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LAMPIRAN

Lampiran 1. Data Pertumbuhan Lamun *Enhalus acoroides*a. Rerata pertumbuhan panjang Daun Lamun *Enhalus acoroides*

Ulangan	Rerata Pertumbuhan Panjang Daun Lamun <i>Enhalus acoroides</i> (mm)		
	Pasir Laut (PA)	Pasir Kuarsa (PK)	Pecahan Karang (RK)
1	3.13	1.27	2.53
2	2.25	2.3	2.25
3	2.88	1.62	2.4
4	3.07	2.07	1.52
5	3.57	1.97	2.5
6	1.88	1.35	1.48
7	2.53	2.05	1.97
8	2.22	1.93	1.85
9	1.73	1.5	1.27
10	2.77	2.2	3.5
11	2.45	2.02	2.43
12	3.05	1.8	2.25
13	2.72	1.92	2.35
14	2.33	1.55	1.63
15	2.32	1.7	1.88
16	2.33	1.82	1.6
17	2.75	1.33	1.37
18	2.32	1.53	2.48
19	3.3	2.27	1.92
20	3.08	1.72	2.12

b. Rerata Pertambahan Lebar Daun semaian Lamun *Enhalus acoroides*

Ulangan	Rerata Pertambahan Lebar daun (mm)		
	Pasir Laut (PA)	Pasir Kuarsa (PK)	Pecahan Karang (RK)
1	0.10	0.10	0.08
2	0.10	0.08	0.10
3	0.10	0.10	0.08
4	0.08	0.10	0.10
5	0.08	0.10	0.10
6	0.08	0.08	0.08
7	0.08	0.08	0.08
8	0.08	0.08	0.08
9	0.10	0.08	0.10
10	0.10	0.10	0.10
11	0.10	0.10	0.10
12	0.10	0.10	0.10
13	0.10	0.08	0.08
14	0.10	0.10	0.10
15	0.10	0.08	0.10
16	0.10	0.08	0.08
17	0.10	0.10	0.10
18	0.10	0.10	0.10
19	0.08	0.08	0.10
20	0.08	0.10	0.10

c. Panjang Akar semaian lamun *Enhalus acoroides*

Ulangan	Panjang Akar (mm)		
	Pasir Laut (PA)	Pasir Kuarsa (PK)	Pecahan Karang (RK)
1	110	98	100
32	97	67	80
3	77	170	77
4	111	81	79
5	95	149	70
6	66	86	81
7	95	77	69
8	70	65	67
9	110	75	78
10	87	95	72
11	80	72	74
12	90	71	75
13	111	114	75
14	116	108	84
15	106	89	68
16	99	76	57
17	101	104	75
18	95	79	86
19	109	66	79
20	99	75	78

d. Jumlah Akar semaian *Enhalus acoroides*

Ulangan	Jumlah Akar		
	Pasir Laut (PA)	Pasir Kuarsa (PK)	Pecahan Karang (RK)
1	2	2	2
2	3	2	3
3	2	2	3
4	1	3	2
5	2	3	3
6	3	3	3
7	2	3	2
8	2	2	4
9	2	2	2
10	2	3	2
11	2	2	2
12	2	2	2
13	2	2	2
14	3	2	2
15	2	2	4
16	2	2	4
17	2	2	3
18	2	2	3
19	2	2	2
20	2	3	4

Lampiran 2. Data Rata-rata Pertambahan Jumlah Daun *E. acoroides* pada substrat yang berbeda

Pengukuran (hari)	Substrat		
	Pasir laut	Pasir Kuarsa	Rubble Karang
0	0.00	0.00	0.00
2	2.45	2.30	2.40
4	2.90	2.75	2.75
6	3.00	2.90	2.90
8	3.20	3.20	3.00
10	3.50	3.50	3.60
12	3.80	3.85	3.90
14	3.90	3.95	4.00
16	4.00	4.10	4.05
18	4.10	4.15	4.05
20	4.15	4.30	4.10
22	4.30	4.35	4.20
24	4.40	4.45	4.30
26	4.65	4.50	4.40
28	4.80	4.55	4.55
30	4.90	4.60	4.80
32	5.00	4.75	4.85
34	5.00	4.85	5.05
36	5.05	4.85	5.05
38	5.05	4.95	5.05
40	5.10	5.00	5.05
42	5.15	5.05	5.05
44	5.15	5.05	5.05
46	5.30	5.10	5.10
48	5.35	5.20	5.20
50	5.60	5.30	5.35
52	5.65	5.40	5.50
54	5.75	5.40	5.60
56	5.75	5.45	5.75
58	5.75	5.55	5.75
60	5.80	5.60	5.80

Lampiran 3. Hasil Uji ANOVA Laju Pertumbuhan Panjang Daun *Enhalus acoroides* pada substrat yang berbeda

Oneway

Descriptives

P.Daun

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
PA	20	2.6340	.47897	.10710	2.4098	2.8582	1.73	3.57	
PK	20	1.7960	.31233	.06984	1.6498	1.9422	1.27	2.30	
RK	20	2.0650	.52842	.11816	1.8177	2.3123	1.27	3.50	
Total	60	2.1650	.56509	.07295	2.0190	2.3110	1.27	3.57	
Model Fixed Effects			.44952	.05803	2.0488	2.2812			
Random Effects				.24702	1.1021	3.2279			.17296

ANOVA

P.Daun

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	7.322	2	3.661	18.119	.000
Within Groups	11.518	57	.202		
Total	18.840	59			

Robust Tests of Equality of Means

P.Daun

	Statistic ^a	df1	df2	Sig.
Brown-Forsythe	18.119	2	49.830	.000

a. Asymptotically F distributed.

Post Hoc Tests

Panjang Daun Lamun *Enhalus acoroides*

Multiple Comparisons

P.Daun

LSD

(I) Substrat	(J) Substrat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PA	PK	.83800*	.14215	.000	.5534	1.1226
	RK	.56900*	.14215	.000	.2844	.8536
PK	PA	-.83800*	.14215	.000	-1.1226	-.5534
	RK	-.26900	.14215	.064	-.5536	.0156
RK	PA	-.56900*	.14215	.000	-.8536	-.2844
	PK	.26900	.14215	.064	-.0156	.5536

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

Lampiran 4. Hasil Uji ANOVA pola pertambahan panjang daun pada hari ke-26 setelah penanaman pada substrat yang berbeda

Oneway

Descriptives

P.Daun_26

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
1	20	70.4000	6.85489	1.53280	67.1918	73.6082	56.00	81.00	
2	20	63.5500	9.84872	2.20224	58.9407	68.1593	47.00	85.00	
3	20	63.3000	9.14848	2.04566	59.0184	67.5816	45.00	78.00	
Total	60	65.7500	9.18293	1.18551	63.3778	68.1222	45.00	85.00	
Model			8.71171	1.12468	63.4979	68.0021			
Fixed Effects				2.32612	55.7415	75.7585			12.43781
Random Effects									

ANOVA

P.Daun_26

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	649.300	2	324.650	4.278	.019
Within Groups	4325.950	57	75.894		
Total	4975.250	59			

Robust Tests of Equality of Means

P.Daun_26

	Statistic ^a	df1	df2	Sig.
Welch	5.216	2	36.975	.010

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

P.Daun_26

LSD

(I) Substrat	(J) Substrat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	6.85000*	2.75488	.016	1.3334	12.3666
	3	7.10000*	2.75488	.013	1.5834	12.6166
2	1	-6.85000*	2.75488	.016	-12.3666	-1.3334
	3	.25000	2.75488	.928	-5.2666	5.7666
3	1	-7.10000*	2.75488	.013	-12.6166	-1.5834
	2	-.25000	2.75488	.928	-5.7666	5.2666

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

Lampiran 5. Hasil Uji ANOVA panjang akar semaian *Enhalus acoroides* yang tumbuh pada substrat yang berbeda

Oneway

Descriptives

Panjang_Akar

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
PA	20	96.20	14.267	3.190	89.52	102.88	66	116	
PK	20	90.85	27.626	6.177	77.92	103.78	65	170	
RK	20	76.20	8.649	1.934	72.15	80.25	57	100	
Total	60	87.75	20.201	2.608	82.53	92.97	57	170	
Model			18.633	2.405	82.93	92.57			
Fixed Effects				5.978	62.03	113.47			89.849
Random Effects									

ANOVA

Panjang_Akar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4288.300	2	2144.150	6.176	.004
Within Groups	19788.950	57	347.175		
Total	24077.250	59			

Robust Tests of Equality of Means

Panjang_Akar

	Statistic ^a	df1	df2	Sig.
Welch	15.118	2	33.051	.000
Brown-Forsythe	6.176	2	32.743	.005

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

Panjang_Akar

LSD

(I) Substrat	(J) Substrat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PA	PK	5.350	5.892	.368	-6.45	17.15
	RK	20.000*	5.892	.001	8.20	31.80
PK	PA	-5.350	5.892	.368	-17.15	6.45
	RK	14.650*	5.892	.016	2.85	26.45
RK	PA	-20.000*	5.892	.001	-31.80	-8.20
	PK	-14.650*	5.892	.016	-26.45	-2.85

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

Lampiran 6. Hasil Uji ANOVA jumlah akar semaian *Enhalus acoroides* yang tumbuh pada substrat yang berbeda

Oneway

Descriptives

Jumlah_akar

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
PA	20	2.10	.447	.100	1.89	2.31	1	3	
PK	20	2.30	.470	.105	2.08	2.52	2	3	
RK	20	2.70	.801	.179	2.32	3.08	2	4	
Total	60	2.37	.637	.082	2.20	2.53	1	4	
Mod Fixed el Effects			.595	.077	2.21	2.52			
Random Effects				.176	1.61	3.13			.076

ANOVA

Jumlah_akar

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.733	2	1.867	5.267	.008
Within Groups	20.200	57	.354		
Total	23.933	59			

Robust Tests of Equality of Means

Jumlah_akar

	Statistic ^a	df1	df2	Sig.
Welch	4.285	2	36.451	.021
Brown-Forsythe	5.267	2	42.852	.009

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

Jumlah_akar

LSD

(I) Substrat	(J) Substrat	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
PA	PK	-.200	.188	.293	-.58	.18
	RK	-.600*	.188	.002	-.98	-.22
PK	PA	.200	.188	.293	-.18	.58
	RK	-.400*	.188	.038	-.78	-.02
RK	PA	.600*	.188	.002	.22	.98
	PK	.400*	.188	.038	.02	.78

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

Lampiran 7. Hasil Uji Anova Pertambahan Lebar Daun *Enhalus acoroides* pada Substrat yang berbeda

Oneway

Descriptives

L.Daun

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
					Lower Bound	Upper Bound			
PA	20	.0930	.00979	.00219	.0884	.0976	.08	.10	
PK	20	.0910	.01021	.00228	.0862	.0958	.08	.10	
RK	20	.0930	.00979	.00219	.0884	.0976	.08	.10	
Total	60	.0923	.00981	.00127	.0898	.0949	.08	.10	
Mode Fixed Effects			.00993	.00128	.0898	.0949			
Random Effects				.00128 ^a	.0868 ^a	.0978 ^a			.00000

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

ANOVA

L.Daun

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.000	2	.000	.270	.764
Within Groups	.006	57	.000		
Total	.006	59			

Robust Tests of Equality of Means

L.Daun

	Statistic ^a	df1	df2	Sig.
Brown-Forsythe	.270	2	56.908	.764

a. Asymptotically F distributed.

Lampiran 8. Substrat yang di gunakan



Pasir alami (pasir laut) (PA)



Pasir Kuarsa (PK)



Pecahan (*rubble*) karang (RK)

Lampiran 9. Semaian dan biji Lamun *Enhalus acoroides* pada substrat yang berbeda



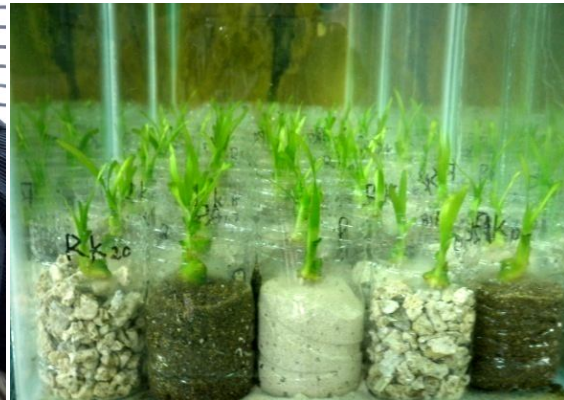
Koleksi Biji *Enhalus acoroides*



Penanaman biji lamun



Pengukuran hari pertama



Bibit lamun umur 1 bulan (30 hari)



Bibit Lamun umur 2 bulan (60 hari)