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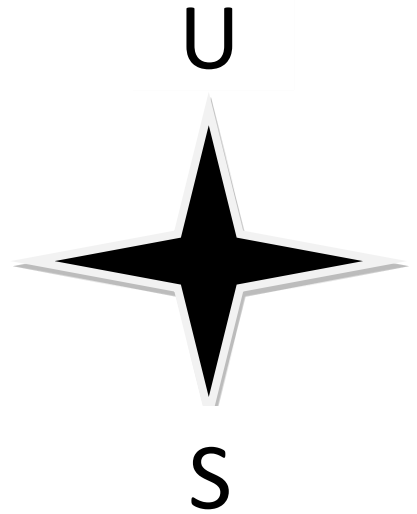
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LAMPIRAN

Lampiran 1. Denah Penelitian

P0N0	P1N1	P2N2
P2N1	P0N1	P0N3
P2N2	P0N2	P1N1
P1N0	P2N1	P0N1
P2N0	P0N0	P0N2
P0N1	P1N2	P2N3
P1N1	P2N2	P2N0
P2N3	P0N3	P0N0
P1N3	P2N0	P1N3
P1N2	P2N3	P1N2
P0N2	P1N3	P2N1
P0N3	P1N0	P1N0



Keterangan:

P0 : Kontrol

P1 : Neo Kristalon 35 gram/17L air

P2 : Grandasil D 30 gram/10L air

N0 : Kontrol

N1 : Biochar 3 kg

N2 : Biochar 4 kg

N3 : Biochar 5 kg

Lampiran 2. Tabel 1a. Tinggi tanaman (cm) Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	46.5	75.4	77.5	199.40	66.47
	N1	87	64	45	196.00	65.33
	N2	73.1	64	57.3	194.40	64.80
	N3	54.8	51.4	98	204.20	68.07
Sub Total		261.40	254.80	277.80	794.00	
P1	N0	63.6	74	65.5	203.10	67.70
	N1	71	29	99	199.00	66.33
	N2	62.1	46	63	171.10	57.03
	N3	74	62	123.3	259.30	86.43
Sub Total		270.70	211.00	350.80	832.50	
P2	N0	37.2	83.1	81.4	201.70	67.23
	N1	66.7	53.2	118	237.90	79.30
	N2	52.5	85.7	66.4	204.60	68.20
	N3	69	68	83	220.00	73.33
Sub Total		225.40	290.00	348.80	864.20	
Total		757.50	755.80	977.40	2490.70	69.19

Lampiran 3. Tabel 1b. Transformasi Tinggi Tanaman.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	6.87	8.73	8.85	24.46	8.15
	N1	9.38	8.05	6.76	24.19	8.06
	N2	8.60	8.05	7.62	24.27	8.09
	N3	7.45	7.22	9.95	24.62	8.21
Sub Total		32.30	32.05	33.18	97.53	
P1	N0	8.02	8.65	8.14	24.82	8.27
	N1	8.48	5.44	10.00	23.91	7.97
	N2	7.93	6.83	7.99	22.75	7.58
	N3	8.65	7.92	11.15	27.73	9.24
Sub Total		33.08	28.84	37.28	99.21	
P2	N0	6.15	9.17	9.07	24.39	8.13
	N1	8.22	7.34	10.91	26.47	8.82
	N2	7.30	9.31	8.20	24.80	8.27
	N3	8.36	8.30	9.16	25.81	8.60
Sub Total		30.02	34.11	37.34	101.48	
Total		95.40	95.01	107.81	298.22	8.28

Lampiran 4 Tabel 1c. Sidik Ragam Tinggi Tanaman.

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	2707.37	1353.69	3.14	tn	3.4	5.7
Perlakuan	11	1867.53	169.78	0.39	tn	2.3	3.2
Faktor P	2	205.98	102.99	0.24	tn	3.4	5.7
Faktor N	3	767.74	255.91	0.59	tn	3.0	4.8
V*N	6	893.81	148.97	0.35	tn	2.5	3.8
Galat	22	9479.56	430.89				
Total	35	14054.46					
KK	30%						

Lampiran 5. Tabel 1d. Transformasi Sidik Ragam Tinggi Tanaman.

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	8.83	4.42	2.77	tn	3.4	5.7
Perlakuan	11	6.12	0.56	0.35	tn	2.3	3.2
Faktor P	2	0.65	0.33	0.20	tn	3.4	5.7
Faktor N	3	2.37	0.79	0.50	tn	3.0	4.8
V*N	6	3.10	0.52	0.32	tn	2.5	3.8
Galat	22	35.05	1.59				
Total	35	50.00					
KK	15%						

Lampiran 6. Tabel 2a. Jumlah Daun (helai) Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	19.00	8.00	2.00	29.00	66.47
	N1	36.00	9.00	4.00	49.00	65.33
	N2	41.00	16.00	10.00	67.00	64.80
	N3	8.00	13.00	25.00	46.00	68.07
Sub Total		261.40	104.00	46.00	41.00	191.00
P1	N0	25.00	18.00	11.00	54.00	67.70
	N1	16.00	4.00	34.00	54.00	66.33
	N2	22.00	12.00	15.00	49.00	57.03
	N3	34.00	5.00	30.00	69.00	86.43
Sub Total		270.70	97.00	39.00	90.00	226.00
P2	N0	14.00	89.00	16.00	119.00	67.23
	N1	4.00	4.00	98.00	106.00	79.30
	N2	8.00	37.00	7.00	52.00	68.20
	N3	43.00	14.00	19.00	76.00	73.33
Sub Total		225.40	69.00	144.00	140.00	353.00
Total		757.50	270.00	229.00	271.00	770.00

Lampiran 7. Tabel 2b. Transformasi Jumlah Daun.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	4.41	2.88	1.46	8.75	2.92
	N1	6.05	3.05	2.05	11.15	3.72
	N2	6.45	4.05	3.21	13.72	4.57
	N3	2.88	3.66	5.05	11.58	3.86
Sub Total		32.30	19.79	13.63	11.78	45.20
P1	N0	5.05	4.29	3.37	12.71	4.24
	N1	4.05	2.05	5.88	11.98	3.99
	N2	4.74	3.51	3.92	12.18	4.06
	N3	5.88	2.29	5.53	13.69	4.56
Sub Total		33.08	19.72	12.14	18.70	50.56
P2	N0	3.79	9.48	4.05	17.33	5.78
	N1	2.05	2.05	9.95	14.05	4.68
	N2	2.88	6.13	2.70	11.71	3.90
	N3	6.61	3.79	4.41	14.81	4.94
Sub Total		30.02	15.33	21.46	21.10	57.89
Total		95.40	54.84	47.24	51.58	153.65

Lampiran 8. Tabel 2c. Sidik Ragam Jumlah Daun.

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	95.72	47.86	0.08	tn	3.4	5.7
Perlakuan	11	2436.56	221.51	0.37	tn	2.3	3.2
Faktor P	2	1211.06	605.53	1.02	tn	3.4	5.7
Faktor N	3	107.22	35.74	0.06	tn	3.0	4.8
V*N	6	1118.28	186.38	0.31	tn	2.5	3.8
Galat	22	13044.28	592.92				
Total	35	15576.56					
KK	114%						

Lampiran 9. Tabel 2d. Transformasi Sidik Ragam Jumlah Daun.

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	2.43	1.21	0.24	tn	3.4	5.7
Perlakuan	11	16.85	1.53	0.31	tn	2.3	3.2
Faktor P	2	6.76	3.38	0.68	tn	3.4	5.7
Faktor N	3	0.57	0.19	0.04	tn	3.0	4.8
V*N	6	9.52	1.59	0.32	tn	2.5	3.8
Galat	22	110.18	5.01				
Total	35	129.46					
KK	52%						

Lampiran 10. Tabel 3a. Panjang Daun (cm) Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	17.10	22.60	4.00	43.70	66.47
	N1	15.00	0.00	7.00	22.00	65.33
	N2	24.20	19.60	8.60	52.40	64.80
	N3	16.00	7.10	21.10	44.20	68.07
Sub Total		261.40	72.30	49.30	40.70	162.30
P1	N0	12.00	12.70	17.70	42.40	67.70
	N1	11.50	9.40	18.20	39.10	66.33
	N2	18.30	13.30	13.40	45.00	57.03
	N3	10.50	13.00	24.70	48.20	86.43
Sub Total		270.70	52.30	48.40	74.00	174.70
P2	N0	11.50	23.00	18.50	53.00	67.23
	N1	10.50	5.30	21.00	36.80	79.30
	N2	11.20	23.00	15.00	49.20	68.20
	N3	15.00	25.30	16.00	56.30	73.33
Sub Total		225.40	48.20	76.60	70.50	195.30
Total		757.50	172.80	174.30	185.20	532.30

Lampiran 11. Tabel 3b. Transformasi Panjang daun

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	4.19	4.80	2.05	11.04	8.15
	N1	3.92	0.05	2.70	6.67	8.06
	N2	4.97	4.48	2.98	12.43	8.09
	N3	4.05	2.71	4.64	11.41	8.21
Sub Total		32.30	17.13	12.05	12.37	41.55
P1	N0	3.51	3.61	4.26	11.38	8.27
	N1	3.44	3.12	4.32	10.87	7.97
	N2	4.33	3.70	3.71	11.74	7.58
	N3	3.29	3.66	5.02	11.97	9.24
Sub Total		33.08	14.57	14.08	17.30	45.96
P2	N0	3.44	4.85	4.35	12.64	8.13
	N1	3.29	2.35	4.63	10.28	8.82
	N2	3.40	4.85	3.92	12.17	8.27
	N3	3.92	5.08	4.05	13.05	8.60
Sub Total		30.02	14.05	17.12	16.96	48.13
Total		95.40	45.75	43.25	46.63	135.64

Lampiran 12. Tabel 3c. sidik ragam panjang daun

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	7.63	3.82	0.08	tn	3.4	5.7
Perlakuan	11	303.18	27.56	0.58	tn	2.3	3.2
Faktor P	2	46.31	23.15	0.49	tn	3.4	5.7
Faktor N	3	188.96	62.99	1.33	tn	3.0	4.8
V*N	6	67.91	11.32	0.24	tn	2.5	3.8
Galat	22	1041.57	47.34				
Total	35	1352.38					
KK	47%						

Lampiran 13. Tabel 3d. sidik ragam transformasi Panjang daun

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.51	0.26	0.23	tn	3.4	5.7
Perlakuan	11	10.10	0.92	0.84	tn	2.3	3.2
Faktor P	2	1.88	0.94	0.86	tn	3.4	5.7
Faktor N	3	5.63	1.88	1.71	tn	3.0	4.8
V*N	6	2.59	0.43	0.39	tn	2.5	3.8
Galat	22	24.13	1.10				
Total	35	34.74					
KK	28%						

Lampiran 14. Tabel 4a. lebar daun (cm) Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	5.2	8.9	1.6	15.70	5.23	66.47
	6	0	2.7	8.70	2.90	65.33
	10.2	6.6	3	19.80	6.60	64.80
	8	7	8	23.00	7.67	68.07
Sub Total	29.40	22.50	15.30	67.20		
P1	4.5	5.7	7	17.20	5.73	67.70
	4.8	4	7.6	16.40	5.47	66.33
	5.1	4.4	5.1	14.60	4.87	57.03
	5.2	4.2	8.3	17.70	5.90	86.43
Sub Total	19.60	18.30	28.00	65.90		
P2	4.3	9.7	6.5	20.50	6.83	67.23
	5	3	8.3	16.30	5.43	79.30
	4.5	10.3	7.1	21.90	7.30	68.20
	6	9.3	6.4	21.70	7.23	73.33
Sub Total	19.80	32.30	28.30	80.40		
Total	68.80	73.10	71.60	213.50		5.93

Lampiran 15. Tabel 4b. Transformasi Lebar Daun.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	2.33	3.03	1.31	6.68	8.15
	N1	2.50	0.05	1.69	4.24	8.06
	N2	3.24	2.62	1.78	7.64	8.09
	N3	2.88	2.70	2.88	8.45	8.21
Sub Total	32.30	10.95	8.40	7.67	27.02	
P1	N0	2.17	2.44	2.70	7.30	8.27
	N1	2.24	2.05	2.81	7.10	7.97
	N2	2.31	2.15	2.31	6.76	7.58
	N3	2.33	2.10	2.93	7.36	9.24
Sub Total	33.08	9.05	8.73	10.74	28.53	
P2	N0	2.12	3.16	2.60	7.89	8.13
	N1	2.29	1.78	2.93	7.00	8.82
	N2	2.17	3.26	2.71	8.15	8.27
	N3	2.50	3.10	2.58	8.18	8.60
Sub Total	30.02	9.08	11.31	10.82	31.21	
Total	95.40	29.08	28.44	29.24		86.76

Lampiran 16. Tabel 4c. sidik ragam lebar daun

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.79	0.40	0.06	tn	3.4	5.7
Perlakuan	11	57.46	5.22	0.81	tn	2.3	3.2
Faktor P	2	10.73	5.36	0.83	tn	3.4	5.7
Faktor N	3	25.93	8.64	1.33	tn	3.0	4.8
V*N	6	20.80	3.47	0.53	tn	2.5	3.8
Galat	22	142.68	6.49				
Total	35	200.94					
KK	43%						

Lampiran 17. Tabel 4d. transformasi lebar daun

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.03	0.01	0.04	tn	3.4	5.7
Perlakuan	11	4.46	0.41	1.05	tn	2.3	3.2
Faktor P	2	0.75	0.38	0.97	tn	3.4	5.7
Faktor N	3	1.92	0.64	1.65	tn	3.0	4.8
V*N	6	1.78	0.30	0.77	tn	2.5	3.8
Galat	22	8.52	0.39				
Total	35	13.01					
KK	26%						

Lampiran 18. Tabel 5a, Diameter Batang (mm) Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	15.4	19.6	20.4	55.40	66.47
	N1	20.6	11.4	8.4	40.40	65.33
	N2	30	18.7	13.6	62.30	64.80
	N3	18.9	20.9	29	68.80	68.07
Sub Total		261.40	84.90	70.60	71.40	226.90
P1	N0	17.3	22.3	14.5	54.10	67.70
	N1	23.9	8.6	29.8	62.30	66.33
	N2	29.3	18.8	10.4	58.50	57.03
	N3	16.3	21	27.1	64.40	86.43
Sub Total		270.70	86.80	70.70	81.80	239.30
P2	N0	12.8	25	26.8	64.60	67.23
	N1	16.2	21.6	29.8	67.60	79.30
	N2	10.9	22.5	19.6	53.00	68.20
	N3	21.3	19.4	30.2	70.90	73.33
Sub Total		225.40	61.20	88.50	106.40	256.10
Total		757.50	232.90	229.80	259.60	722.30

Lampiran 19. Tabel 5b. Transformasi Diameter Batang.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	3.97	4.48	4.57	13.02	8.15
	N1	4.59	3.43	2.95	10.96	8.06
	N2	5.53	4.37	3.74	13.64	8.09
	N3	4.40	4.62	5.44	14.45	8.21
Sub Total		32.30	18.49	16.90	16.69	52.08
P1	N0	4.21	4.77	3.86	12.84	8.27
	N1	4.94	2.98	5.51	13.43	7.97
	N2	5.46	4.39	3.27	13.12	7.58
	N3	4.09	4.63	5.26	13.98	9.24
Sub Total		33.08	18.70	16.77	17.90	53.37
P2	N0	3.63	5.05	5.23	13.90	8.13
	N1	4.07	4.70	5.51	14.28	8.82
	N2	3.35	4.79	4.48	12.62	8.27
	N3	4.67	4.45	5.55	14.67	8.60
Sub Total		30.02	15.72	19.00	20.76	55.47
Total		95.40	52.91	52.67	55.34	160.92

Lampiran 20. Tabel 5c. sidik ragam diameter batang

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	44.74	22.37	0.44	tn	3.4	5.7
Perlakuan	11	265.35	24.12	0.48	tn	2.3	3.2
Faktor P	2	35.80	17.90	0.36	tn	3.4	5.7
Faktor N	3	82.98	27.66	0.55	tn	3.0	4.8
V*N	6	146.57	24.43	0.49	tn	2.5	3.8
Galat	22	1106.46	50.29				
Total	35	1416.54					
KK	35%						

Lampiran 21. Tabel 5d. transformasi sidik ragam diameter batang

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.37	0.18	0.27	tn	3.4	5.7
Perlakuan	11	3.74	0.34	0.50	tn	2.3	3.2
Faktor P	2	0.49	0.25	0.36	tn	3.4	5.7
Faktor N	3	1.28	0.43	0.63	tn	3.0	4.8
V*N	6	1.96	0.33	0.48	tn	2.5	3.8
Galat	22	14.91	0.68				
Total	35	19.01					
KK	18%						

Lampiran 22. Tabel 6a. klorofil a Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	181.7	168.3	225.9	575.90	66.47
	N1	155.3	186.1	197.8	539.20	65.33
	N2	174.5	219.2	230.3	624.00	64.80
	N3	209.7	272.1	148.7	630.50	68.07
Sub Total		261.40	721.20	845.70	802.70	2369.60
P1	N0	173.9	179.1	207.6	560.60	67.70
	N1	166.3	163	210.4	539.70	66.33
	N2	173	177.9	190.3	541.20	57.03
	N3	191.5	157.7	166.1	515.30	86.43
Sub Total		270.70	704.70	677.70	774.40	2156.80
P2	N0	139.4	224.9	170.7	535.00	67.23
	N1	208.6	208.4	169.6	586.60	79.30
	N2	191.2	195.1	143.4	529.70	68.20
	N3	193	174.4	186.9	554.30	73.33
Sub Total		225.40	732.20	802.80	670.60	2205.60
Total		757.50	2158.10	2326.20	2247.70	6732.00

Lampiran 23. Tabel 6b. transformasi klorofil a

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	13.53	13.02	15.08	41.63	8.15
	N1	12.51	13.69	14.11	40.32	8.06
	N2	13.26	14.86	15.23	43.34	8.09
	N3	14.53	16.55	12.24	43.32	8.21
Sub Total		32.30	53.83	58.12	56.66	168.61
P1	N0	13.24	13.43	14.46	41.13	8.27
	N1	12.95	12.82	14.56	40.32	7.97
	N2	13.20	13.39	13.84	40.44	7.58
	N3	13.89	12.61	12.94	39.43	9.24
Sub Total		33.08	53.27	52.25	55.80	161.32
P2	N0	11.86	15.05	13.12	40.02	8.13
	N1	14.49	14.49	13.07	42.05	8.82
	N2	13.88	14.02	12.02	39.92	8.27
	N3	13.94	13.26	13.72	40.92	8.60
Sub Total		30.02	54.17	56.81	51.93	162.91
Total		95.40	161.28	167.17	164.39	492.84

Lampiran 24. Tabel 6c. sidik ragam klorofil a

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	1179.11	589.56	0.64	tn	3.4	5.7
Perlakuan	11	4928.94	448.09	0.48	tn	2.3	3.2
Faktor P	2	2071.15	1035.5	1.12	tn	3.4	5.7
Faktor N	3	96.95	32.32	0.03	tn	3.0	4.8
V*N	6	2760.85	460.14	0.50	tn	2.5	3.8
Galat	22	20387.2	926.69				
		5					
Total	35	26495.3					
		0					
KK	16%						

Lampiran 25. Tabel 6d. transformasi sidik ragam klorofil a

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	1.45	0.72	0.60	tn	3.4	5.7
Perlakuan	11	6.06	0.55	0.45	tn	2.3	3.2
Faktor P	2	2.45	1.23	1.01	tn	3.4	5.7
Faktor N	3	0.10	0.03	0.03	tn	3.0	4.8
V*N	6	3.50	0.58	0.48	tn	2.5	3.8
Galat	22	26.73	1.22				
Total	35	34.24					
KK	8%						

Lampiran 26. Tabel 7a. klorofil b Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	76.2	72.4	91.3	239.90	66.47
	N1	69	77.5	81.3	227.80	65.33
	N2	74.1	88.8	93	255.90	64.80
	N3	85.3	111.7	67.4	264.40	68.07
Sub Total		261.40	304.60	350.40	333.00	988.00
P1	N0	74	75.5	84.6	234.10	67.70
	N1	71.8	71	85.6	228.40	66.33
	N2	73.7	75.1	78.9	227.70	57.03
	N3	79.2	69.6	71.8	220.60	86.43
Sub Total		270.70	298.70	291.20	320.90	910.80
P2	N0	65.2	90.9	73.1	229.20	67.23
	N1	84.9	84.9	72.7	242.50	79.30
	N2	79.1	80.4	66.1	225.60	68.20
	N3	79.7	74.1	77.8	231.60	73.33
Sub Total		225.40	308.90	330.30	289.70	928.90
Total		757.50	912.20	971.90	943.60	2827.70

Lampiran 27. Tabel 7b. Transformasi klorofil b

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	8.78	8.56	9.61	26.94	8.15
	N1	8.36	8.85	9.07	26.28	8.06
	N2	8.66	9.47	9.69	27.83	8.09
	N3	9.29	10.62	8.26	28.16	8.21
Sub Total		32.30	35.08	37.50	36.63	109.21
P1	N0	8.65	8.74	9.25	26.64	8.27
	N1	8.52	8.48	9.30	26.30	7.97
	N2	8.63	8.72	8.93	26.28	7.58
	N3	8.95	8.39	8.52	25.87	9.24
Sub Total		33.08	34.76	34.32	36.01	105.09
P2	N0	8.12	9.58	8.60	26.31	8.13
	N1	9.26	9.26	8.58	27.10	8.82
	N2	8.94	9.02	8.18	26.14	8.27
	N3	8.98	8.66	8.87	26.51	8.60
Sub Total		30.02	35.31	36.52	34.23	106.06
Total		95.40	105.15	108.35	106.86	320.36

Lampiran 28. Tabel 7c. sidik ragam klorofil b

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	148.64	74.32	0.75	tn	3.4	5.7
Perlakuan	11	622.30	56.57	0.57	tn	2.3	3.2
Faktor P	2	271.67	135.84	1.37	tn	3.4	5.7
Faktor N	3	20.03	6.68	0.07	tn	3.0	4.8
V*N	6	330.59	55.10	0.56	tn	2.5	3.8
Galat	22	2173.55	98.80				
Total	35	2944.49					
KK	13%						

Lampiran 29. Tabel 7d. transformasi sidik ragam klorofil b

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.43	0.21	0.71	tn	3.4	5.7
Perlakuan	11	1.78	0.16	0.54	tn	2.3	3.2
Faktor P	2	0.77	0.39	1.29	tn	3.4	5.7
Faktor N	3	0.05	0.02	0.05	tn	3.0	4.8
V*N	6	0.96	0.16	0.53	tn	2.5	3.8
Galat	22	6.60	0.30				
Total	35	8.81					
KK	6%						

Lampiran 30. Tabel 8a. klorofil total Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	263.8	245.9	324.6	834.30	278.10
	N1	228.6	269.8	285.7	784.10	261.37
	N2	254.2	315.2	330.7	900.10	300.03
	N3	302.1	390.1	220	912.20	304.07
Sub Total	261.40	1048.70	1221.00	1161.00	3430.70	
P1	N0	253.4	260.4	299.2	813.00	271.00
	N1	243.2	238.8	303	785.00	261.67
	N2	252.1	258.8	275.6	786.50	262.17
	N3	277.1	231.9	242.9	751.90	250.63
Sub Total	270.70	1025.80	989.90	1120.70	3136.40	
P2	N0	207.9	323.2	249.1	780.20	260.07
	N1	300.5	300.3	247.6	848.40	282.80
	N2	276.7	282.1	213	771.80	257.27
	N3	279.2	254	270	803.20	267.73
Sub Total	225.40	1064.30	1159.60	979.70	3203.60	
Total	757.50	3138.80	3370.50	3261.40	9770.70	

Lampiran 31. Tabel 8b. transformasi klorofil total

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	16.29	15.73	18.07	50.09	16.70
	N1	15.17	16.48	16.95	48.60	16.20
	N2	15.99	17.80	18.24	52.03	17.34
	N3	17.43	19.80	14.88	52.11	17.37
Sub Total	32.30	64.89	69.81	68.14	202.83	
P1	N0	15.97	16.19	17.35	49.50	16.50
	N1	15.64	15.50	17.46	48.60	16.20
	N2	15.93	16.14	16.65	48.72	16.24
	N3	16.70	15.28	15.64	47.61	15.87
Sub Total	33.08	64.24	63.11	67.09	194.43	
P2	N0	14.47	18.03	15.83	48.33	16.11
	N1	17.38	17.38	15.79	50.55	16.85
	N2	16.68	16.85	14.64	48.17	16.06
	N3	16.76	15.99	16.48	49.23	16.41
Sub Total	30.02	65.30	68.24	62.74	196.28	
Total	95.40	194.42	201.16	197.97	593.55	

Lampiran 32. Tabel 8c. sidik ragam klorofil total

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	2239.40	1119.70	0.65	tn	3.4	5.7
Perlakuan	11	9346.63	849.69	0.49	tn	2.3	3.2
Faktor P	2	3963.96	1981.98	1.15	tn	3.4	5.7
Faktor N	3	190.86	63.62	0.04	tn	3.0	4.8
V*N	6	5191.80	865.30	0.50	tn	2.5	3.8
Galat	22	37804.24	1718.37				
Total	35	49390.27					
KK	15%						

Lampiran 33. Tabel 8d. transformasi sidik ragam klorofil total

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	1.89	0.95	0.61	tn	3.4	5.7
Perlakuan	11	7.89	0.72	0.46	tn	2.3	3.2
Faktor P	2	3.25	1.62	1.05	tn	3.4	5.7
Faktor N	3	0.14	0.05	0.03	tn	3.0	4.8
V*N	6	4.51	0.75	0.49	tn	2.5	3.8
Galat	22	34.02	1.55				
Total	35	43.80					
KK	8%						

Lampiran 34. Tabel 9a. luas bukaan stomata Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	109.90	100.48	75.36	285.74	95.25
	N1	141.30	100.48	109.90	351.68	117.23
	N2	100.48	125.60	125.60	351.68	117.23
	N3	100.48	113.04	141.30	354.82	118.27
Sub Total		261.40	452.16	439.60	452.16	1343.92
P1	N0	125.60	109.90	100.48	335.98	111.99
	N1	125.60	125.60	100.48	351.68	117.23
	N2	87.92	100.48	141.30	329.70	109.90
	N3	113.04	141.30	113.04	367.38	122.46
Sub Total		270.70	452.16	477.28	455.30	1384.74
P2	N0	75.36	125.60	87.92	288.88	96.29
	N1	75.36	141.30	113.04	329.70	109.90
	N2	141.30	100.48	141.30	383.08	127.69
	N3	157.00	141.30	141.30	439.60	146.53
Sub Total		225.40	449.02	508.68	483.56	1441.26
Total		757.50	1353.34	1425.56	1391.02	4169.92

Lampiran 35. Tabel 9b. Transformasi luas bukaan stomata

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	10.53	10.07	8.73	29.34	9.78
	N1	11.94	10.07	10.53	32.54	10.85
	N2	10.07	11.26	11.26	32.59	10.86
	N3	10.07	10.68	11.94	32.69	10.90
Sub Total		32.30	42.62	42.09	42.46	127.16
P1	N0	11.26	10.53	10.07	31.86	10.62
	N1	11.26	11.26	10.07	32.59	10.86
	N2	9.43	10.07	11.94	31.44	10.48
	N3	10.68	11.94	10.68	33.30	11.10
Sub Total		33.08	42.62	43.80	42.77	129.19
P2	N0	8.73	11.26	9.43	29.41	9.80
	N1	8.73	11.94	10.68	31.35	10.45
	N2	11.94	10.07	11.94	33.95	11.32
	N3	12.58	11.94	11.94	36.45	12.15
Sub Total		30.02	41.98	45.21	43.98	131.17
Total		95.40	127.22	131.09	129.21	387.52

Lampiran 36. Tabel 9c. sidik ragam luas bukaan stomata

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	217.46	108.73	0.23	tn	3.4	5.7
Perlakuan	11	6088.85	553.53	1.18	tn	2.3	3.2
Faktor P	2	398.22	199.11	0.43	tn	3.4	5.7
Faktor N	3	3577.94	1192.6 5	2.55	tn	3.0	4.8
V*N	6	2112.69	352.12	0.75	tn	2.5	3.8
Galat	22	10292.8 7	467.86				
Total	35	16599.1 8					
KK	19%						

Lampiran 37. Tabel 9d. Transformasi sidik ragam luas bukaan stomata

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	0.63	0.31	0.30	tn	3.4	5.7
Perlakuan	11	13.43	1.22	1.16	tn	2.3	3.2
Faktor P	2	0.67	0.33	0.32	tn	3.4	5.7
Faktor N	3	7.95	2.65	2.53	tn	3.0	4.8
V*N	6	4.81	0.80	0.76	tn	2.5	3.8
Galat	22	23.06	1.05				
Total	35	37.11					
KK	10%						

Lampiran 38. Tabel 10a. luas kerapatan stomata Pengaruh Pupuk Daun dan Aplikasi Biochar Terhadap Pertumbuhan Kakao.

Perlakuan	Ulangan			Total	Rata-rata	
	I	II	III			
P0	N0	361.78	356.69	351.59	1070.06	95.25
	N1	346.50	351.59	356.69	1054.78	117.23
	N2	351.59	366.88	382.17	1100.64	117.23
	N3	366.88	366.88	397.45	1131.21	118.27
Sub Total	261.40	1426.75	1442.04	1487.90	4356.69	
P1	N0	310.83	346.50	356.69	1014.01	111.99
	N1	346.50	356.69	371.97	1075.16	117.23
	N2	377.07	382.17	346.50	1105.73	109.90
	N3	392.36	397.45	377.07	1166.88	122.46
Sub Total	270.70	1426.75	1482.80	1452.23	4361.78	
P2	N0	336.31	351.59	361.78	1049.68	96.29
	N1	351.59	366.88	407.64	1126.11	109.90
	N2	387.26	392.36	402.55	1182.17	127.69
	N3	392.36	412.74	428.03	1233.12	146.53
Sub Total	225.40	1467.52	1523.57	1600.00	4591.08	
Total	757.50	4321.02	4448.41	4540.13	13309.55	

Lampiran 39. Tabel 10b. transformasi sidik ragam kerapatan stomata

SK	db	JK	KT	Fhit		Ftabel	
						0.05	0.01
Kelompok	2	2018.02	1009.0 1	5.04	*	3.4	5.7
Perlakuan	11	14372.8 2	1306.6 2	6.53	**	2.3	3.2
Faktor P	2	2987.36	1493.6 8	7.46	**	3.4	5.7
Faktor N	3	9762.67	3254.2 2	16.26	**	3.0	4.8
V*N Galat	6	1622.78	270.46	1.35	tn	2.5	3.8
Total	35	20794.7 1					
KK	4%						

Lampiran 40. Tabel 10c. uji lanjut kerapatan stomata

Perlakuan Pupuk Daun	Biochar Tongkol Jagung				Rata- rata	NP BNJ
	N0	N1	N2	N3		
P0	1070.06	1054.78	1100.64	1131.21	1089.17	
P1	1014.01	1075.16	1105.73	1166.88	1090.45	32.1
P2	1049.68	1126.11	1182.17	1233.12	1147.77	
Rata-rata	1049.68	1126.11	1182.17	1233.12	1109.13	



Lampiran 41. Gambar 2. Pembukaan Lahan



Lampiran 42. Gambar 3. Pengambilan tongkol jagung di Gudang



Lampiran 43. Gambar 4. Pembakaran Biochar



Lampiran 44. Gambar 5. Penjemuran Biochar



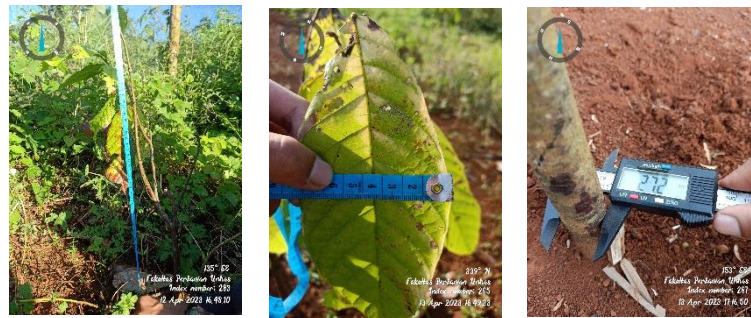
Lampiran 45. Gambar 6. Persiapan Pupuk Daun



Lampiran 46. gambar 7. Pengaplikasian Pupuk Daun



Lampiran 47. gambar 8. Pengaplikasian Biochar



Lampiran 48. Gambar 9. Pengamatan I



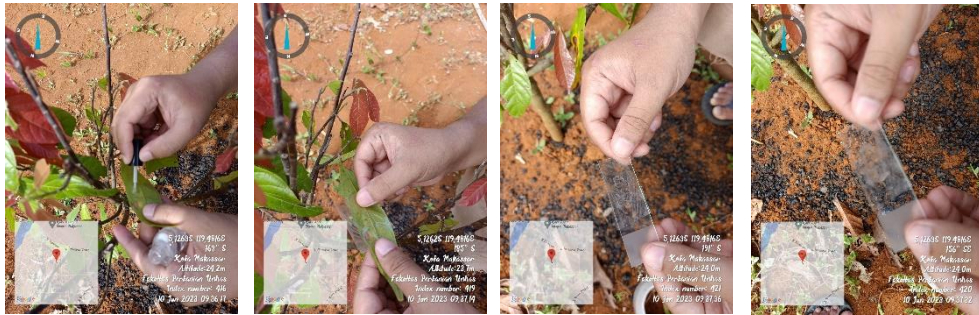
Lampiran 49. gambar 10. Pengamatan II



Lampiran 50. gambar 11. Pengamatan III



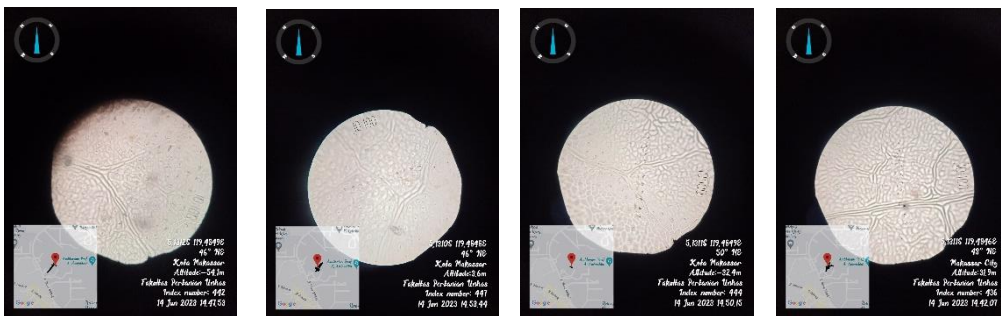
Lampiran 51. gambar 12. Pengamatan IV



Lampiran 52. gambar 13. Pengambilan Sampel Stomata



Lampiran 53. gambar 14. Pengamatan CCM



Lampiran 54. gambar 15. Hasil Pengamatan Stomata