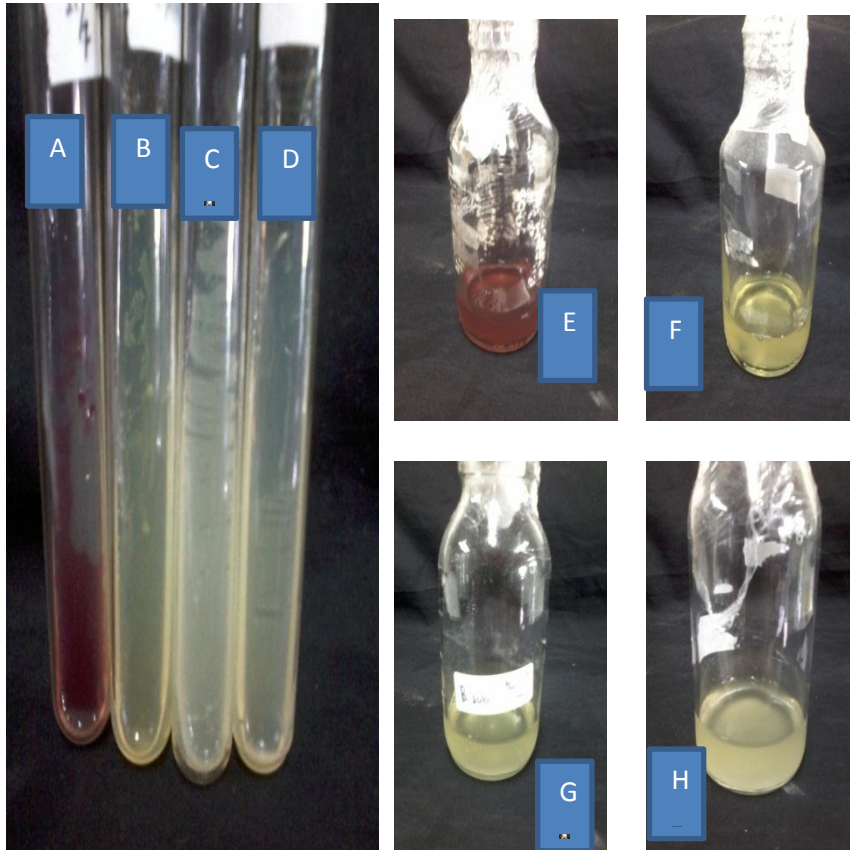


## Lampiran 1

Isolat-isolat bakteri yang digunakan dalam penelitian



Keterangan

- A : *Micrococcus* sp. dalam media NA miring
- B : *Pseudomonas putida* dalam media NA miring
- C : *Bacillus subtilis* dalam media NA miring
- D : *Acinetobacter* sp. dalam media NA miring
- E : *Micrococcus* sp. dalam media NB
- F : *Pseudomonas putida* dalam media NB
- G : *Bacillus subtilis* dalam media NB
- H : *Acinetobacter* sp. dalam media NB

## Lampiran 2

Bahan dan alat yang digunakan saat penelitian serta foto-foto kegiatan



Peralatan kaca dan sterilisasi



spektrofotometer



coloni counter



Waterbath



vortex



hotplate



oven



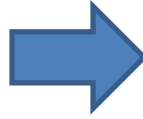
autoclave



evaporator



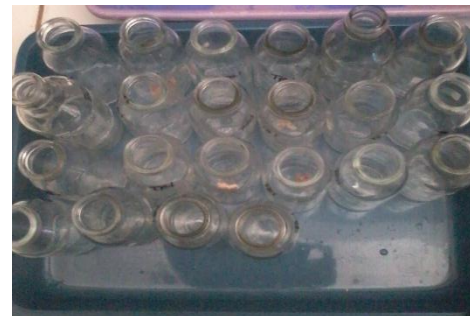
Mengayak tanah dengan Mesh 20



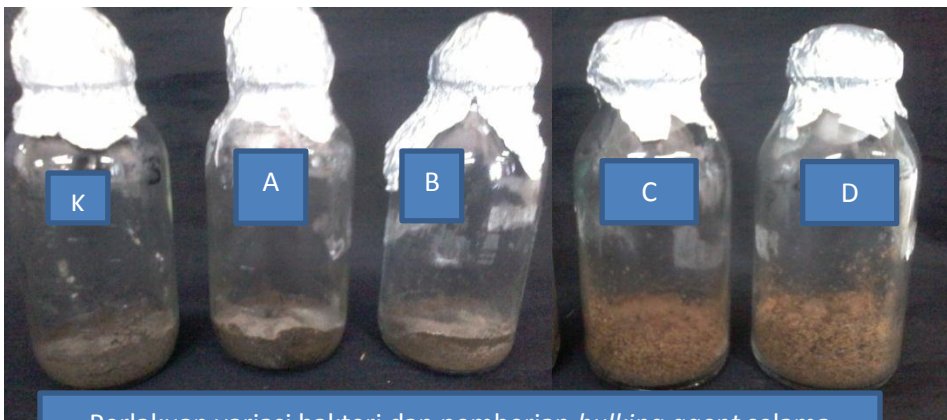
Substrat perlakuan (tanah : pasir = 1:1)



Menimbang tanah perlakuan



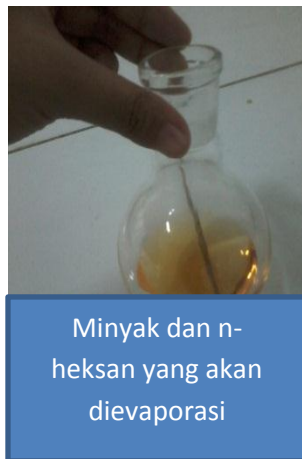
Botol – botol untuk perlakuan

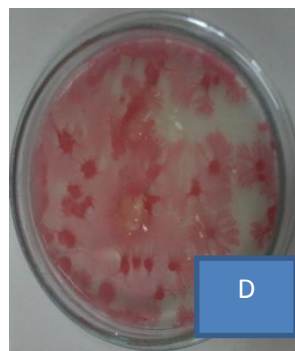
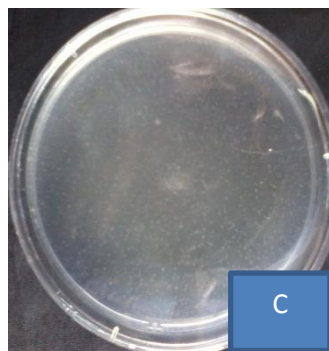
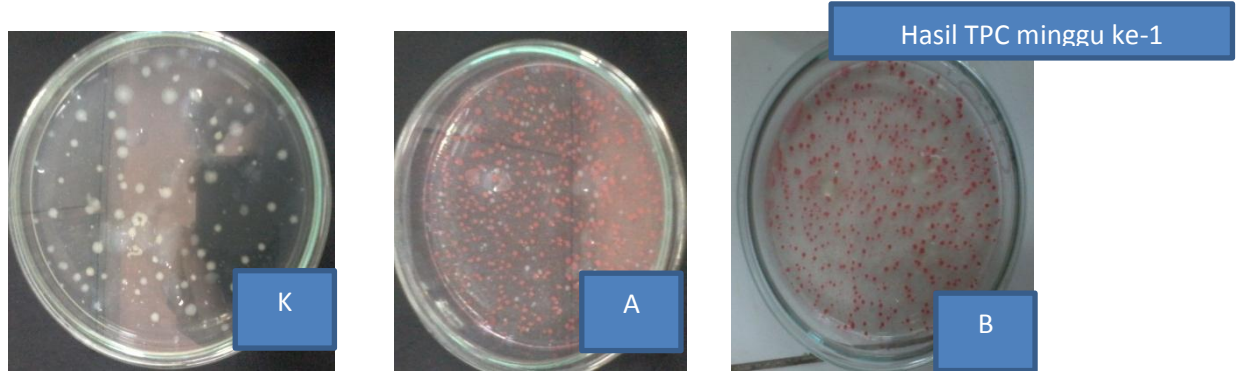
Perlakuan variasi bakteri dan pemberian *bulking agent* selama inkubasi 1 minggu

Keterangan :

K : perlakuan kontrol tanpa penambahan bakteri

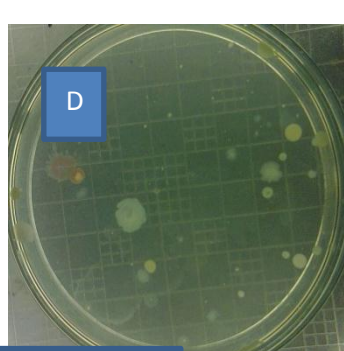
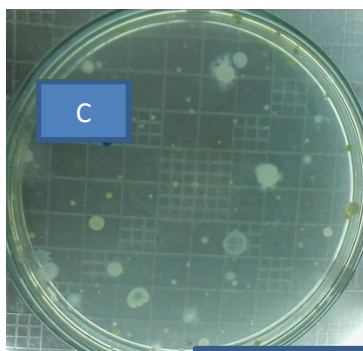
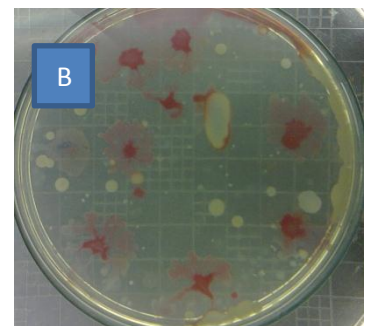
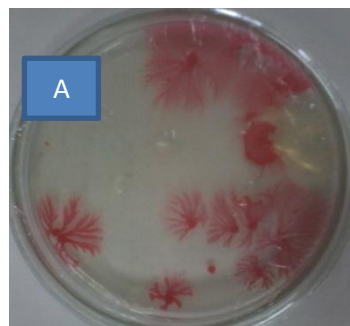
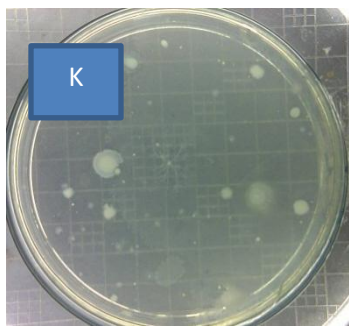
A : *Micrococcus* sp.B : *Micrococcus* sp. dan *Acinetobacter* sp.C : *Acinetobacter* sp., *Bacillus subtilis* dan *Pseudomonas putida*D : *Micrococcus* sp., *Acinetobacter* sp., *Bacillus subtilis* dan *Pseudomonas putida*





Keterangan :

- K : perlakuan kontrol tanpa penambahan bakteri  
 A : *Micrococcus* sp,  
 B : *Micrococcus* sp, dan *Acinetobacter* sp,  
 C : *Acinetobacter* sp, *Bacillus subtilis* dan *Pseudomonas putida*  
 D : *Micrococcus* sp,, *Acinetobacter* sp,,  
*Bacillus subtilis* dan *Pseudomonas putida*



Hasil TPC minggu ke-6

Keterangan :

- K : perlakuan kontrol tanpa penambahan bakteri  
 A : *Micrococcus* sp.  
 B : *Micrococcus* sp. dan *Acinetobacter* sp.  
 C : *Acinetobacter* sp. *Bacillus subtilis* dan *Pseudomonas putida*  
 D : *Micrococcus* sp,, *Acinetobacter* sp., *Bacillus subtilis* dan *Pseudomonas putida*

**Lampiran 3**

Data mentah berat jelantah residu setelah perlakuan pemberian formula konsorsium bakteri dan pemberian *bulking agent* selama waktu inkubasi tertentu

Perlakuan	Bulking Agent	Ulangan	Berat Minyak Residu Minggu Ke - (Gram)				
			M0	M1	M2	M4	M6
K	-	1	2,0017	1,7984	1,6973	1,6005	1,3775
		2	2,0017	1,4799	1,7861	1,0120	0,7261
		3	2,0017	1,7672	1,4400	1,3449	0,9042
	+	1	2,0017	1,5684	1,0413	0,7811	0,8386
		2	2,0017	1,3562	1,2466	0,9217	1,0273
		3	2,0017	1,6324	1,5015	1,0120	0,6763
A	-	1	2,0017	1,7560	1,6584	1,3447	1,1210
		2	2,0017	1,6255	1,4038	1,2904	1,3923
		3	2,0017	1,5825	1,4954	1,0765	1,1546
	+	1	2,0017	1,5444	1,4114	0,7909	0,6657
		2	2,0017	1,7372	1,2705	1,0987	0,8309
		3	2,0017	1,5113	1,4633	1,0194	0,9449
B	-	1	2,0017	1,5446	1,6886	1,0800	0,2713
		2	2,0017	1,3672	1,2802	1,1548	0,8653
		3	2,0017	1,2231	1,6259	0,9936	1,0435
	+	1	2,0017	1,7057	1,1018	0,8448	0,8443
		2	2,0017	1,1983	1,2119	0,5787	0,7106
		3	2,0017	1,0555	1,3968	0,8252	0,4857
C	-	1	2,0017	1,5876	1,3660	0,4596	1,1683
		2	2,0017	1,5394	1,5030	1,2084	1,0805
		3	2,0017	1,5915	1,3910	1,5669	0,9027
	+	1	2,0017	1,2706	1,3626	0,9976	0,9167
		2	2,0017	1,3688	1,0346	1,0958	0,7147
		3	2,0017	1,1613	1,1229	0,9449	1,0501
D	-	1	2,0017	1,5540	1,5026	0,9274	0,7310
		2	2,0017	1,7796	1,5231	1,0653	1,1649
		3	2,0017	1,6103	1,6962	1,1095	0,9775
	+	1	2,0017	1,4662	1,2305	1,0426	0,8767
		2	2,0017	1,3418	1,3745	0,7555	0,5362
		3	2,0017	1,6036	1,6036	0,7426	0,8316

**Lampiran 4**

Data mentah persentase degradasi jelantah setelah perlakuan pemberian formula konsorsium bakteri dan pemberian *bulking agent* selama waktu inkubasi tertentu

Perlakuan	Bulking Agent	Ulangan	Persentase Degradasi Jelantah (%) Minggu Ke-				
			M0	M1	M2	M4	M6
K	-	1	0	10,16	15,21	20,04	31,18
		2	0	26,07	10,77	49,44	63,73
		3	0	11,72	28,06	32,81	54,83
	+	1	0	21,65	47,98	60,98	58,11
		2	0	32,25	37,72	53,95	48,68
		3	0	18,45	24,99	49,44	66,21
A	-	1	0	12,27	17,15	32,82	44,00
		2	0	18,79	29,87	35,53	30,44
		3	0	20,94	25,29	46,22	42,32
	+	1	0	22,85	29,49	60,49	66,74
		2	0	13,21	36,53	45,11	58,49
		3	0	24,50	26,90	49,07	52,80
B	-	1	0	22,84	15,64	46,05	86,45
		2	0	31,70	36,04	42,31	56,77
		3	0	38,90	18,77	50,36	47,87
	+	1	0	14,79	44,96	57,80	57,82
		2	0	40,14	39,46	71,09	64,50
		3	0	47,27	30,22	58,78	75,74
C	-	1	0	20,69	31,76	77,04	41,63
		2	0	23,10	24,91	39,63	46,02
		3	0	20,49	30,51	21,72	54,90
	+	1	0	36,52	31,93	50,16	54,20
		2	0	31,62	48,31	45,26	64,30
		3	0	41,98	43,90	52,80	47,54
D	-	1	0	22,37	24,93	53,67	63,48
		2	0	11,10	23,91	46,78	41,80
		3	0	19,55	15,26	44,57	51,17
	+	1	0	26,75	38,53	47,91	56,20
		2	0	32,97	31,33	62,26	73,21
		3	0	19,89	19,89	62,90	58,46

**Lampiran 5**

Data mentah jumlah total bakteri (CFU/g-tanah) setelah perlakuan pemberian formula konsorsium bakteri dan pemberian *bulking agent* selama waktu inkubasi tertentu

Perlakuan	Bulking Agent	Ulangan	TPC (CFU/g-tanah) Minggu ke-			
			M1	M2	M4	M6
K	-	1	$81,6 \times 10^{10}$	$5,2 \times 10^{10}$	$9,2 \times 10^6$	$7,4 \times 10^5$
		2	$81,5 \times 10^{12}$	$6,0 \times 10^{10}$	$8,1 \times 10^6$	$6,2 \times 10^6$
	+	1	$4,56 \times 10^{12}$	$2,82 \times 10^{16}$	$5,9 \times 10^4$	$2,72 \times 10^6$
		2	$3,52 \times 10^{13}$	$1,28 \times 10^{18}$	$2,6 \times 10^7$	$1,07 \times 10^7$
A	-	1	$2,62 \times 10^{14}$	$8,6 \times 10^{11}$	$1,08 \times 10^8$	$1,9 \times 10^7$
		2	$1,06 \times 10^{16}$	$6,4 \times 10^{13}$	$8,3 \times 10^8$	$7 \times 10^7$
	+	1	$2,472 \times 10^{14}$	$4,8 \times 10^{13}$	$5,42 \times 10^{14}$	$1,54 \times 10^7$
		2	$2,46 \times 10^{17}$	$4,4 \times 10^{13}$	$1,4 \times 10^{10}$	$1,02 \times 10^8$
B	-	1	$2,2 \times 10^{15}$	$2,7 \times 10^{20}$	$1,34 \times 10^{14}$	$1,05 \times 10^7$
		2	$1,6 \times 10^{13}$	$2,8 \times 10^{15}$	$3,2 \times 10^9$	$8,4 \times 10^7$
	+	1	$2,23 \times 10^{14}$	$2 \times 10^{20}$	$5,72 \times 10^8$	$2,67 \times 10^7$
		2	$1,02 \times 10^{15}$	$2 \times 10^{22}$	$1,5 \times 10^{10}$	$2,06 \times 10^8$
C	-	1	$5,6 \times 10^{17}$	$5,08 \times 10^{14}$	$1,27 \times 10^7$	$7,3 \times 10^7$
		2	$4,4 \times 10^{13}$	$1,16 \times 10^{16}$	$1,04 \times 10^8$	$5,6 \times 10^7$
	+	1	$2,08 \times 10^{15}$	$2,36 \times 10^{12}$	$2,19 \times 10^8$	$8,1 \times 10^6$
		2	$1,96 \times 10^{17}$	$1,04 \times 10^{14}$	$8,3 \times 10^9$	$7,5 \times 10^7$
D	-	1	$5,6 \times 10^{16}$	$1,2 \times 10^{11}$	$2,29 \times 10^8$	$2,09 \times 10^8$
		2	$4,8 \times 10^{18}$	$4 \times 10^{12}$	$1,12 \times 10^9$	$6,5 \times 10^7$
	+	1	$1,7 \times 10^{16}$	$1,2 \times 10^{22}$	$2,71 \times 10^7$	$1,54 \times 10^8$
		2	$1,5 \times 10^{18}$	$4 \times 10^{23}$	$1,59 \times 10^8$	$6,7 \times 10^8$



### Lampiran 6

Data rata – rata jumlah total bakteri (CFU/g-tanah) setelah perlakuan pemberian formula konsorsium bakteri dan pemberian *bulking agent* selama waktu inkubasi tertentu

Perlakuan	Bulking Agent	Rata - rata TPC (CFU/g-tanah) Minggu ke-			
		M1	M2	M4	M6
K	-	$8,16 \times 10^{10}$	$5,6 \times 10^9$	$8,65 \times 10^6$	$3,47 \times 10^6$
	+	$1,99 \times 10^{13}$	$6,54 \times 10^{17}$	$1,33 \times 10^7$	$6,71 \times 10^6$
A	-	$5,43 \times 10^{15}$	$3,24 \times 10^{13}$	$4,69 \times 10^8$	$4,45 \times 10^8$
	+	$1,24 \times 10^{17}$	$4,6 \times 10^{13}$	$3,41 \times 10^{10}$	$5,87 \times 10^7$
B	-	$1,11 \times 10^{15}$	$1,35 \times 10^{20}$	$1,67 \times 10^9$	$4,72 \times 10^7$
	+	$6,22 \times 10^{14}$	$1,01 \times 10^{22}$	$7,79 \times 10^9$	$1,16 \times 10^8$
C	-	$2,8 \times 10^{17}$	$6,05 \times 10^{15}$	$5,83 \times 10^7$	$6,45 \times 10^8$
	+	$9,9 \times 10^{16}$	$5,32 \times 10^{13}$	$4,26 \times 10^9$	$4,15 \times 10^7$
D	-	$2,43 \times 10^{18}$	$2,06 \times 10^{12}$	$6,75 \times 10^8$	$4,3 \times 10^8$
	+	$7,85 \times 10^{17}$	$2,06 \times 10^{23}$	$9,3 \times 10^7$	$4,12 \times 10^8$

**Lampiran 7**

Data mentah <sup>10</sup>Log jumlah total bakteri (CFU/g-tanah) setelah perlakuan pemberian formula konsorsium bakteri dan pemberian *bulking agent* selama waktu inkubasi tertentu

Perlakuan	Bulking Agent	Ulangan	Log Tpc (CFU/g-Tanah) Minggu Ke-			
			M1	M2	M4	M6
K	-	1	10,91	9,72	6,96	5,87
		2	10,91	9,78	6,91	6,79
	+	1	12,66	16,45	5,77	6,43
		2	13,55	18,11	7,41	7,03
A	-	1	14,42	11,93	8,03	7,28
		2	16,03	13,81	8,92	7,85
	+	1	15,39	13,68	10,73	7,19
		2	17,39	13,64	10,15	8,01
B	-	1	15,34	20,43	8,13	7,02
		2	13,20	15,45	9,51	7,92
	+	1	14,35	20,30	8,76	7,43
		2	15,01	22,30	10,18	8,31
C	-	1	17,75	14,71	7,10	7,86
		2	13,64	16,06	8,02	7,75
	+	1	15,32	12,37	8,34	6,91
		2	17,29	14,02	9,92	7,88
D	-	1	16,75	11,08	8,36	8,32
		2	18,68	12,60	9,05	8,81
	+	1	16,25	22,08	7,43	8,19
		2	18,19	23,60	8,20	8,83

**Lampiran 8**

Hasil TPC bakteri eksogen dan indigen sebelum perlakuan

Mikroba	OD	Jumlah Bakteri (CFU/g-tanah)	<sup>10</sup> Log Jumlah Total Bakteri (CFU/g-tanah)
<i>Micrococcus</i> sp.	0,5	$5,40 \times 10^{17}$	17,73
<i>Bacillus subtilis</i>	0,5	$2,35 \times 10^{14}$	14,37
<i>Acinetobacter</i> sp.	0,5	$3,86 \times 10^{15}$	17,57
<i>Pseudomonas putida</i>	0,5	$2,15 \times 10^{16}$	18,33
Indigen Tanah	-	$4,4 \times 10^4$	6,64

## Lampiran 9

1. Hasil uji normalitas pengaruh formula konsorsium bakteri terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

**One-Sample Kolmogorov-Smirnov Test**

		DEGRADASI MINYAK	JUMLAH MIKROBA
N		40	40
Normal Parameters <sup>a,b</sup>	Mean	36.7990	12.0545
	Std. Deviation	17.03207	4.42249
	Absolute	.104	.197
Most Extreme Differences	Positive	.097	.197
	Negative	-.104	-.132
Kolmogorov-Smirnov Z		.659	1.245
Asymp. Sig. (2-tailed)		.777	.090

a. Test distribution is Normal.

b. Calculated from data.

2. Hasil uji homogenitas pengaruh formul konsorsium bakteri terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
DEGRADASI MINYAK	.376	4	75	.825
JUMLAH BAKTERI	1.612	4	75	.180

## Lampiran 10

Hasil uji *Two Way Anova* pengaruh formula konsorsium bakteri terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

### Tests of Between-Subjects Effects

Dependent Variable: DEGRADASI MINYAK

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2412.603 <sup>a</sup>	4	603.151	2.888	.025
Intercept	183831.323	1	183831.323	880.247	.000
KONSORSIUM	2412.603	4	603.151	2.888	.025
Error	24016.661	115	208.841		
Total	209833.292	120			
Corrected Total	26429.265	119			

a. R Squared = .091 (Adjusted R Squared = .060)

### Tests of Between-Subjects Effects

Dependent Variable: JUMLAH BAKTERI

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	90.100 <sup>a</sup>	4	22.525	1.136	.346
Intercept	10850.776	1	10850.776	547.168	.000
KONSORSIUM	90.100	4	22.525	1.136	.346
Error	1487.311	75	19.831		
Total	12498.445	80			
Corrected Total	1577.410	79			

a. R Squared = .057 (Adjusted R Squared = .007)

### Lampiran 11

Hasil uji *Duncan* pengaruh formula konsorsium bakteri terhadap persentase degradasi jelantah (%)

DEGRADASI MINYAK				
	VARIASI BAKTERI	N	Subset	
			1	2
Duncan <sup>a,b,c</sup>	A	24	34.4313	
	C	27	35.8900	
	K	24	37.0350	
	D	21	42.6729	42.6729
	B	24		46.2904
	Sig.			.074

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 208.841.

a. Uses Harmonic Mean Sample Size = 23.849.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

c. Alpha = .05.

## Lampiran 12

1. Hasil uji normalitas pengaruh lama waktu inkubasi terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

**One-Sample Kolmogorov-Smirnov Test**

		DEGRADASI MINYAK	JUMLAH MIKROBA
N		40	40
Normal Parameters <sup>a,b</sup>	Mean	36.7990	12.0545
	Std. Deviation	17.03207	4.42249
	Absolute	.104	.197
Most Extreme Differences	Positive	.097	.197
	Negative	-.104	-.132
Kolmogorov-Smirnov Z		.659	1.245
Asymp. Sig. (2-tailed)		.777	.090

a. Test distribution is Normal.

b. Calculated from data.

2. Hasil uji homogenitas pengaruh lama waktu inkubasi terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

**Levene's Test of Equality of Error Variances<sup>a</sup>**

	F	df1	df2	Sig.
DEGRADASI MINYAK	.827	3	76	.483
JUMLAH BAKTERI	16.055	3	76	.000

### Lampiran 13

1. Hasil uji *Brown-Forsythe* pengaruh lama waktu inkubasi terhadap jumlah total bakteri (CFU/g- tanah)

#### Robust Tests of Equality of Means

JUMLAH BAKTERI

	Statistic <sup>a</sup>	df1	df2	Sig.
Brown-Forsythe	58.510	3	34.463	.000

a. Asymptotically F distributed.

2. Hasil uji *Two Way Anova* pengaruh lama waktu inkubasi terhadap persentase degradasi jelantah (%)

#### Tests of Between-Subjects Effects

Dependent Variable: DEGRADASI MINYAK

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	19853.491 <sup>a</sup>	3	6617.830	51.460	.000
Intercept	187772.332	1	187772.332	1460.106	.000
WT	19853.491	3	6617.830	51.460	.000
Error	14917.812	116	128.602		
Total	222543.635	120			
Corrected Total	34771.303	119			

a. R Squared = .571 (Adjusted R Squared = .560)



### Lampiran 14

Hasil uji *Games-Howell* pengaruh lama waktu inkubasi terhadap jumlah total bakteri (CFU/g- tanah)

**Multiple Comparisons**  
Dependent Variable: JUMLAH BAKTERI

	(I) WAKTU INKUBASI	(J) WAKTU INKUBASI	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Games- Howell	1	2	-.4545	1.06878	.974	-3.3674	2.4584
		4	6.7575*	.57574	.000	5.1929	8.3221
		6	7.5675*	.52819	.000	6.1080	9.0270
	2	1	.4545	1.06878	.974	-2.4584	3.3674
		4	7.2120*	.98755	.000	4.4743	9.9497
		6	8.0220*	.96061	.000	5.3364	10.7076
	4	1	-6.7575*	.57574	.000	-8.3221	-5.1929
		2	-7.2120*	.98755	.000	-9.9497	-4.4743
		6	.8100	.33460	.094	-.0979	1.7179
	6	1	-7.5675*	.52819	.000	-9.0270	-6.1080
		2	-8.0220*	.96061	.000	-10.7076	-5.3364
			4	-.8100	.33460	.094	-1.7179

Based on observed means.

The error term is Mean Square(Error) = 6.271.

\*. The mean difference is significant at the .05 level.

### Lampiran 15

Hasil uji Duncan pengaruh lama waktu inkubasi terhadap persentase degradasi jelantah (%)

#### DEGRADASI MINYAK

Duncan<sup>a,b</sup>

WAKTU INKUBASI	N	Subset		
		1	2	3
1	30	24.6687		
2	30	29.3407		
4	30		48.8997	
6	30			55.3197
Sig.		.113	1.000	1.000

Means for groups in homogeneous subsets are displayed.

Based on observed means.

The error term is Mean Square(Error) = 128.602.

a. Uses Harmonic Mean Sample Size = 30.000.

b. Alpha = .05.

## Lampiran 16

1. Hasil uji normalitas pengaruh pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

		DEGRADASI MINYAK	JUMLAH MIKROBA
N		40	40
Normal Parameters <sup>a,b</sup>	Mean	36.7990	12.0545
	Std. Deviation	17.03207	4.42249
Most Extreme Differences	Absolute	.104	.197
	Positive	.097	.197
	Negative	-.104	-.132
Kolmogorov-Smirnov Z		.659	1.245
Asymp. Sig. (2-tailed)		.777	.090

a. Test distribution is Normal.

b. Calculated from data.

2. Hasil uji homogenitas pengaruh pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

	F	df1	df2	Sig.
DEGRADASI MINYAK	.044	1	78	.835
JUMLAH BAKTERI	3.388	1	78	.069

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + BULKING

### Lampiran 17

Hasil uji T- *independent sample* pengaruh pemberian *bulking agent* terhadap persentase degradasi jelantah (%) dan jumlah total bakteri (CFU/g- tanah)

1. Hasil uji T- *independent sample* pengaruh pemberian *bulking agent* terhadap persentase degradasi jelantah (%)

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
DEGRADASI MINYAK	Equal variances assumed	.056	.813	-2.644	118	.009	-8.44129	3.19258	-14.76348	-2.11911
	Equal variances not assumed			-2.645	116.979	.009	-8.44129	3.19137	-14.76164	-2.12095

2. Hasil uji T- *independent sample* pengaruh pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah)

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
JUMLAH BAKTERI	Equal variances assumed	6.149	.015	-2.031	78	.046	-1.99284	.98121	-3.94629	-.03940
	Equal variances not assumed			-2.062	74.831	.043	-1.99284	.96628	-3.91784	-.06785

## Lampiran 18

1. Hasil uji normalitas pengaruh interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

One-Sample Kolmogorov-Smirnov Test		DEGRADASI MINYAK	JUMLAH MIKROBA
N		120	40
Normal Parameters <sup>a,b</sup>	Mean	38.9531	12.0545
	Std. Deviation	17.89885	4.42249
Most Extreme Differences	Absolute	.064	.197
	Positive	.064	.197
	Negative	-.051	-.132
Kolmogorov-Smirnov Z		.704	1.245
Asymp. Sig. (2-tailed)		.705	.090
a. Test distribution is Normal.			
b. Calculated from data.			

2. Uji homogenitas interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah)

### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: JUMLAH BAKTERI

F	df1	df2	Sig.
10.344	38	41	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + BA + FK + WT + BA \* FK + BA \* WT + FK \* WT + BA \* FK \* WT

3. Uji homogenitas interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap persentase degradasi jelantah (%)

**Levene's Test of Equality of Error Variances<sup>a</sup>**

Dependent Variable: DEGRADASI MINYAK

F	df1	df2	Sig.
1.833	38	81	.012

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + BA + FK + WT + BA \* FK + BA \* WT + FK \* WT + BA \* FK \* WT

## Lampiran 19

Hasil uji *Brown Forsythe* pengaruh interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah) dan persentase degradasi jelantah (%)

**Robust Tests of Equality of Means<sup>b</sup>**

		Statistic <sup>a</sup>	df1	df2	Sig.
JUMLAH BAKTERI	Brown-Forsythe	1526.177	.	.	.
DEGRADASI MINYAK	Brown-Forsythe	6.828	39	29.937	.000

a. Asymptotically F distributed.

b. Robust tests of equality of means cannot be performed for JUMLAH BAKTERI because at least one group has 0 variance.

Karena data jumlah total bakteri tidak dapat dilakukan uji *Brown Forsythe* maka dilakukan uji Univariate.

Dependent Variable: JUMLAH BAKTERI

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1526.177 <sup>a</sup>	39	39.133	30.553	.000
Intercept	10921.035	1	10921.035	8526.538	.000
KMB	1526.177	39	39.133	30.553	.000
Error	51.233	40	1.281		
Total	12498.445	80			
Corrected Total	1577.410	79			

a. R Squared = .968 (Adjusted R Squared = .936)

## Lampiran 20

Hasil uji *Games-Howell* pengaruh interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap jumlah total bakteri (CFU/g- tanah)

	K-M1	K-M2	K-M4	K-M6	K+M4	K+M6	A-M6	A+M2	B+M1	B+M4	C-M6	C+M4	D+2
K-M1			√					√			√		
K-M2			√					√			√		
K-M4		√						√		√			
K-M6								√				√	√
K+M4													√
K+M6													
A-M6									√				
A+M2			√	√									
B+M1							√						
B+M4					√								
C-M6													
C+M4				√		√							√
D+M2					√							√	

√ : ada beda nyata

\*perlakuan yang disajikan dalam tabel adalah yang memiliki beda nyata, perlakuan yang tidak disajikan dalam tabel, berarti tidak memiliki beda nyata terhadap perlakuan lain



### Lampiran 21

Hasil uji *Games-Howell* pengaruh interaksi formula konsorsium bakteri, lama waktu inkubasi, dan pemberian *bulking agent* terhadap persentase degradasi jelantah (%)

	K+M4	A+M6	A-M1	B+M4	B-M4	C-M1	C+M4	C+M6	D-M2
K+M4			√					√	
A+M6			√					√	
A-M1	√	√		√	√		√		√
B+M4			√						
B-M4			√					√	
B+M4									
C-M1									
C+M6	√	√		√					
D-M2			√						

√ : berbeda nyata

\*perlakuan yang disajikan dalam tabel adalah yang memiliki beda nyata, perlakuan yang tidak disajikan dalam tabel, berarti tidak memiliki beda nyata terhadap perlakuan lain