

BAB V

KESIMPULAN DAN SARAN

5.1 Kesimpulan

1. Jarak tanam tertentu yang dilakukan pada tanaman kacang tanah tidak mempengaruhi tinggi tanaman, jumlah daun, jumlah polong pertanaman, dan bobot 100 biji kering.
2. Mulsa organik tertentu yang dilakukan pada tanaman kacang tanah tidak mempengaruhi tinggi tanaman, jumlah daun, jumlah polong pertanaman, dan bobot 100 biji kering.
3. Perlakuan jarak tanam dan mulsa organik tertentu dalam penelitian ini tidak memberikan pengaruh terbaik terhadap tinggi tanaman, jumlah daun, jumlah polong pertanaman, bobot 100 biji kering pada tanaman kacang tanah.

5.2 Saran

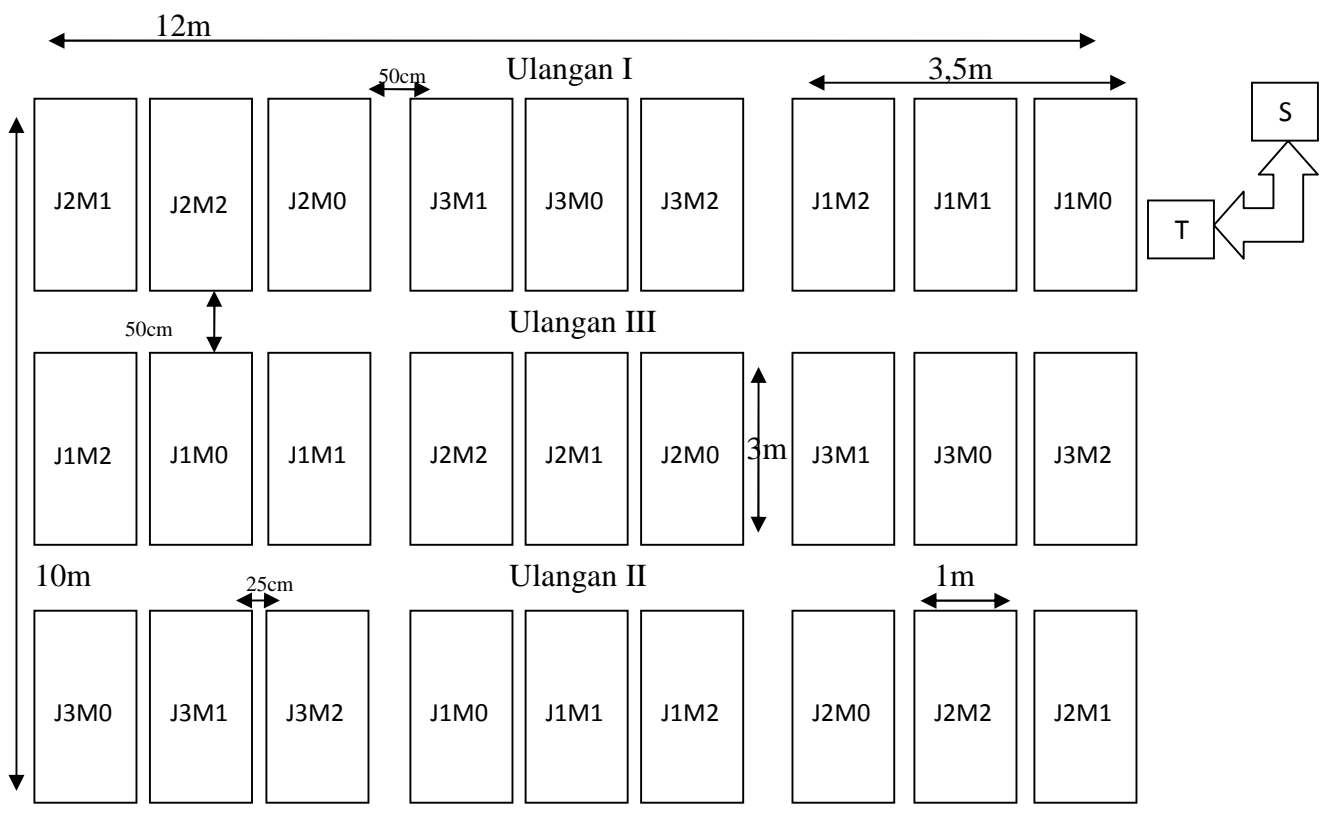
Dari hasil penelitian ini perlu dilakukan penelitian lebih lanjut tentang kombinasi jarak tanam dan mulsa organik lainnya, agar lebih tepat untuk tanaman kacang tanah guna untuk peningkatan produktivitas tanaman kacang tanah.

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Lampiran 1. Lay Out Penelitian



Lampiran 3.a. Analisis Sidik Ragam Tinggi Tanaman 2 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	8.40	6.25	6.67	21.32	7.11
	M1	9.00	8.00	7.50	24.50	8.17
	M2	5.67	8.00	8.00	21.67	7.22
	TPU	23.07	22.25	22.17	67.48	7.50
J2	M0	8.00	7.83	7.75	23.58	7.86
	M1	8.00	6.25	8.00	22.25	7.42
	M2	7.90	6.40	8.00	22.30	7.43
	TPU	23.90	20.48	23.75	68.13	7.57
J3	M1	8.00	7.60	7.60	23.20	7.73
	M2	8.00	7.25	7.80	23.05	7.68
	M3	8.00	7.00	7.20	22.20	7.40
	TPU	24.00	21.85	22.60	68.45	7.61
		70.97	64.58	68.52	204.07	7.56
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{204.07^2}{3 \times 3 \times 3} \\
 \text{FK} &= 1542,34 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (8.40^2 + 6.25^2 + \dots + 7.20^2) - 1542,34 \\
 \text{JK total} &= 14,71 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(23.07^2) + (22.25^2) + \dots + (22.60^2)}{3} - 1542,34 \\
 \text{JK petak utama (JKPU)} &= 3,50 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(70.97^2) + (64.58^2) + (68.52^2)}{3 \times 3} - 1542,34 \\
 \text{JK kelompok (JKK)} &= 2,30
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\mathbf{TA^2}}{\mathbf{Ulangan \times AP}} - \text{FK} \\ &= \frac{(67.48^2)+(68.13^2)+(68.45^2)}{3 \times 3} - 1542,34 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 0,05 \\ \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 3,50 - 2,30 - 0,05 \\ \text{JK Galat (A)} &= 1,14 \end{aligned}$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	21.32	23.58	23.20	68.10	22.70
J2	24.50	22.25	23.05	69.80	23.27
J3	21.67	22.30	22.20	66.17	22.06
Total B	67.48	68.13	68.45	204.07	-
Rata B	22.49	22.71	22.82	-	22.67

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\mathbf{Total AB^2}}{\mathbf{Ulangan}} - \text{FK} \\ &= \frac{(21.32^2)+(24.50^2)+\dots+(22.20^2)}{3} - 1542,34 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 2,66$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\mathbf{TB^2}}{\mathbf{Ulangan \times PU}} - \text{FK} \\ &= \frac{(67.48^2)+(68.13^2)+(68.45^2)}{3 \times 3} - 1542,34 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 0,73$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 2,66 - 0,05 - 0,73 \\ &= 1,87 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 14,71 - 3,50 - 0,73 - 1,87 \\ &= 12,05 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	3.50	0.44	1.53	6,04
Kelompok	2	2.30	1.15	4.04	6,94
Jarak tanam	2	0.05	0.03	0.09	6,94
Galat (A)	4	1.14	0.28		
Mulsa	2	0.73	0.37	0.37	3,88
Interaksi	4	1.87	0.47	0.47	3,26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 13,26 %

Lampiran 3.b. Analisis Sidik Ragam Tinggi Tanaman 4 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	20.17	20.67	23.83	64.67	21.56
	M1	19.00	18.00	21.60	58.60	19.53
	M2	16.25	22.17	21.17	59.58	19.86
	TPU	55.42	60.83	66.60	182.85	20.32
J2	M0	19.40	21.00	20.00	60.40	20.13
	M1	23.20	14.80	22.20	60.20	20.07
	M2	20.40	20.20	21.20	61.80	20.60
	TPU	63.00	56.00	63.40	182.40	20.27
J3	M1	20.00	18.00	21.80	59.80	19.93
	M2	20.40	20.00	23.40	63.80	21.27
	M3	20.80	18.20	19.40	58.40	19.47
	TPU	61.20	56.20	64.60	182.00	20.22
		179.62	173.03	194.60	547.25	20.27
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{547.25^2}{3 \times 3 \times 3} \\
 \text{FK} &= 11091.95 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (20.17^2 + 20.67^2 + \dots + 19.40^2) - 11091.95 \\
 \text{JK total} &= 109.22 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(55.42^2) + (60.83^2) + \dots + (64.60^2)}{3} - 11091.95 \\
 \text{JK petak utama (JKPU)} &= 44.34 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(179.62^2) + (173.03^2) + (194.60^2)}{3 \times 3} - 11091.95 \\
 \text{JK kelompok (JKK)} &= 27.15 \\
 \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK}
 \end{aligned}$$

$$= \frac{(182.85^2)+(182.40^2)+(182.00^2)}{3 \times 3} - 11091.95$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 0.04 \\ \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 44.34 - 27.15 - 0.04 \\ \text{JK Galat (A)} &= 17.15 \end{aligned}$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	64.67	60.40	59.80	184.87	61.62
J2	58.60	60.20	63.80	182.60	60.87
J3	59.58	61.80	58.40	179.78	59.93
Total B	182.85	182.40	182.00	547.25	-
Rata B	60.95	60.80	60.67	-	60.81

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(64.67^2)+(58.60^2)+\dots+(58.40^2)}{3} - 11091.95 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 12.85$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(182.85^2)+(182.40^2)+(182.00^2)}{3 \times 3} - 11091.95 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 1.44$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 12.85 - 0.04 - 1.44 \\ &= 11.37 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 109.22 - 44.34 - 1.44 - 11.37 \\ &= 96.37 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	3.50	0.44	1.53	6,04
Kelompok	2	2.30	1.15	4.04	6,94
Jarak tanam	2	0.05	0.03	0.09	6,94
Galat (A)	4	1.14	0.28		
Mulsa	2	0.73	0.37	0.37	3,88
Interaksi	4	1.87	0.47	0.47	3,26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 13,98 %

Lampiran 3.c . Analisis Sidik Ragam Tinggi Tanaman 6 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	35.75	36.33	40.20	112.28	37.43
	M1	31.00	31.50	36.80	99.30	33.10
	M2	30.33	35.50	34.20	100.03	33.34
	TPU	97.08	103.33	111.20	311.62	34.62
J2	M0	34.40	34.00	32.33	100.73	33.58
	M1	34.00	24.00	33.25	91.25	30.42
	M2	33.00	32.60	34.40	100.00	33.33
	TPU	101.40	90.60	99.98	291.98	32.44
J3	M1	34.25	33.60	31.00	98.85	32.95
	M2	34.50	34.40	28.00	96.90	32.30
	M3	34.60	32.00	28.50	95.10	31.70
	TPU	103.35	100.00	87.50	290.85	32.32
		301.83	293.93	298.68	894.45	33.13
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{894.45^2}{3 \times 3 \times 3} \\
 \text{FK} &= 29631.14 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (35.75^2 + 36.33^2 + \dots + 87.50^2) - 29631.14 \\
 \text{JK total} &= 252.09 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(97.08^2) + (103.33^2) + \dots + (87.50^2)}{3} - 29631.14 \\
 \text{JK petak utama (JKPU)} &= 133.14 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(301.83^2) + (293.93^2) + (293.93^2)}{3 \times 3} - 29631.14 \\
 \text{JK kelompok (JKK)} &= 3.51
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\mathbf{TA^2}}{\mathbf{Ulangan \times AP}} - \text{FK} \\ &= \frac{(311.62^2) + (291.98^2) + (290.85^2)}{3 \times 3} - 29631.14 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 30.30$$

$$\text{JK Galat (A)} = \text{JKPU} - \text{JKK} - \text{JK (A)}$$

$$= 133.14 - 3.51 - 30.30$$

$$\text{JK Galat (A)} = 99.33$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	112.28	100.73	98.85	311.87	103.96
J2	99.30	91.25	96.90	287.45	95.82
J3	100.03	100.00	95.10	295.13	98.38
Total B	311.62	291.98	290.85	894.45	-
Rata B	103.87	97.33	96.95	-	99.38

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\mathbf{Total AB^2}}{\mathbf{Ulangan}} - \text{FK} \\ &= \frac{(112.28^2) + (99.30^2) + \dots + (95.10^2)}{3} - 29631.14 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 86.66$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\mathbf{TB^2}}{\mathbf{Ulangan \times PU}} - \text{FK} \\ &= \frac{(311.62^2) + (291.98^2) + (290.85^2)}{3 \times 3} - 29631.14 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 34.64$$

$$\text{JK interaksi AB (JKI)} = \text{JKKP} - \text{JK (A)} - \text{JK (B)}$$

$$= 86.66 - 30.30 - 34.64$$

$$= 21.73$$

$$\text{JK Galat (B)} = \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI}$$

$$= 252.09 - 133.14 - 34.64 - 21.73$$

$$= 165.43$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	133.14	16.64	0.67	6.04
Kelompok	2	3.51	1.76	0.07	6.94
Jarak tanam	2	30.30	15.15	0.61	6.94
Galat (A)	4	99.33	24.83		
Mulsa	2	34.64	17.32	1.26	3.88
Interaksi	4	21.73	5.43	0.39	3.26
Galat (B)	12	165.43	13.79		
Total	26				

Koefisien Keragaman = 11,21 %

Lampiran 3.d. Analisis Sidik Ragam Tinggi Tanaman 8 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	47.00	47.00	51.50	145.50	48.50
	M1	43.33	42.17	50.50	136.00	45.33
	M2	42.83	47.50	47.50	137.83	45.94
	TPU	133.17	136.67	149.50	419.33	46.59
J2	M0	45.80	46.80	42.40	135.00	45.00
	M1	45.20	36.40	45.00	126.60	42.20
	M2	45.60	44.40	46.20	136.20	45.40
	TPU	136.60	127.60	133.60	397.80	44.20
J3	M1	45.40	45.00	42.40	132.80	44.27
	M2	44.20	45.20	38.40	127.80	42.60
	M3	45.80	41.80	41.40	129.00	43.00
	TPU	135.40	132.00	122.20	389.60	43.29
		405.17	396.27	405.30	1206.73	44.69
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{1206.73^2}{3 \times 3 \times 3} \\
 \text{FK} &= 53933.53 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (47.00^2 + 47.00^2 + \dots + 41.40^2) - 53933.53 \\
 \text{JK total} &= 267.77 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{133.17^2 + (136.67^2) + \dots + (122.20^2)}{3} - 53933.53 \\
 \text{JK petak utama (JKPU)} &= 147.03 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(405.17^2) + (396.27^2) + (405.30^2)}{3 \times 3} - 53933.53 \\
 \text{JK kelompok (JKK)} &= 5.96
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{TA^2}{\text{Ulangan} \times AP} - FK \\ &= \frac{(419.33^2) + (397.80^2) + (389.60^2)}{3 \times 3} - 53933.53 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 52.41 \\ \text{JK Galat (A)} &= \text{JKPU} - 5.96 - \text{JK (A)} \\ &= 147.03 - 2.30 - 52.41 \\ \text{JK Galat (A)} &= 88.66 \end{aligned}$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	145.50	135.00	132.80	413.30	137.77
J2	136.00	126.60	127.80	390.40	130.13
J3	137.83	136.20	129.00	403.03	134.34
Total B	419.33	397.80	389.60	1206.73	-
Rata B	139.78	132.60	129.87	-	134.08

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - FK \\ &= \frac{(145.50^2) + (136.00^2) + \dots + (129.00^2)}{3} - 53933.53 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 92.12$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{TB^2}{\text{Ulangan} \times PU} - FK \\ &= \frac{(419.33^2) + (397.80^2) + (389.60^2)}{3 \times 3} - 53933.53 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 29.24$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 92.12 - 52.41 - 29.24 \\ &= 10.48 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 267.77 - 147.03 - 29.24 - 10.48 \\ &= 175.65 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	3.50	0.44	1.53	6,04
Kelompok	2	2.30	1.15	4.04	6,94
Jarak tanam	2	0.05	0.03	0.09	6,94
Galat (A)	4	1.14	0.28		
Mulsa	2	0.73	0.37	0.37	3,88
Interaksi	4	1.87	0.47	0.47	3,26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 8.56 %

Lampiran 3.e . Analisis Sidik Ragam Tinggi Tanaman Saat Panen

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	51.83	51.00	56.83	159.67	53.22
	M1	48.33	47.83	55.83	152.00	50.67
	M2	47.83	53.17	52.67	153.67	51.22
	TPU	148.00	152.00	165.33	465.33	51.70
J2	M0	51.00	52.20	48.00	151.20	50.40
	M1	51.40	42.20	50.80	144.40	48.13
	M2	51.40	50.40	51.80	153.60	51.20
	TPU	153.80	144.80	150.60	449.20	49.91
J3	M1	50.40	50.40	47.80	148.60	49.53
	M2	49.80	50.40	45.40	145.60	48.53
	M3	51.00	47.80	47.40	146.20	48.73
	TPU	151.20	148.60	140.60	440.40	48.93
		453.00	445.40	456.53	1354.93	50.18
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{1354.93^2}{3 \times 3 \times 3} \\
 \text{FK} &= 67994.23 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (51.83^2 + 51.00^2 + \dots + 47.40^2) - 67994.23 \\
 \text{JK total} &= 231.25 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(148.00^2) + (152.00^2) + \dots + (140.60^2)}{3} - 67994.23 \\
 \text{JK petak utama (JKPU)} &= 124.67 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(453.00^2) + (445.40^2) + (456.53^2)}{3 \times 3} - 67994.23 \\
 \text{JK kelompok (JKK)} &= 7.19
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK} \\ &= \frac{(465.33^2) + (449.20^2) + (440.40^2)}{3 \times 3} - 67994.23 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 35.53 \\ \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 124.67 - 7.19 - 35.53 \\ \text{JK Galat (A)} &= 81.94 \end{aligned}$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	159.67	151.20	148.60	459.47	153.16
J2	152.00	144.40	145.60	442.00	147.33
J3	153.67	153.60	146.20	453.47	151.16
Total B	465.33	449.20	440.40	1354.93	-
Rata B	155.11	149.73	146.80	-	150.55

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(159.67^2) + (152.00^2) + \dots + (146.20^2)}{3} - 67994.23 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 63.23$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(465.33^2) + (449.20^2) + (440.40^2)}{3 \times 3} - 67994.23 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 17.50$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 63.23 - 35.53 - 17.50 \\ &= 10.20 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 231.25 - 124.67 - 17.50 - 10.20 \\ &= 168.01 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	124.67	15.58	0.76	6.04
Kelompok	2	7.19	3.60	0.18	6.94
Jarak tanam	2	35.53	17.77	0.87	6.94
Galat (A)	4	81.94	20.49		
Mulsa	2	17.50	8.75	0.63	3.88
Interaksi	4	10.20	2.55	0.18	3.26
Galat (B)	12	168.01	14.00		
Total	26				

Koefisien Keragaman = 7.46 %

Lampiran 4.a. Analisis Sidik Ragam Jumlah Daun 2 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	21.50	17.33	19.83	58.67	19.56
	M1	15.50	12.67	20.33	48.50	16.17
	M2	16.83	22.50	18.17	57.50	19.17
	TPU	53.83	52.50	58.33	164.67	18.30
J2	M0	21.00	18.40	44.00	83.40	27.80
	M1	21.80	14.00	17.00	52.80	17.60
	M2	17.20	19.60	21.00	57.80	19.27
	TPU	60.00	52.00	82.00	194.00	21.56
J3	M1	23.00	16.80	17.80	57.60	19.20
	M2	19.20	15.40	11.00	45.60	15.20
	M3	21.00	17.60	13.80	52.40	17.47
	TPU	63.20	49.80	42.60	155.60	17.29
		177.03	154.30	182.93	514.27	19.05
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{514.27^2}{3 \times 3 \times 3} \\
 \text{FK} &= 9795.19 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (21.50^2 + 17.33^2 + \dots + 13.80^2) - 9795.19 \\
 \text{JK total} &= 887.52 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(53.83^2) + (52.50^2) + \dots + (42.60^2)}{3} - 9795.19 \\
 \text{JK petak utama (JKPU)} &= 329.51 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(177.03^2) + (154.30^2) + (182.93^2)}{3 \times 3} - 9795.19 \\
 \text{JK kelompok (JKK)} &= 50.80
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\mathbf{TA^2}}{\mathbf{Ulangan \times AP}} - \text{FK} \\ &= \frac{\mathbf{(164.67^2)+(21.56^2)+(17.29^2)}}{\mathbf{3 \times 3}} - 9795.19 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 89.53$$

$$\text{JK Galat (A)} = \text{JKPU} - \text{JKK} - \text{JK (A)}$$

$$= 329.51 - 50.80 - 89.53$$

$$\text{JK Galat (A)} = 189.18$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	58.67	83.40	57.60	199.67	66.56
J2	48.50	52.80	45.60	146.90	48.97
J3	57.50	57.80	52.40	167.70	55.90
Total B	164.67	194.00	155.60	514.27	-
Rata B	54.89	64.67	51.87	-	57.14

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\mathbf{Total AB^2}}{\mathbf{Ulangan}} - \text{FK} \\ &= \frac{\mathbf{(58.67^2)+(48.50^2)+\dots+(52.40^2)}}{\mathbf{3}} - 9795.19 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 313.94$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\mathbf{TB^2}}{\mathbf{Ulangan \times PU}} - \text{FK} \\ &= \frac{\mathbf{(164.67^2)+(194.00^2)+(155.60^2)}}{\mathbf{3 \times 3}} - 9795.19 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 156.99$$

$$\text{JK interaksi AB (JKI)} = \text{JKKP} - \text{JK (A)} - \text{JK (B)}$$

$$= 313.94 - 89.53 - 156.99$$

$$= 67.42$$

$$\text{JK Galat (B)} = \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI}$$

$$= 887.52 - 329.51 - 156.99 - 67.42$$

$$= 573.58$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	329.51	41.19	0.87	6.04
Kelompok	2	50.80	25.40	0.54	6.94
Jarak tanam	2	89.53	44.76	0.95	6.94
Galat (A)	4	189.18	47.30		
Mulsa	2	156.99	78.50	1.64	3.88
Interaksi	4	67.42	16.85	0.35	3.26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 36.30 %

Lampiran 4.b . Analisis Sidik Ragam Jumlah daun 4 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	48.67	37.17	45.67	131.50	43.83
	M1	45.50	33.17	43.17	121.83	40.61
	M2	38.17	55.00	42.67	135.83	45.28
	TPU	132.33	125.33	131.50	389.17	43.24
J2	M0	44.00	32.40	55.00	131.40	43.80
	M1	54.00	32.40	41.20	127.60	42.53
	M2	42.00	42.80	50.60	135.40	45.13
	TPU	140.00	107.60	146.80	394.40	43.82
J3	M1	54.00	35.00	21.00	110.00	36.67
	M2	44.80	34.20	27.00	106.00	35.33
	M3	51.40	41.40	13.00	105.80	35.27
	TPU	150.20	110.60	61.00	321.80	35.76
		422.53	343.53	339.30	1105.37	40.94
TK		TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{1105.37^2}{3 \times 3 \times 3} \\
 \text{FK} &= 45253.17 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (48.67^2 + 37.17^2 + \dots + 13.00^2) - 45253.17 \\
 \text{JK total} &= 2760.62 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(132.33^2) + (125.33^2) + \dots + (61.00^2)}{3} - 45253.17 \\
 \text{JK petak utama (JKPU)} &= 1998.24 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(422.53^2) + (343.53^2) + (339.30)}{3 \times 3} - 45253.17 \\
 \text{JK kelompok (JKK)} &= 488.40
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan x AP}} - \text{FK} \\ &= \frac{(389.17^2) + (394.40^2) + (321.80^2)}{3 \times 3} - 45253.17 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 364.31$$

$$\begin{aligned} \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 1998.24 - 488.40 - 364.31 \end{aligned}$$

$$\text{JK Galat (A)} = 1145.53$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	131.50	131.40	110.00	372.90	124.30
J2	121.83	127.60	106.00	355.43	118.48
J3	135.83	135.40	105.80	377.03	125.68
Total B	389.17	394.40	321.80	1105.37	-
Rata B	129.72	131.47	107.27	-	122.82

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(131.50^2) + (121.83^2) + \dots + (105.80^2)}{3} - 45253.17 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 412.44$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan x PU}} - \text{FK} \\ &= \frac{(389.17^2) + (394.40^2) + (321.80^2)}{3 \times 3} - 45253.17 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 29.21$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 2,66 - 0,05 - 0,73 \\ &= 18.92 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 2760.62 - 1998.24 - 29.21 - 18.92 \\ &= 2348.18 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	1998.24	249.78	0.87	6.04
Kelompok	2	488.40	244.20	0.85	6.94
Jarak tanam	2	364.31	182.16	0.64	6.94
Galat (A)	4	1145.53	286.38		
Mulsa	2	29.21	14.61	0.07	3.88
Interaksi	4	18.92	4.73	0.02	3.26
Galat (B)	12	2348.18	195.68		
Total	26				

Koefisien Keragaman = 34.17 %

Lampiran 4.c. Analisis Sidik Ragam jumlah daun 6 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	73.17	67.83	78.33	219.33	73.11
	M1	68.50	63.33	88.83	220.67	73.56
	M2	59.17	91.67	78.17	229.00	76.33
	TPU	200.83	222.83	245.33	669.00	74.33
J2	M0	70.80	63.60	78.60	213.00	71.00
	M1	83.20	63.00	84.40	230.60	76.87
	M2	72.60	82.80	79.40	234.80	78.27
	TPU	226.60	209.40	242.40	678.40	75.38
J3	M1	76.80	68.80	63.40	209.00	69.67
	M2	67.00	64.80	61.80	193.60	64.53
	M3	76.60	76.00	56.20	208.80	69.60
	TPU	220.40	209.60	181.40	611.40	67.93
		647.83	641.83	669.13	1958.80	72.55
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{1958.80^2}{3 \times 3 \times 3} \\
 \text{FK} &= 142107.31 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (73.17^2 + 67.83^2 + \dots + 56.20^2) - 142107.31 \\
 \text{JK total} &= 2233.38 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(200.83^2) + (222.83^2) + \dots + (181.40^2)}{3} - 2233.38 \\
 \text{JK petak utama (JKPU)} &= 1074.40 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(647.83^2) + (641.83^2) + (669.13^2)}{3 \times 3} - 2233.38 \\
 \text{JK kelompok (JKK)} &= 45.74
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\mathbf{TA^2}}{\mathbf{Ulangan \times AP}} - \mathbf{FK} \\ &= \frac{(669.00^2)+(678.40^2)+(611.40^2)}{3 \times 3} - 2233.38 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 292.41 \\ \text{JK Galat (A)} &= \mathbf{JKPU} - \mathbf{JKK} - \mathbf{JK (A)} \\ &= 1074.40 - 45.74 - 292.41 \\ \text{JK Galat (A)} &= 736.24 \end{aligned}$$

Jarak Tanam (A)	Mula (B)			Total A	Rata A
	M0	M1	M2		
J1	219.33	213.00	209.00	641.33	213.78
J2	220.67	230.60	193.60	644.87	214.96
J3	229.00	234.80	208.80	672.60	224.20
Total B	669.00	678.40	611.40	1958.80	-
Rata B	223.00	226.13	203.80	-	217.64

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\mathbf{Total AB^2}}{\mathbf{Ulangan}} - \mathbf{FK} \\ &= \frac{(219.33^2)+(220.67^2)+\dots+(208.80^2)}{3} - 2233.38 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 451.92$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\mathbf{TB^2}}{\mathbf{Ulangan \times PU}} - \mathbf{FK} \\ &= \frac{(669.00^2)+(678.40^2)+(611.40^2)}{3 \times 3} - 2233.38 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 65.16$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \mathbf{JKKP} - \mathbf{JK (A)} - \mathbf{JK (B)} \\ &= 451.92 - 292.41 - 65.16 \\ &= 94.35 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \mathbf{JK total} - \mathbf{JKPU} - \mathbf{JK (B)} - \mathbf{JKI} \\ &= 2233.38 - 1074.40 - 65.16 - 94.35 \\ &= 1781.47 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	1074.40	134.30	0.73	6.04
Kelompok	2	45.74	22.87	0.12	6.94
Jarak tanam	2	292.41	146.21	0.79	6.94
Galat (A)	4	736.24	184.06		
Mulsa	2	65.16	32.58	0.22	3.88
Interaksi	4	1.87	0.47	0.47	3,26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 16,79 %

Lampiran 4.d. Analisis Sidik Ragam Jumlah Daun 8 MST

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	89.67	84.67	80.60	254.93	84.98
	M1	81.50	77.33	76.80	235.63	78.54
	M2	72.83	114.17	73.20	260.20	86.73
	TPU	244.00	276.17	230.60	750.77	83.42
J2	M0	88.00	78.80	93.60	260.40	86.80
	M1	100.40	77.20	99.20	276.80	92.27
	M2	89.00	100.80	96.20	286.00	95.33
	TPU	277.40	256.80	289.00	823.20	91.47
J3	M1	90.60	83.00	80.60	254.20	84.73
	M2	81.00	82.80	76.80	240.60	80.20
	M3	89.60	95.00	73.20	257.80	85.93
	TPU	261.20	260.80	230.60	752.60	83.62
		782.60	793.77	750.20	2326.57	86.17
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{2326.57^2}{3 \times 3 \times 3} \\
 \text{FK} &= 200478.24 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (89.67^2 + 84.67^2 + \dots + 73.20^2) - 200478.24 \\
 \text{JK total} &= 2695.89 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(244.00^2) + (276.17^2) + \dots + (230.60^2)}{3} - 200478.24 \\
 \text{JK petak utama (JKPU)} &= 1127.37 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(782.60^2) + (793.77^2) + (750.20^2)}{3 \times 3} - 200478.24 \\
 \text{JK kelompok (JKK)} &= 152.35
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK} \\ &= \frac{(750.77^2) + (823.20^2) + (752.60^2)}{3 \times 3} - 200478.24 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 346.91$$

$$\text{JK Galat (A)} = \text{JKPU} - \text{JKK} - \text{JK (A)}$$

$$= 1127.37 - 113.80 - 89.53$$

$$\text{JK Galat (A)} = 2038.35$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	254.93	260.40	254.20	769.53	256.51
J2	235.63	276.80	240.60	753.03	251.01
J3	260.20	286.00	257.80	804.00	268.00
Total B	750.77	823.20	752.60	2326.57	-
Rata B	250.26	274.40	250.87	-	258.51

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(254.93^2) + (235.63^2) + \dots + (257.80^2)}{3} - 200478.24 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 657.55$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(750.77^2) + (823.20^2) + (752.60^2)}{3 \times 3} - 200478.24 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 156.99$$

$$\text{JK interaksi AB (JKI)} = \text{JKKP} - \text{JK (A)} - \text{JK (B)}$$

$$= 313.94 - 89.53 - 156.99$$

$$= 128.21$$

$$\text{JK Galat (B)} = \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI}$$

$$= 887.52 - 329.51 - 156.99 - 67.42$$

$$= 2038.35$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	329.51	41.19	0.87	6.04
Kelompok	2	50.80	25.40	0.54	6.94
Jarak tanam	2	89.53	44.76	0.95	6.94
Galat (A)	4	189.18	47.30		
Mulsa	2	156.99	78.50	1.64	3.88
Interaksi	4	67.42	16.85	0.35	3.26
Galat (B)	12	12.05	1.00		
Total	26				

Koefisien Keragaman = 36.30 %

Lampiran 4.e . Analisis Sidik Ragam Jumlah daun saat panen

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	94.00	89.00	103.33	286.33	95.44
	M1	85.83	81.33	115.83	283.00	94.33
	M2	77.50	118.33	100.67	296.50	98.83
	TPU	257.33	288.67	319.83	865.83	96.20
J2	M0	82.60	82.60	97.80	263.00	87.67
	M1	104.60	80.80	103.40	288.80	96.27
	M2	93.80	104.40	100.40	298.60	99.53
	TPU	281.00	267.80	301.60	850.40	94.49
J3	M1	95.00	87.20	84.80	267.00	89.00
	M2	85.40	87.60	80.80	253.80	84.60
	M3	94.00	99.00	77.20	270.20	90.07
	TPU	274.40	273.80	242.80	791.00	87.89
		812.73	830.27	864.23	2507.23	92.86
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{2507.23^2}{3 \times 3 \times 3} \\
 \text{FK} &= 232822.93 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (94.00^2 + 89.00^2 + \dots + 77.20^2) - 232822.93 \\
 \text{JK total} &= 3216.45 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(257.33^2) + (288.67^2) + \dots + (242.80^2)}{3} - 232822.93 \\
 \text{JK petak utama (JKPU)} &= 1409.17 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(812.73^2) + (830.27^2) + (864.23^2)}{3 \times 3} - 232822.93 \\
 \text{JK kelompok (JKK)} &= 152.35
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK} \\ &= \frac{(865.83^2) + (850.40^2) + (791.00^2)}{3 \times 3} - 232822.93 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= 1409.17 \\ \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 1409.17 - 152.35 - 1409.17 \\ \text{JK Galat (A)} &= 909.91 \end{aligned}$$

Jarak Tanam (A)	Mula (B)			Total A	Rata A
	M0	M1	M2		
J1	286.33	263.00	267.00	816.33	272.11
J2	283.00	288.80	253.80	825.60	275.20
J3	296.50	298.60	270.20	865.30	288.43
Total B	865.83	850.40	791.00	2507.23	-
Rata B	288.61	283.47	263.67	-	278.58

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(286.33^2) + (283.00^2) + \dots + (270.20^2)}{3} - 232822.93 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 655.71$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(865.83^2) + (850.40^2) + (791.00^2)}{3 \times 3} - 232822.93 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 150.36$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 655.71 - 1409.17 - 150.36 \\ &= 158.44 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 3216.45 - 1409.17 - 150.36 - 158.44 \\ &= 2560.74 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	1409.17	176.15	0.77	6.04
Kelompok	2	152.35	76.17	0.33	6.94
Jarak tanam	2	346.91	173.46	0.76	6.94
Galat (A)	4	909.91	227.48		
Mulsa	2	150.36	75.18	0.35	3.88
Interaksi	4	158.44	39.61	0.19	3.26
Galat (B)	12	2560.74	213.40		
Total	26				

Koefisien Keragaman = 15,73 %

Lampiran 5. Analisis Sidik Ragam Jumlah Polong Pertanaman

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	21.50	16.67	18.17	56.33	18.78
	M1	13.83	16.67	23.33	53.83	17.94
	M2	13.17	20.67	13.67	47.50	15.83
	TPU	48.50	54.00	55.17	157.67	17.52
J2	M0	19.20	14.00	20.40	53.60	17.87
	M1	19.60	12.20	18.80	50.60	16.87
	M2	15.00	15.20	18.00	48.20	16.07
	TPU	53.80	41.40	57.20	152.40	16.93
J3	M1	12.20	17.20	10.20	39.60	13.20
	M2	15.00	16.60	10.80	42.40	14.13
	M3	14.60	16.80	12.00	43.40	14.47
	TPU	41.80	50.60	33.00	125.40	13.93
		144.10	146.00	145.37	435.47	16.13
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{435.47^2}{3 \times 3 \times 3} \\
 \text{FK} &= 7023.38 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (21.50^2 + 16.67^2 + \dots + 12.00^2) - 7023.38 \\
 \text{JK total} &= 300.11 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(48.50^2) + (54.00^2) + \dots + (33.00^2)}{3} - 7023.38 \\
 \text{JK petak utama (JKPU)} &= 172.77 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(144.10^2) + (146.00^2) + (145.37^2)}{3 \times 3} - 7023.38 \\
 \text{JK kelompok (JKK)} &= 0.21
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK} \\ &= \frac{(157.67^2) + (152.40^2) + (125.40^2)}{3 \times 3} - 7023.38 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 66.59$$

$$\text{JK Galat (A)} = \text{JKPU} - \text{JKK} - \text{JK (A)}$$

$$= 172.77 - 0.21 - 66.59$$

$$\text{JK Galat (A)} = 105.98$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	56.33	53.60	39.60	149.53	49.84
J2	53.83	50.60	42.40	146.83	48.94
J3	47.50	48.20	43.40	139.10	46.37
Total B	157.67	152.40	125.40	435.47	-
Rata B	52.56	50.80	41.80	-	48.39

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(56.33^2) + (53.83^2) + \dots + (43.40^2)}{3} - 7023.38 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 87.88$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(157.67^2) + (152.40^2) + (125.40^2)}{3 \times 3} - 7023.38 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 6.52$$

$$\text{JK interaksi AB (JKI)} = \text{JKKP} - \text{JK (A)} - \text{JK (B)}$$

$$= 87.88 - 66.59 - 6.52$$

$$= 14.77$$

$$\text{JK Galat (B)} = \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI}$$

$$= 300.11 - 172.77 - 6.52 - 14.77$$

$$= 212.23$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	172.77	21.60	0.82	6.04
Kelompok	2	0.21	0.10	0.00	6.94
Jarak tanam	2	66.59	33.29	1.26	6.94
Galat (A)	4	105.98	26.49		
Mulsa	2	6.52	3.26	0.18	3.88
Interaksi	4	14.77	3.69	0.21	3.26
Galat (B)	12	212.23	17.69		
Total	26				

Koefisien Keragaman = 26.08 %

Lampiran 6. Analisis Sidik Ragam Bobot 100 Biji perpetak

Jarak Tanam (A)	Mulsa (B)	Ulangan			Total AB	Rata-Rata AB
		1	2	3		
J1	M0	34.00	38.00	34.00	106.00	35.33
	M1	37.00	37.00	37.00	111.00	37.00
	M2	32.00	37.00	38.00	107.00	35.67
	TPU	103.00	112.00	109.00	324.00	36.00
J2	M0	37.00	35.00	38.00	110.00	36.67
	M1	35.00	41.00	40.00	116.00	38.67
	M2	31.00	36.00	39.00	106.00	35.33
	TPU	103.00	112.00	117.00	332.00	36.89
J3	M1	38.00	38.00	30.00	68.00	22.67
	M2	36.00	41.00	32.00	68.00	22.67
	M3	36.00	36.00	33.00	69.00	23.00
	TPU	110.00	115.00	95.00	205.00	22.78
		316.00	339.00	321.00	861.00	31.89
	TK	TK1	TK2	TK3	T	IJK

$$\begin{aligned}
 \text{FK} &= \frac{T^2}{\text{Ulangan} \times \text{PU} \times \text{AP}} \\
 &= \frac{861.00^2}{3 \times 3 \times 3} \\
 \text{FK} &= 35280.59 \\
 \text{JK total} &= T (IJK)^2 - \text{FK} \\
 &= (34.00^2 + 38.00^2 + \dots + 33.00^2) - 35280.59 \\
 \text{JK total} &= 211.41 \\
 \text{JK petak utama (JKPU)} &= \frac{\text{TPU}^2}{\text{AP}} - \text{FK} \\
 &= \frac{(103.00^2) + (112.00^2) + \dots + (95.00^2)}{3} - 35280.59 \\
 \text{JK petak utama (JKPU)} &= 128.07 \\
 \text{JK kelompok (JKK)} &= \frac{\text{TK}^2}{\text{PU} \times \text{AP}} - \text{FK} \\
 &= \frac{(316.00^2) + (339.00^2) + (321.00^2)}{3 \times 3} - 35280.59 \\
 \text{JK kelompok (JKK)} &= 32.52
 \end{aligned}$$

$$\begin{aligned} \text{JK perlakuan PU (JK (A))} &= \frac{\text{TA}^2}{\text{Ulangan} \times \text{AP}} - \text{FK} \\ &= \frac{(324.00^2) + (332.00^2) + (205.00^2)}{3 \times 3} - 35280.59 \end{aligned}$$

$$\text{JK perlakuan PU (JK (A))} = 8.30$$

$$\begin{aligned} \text{JK Galat (A)} &= \text{JKPU} - \text{JKK} - \text{JK (A)} \\ &= 128.07 - 32.52 - 8.30 \end{aligned}$$

$$\text{JK Galat (A)} = 87.26$$

Jarak Tanam (A)	Mulsa (B)			Total A	Rata A
	M0	M1	M2		
J1	106.00	110.00	106.00	322.00	107.33
J2	111.00	116.00	109.00	336.00	112.00
J3	107.00	106.00	105.00	318.00	106.00
Total B	324.00	332.00	320.00	976.00	-
Rata B	108.00	110.67	106.67	-	108.44

$$\begin{aligned} \text{JK Komb. perlakuan (JKKP)} &= \frac{\text{Total AB}^2}{\text{Ulangan}} - \text{FK} \\ &= \frac{(106.00^2) + (111.00^2) + \dots + (105.00^2)}{3} - 35280.59 \end{aligned}$$

$$\text{JK Komb. perlakuan (JKKP)} = 32.74$$

$$\begin{aligned} \text{JK perlakuan AP (JK (B))} &= \frac{\text{TB}^2}{\text{Ulangan} \times \text{PU}} - \text{FK} \\ &= \frac{(324.00^2) + (332.00^2) + (320.00^2)}{3 \times 3} - 35280.59 \end{aligned}$$

$$\text{JK perlakuan AP (JK (B))} = 19.85$$

$$\begin{aligned} \text{JK interaksi AB (JKI)} &= \text{JKKP} - \text{JK (A)} - \text{JK (B)} \\ &= 32.74 - 8.30 - 19.85 \\ &= 4.59 \end{aligned}$$

$$\begin{aligned} \text{JK Galat (B)} &= \text{JK total} - \text{JKPU} - \text{JK (B)} - \text{JKI} \\ &= 211.41 - 128.07 - 19.85 - 4.59 \\ &= 178.67 \end{aligned}$$

Tabel Sidik Ragam

SK	DB	JK	KT	F Hitung	F Tabel 5%
Petak utama:	8	128.07	16.01	0.73	6.04
Kelompok	2	32.52	16.26	0.75	6.94
Jarak tanam	2	8.30	4.15	0.19	6.94
Galat (A)	4	87.26	21.81		
Mulsa	2	19.85	9.93	0.67	3.88
Interaksi	4	4.59	1.15	0.08	3.26
Galat (B)	12	12.05	1.00		
Total	26				
Koefisien Keragaman = 10.67					

Lampiran 7. Dokumentasi



Gambar 1: Pengolahan tanah



Gambar 2: Penugalan



Gambar 3: Penanaman



Gambar 4: Penyiangan



Gambar 5: Penimbangan mulsa



Gambar 6: Pemberian mulsa



Gambar 7: Pengamatan 2 mst



Gambar 8: Kondisi tanaman 3 mst



Gambar 9: Pengamatan 4 mst



Gambar 10: Jumlah daun



Gambar 11: Tinggi tanaman 6 mst



Gambar 12: Tanaman 8 mst



Gambar 13: Pengamatan 8 mst



Gambar 14: Tanaman saat panen



Gambar 15: Saat panen



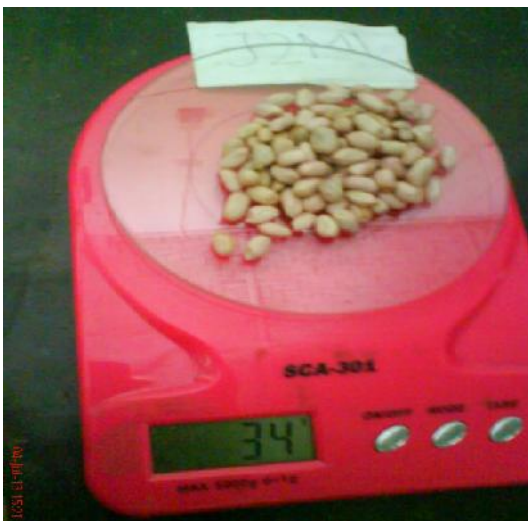
Gambar 16: Hasil perpetak



Gambar 17: Hasil pertanaman



Gambar 18: Polong basah pertanaman



Gambar 19: Polong kering perpetak



Gambar 20: Penimbangan 100 biji kering (g)

Gambar 21: Lokasi penelitian