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LAMPIRAN

Tabel Lampiran 1. Produktivitas beberpa aksesi sagu di Papua Barat (Dewi, R. K., Bintoro, M. H., & Sudradjat, S., 2016)

LAMPIRAN 2a. Hasil Regresi Linier Berganda

LAPISAN TANAH I

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Panjang Batang

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.730[a]	.533	.199	1.99178

a. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.533 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap panjang batang (Y) adalah sebesar 53.3%, sedangkan 46.7% panjang batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.320	10	6.332	1.596	.206[b]
	Residual	55.540	14	3.967		
	Total	118.860	24			

a. Dependent Variable: Panjang Batang

b. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Lmiat

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.206, dimana nilai Sig. 0.206 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara garuh signifikan terhadap panjang batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6.988	38.505		-.181	.859
	F Class	.152	.455	.088	.334	.743tn
	Pasir	-.288	.264	-2.595	-1.090	.294tn
	Debu	-1.200	.448	-5.619	-2.676	.018*
	Liat	-1.159	.432	-6.479	-2.682	.018*
	Texture Class	-.387	1.124	-.194	-.344	.736tn
	KL	.977	.775	2.685	1.261	.228tn
	AT	6.029	2.351	6.113	2.565	.022*
	pH	.916	1.676	.141	.547	.593tn
	C Organik	2.797	2.124	.285	1.317	.209tn
	P2O5	-.102	.275	-.096	-.371	.716tn

a. Dependent Variable: Panjang Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah

y = -6.988 + 0.152X1 – 0.288X2 + 1.200X3 –1.159X4 – 0.387X5 + 0.977X6 + 6.029X7 + 0.916X8 +2.797X9 – 0.102X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa variabel debu, liat, dan AT secara parsial berpengaruh signifikan terhadap panjang batang, sementara variabel lainnya secara parsial tidak berpengaruh signifikan terhadap panjang batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Diameter Batang

Model Summary

		R Square	Adjusted R Square	Std. Error of the Estimate
		.629	.363	4.24885

…P2O5, Debu, F Class, pH, C Organik, Texture Class, Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.622 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap diameter batang (Y) adalah sebesar 62.9%, sedangkan 37.1% diameter batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	427.600	10	42.760	2.369	.068[b]
	Residual	252.738	14	18.053		
	Total	680.338	24			

a. Dependent Variable: Diameter Batang

b. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.068, dimana nilai Sig. 0.068 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap diameter batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-198.757	82.138		-2.420	.030
	F Class	-.278	.971	-.068	-.286	.779tn
	Pasir	1.475	.564	5.553	2.616	.020*
	Debu	1.205	.956	2.360	1.260	.228tn
	Liat	.281	.922	.657	.305	.765tn
	Texture Class	-.909	2.398	-.190	-.379	.710tn
	KL	2.243	1.654	2.575	1.356	.197tn
	AT	3.118	5.015	1.322	.622	.544tn
	pH	4.091	3.575	.263	1.144	.272tn
	C Organik	19.276	4.530	.820	4.255	.001**
	P2O5	1.123	.587	.443	1.912	.077tn

a. Dependent Variable: Diameter Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -198.757 – 0.278X1 + 1.475X2 + 1.205X3 + 0.281X4 – 0.909X5 + 2.243X6 + 3.118X7 + 4.091X8 + 19.276X9 + 1.123X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa variabel pasir dan C organik secara parsial berpengaruh signifikan terhadap diameter batang, sementara variabel lainnya secara parsial tidak berpengaruh signifikan terhadap diameter batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Volume Batang

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.716[a]	.513	.164	668.88511

a. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.513 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap volume batang (Y) adalah sebesar 51.3%, sedangkan 48.7% volume batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6587404.233	10	658740.423	1.472	.247[b]
	Residual	6263702.041	14	447407.289		
	Total	12851106.274	24			

a. Dependent Variable: Volume Batang

b. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.247, dimana nilai Sig. 0.247 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap volume batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-26190.444	12930.759		-2.025	.062
	F Class	-37.609	152.865	-.066	-.246	.809tn
	Pasir	106.868	88.730	2.928	1.204	.248tn
	Debu	-70.138	150.563	-.999	-.466	.648tn
	Liat	-182.977	145.176	-3.110	-1.260	.228tn
	Texture Class	-11.344	377.457	-.017	-.030	.976tn
	KL	413.135	260.379	3.452	1.587	.135tn
	AT	1313.816	789.514	4.051	1.664	.118tn
	pH	545.994	562.814	.256	.970	.348tn
	C Organik	2362.163	713.223	.731	3.312	.005**
	P2O5	75.266	92.468	.216	.814	.429tn

a. Dependent Variable: Volume Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -26190.444 – 37.609X1 + 106.868X2 – 70.138X3 – 182.977X4 – 11.344X5 + 413.135X6 + 1313.816X7 + 545.994X8 + 2362.163X9 + 75.266X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa variabel C organik secara parsial berpengaruh signifikan terhadap volume batang, sementara variabel lainnya secara parsial tidak berpengaruh signifikan terhadap volume batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Pati Basah

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.786[a]	.618	.345	132.01711

a. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.618 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap pati basah (Y) adalah sebesar 61.8%, sedangkan 38.2% pati basah dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	394786.190	10	39478.619	2.265	.079[b]
	Residual	243999.251	14	17428.518		
	Total	638785.442	24			

a. Dependent Variable: Pati Basah (kg/btg)

b. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.079, dimana nilai Sig. 0.079 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap pati basah.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5011.707	2552.130		-1.964	.070
	F Class	-66.423	30.171	-.527	-2.202	.045*
	Pasir	18.893	17.513	2.322	1.079	.299tn
	Debu	-31.126	29.716	-1.989	-1.047	.313tn
	Liat	-32.326	28.653	-2.464	-1.128	.278tn
	Texture Class	-13.960	74.498	-.095	-.187	.854tn
	KL	65.394	51.391	2.451	1.272	.224tn
	AT	351.307	155.825	4.859	2.254	.041*
	pH	61.192	111.082	.128	.551	.590tn
	C Organik	493.883	140.768	.686	3.508	.003**
	P2O5	20.657	18.250	.266	1.132	.277tn

a. Dependent Variable: Pati Basah (kg/btg)

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -5011.707 – 66.423X1 + 18.893X2 – 31.126X3 – 32.326X4 – 13.960X5 + 65.394X6 + 351.307X7 + 61.192X8 + 493.883X9 + 20.657X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa variabel F Class, AT, dan C organik secara parsial berpengaruh signifikan terhadap pati basah, sementara variabel lainnya secara parsial tidak berpengaruh signifikan terhadap pati basah.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Pati

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.741[a]	.549	.226	.03979

a. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.549 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar pati (Y) adalah sebesar 54.9%, sedangkan 45.1% kadar pati dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.027	10	.003	1.702	.176[b]
	Residual	.022	14	.002		
	Total	.049	24			

a. Dependent Variable: Kadar Pati (kg/dm3)

b. Predictors: (Constant), P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.176, dimana nilai Sig. 0.176 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar pati.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.315	.769		.410	.688
	F Class	-.023	.009	-.654	-2.515	.025*
	Pasir	.001	.005	.552	.236	.817tn
	Debu	.003	.009	.658	.319	.755tn
	Liat	.008	.009	2.155	.907	.380tn
	Texture Class	-.017	.022	-.409	-.739	.472tn
	KL	-.008	.015	-1.084	-.518	.613tn
	AT	-.006	.047	-.323	-.138	.892tn
	pH	-.006	.033	-.045	-.176	.863tn
	C Organik	-.023	.042	-.114	-.537	.600tn
	P2O5	-.002	.006	-.094	-.369	.717tn

a. Dependent Variable: Kadar Pati (kg/dm3)

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 0.315 – 0.023X1 + 0.001X2 + 0.003X3 + 0.008X4 – 0.017X5 – 0.008X6 – 0.006X7 - 0.006X8 – 0.023X9 – 0.002X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa variabel F Class secara parsial berpengaruh signifikan terhadap kadar pati, sementara variabel lainnya secara parsial tidak berpengaruh signifikan terhadap kadar pati.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Empulur

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.890[a]	.793	.101	.02215

a. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.793 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar empulur (Y) adalah sebesar 79.3%, sedangkan 20.7% kadar empulur dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.006	10	.001	1.146	.513[b]
	Residual	.001	3	.000		
	Total	.007	13			

a. Dependent Variable: Kadar Empulur (kg/dm3)

b. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.513, dimana nilai Sig. 0.513 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar empulur.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.414	.896		.463	.675
	F Class	.008	.009	.508	.903	.433tn
	Pasir	-.001	.004	-.944	-.233	.830tn
	Debu	-.007	.006	-2.644	-1.064	.365tn
	Liat	-.001	.009	-.705	-.130	.905tn
	Texture Class	-.014	.019	-.753	-.745	.510tn
	KL	-.004	.019	-1.194	-.200	.854tn
	AT	.042	.039	4.190	1.081	.359tn
	pH	-.017	.040	-.272	-.438	.691tn
	C Organik	.060	.043	.608	1.382	.261tn
	P2O5	.001	.006	.128	.228	.834tn

a. Dependent Variable: Kadar Empulur (kg/dm3)

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 0.414 + 0.008X1 - 0.001X2 - 0.007X3 - 0.001X4 – 0.014X5 – 0.004X6 + 0.042X7 - 0.017X8 + 0.060X9 + 0.001X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap kadar empulur.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Pati Kering

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.778[a]	.605	-.714	4.51987

a. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.605 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap pati kering (Y) adalah sebesar 60.5%, sedangkan 39.5% pati kering dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.702	10	9.370	.459	.847[b]
	Residual	61.288	3	20.429		
	Total	154.989	13			

a. Dependent Variable: Pati Kering

b. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.847, dimana nilai Sig. 0.847 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap pati kering.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	103.184	182.784		.565	.612
	F Class	.901	1.799	.389	.501	.651tn
	Pasir	-.179	.907	-1.104	-.198	.856tn
	Debu	.524	1.271	1.414	.412	.708tn
	Liat	2.054	1.778	8.671	1.155	.332tn
	Texture Class	1.431	3.962	.504	.361	.742tn
	KL	-4.055	3.933	-8.504	-1.031	.378tn
	AT	-5.029	8.023	-3.356	-.627	.575tn
	pH	-6.272	8.120	-.662	-.772	.496tn
	C Organik	7.854	8.860	.538	.886	.441tn
	P2O5	.180	1.193	.117	.151	.889tn

a. Dependent Variable: Pati Kering

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 103.184 + 0.901X1 – 0.179X2 + 0.524X3 + 2.054X4 + 1.431X5 – 4.055X6 – 5.029X7 – 6.272X8 + 7.854X9 + 0.180X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap pati kering .

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Bagas Kering

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928[a]	.862	.402	3.12734

a. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.862 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap bagas kering (Y) adalah sebesar 86.2%, sedangkan 13.8% bagas kering dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183.331	10	18.333	1.875	.330[b]
	Residual	29.341	3	9.780		
	Total	212.672	13			

a. Dependent Variable: Bagas Kering

b. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.330, dimana nilai Sig. 0.330 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap bagas kering.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	178.747	126.470		1.413	.252
	F Class	-.642	1.244	-.237	-.516	.642
	Pasir	-.534	.628	-2.803	-.850	.458
	Debu	.470	.879	1.083	.534	.630
	Liat	.543	1.230	1.958	.441	.689
	Texture Class	.416	2.742	.125	.152	.889
	KL	-1.761	2.721	-3.152	-.647	.564
	AT	-5.864	5.551	-3.340	-1.056	.368
	pH	-7.230	5.619	-.652	-1.287	.288
	C Organik	-1.595	6.130	-.093	-.260	.812
	P2O5	-1.039	.825	-.575	-1.259	.297

a. Dependent Variable: Bagas Kering

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 178.747 - 0.642X1 – 0.534X2 + 0.470X3 + 0.543X4 + 0.416X5 – 1.761X6 – 5.864X7 – 7.230X8 – 1.595X9 – 1.039X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap bagas kering.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Air

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.813[a]	.661	-.468	7.42125

a. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.661 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar air (Y) adalah sebesar 66.1%, sedangkan 33.9% kadar air dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	322.447	10	32.245	.585	.772[b]
	Residual	165.225	3	55.075		
	Total	487.672	13			

a. Dependent Variable: Air

b. Predictors: (Constant), P2O5, F Class, C Organik, pH, Debu, Texture Class, Liat, Pasir, AT, KL

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.772, dimana nilai Sig. 0.772 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar air.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-181.987	300.117		-.606	.587
	F Class	-.256	2.953	-.062	-.087	.936tn
	Pasir	.712	1.490	2.467	.478	.666tn
	Debu	-1.003	2.086	-1.527	-.481	.664tn
	Liat	-2.597	2.920	-6.183	-.890	.439tn
	Texture Class	-1.832	6.506	-.364	-.282	.797tn
	KL	5.803	6.457	6.860	.899	.435tn
	AT	10.940	13.173	4.115	.830	.467tn
	pH	13.498	13.333	.803	1.012	.386tn
	C Organik	-6.256	14.548	-.242	-.430	.696tn
	P2O5	.859	1.958	.314	.439	.690tn

a. Dependent Variable: Air

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -181.987 - 0.256X1 + 0.712X2 – 1.003X3 – 2.597X4 – 1.832X5 + 5.803X6 + 10.940X7 + 13.498X8 – 6.256X9 + 0.859X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap kadar air.

LAPISAN TANAH II

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Panjang Batang

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.722[a]	.521	-.011	2.39823

a. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.521 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap panjang batang (Y) adalah sebesar 52.1%, sedangkan 47.9% panjang batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56.354	10	5.635	.980	.517[b]
	Residual	51.764	9	5.752		
	Total	108.117	19			

a. Dependent Variable: Panjang Batang

b. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

nunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah a nilai Sig. 0.517 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak ın terhadap panjang batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-59.138	248.956		-.238	.818
	F Class	.673	.538	.403	1.251	.242tn
	Pasir	.608	2.523	4.444	.241	.815tn
	Debu	.748	2.543	2.318	.294	.775tn
	Liat	.616	2.603	3.335	.237	.818tn
	Texture Class	.923	1.225	.453	.754	.470tn
	KL	-.388	.262	-1.133	-1.485	.172tn
	AT	.207	.373	.259	.555	.593tn
	pH	.489	2.021	.071	.242	.814tn
	C Organik	5.075	3.877	.452	1.309	.223tn
	P2O5	-.345	.404	-.285	-.854	.415tn

a. Dependent Variable: Panjang Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -59.138 + 0.673X1 + 0.608X2 + 0.748X3 + 0.616X4 + 0.923X5 – 0.388X6 + 0.207X7 + 0.489X8 + 5.075X9 - 0.345X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap panjang batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Diameter Batang

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.736[a]	.541	.031	5.56245

a. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.541 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap diameter batang (Y) adalah sebesar 54.1%, sedangkan 45.9% diameter batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	328.398	10	32.840	1.061	.469[b]
	Residual	278.468	9	30.941		
	Total	606.866	19			

a. Dependent Variable: Diameter Batang

b. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.469, dimana nilai Sig. 0.469 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap diameter batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-89.245	577.428		-.155	.881
	F Class	1.405	1.248	.355	1.125	.290tn
	Pasir	1.202	5.852	3.709	.205	.842tn
	Debu	1.487	5.899	1.946	.252	.807tn
	Liat	.512	6.037	1.170	.085	.934tn
	Texture Class	-1.147	2.840	-.237	-.404	.696tn
	KL	.969	.607	1.193	1.597	.145tn
	AT	.686	.866	.362	.792	.449tn
	pH	.695	4.687	.043	.148	.885tn
	C Organik	4.540	8.991	.171	.505	.626tn
	P2O5	-.787	.938	-.274	-.839	.423tn

a. Dependent Variable: Diameter Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -89.245 + 1.405X1 + 1.202X2 + 1.487X3 + 0.512X4 – 1.147X5 + 0.969X6 + 0.686X7 + 0.695X8 + 4.540X9 - 0.787X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap diameter batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Volume Batang

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.739[a]	.546	.041	791.63313

a. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.546 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap volume batang (Y) adalah sebesar 54.6%, sedangkan 45.4% volume batang dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6781442.498	10	678144.250	1.082	.458[b]
	Residual	5640147.084	9	626683.009		
	Total	12421589.582	19			

a. Dependent Variable: Volume Batang

b. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.458, dimana nilai Sig. 0.458 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap volume batang.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-35473.739	82178.065		-.432	.676
	F Class	208.527	177.664	.369	1.174	.271
	Pasir	339.106	832.885	7.316	.407	.693
	Debu	398.967	839.512	3.649	.475	.646
	Liat	272.256	859.217	4.349	.317	.759
	Texture Class	72.769	404.212	.105	.180	.861
	KL	25.124	86.368	.216	.291	.778
	AT	88.010	123.244	.325	.714	.493
	pH	229.753	667.007	.099	.344	.738
	C Organik	1386.063	1279.641	.365	1.083	.307
	P2O5	-155.526	133.516	-.379	-1.165	.274

a. Dependent Variable: Volume Batang

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -35473.739 + 208.527X1 + 339.106X2 + 398.967X3 + 272.256X4 + 72.769X5 + 25.124X6 + 88.010X7 + 229.753X8 + 1386.063X9 – 155.526X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap volume batang.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Pati Basah

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781[a]	.610	.177	154.45623

a. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.61 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap pati basah (Y) adalah sebesar 61.0%, sedangkan 39.0% pati basah dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	335785.147	10	33578.515	1.408	.309[b]
	Residual	214710.545	9	23856.727		
	Total	550495.692	19			

a. Dependent Variable: Pati Basah (kg/btg)

b. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.309, dimana nilai Sig. 0.309 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap pati basah.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-11313.628	16033.834		-.706	.498
	F Class	-6.223	34.664	-.052	-.180	.862tn
	Pasir	114.695	162.505	11.753	.706	.498tn
	Debu	128.002	163.798	5.561	.781	.455tn
	Liat	105.280	167.643	7.988	.628	.546tn
	Texture Class	6.208	78.866	.043	.079	.939tn
	KL	4.740	16.851	.194	.281	.785tn
	AT	.237	24.046	.004	.010	.992tn
	pH	-9.627	130.140	-.020	-.074	.943tn
	C Organik	465.736	249.672	.582	1.865	.095tn
	P2O5	-33.997	26.050	-.394	-1.305	.224tn

a. Dependent Variable: Pati Basah (kg/btg)

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -11313.628 – 6.223X1 + 114.695X2 + 128.002X3 + 105.280X4 + 6.208X5 + 4.740X6 + 0.237X7 – 9.627X8 + 465.736X9 – 33.997X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap pati basah.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Pati

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.838[a]	.701	.370	.03587

a. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.701 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar pati (Y) adalah sebesar 70.1%, sedangkan 39.0% pati basah dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.027	10	.003	2.114	.138[b]
	Residual	.012	9	.001		
	Total	.039	19			

a. Dependent Variable: Kadar Pati (kg/dm3)

b. Predictors: (Constant), P2O5, C Organik, F Class, Debu, pH, Texture Class, AT, KL, Liat, Pasir

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.138, dimana nilai Sig. 0.138 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar pati.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.046	3.723		-.012	.990
	F Class	-.016	.008	-.504	-1.981	.079tn
	Pasir	.005	.038	1.843	.126	.902tn
	Debu	.007	.038	1.102	.177	.863tn
	Liat	.004	.039	1.067	.096	.926tn
	Texture Class	-.007	.018	-.183	-.385	.709tn
	KL	.004	.004	.562	.932	.376tn
	AT	-.006	.006	-.385	-1.044	.324tn
	pH	-.037	.030	-.282	-1.214	.256tn
	C Organik	.082	.058	.387	1.418	.190tn
	P2O5	-.004	.006	-.181	-.686	.510tn

a. Dependent Variable: Kadar Pati (kg/dm3)

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -0.046 – 0.016X1 + 0.005X2 + 0.007X3 + 0.004X4 – 0.007X5 + 0.004X6 - 0.006X7 – 0.037X8 + 0.082X9 – 0.004X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap kadar pati.

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Empulur

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809[a]	.655	-.123	.02475

a. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.655 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar empulur (Y) adalah sebesar 65.5%, sedangkan 34.5% kadar empulur dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.005	9	.001	.842	.621[b]
	Residual	.002	4	.001		
	Total	.007	13			

a. Dependent Variable: Kadar Empulur (kg/dm3)

b. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.621, dimana nilai Sig. 0.621 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar empulur.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.568	.299		1.899	.130
	F Class	-.004	.009	-.260	-.456	.672tn
	Pasir	.001	.003	.752	.358	.739tn
	Debu	-.002	.003	-.697	-.629	.563tn
	Texture Class	.031	.027	1.687	1.155	.312tn
	KL	-.001	.003	-.479	-.448	.678tn
	AT	.006	.006	.862	.989	.379tn
	pH	-.022	.022	-.360	-1.026	.363tn
	C Organik	.026	.052	.263	.503	.642tn
	P2O5	-.001	.007	-.072	-.129	.904tn

a. Dependent Variable: Kadar Empulur (kg/dm3)

b. Predictors in the Model: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Liat	-50.421[b]	-1.127	.342tn	-.545	4.041E-5

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 0.568 – 0.004X1 + 0.001X2 - 0.002X3 + 0.031X4 – 0.001X5 + 0.006X6 - 0.022X7 + 0.026X8 - 0.001X9 – 50.421X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap kadar empulur

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Pati Kering

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.645[a]	.416	-.896	4.75490

a. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.416 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar empulur (Y) adalah sebesar 41.6%, sedangkan 58.4% kadar empulur dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.553	9	7.173	.317	.930[b]
	Residual	90.436	4	22.609		
	Total	154.989	13			

a. Dependent Variable: Pati Kering

b. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.930, dimana nilai Sig. 0.930 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap pati kering.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-36.867	57.502		-.641	.556
	F Class	-1.287	1.715	-.556	-.750	.495tn
	Pasir	.461	.485	2.596	.950	.396tn
	Debu	-.106	.658	-.231	-.160	.880tn
	Texture Class	5.692	5.164	2.092	1.102	.332tn
	KL	.232	.600	.537	.387	.719tn
	AT	1.237	1.115	1.257	1.109	.329tn
	pH	.473	4.203	.051	.113	.916tn
	C Organik	-2.755	9.989	-.187	-.276	.796tn
	P2O5	1.024	1.252	.591	.817	.460tn

a. Dependent Variable: Pati Kering

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Liat	28.429[b]	.422	.702tn	.237	4.041E-5

a. Dependent Variable: Pati Kering

b. Predictors in the Model: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = -36.867 – 1.287X1 + 5.692X4 + 0.232X5 + 1.237X6 + 0.473X7 – 2.755X8 + 0. Sementara untuk melihat pengaruh parsial, dapat diketahui el secara parsial tidak berpengaruh signifikan terhadap pati kering

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Bagas Kering

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.930[a]	.866	.564	2.67220

a. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.416 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap bagas kering (Y) adalah sebesar 86.6%, sedangkan 13.4% bagas kering dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	184.110	9	20.457	2.865	.162[b]
	Residual	28.563	4	7.141		
	Total	212.672	13			

a. Dependent Variable: Bagas Kering

b. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.162, dimana nilai Sig. 0.162 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap bagas kering.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	71.227	32.316		2.204	.092
	F Class	-3.218	.964	-1.187	-3.338	.029*
	Pasir	-.108	.272	-.518	-.395	.713
	Debu	-.476	.370	-.889	-1.287	.268
	Texture Class	3.290	2.902	1.032	1.134	.320
	KL	-.221	.337	-.437	-.655	.548
	AT	.016	.626	.014	.025	.981
	pH	-4.174	2.362	-.387	-1.767	.152
	C Organik	-1.934	5.614	-.112	-.344	.748
	P2O5	.014	.704	.007	.020	.985

a. Dependent Variable: Bagas Kering

b. Predictors in the Model: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Liat	19.532[b]	.624	.577	.339	4.041E-5

a. Dependent Variable: Bagas Kering

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 71.227 – 3.218X1 - 0.108X2 - 0.476X3 + 3.290X4 – 0.221X5 + 0.016X6 – 4.174X7 – 1.934X8 + 0.014X9 + 19.532X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap bagas kering

Pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat terhadap Kadar Air

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760[a]	.577	-.374	7.17916

a. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa nilai koefisien determinasi (R square) sebesar 0.577 artinya pengaruh P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat (X) terhadap kadar air (Y) adalah sebesar 57.7%, sedangkan 42.3% kadar air dipengaruhi oleh variabel lain yang tidak diteliti.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	281.511	9	31.279	.607	.755[b]
	Residual	206.161	4	51.540		
	Total	487.672	13			

a. Dependent Variable: Air

b. Predictors: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas juga menunjukkan bahwa nilai signifikansi (Sig.) dalam uji F adalah sebesar 0.755, dimana nilai Sig. 0.755 > 0.05 sehingga dapat disimpulkan bahwa P2O5, Debu, F Class, pH, C Organik, Texture Class, KL, AT, Pasir, Liat secara simultan tidak berpengaruh signifikan terhadap kadar air.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	65.233	86.820		.751	.494
	F Class	4.506	2.590	1.098	1.740	.157
	Pasir	-.349	.732	-1.110	-.477	.658
	Debu	.585	.994	.721	.588	.588
	Texture Class	-8.949	7.796	-1.854	-1.148	.315
	KL	-.013	.907	-.017	-.014	.990
	AT	-1.247	1.683	-.714	-.741	.500
	pH	3.706	6.345	.227	.584	.591
	C Organik	4.667	15.082	.179	.309	.772
	P2O5	-1.037	1.891	-.337	-.548	.613

a. Dependent Variable: Air

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	Liat	-29.228[b]	-.517	.641	-.286	4.041E-5

a. Dependent Variable: Air

b. Predictors in the Model: (Constant), P2O5, Pasir, C Organik, pH, F Class, AT, Debu, KL, Texture Class

Tabel di atas menunjukkan bahwa persamaan regresinya adalah y = 65.233 + 4.506X1 - 0.349X2 + 0.585X3 – 8.949X4 – 0.013X5 – 1.247X6 + 3.706X7 + 4.667X8 – 1.037X9 – 29.228X10. Sementara untuk melihat pengaruh parsial, dapat diketahui bahwa seluruh variabel secara parsial tidak berpengaruh signifikan terhadap kadar air.

LAMPIRAN 4. Hasil analisis Stepwise Regression

Keterangan VARIABEL X1-10

X1 = bahaya banjir (Fh) = C…2
X2 = % pasir = P
X3 = % debu = D
X4 = % liat = L
X5 = Texture class = T
X6 = kapasitas lapang = KL
X7 = air tersedia = AT
X8 = pH = Ph
X9 = C-organik = C...10
X10= P2O5 = P2O5

VARIABEL Y: Y1-Y9

Panjang (m) (Y1)

```
Coefficients:
               Estimate Std. Error t value Pr(>|t|)
   (Intercept)  -4.9129    24.1715  -0.203  0.84122
X2 P            -0.3000     0.2074  -1.446  0.16526
X3 D            -1.2920     0.3695  -3.496  0.00258 **
X4 L            -1.1964     0.3611  -3.313  0.00387 **
X6 KL            0.9342     0.6053   1.543  0.14015
X7 AT            6.4686     1.8375   3.520  0.00244 **
X9 C...10        3.2720     1.7730   1.845  0.08149 .
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 1.83 on 18 degrees of freedom
Multiple R-squared:  0.4949,     Adjusted R-squared:  0.3266
F-statistic:  2.94 on 6 and 18 DF,  p-value: 0.03524
```

Y1 = -4.9129 –0X1 + -0.3000X2+ -1.2920X3 + -1.1964X4 – 0X5 + 0.9342X6 + 6.4686X7 + 0X8 + 3.2720X9 + 0X10

Diameter (cm) (Y2)

```
Coefficients:
               Estimate Std. Error t value Pr(>|t|)
   (Intercept) -149.7494    64.3830  -2.326 0.031907 *
X2 P              1.2578     0.4827   2.606 0.017879 *
X3 D              1.4930     0.5127   2.912 0.009303 **
X6 KL             2.5892     1.0102   2.563 0.019560 *
X8 Ph             3.6702     2.8554   1.285 0.214956
X9 C...10        15.7596     3.9336   4.006 0.000828 ***
X10 P2O5          0.7979     0.4473   1.784 0.091305 .
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 3.864 on 18 degrees of freedom
Multiple R-squared:  0.5671,     Adjusted R-squared:  0.4229
F-statistic: 3.[illegible]21 on 6 and 18 DF,  p-value: 0.01098
```

[illegible]2578X2 + 1.4930X3 + 0X4 + 0X5 + 2.5892X6 + 0X7 + 3.6702X8 + 15.7596X9 +

Volume ($dm^3.batang^{-1}$) (Y3)

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -18832.92    8351.06  -2.255  0.03681 *
X2 P            81.84      52.08   1.571  0.13352
X4 L          -161.85      97.51  -1.660  0.11428
X6 KL          384.40     205.38   1.872  0.07760 .
X7 AT          738.48     341.17   2.165  0.04411 *
X8 Ph          529.17     418.45   1.265  0.22214
X9 C...10     2011.66     579.57   3.471  0.00273 **
---
Signif. codes:
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 582.5 on 18 degrees of freedom
Multiple R-squared:  0.4909,     Adjusted R-squared:  0.3212
F-statistic: 2.893 on 6 and 18 DF,  p-value: 0.03735
```

Y1 = -18832.92 + 0X1 + 81.84X2 + 0X3 -161.85X4 + 0X5 + 384.40X6 + 738.48X7 + 529.17X8 + 2011.66X9 + 0X10

PB (Pati Basah, $kg.batang^{-1}$) (Y4)

```
Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  -267.14     250.96  -1.064   0.2992
X1 C...2      -24.95      10.43  -2.391   0.0262 *
X7 AT          30.48      12.06   2.528   0.0196 *
X9 C...10     399.92     118.17   3.384   0.0028 **
---
Signif. codes:
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 128 on 21 degrees of freedom
Multiple R-squared:  0.4553,     Adjusted R-squared:  0.3775
F-statistic: 5.851 on 3 and 21 DF,  p-value: 0.004549
```

Y1 = -267.14 -24.95X1 + 0X2 + 0X3 + 0X4 + 0X5 + 0X6 + 30.48X7 + 0X8 + 399.92X9 + 0X10

PB2 = Kadar Pati Basah dalam Empulur ($kg.kg^{-1}$) Y5

```
Coefficients:
               Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.2886044  0.0151929  18.996  3.9e-15 ***
X1 C...2    -0.0138644  0.0031707  -4.373 0.000243 ***
X4 L         0.0014905  0.0006581   2.265 0.033719 *
---
Signif. codes:
0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

 error: 0.03477 on 22 degrees of freedom
d:  0.4651,     Adjusted R-squared:  0.4165
4 on 2 and 22 DF,  p-value: 0.001026
```

.4X1 + 0X2 + 0X3 + 0.0014905X4 + 0.X5 + 0X6 + 0X7 + 0X8 + 0X9 + 0X10

KE = Bulk Density Empulur Basah ($kg.dm^{-1}$) Y6

```
oefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept)  0.197443   0.135492   1.457   0.1884
X1 C...2        0.002396   0.002039   1.175   0.2784
X3 D           -0.005534   0.003335  -1.660   0.1409
X4 L           -0.001912   0.001650  -1.159   0.2846
X5 T           -0.014674   0.011436  -1.283   0.2403
X7 AT           0.043238   0.018827   2.297   0.0553 .
X9 C...10       0.063654   0.025595   2.487   0.0418 *
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 0.01529 on 7 degrees of freedom
Multiple R-squared:  0.7939,     Adjusted R-squared:  0.6172
F-statistic: 4.494 on 6 and 7 DF,  p-value: 0.03475
```

Y1 = 0.197443 + 0.002396 + 1.475X2 -0.005534X3 -0.001912X4 -0.014674X5 + 0X6 + 0.043238X7 + 0X8 + 0.063654X9 + 0X10

Kadar Pati Kering dalam Empulur (%) Y7

```
Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 221.0577    66.3257   3.333  0.01254 *
X2 P          -0.7723     0.3380  -2.285  0.05621 .
X4 L           0.9280     0.6904   1.344  0.22081
X6 KL         -3.1573     1.5311  -2.062  0.07812 .
X7 AT         -4.8260     2.5338  -1.905  0.09853 .
X8 pH        -10.8256     2.5912  -4.178  0.00415 **
X10 P2O5      -1.0800     0.4643  -2.326  0.05292 .
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 2.244 on 7 degrees of freedom
Multiple R-squared:  0.8339,     Adjusted R-squared:  0.6916
F-statistic: 5.859 on 6 and 7 DF,  p-value: 0.01753
```

Y1 = 221.0577 + 0X1 -0.7723X2 + 0X3 + 0.9280X4 + 0X5 -3.1573X6 -4.8260X7 -10.8256X8 + 0X9 - 1.0800X10

PT = Persen Bagas Kering dalam empulur   Y8

```
Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) 128.8437    61.5030   2.095   0.0744 .
X2 P          -0.4375     0.3318  -1.318   0.2289
X4 L           2.0461     0.8061   2.538   0.0388 *
X6 KL         -4.3492     1.6182  -2.688   0.0312 *
X7 AT         -3.8752     2.3501  -1.649   0.1431
X8 pH         -5.6826     3.4407  -1.652   0.1426
X9 C...10      5.7211     4.1626   1.374   0.2117
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 3.124 on 7 degrees of freedom
Multiple R-squared:  0.5604,     Adjusted R-squared:  0.1837
F-statistic: 1.487 on 6 and 7 DF,  p-value: 0.306
```

Y1 = 128.8437 -0.4375X1 + 0X2 + 0X3 + 2.0461X4 + 0X5 -4.3492X6 -3.8752X7 -5.6826X8 + 5.7211X9 + 0X10

KA = Persen Kadar Air dalam Empulur (%) Y9

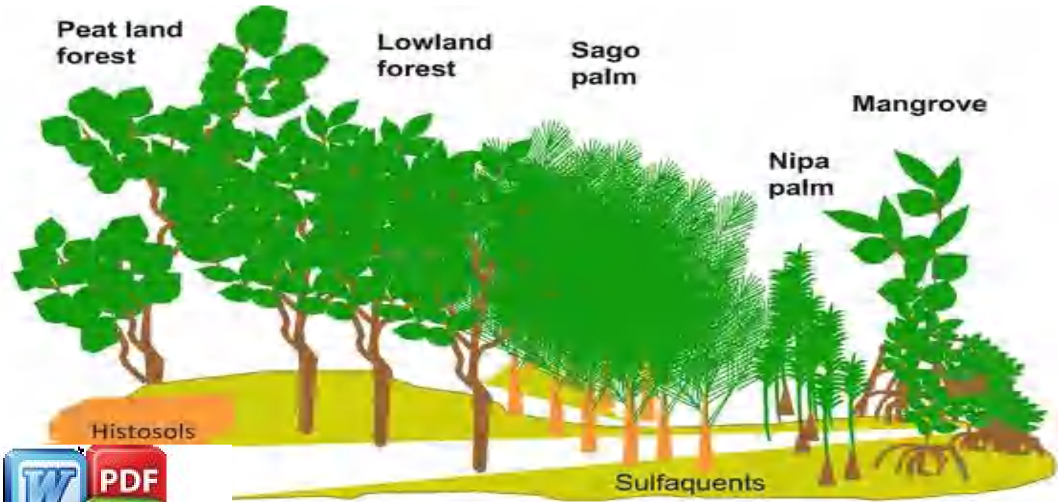
```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept) -288.3500   150.1766  -1.920   0.0963 .
X2 P           1.2969     0.7653   1.695   0.1340
X4 L          -3.1471     1.5631  -2.013   0.0840 .
X6 KL          7.8766     3.4667   2.272   0.0573 .
X7 AT          9.8372     5.7371   1.715   0.1301
X8 pH         17.7648     5.8670   3.028   0.0192 *
X10 P2O5       1.3302     1.0513   1.265   0.2463
---
Signif. codes:
0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 5.08 on 7 degrees of freedom
Multiple R-squared:  0.6297,     Adjusted R-squared:  0.3122
F-statistic: 1.984 on 6 and 7 DF, -value: 0.1955
```

Y1 = -288.3500 + 0X1 + 1.2969X2 + 0X3 -3.1471X4 + 0X5 + 7.8766X6 + 9.8372X7 + 17.7648X8 + 0X9 + 1.330210

LAMPIRAN GAMBAR

Gambar Lampiran 1. Contoh bakal tanaman untuk dijadikan bibit: Sebelum dipangkas daunnya (a) dan sesudah di pangkas (b)



Susunan komunitas hutan dataran rendah tropis. Sagu (sago palm) terletak di belakang mangrove dan nipah

, & Sasaki, Y. (2018)

Horizon Research Publishing Corporation, USA

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Acceptance Letter

Dear Masyhur Syafiuddin ,

Congratulations! As a result of the reviews and revisions, we are pleased to inform you that your following paper has been accepted for publication.

Paper Title: Effect of Inundation Depth, Dosage of Sago Bagasse and Husk Charcoal on Sago Palm Seedling (Metroxylon sagu) Grown in Polybags

Paper ID: 10436731

Contributor (s): Masyhur Syafiuddin, Hazairin Zubair, Baharuddin Patandjengi, Muh. Jayadi, D. Agnes Rampisela, Abdul Aziz, Thamrin Abdullah, Nur Lisani, Annas Boceng, Nabilah Rahmawati, Shahnaz Maghfirah Ilham

It is scheduled for publication on Universal Journal of Agricultural Research , Vol 12 , No 4 .

The publication fee $ 290 should be paid within 2 weeks.

Should you have any questions, please feel free to let us know by quoting your **Paper ID** in any future inquiries.

Best wishes,

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Effect of Inundation Depth, Dosage of Sago Bagasse and Husk Charcoal on Sago Palm Seedling (*Metroxylon sagu*) Grown in Polybags

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Abstract Various attempts have been made to increase the survival rate (SR) of sago plants (*Metroxylon sagu* Rottb), especially the treatment of growing media and irrigation. The purpose of this study was to calculate the effect of (i) the depth of inundation on the survival rate (SR) of the Tana Luwu sago variety; (ii) dosage of sago bagasse and husk charcoal on the survival rate of Tana Luwu sago palm seedlings. Method. The research was conducted in Waelawi Village, West Malangke District, North Luwu Regency; April to June 2023. The study used a two-factor factorial design with a split plot design field design. The first factor is the depth of the stagnant water that flows continuously on the side of the polybag as the main plot, consisting of 3 levels: 3 cm, 6 cm and 9 cm. While the second subplot factor is the planting media factor consisting of 5 levels: soil only (S6O0); a mixture of soil and sago bagasse with a ratio of 2:1 (S4B2); a mixture of soil and sago bagasse 1:1 (S3B3); a mixture of soil and husk charcoal 2:1 (S4C2), and a mixture of soil and charcoal husks 1:1 (S3:C3) respectively based on volume. The seeds used are relatively small, weighing between 168-728 grams (after trimming

drib of 60 cm). The variable measured was the survival rate of the

old. The results showed that the depth of inundation, the dose of

harcoal, had a significant effect on the survival rate of the Tana Luwu

ation, flood tolerant, bagasse, biochar

1. INTRODUCTION

Despite the fact that sago palm seedlings cultivated on flooded land produce fewer carbohydrates than those grown on non-flooded land (Aidil Azhar et al., 2021) a substantial body of research indicates that soaking sago palm seedlings, particularly in water that flows through a raft system, increases survival rate (Hrp et al., 2017). By integrating immersion with flowing water in a pot containing a suitable volume of media containing a composition of fertile materials, it is possible to achieve optimal seedling growth and a favorable survival rate.

While it is true that sago palm seedlings grown in flooded areas produce less carbohydrates than those grown in non-flooded areas (Aidil Azhar et al., 2021), a wealth of data, particularly from research findings, indicates that soaking sago palm seedlings—particularly in water flowing through a raft system—produces superior outcomes, including a higher survival rate (SR) (Hrp et al., 2017). A high survival rate and healthy seedling growth can be achieved by combining immersion with running water in a pot filled with media that has an appropriate volume and a fertile material composition.

Inundation and media of sago palm seedlings

Multiple research findings have established that the presence of water on land, particularly in the form of inundation, significantly impacts the productivity of fully grown plants as well as the survival rate and morphological growth of small plants or seedlings. In a study conducted by (A. Azhar et al., 2020), it was shown that sago plants grown on flooded ground exhibited reduced or diminished yield in comparison to plants cultivated on non-flooded land. Plants that undergo waterlogging exhibit elevated qNmax and NPQmax values, as elucidated. Prolonged waterlogging also results in a substantial reduction in leaf water potential (ψleaf) and photosynthetic pigment concentration. Optimal soil conditions, combined with adequate water supply, are essential for the plant to achieve a heightened photosynthetic potential and ensure consistent sago production.

However, it seems that several other research results, especially nurseries, show different results. Nursery acclimatization through immersion (flooding) has been shown to give good (positive) results in many parameters. The effect of the immersion treatment was found from some factual information from various research findings, which included: (i) that the saplings (saplings) that had just been released from the stem of the parent tree were soaked in aerobic water (running water) for 3-4 weeks and then planted (Ahra, 2019; Rahmawati, 2020); (ii) it is recommended to carry out nurseries using a raft nursery system (Bintoro et al., 2010); and (iii) nursery with a raft system is proven to produce a longer average shoot length than the polybag ... 008).

... go plantation in Meranti Regency an experiment was carried out aiming ... of immersing sago palm seedlings using the lid and raft method on the ... plants in the adaptation phase. The experimental results showed that ... dlings had a significant effect on the number of live plants (SR), number of leaf midribs, leaf color index, plant height, number of leaflets, width of plant midribs acand number of dead leaf midribs, but had no effect on the increase in the number of leaf midribs (Yusmadi & Bintoro, 2018). In addition, it was also explained that the change in the water content of the raft seedlings indicated that there was a maximum time for the transfer process from the nursery to the field, namely 120 minutes with a moisture content value of 81%. However, there have been no experiments regarding the effect of immersion water depth on the survival rate and growth of sago palm seedlings.

Sago plant nursery pot media

Sago palms are tolerant of very acidic conditions (low pH) coupled with high concentrations of metals in the soil such as aluminum, iron and manganese, which inhibit the growth of other plant species. It has ability to thrive in heavy clay soils, which inhibits the growth of other plant species (Lal, 2003). Sago will grow more optimally on soils with a fairly high organic content. The organic content in this soil is usually related to the element calcium, phosphate, potassium and magnesium (RimbaKita.com, 2022). One source of organic material which is an important agricultural waste because it is quite abundant in sago growing areas is sago waste in the form of sago waste (sago bagasse, SB) itself. Various research findings indicate that this waste is very potential (bagasse) to be developed into a plant medium. These findings, among others, from (Kumar et al., 2019).

The recommended use of organic materials is not only in the form of compost, but also in the form of charcoal or biochar. It was further explained that the combination of the use of rice husk biochar and Glomeromycota mushroom inoculation is recommended to increase Cherry tomato yields and improve fruit quality through the production of bioactive compounds. (Singh et al., 2018) suggested that rice husk biochar is an option for sustainable crop residue waste management to improve nutritional status, microbial biomass and plant productivity. Increasing the concentration of biochar according to (Abdelhafez et al., 2021) allows significant improvement of various parameters by increasing the pH which can be a useful strategy to further increase the rate of organic loading.

In addition, the application of biochar from peanut shells and date seeds also increased chlorophyll pigment in the leaves and increased plant growth parameters in its application up to 2.5%, better than concentrations of 1, 5 and 10%. The results of other studies are in line, that the addition of biochar to soil can increase pH, increase organic carbon content, increase nutrient retention, encourage porosity, increase water holding capacity, and increase microbial biomass. As a result, biochar can contribute to soil fertility, increase crop yields, help close nutrient cycles (Beusch, 2021). A research results (SYAKIR et al., 2020) showed that the [illegible] go dregs + 25% two-month decomposition compost was able to increase [illegible] tivity of dwarf pepper while fresh sago waste (75 - 100%) resulting from [illegible] ition is effective in reducing weed populations.

[illegible] JECTIVES

The aim of the study was to analyze the effect of the depth of stagnant water, and the composition of the media for sago nursery polybags in North Luwu Regency, South Sulawesi. In detail presented as follows:

(i) To analyze the effect of the depth of inundation on the survival rate (SR) of the Tana Luwu sago variety;

(ii) To analyze the effect of doses of sago bagasse and husk charcoal on the survival rate of Tana Luwu sago palm seedlings;

3. MATERIAL AND METHOD

Research Design and Location

This research was carried out in Waelawi Village, Malangke Barat District, Luwu Utara Reagency, a most famous vilage as a central of sago production in South Sulawesi (Fig. 1). The study was designed with a split plot design with two factors. The first factor is the depth of the puddle which is continuously flowed on the side of the polybag media, and the second factor is the media that is filled into the polybags. The first factor is the depth of the puddle consisting of 3 levels: 3 cm, 6 cm and 9 cm. The second factor was the composition of the mixture of soil and ameliorant of sago bagasse and husk charcoal with five levels. Repeat five times so that there are 75 units. The treatment combinations are shown as follows:

G1S6A0: inundated 3 cm, soil media without sago bagasse ameliorants or rice husk charcoal

G1S4B2: inundated 3 cm, mixed media of soil and sago bagasse ratio 2:1 based on volume

G1S3B3: inundated 3 cm, mixed media of soil and sago bagasse ratio 1:1 based on volume

G1S4C2: inundated 3 cm, mixed media of soil and charcoal ratio 2:1 based on volume

G1S3C3: inundated 3 cm, mixed media of soil and charcoal ratio 1:1 based on volume

G2S6A0: inundated 6 cm, soil media without sago bagasse ameliorants or rice husk charcoal

G2S4B2: inundated 6 cm, mixed media of soil and sago bagasse ratio 2:1 based on volume

G2S3B3: inundated 6 cm, mixed media of soil and sago bagasse ratio 1:1 based on volume

G2S4C2: inundated 6 cm, mixed media of soil and sago bagasse ratio 2:1 based on volume

G2S3C3: inundated 6 cm, mixed media of soil and sago bagasse ratio 1:1 based on volume

G3S6A0: inundated 9 cm, soil media without sago bagasse ameliorants or rice husk charcoal

n, mixed media of soil and sago bagasse ratio 2:1 based on volume

n, mixed media of soil and sago bagasse ratio 1:1 based on volume

n, mixed media of soil and sago bagasse ratio 2:1 based on volume

n, mixed media of soil and sago bagasse ratio 1:1 based on volume

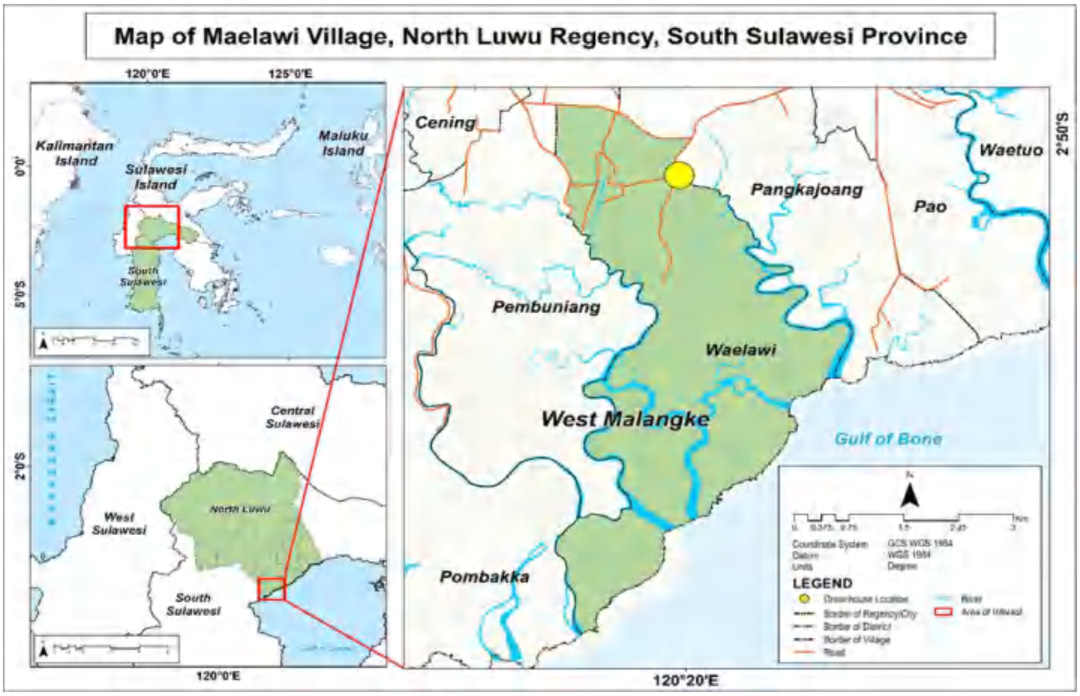

Fig. 1. The site of the research10

Materials

- Sago palm seedlings (dangkel) with 3-4 leafy fronds that have just been weaned from their mothers, measuring 162-722 grams of plants with leaves removed and leaving only 60 cm long fronds. The roots are also cleaned, followed by soaking for 12 hours with a mixture of shallot: garlic extract 2:1 which functions as a root growth stimulant and organic pesticide.

- air-dried soil (not paddy soil), which has been refined by filtering through a 0.5 cm x 0.5 cm sieve,

- weathered air-dried sago bagasse; at least two years after processing and disposal in open land as waste with a bulk density of 270 g/cm3;

- husk charcoal (charcoal) with a bulk density of 210 g/cm3.

- shallots and garlic with a ratio of 2:1 as a source of extracts to be used as ZPT and natural pesticides with an extract concentration of 1 kg/50 L of water

tissue analysis in laboratories

ar

UV plastic roof and 75-percent paranet (screen).

installation.

- Seedling was planted before three days, recommended before 7 days after being released from its mother (IRAWAN et al., 2011).

Parameters

- survival rate (survival rate) up to the age of 50 days

Procedure

Starting with the preparation of a mini-green house measuring 5 m x 4 m; preparation of bagasse ameliorant and rice husk charcoal; preparing gutters to form puddles as deep as 3, 6 and 9 cm; mixing soil with ameliorant; poly bag filling; planting seeds by immersing all parts of the hump until the position of the growing point is about 3-5 cm below the surface of the media in a polybag; maintenance and measurement of variables/parameters

Data collection and data processing

Data collection was carried out by counting and recording the number of plants indicated to be alive (not dead).

Data tabulation

Primary data collected is verified then tabulated and grouped using MS-EXCEL.

Data analysis

Data that has been tabulated and grouped is then analyzed using a qualitative-quantitative descriptive analysis.

4. RESULTS AND DISCUSSION

Result

Effect of inundation depth

The depth of the inundation statistically gives a real effect. The minimum depth (3 cm) was better than the 6 cm depth treatment, but not significantly different from 9 cm depth. Thus the treatment depth of 9 cm is significantly different from 6 cm. Even so, the results of the linear regression test show the low strength of the relationship, it can even be said that it cannot be explained by the water depth variable (Table 1 and Figure 2).

Table 1. Survival rate of sago palm seedlings according to inundation depth at 50 days old

Inundation depth	percentage of viable seeds, %					Average
	I	II	III	IV	V	
3 c	[illegible]	90	50	70	70	76[b]
6 c	[illegible]	50	90	90	60	78[b]
9 c	[illegible]	50	90	70	60	82[a]

ifferent letters mean different at the 0.05 level

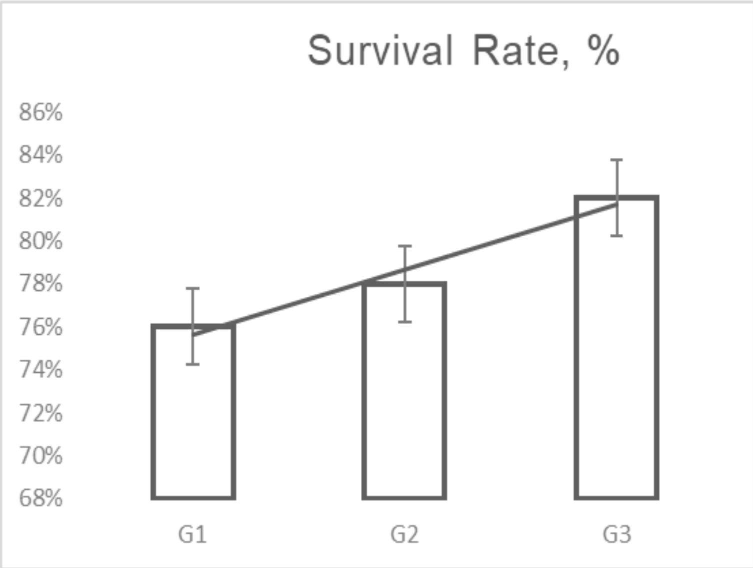

Figure 2. Correlation between polybag immersion depth and survival rate (SR) of sago palm seedlings

This finding is an indication that a relatively deep immersion depth to maintain a saturated or near-saturated soil water content is better; no voids in the soil are void of water. Aeration is thought to occur in the presence of an O_2 solution which is accompanied by flowing water by the provision of continuous flowing water. This can be a method that has the same effect as the initial seed growing method using a raft system which has so far been considered the most capable of providing the highest success rate of seedling survival (Yusmadi & Bintoro, 2018). Or it could be caused by the characteristics of the sago plants which are resistant to inundation, especially in the first 50 days. Previous studies have shown that deeper immersion heights have a good effect, although only up to the first two months (60 days) and thereafter the effect is worse than at other depths (A. Azhar et al., 2020; Aidil Azhar et al., 2021). There is a strong indication that additional water depth can still be recommended to reach its optimum.

Media Composition

Organic matter, both sago bagasse and husk charcoal, has a significant effect on survival rates. The higher the level the better. When compared to the two organic materials, husk charcoal is significantly better than sago bagasse for both levels (Table 2 and Figure 3). This is thought to be caused by adding organic matter to increase the porosity of the media while the water level meets the requirements continuously. The advantage of rice husk bagasse until 50 days after planting is due to its greater sterility, while asse has due to its higher nutritional content has not contributed to the ning of their growth. It cannot be recommended yet, because it is can be better at an advanced stage when bagasse is able to support it with nutrients compared to husk charcoal which is only rich in carbon and poor in other nutrients.

Table 2. Survival rates according to the composition of the media

Media Composition	percentage of viable seeds, %					Average
	I	II	III	IV	V	
S6O0	67	67	100	83	67	77 b
S4B2	83	67	83	67	67	73 c
S4C2	67	83	83	67	83	77 b
S3B3	83	83	67	83	67	77b
S3C3	100	67	83	83	67	80a

Numbers followed by different letters mean different at the 0.05 level

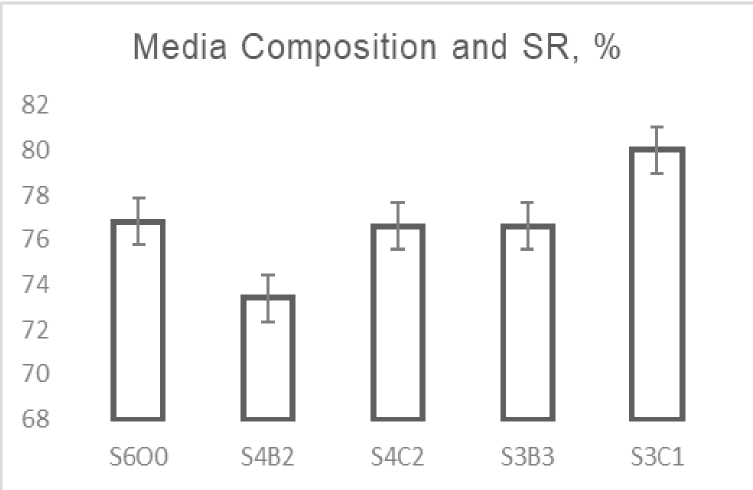

Figure 3. The relationship between the type and dosage of organic matter and the seedling survival rate of up to 50 days

Due to their findings, (Kumar et al., 2019) strongly recommend that sago bagasse hydrolysate (SBH) be used for planting media. SBH with plant growth promoting properties should be used for agricultural productivity as an inexpensive, environmentally friendly biofertilizer. In line with that, (Tando & Asaad, 2018) explained that SBH apart from triggering seed germination due to hormone production, it also significantly increases the expression of carbon assimilation ...te. Sago bagasse biochar is proven to have low nutrient content, but ... plant nutrients, there is an increase in N, P, K and C nutrient absorption ...ut variety and nutrient status in Ultisol soil. (Ch'ng et al., 2014) also ...ermination index in the phytotoxicity test was above 80% of the final

It was further explained that co-compost products with balanced nutritional content can be produced by composting sago bagasse and chicken manure slurry. From the results of a 1994 experiment, it was concluded that applying 25% sago bagasse compost was better than 0.50 and 70 percent for albisia seedlings (Hariyadi et al., 2020). However, in the shallot experiment, even though the dose of sago bagasse compost did not significantly affect various parameters, it did have a significant effect on tuber production, increasing according to the dose. The highest tuber production of 11.56 t ha^{-1} was obtained from a dose of 105 t ha^{-1} compared to 9.61 t ha^{-1} at a dose of 70 t ha^{-1} (Firmansyah & Atikah, 2019). Like a' research results showed that the composition of 75% sago dregs + 25% two-month decomposition compost was able to increase the growth and productivity of dwarf pepper (SYAKIR et al., 2020).

Most researchers report positive effects of biochar application on soil physical and chemical properties, soil microbial activity, biomass and plant yields (Hui, 2021). Rice husk charcoal (rice husk biochar, RHB) for example. Biochar contains soluble and leached potassium. The amount of potassium leached from the soil given 30 t ha^{-1} biochar was no different from that given 200 kg KCl ha^{-1} (Widowati & Asnah, 2014).

5. CONCLUSION

1) The depth of inundation has a significant effect on the survival rate of sago palm seedlings up to 50 days old. Up to a depth of nine centimeters the deeper the puddle the better.
2) Bagasse and/or rice husk charcoal and their doses have a significant effect on the survival rate of sago palm seedlings up to 50 days of age. Until the age of 50 days, husk charcoal has a better effect than sago bagasse
3) Until the age of 50 days, husk charcoal has a better effect than sago bagasse.

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