

5.2 Saran

Diperlukan penelitian lebih lanjut terkait pewarisan likopen tomat melalui persilangan dialel sehingga dapat diketahui kombinasi persilangan yang memiliki pewarisan likopen yang konsisten serta produksi tinggi.

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LAMPIRAN

Deskripsi varietas tomat Chung

Asal	: Dalam negeri
Golongan varietas	: Bersari bebas
Tipe tanaman	: Indeterminate
Tinggi tanaman	: 70 C x M -160 C x M
Bentuk penampang batang	: Bulat
Warna batang	: Hijau
Warna daun	: Hijau
Bentuk daun	: Bipinnate (Tipe 2 UPoV)
Bentuk bunga	: Seperti bintang
Warna mahkota bunga	: Kuning
Warna kelopak bunga	: Kuning
Warna benang sari	: Putih
Umur mulai berbunga	: 25 – 30 HST
Umur mulai panen	: 55 – 65 HST
Bentuk buah	: Bulat
Bentuk ujung buah	: Rata
Warna buah muda	: Hijau muda
Warna buah tua	: Merah
Rasa daging buah	: Tidak masam
Berat per buah	: 2.5 gram – 3.5 gram
Wilayah adaptasi	: Dataran rendah – tinggi

Deskripsi varietas tomat Mawar

Asal	: Dalam negeri
Golongan varietas	: Bersari bebas
Tipe tanaman	: Indeterminate
Tinggi tanaman	: 90 C x M -170 C x M
Bentuk penampang batang	: Bulat
Warna batang	: Hijau
Warna daun	: Hijau
Bentuk daun	: Bipinnate (Tipe 2 UPoV)
Bentuk bunga	: Seperti bintang
Warna mahkota bunga	: Kuning
Warna kelopak bunga	: Kuning
Warna benang sari	: Putih
Umur mulai berbunga	: 30 – 35 HST
Umur mulai panen	: 60 – 75 HST
Bentuk buah	: Oval
Bentuk ujung buah	: Rata
Warna buah muda	: Hijau muda
Warna buah tua	: Merah
Rasa daging buah	: Tidak masam
Berat per buah	: 35 gram – 50 gram
Wilayah adaptasi	: Dataran rendah – tinggi

Deskripsi Varietas Tomat *Black Cherry*

Asal	: Luar negeri
Golongan varietas	: Bersari bebas
Tipe tanaman	: Indeterminate
Tinggi tanaman	: 100 C x M -170 C x M
Bentuk penampang batang	: Bulat
Warna batang	: Hijau
Warna daun	: Hijau
Bentuk daun	: Bipinnate (Tipe 2 UPoV)
Bentuk bunga	: Seperti bintang
Warna mahkota bunga	: Kuning
Warna kelopak bunga	: Kuning
Warna benang sari	: Putih
Umur mulai berbunga	: 30 – 35 HST
Umur mulai panen	: 80 – 95 HST
Bentuk buah	: Bulat
Bentuk ujung buah	: Rata
Warna buah muda	: Hijau muda
Warna buah tua	: Coklat keunguan
Rasa daging buah	: Manis
Berat per buah	: 5 gram – 10 gram
Wilayah adaptasi	: Dataran rendah – tinggi

Tabel Lampiran 1a. Data Tinggi Tanaman (cm)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	94.33	89.67	110.00	98.00
	C	83.33	102.67	103.67	96.56
	BC	87.33	90.67	97.33	91.78
C	M	131.00	105.00	111.33	115.78
	C	117.67	102.00	94.33	104.67
	BC	107.00	109.67	103.00	106.56
M	M	102.00	109.33	92.67	101.33
	C	121.67	120.33	110.67	117.56
	BC	125.67	128.33	120.00	124.67
Rata – rata		107.78	106.41	104.78	

Tabel Lampiran 1b. Sidik Ragam Karakter Tinggi Tanaman (cm)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	387.22	193.61	2.99 ^{tn}	3.32	5.39
P1	3	1339.05	446.35	6.90 ^{**}	2.92	4.51
P2	3	394.1	131.37	2.03 ^{tn}	2.92	4.51
P1:P2	9	2770.85	307.87	4.76 ^{**}	2.21	3.07
Galat a	30	1940.85	64.68			
DGU	3	210.54	70.18	0.54 ^{tn}	2.92	4.51
Galat b	159.70		130.78			
DGK	6	839.26	139.88	6.49 ^{**}	2.42	3.47
Resiprokal	6	451.53	75.26	3.49 ^{**}	2.42	3.47
Galat c	30	646.76	21.56			
Total	62	7039.31				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 2a. Data Jumlah daun

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	22.67	21.67	17.67	20.67
	C	20.33	19.33	20.67	20.11
	BC	19.00	13.33	22.33	18.22
C	M	17.00	16.67	21.00	18.22
	C	24.33	25.00	21.33	23.56
	BC	25.00	24.33	22.33	23.89
M	M	20.33	22.00	22.67	21.67
	C	28.67	25.67	26.67	27.00
	BC	20.33	23.33	24.33	22.67
Rata - rata		21.96	21.26	22.11	

Tabel Lampiran 2b. Sidik Ragam Jumlah daun

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	1.78	0.89	0.21 ^{tn}	3.32	5.39
P1	3	223.55	74.52	17.64 ^{**}	2.92	4.51
P2	3	30.5	10.17	2.41 ^{tn}	2.92	4.51
P1:P2	9	174.25	19.36	4.58 ^{**}	2.21	3.07
Galat a	30	126.72	4.22			
DGU	3	54.65	18.22	2.46 ^{tn}	2.92	4.51
Galat b	145.8		7.40			
DGK	6	47.45	7.91	5.91 ^{**}	2.42	3.47
Resiprokal	6	40.67	6.78	5.06 ^{**}	2.42	3.47
Galat c	30	40.16	1.34			
Total	62	613				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 3a. Data Umur Berbunga (HSS)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	50.67	48.67	51.00	50.11
	C	55.33	57.00	61.00	57.78
	BC	50.00	46.67	47.67	48.11
C	M	39.00	39.67	41.33	40.00
	C	22.33	20.00	20.67	21.00
	BC	50.33	52.00	52.33	51.56
M	M	48.00	45.00	49.33	47.44
	C	39.00	44.33	48.00	43.78
	BC	41.67	42.67	38.33	40.89
Rata - rata		44.04	44.00	45.52	

Tabel Lampiran 3b. Sidik Ragam Karakter Umur Berbunga (HSS)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	12.36	6.18	1.60 ^{tn}	3.32	5.39
P1	3	1294.42	431.47	111.97 ^{**}	2.92	4.51
P2	3	656.89	218.96	56.82 ^{**}	2.92	4.51
P1:P2	9	1520.29	168.92	43.84 ^{**}	2.21	3.07
Galat a	30	115.60	3.85			
DGU	3	604.9	201.63	2.86 ^{tn}	2.92	4.51
Galat b	1427.2		70.41			
DGK	6	457.02	76.17	59.30 ^{**}	2.42	3.47
Resiprokal	6	95.28	15.88	12.36 ^{**}	2.42	3.47
Galat c	30	38.53	1.28			
Total	62	4679.68				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 4a. Data Umur Panen (HSS)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	87.67	85.67	86.00	86.44
	C	89.33	91.00	95.00	91.78
	BC	91.67	84.67	85.67	87.33
C	M	70.00	70.67	72.33	71.00
	C	81.67	82.00	85.67	83.11
	BC	82.33	84.33	86.67	84.44
M	M	87.67	86.67	85.67	86.67
	C	82.50	81.00	86.50	83.33
	BC	82.33	82.67	84.33	83.11
Rata – rata		83.91	83.19	85.31	

Tabel Lampiran 4b. Sidik Ragam Karakter Umur Panen (HSS)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	24.11	12.05	3.43 *	3.32	5.39
P1	3	1095.76	365.25	103.90**	2.92	4.51
P2	3	26.45	8.82	2.51 ^{tn}	2.92	4.51
P1:P2	9	590.51	65.61	18.66**	2.21	3.07
Galat a	30	105.46	3.52			
DGU	3	215.19	71.73	3.11*	2.92	4.51
Galat b	514.1		23.08			
DGK	6	149.43	24.91	21.25**	2.42	3.47
Resiprokal	6	206.28	34.38	29.34**	2.42	3.47
Galat c	30	35.15	1.17			
Total	62	2342.88				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 5a. Data Jumlah Bunga Per Tandan

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	7.61	10.00	6.00	7.87
	C	10.33	11.00	8.00	9.78
	BC	6.44	6.00	6.11	6.19
C	M	4.56	5.67	7.00	5.74
	C	7.22	6.78	6.56	6.85
	BC	7.56	7.33	9.67	8.19
M	M	7.33	8.33	6.44	7.37
	C	8.33	7.56	7.67	7.85
	BC	6.44	6.22	6.78	6.48
Rata – rata		7.31	7.65	7.14	

Tabel Lampiran 5b. Sidik Ragam Karakter Jumlah Bunga Per Tandan

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.41	0.21	0.25 ^{tn}	3.32	5.39
P1	3	14.28	4.76	5.87 ^{**}	2.92	4.51
P2	3	11.01	3.67	4.52 ^{**}	2.92	4.51
P1:P2	9	41.09	4.57	5.63 ^{**}	2.21	3.07
Galat a	30	23.34	0.811			
DGU	3	2.3	0.77	0.44 ^{tn}	2.92	4.51
Galat b	178.8		1.75			
DGK	6	11.26	1.88	7.28 ^{**}	2.42	3.47
Resiprokal	6	8.56	1.43	5.53 ^{**}	2.42	3.47
Galat c	30	646.76	21.56			
Total	62	735.67				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 6a. Data Jumlah Buah Per Tandan

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	7.59	10.00	6.00	7.86
	C	10.33	11.00	8.00	9.78
	BC	6.44	6.00	6.11	6.19
C	M	4.33	5.67	7.00	5.67
	C	6.89	6.78	6.56	6.74
	BC	7.56	7.33	9.67	8.19
M	M	7.11	8.33	6.22	7.22
	C	8.33	7.56	7.67	7.85
	BC	4.67	4.33	6.33	5.11
Rata – rata		7.03	7.44	7.06	

Tabel Lampiran 6b. Sidik Ragam Karakter Jumlah Buah Per Tandan

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.28	0.14	0.13 ^{tn}	3.32	5.39
P1	3	22.71	7.57	7.00 ^{**}	2.92	4.51
P2	3	38.26	12.75	11.80 ^{**}	2.92	4.51
P1:P2	9	52.01	5.78	5.35 ^{**}	2.21	3.07
Galat a	30	32.42	1.08			
DGU	3	19.39	6.46	3.84 [*]	2.92	4.51
Galat b	130.6		1.68			
DGK	6	10.78	1.8	5.28 ^{**}	2.42	3.47
Resiprokal	6	7.49	1.25	3.67 [*]	2.42	3.47
Galat c	30	10.22	0.34			
Total	62	161.14				

Keterangan: ** : sangat nyata

* : nyata

tn : tidak nyata

Tabel Lampiran 7a. Data Diameter Batang (cm)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	2.28	2.21	6.65	3.71
	C	2.12	1.93	2.20	2.08
	BC	2.39	2.63	2.87	2.63
C	M	3.09	2.74	2.61	2.82
	C	2.78	2.43	2.06	2.42
	BC	3.17	2.58	2.85	2.87
M	M	2.87	2.89	2.88	2.88
	C	2.65	2.70	3.15	2.83
	BC	5.48	5.18	4.03	4.90
Rata – rata		2.98	2.81	3.26	

Tabel Lampiran 7b. Sidik Ragam Diameter Batang (cm)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.52	0.26	0.77 ^{tn}	3.32	5.39
P1	3	14.98	4.99	14.85 ^{**}	2.92	4.51
P2	3	19.75	6.58	19.56 ^{**}	2.92	4.51
P1:P2	9	19.08	2.12	6.30 ^{**}	2.21	3.07
Galat a	30	10.09	0.34			
DGU	3	7.2	2.4	3.18 [*]	2.92	4.51
Galat b	179.6		0.75			
DGK	6	4.85	0.81	7.32 ^{**}	2.42	3.47
Resiprokal	6	5.88	0.98	8.87 ^{**}	2.42	3.47
Galat c	30	3.31	0.11			
Total	62	75.58				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 8a. Data Panjang Buah (cm)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	2.36	2.19	6.71	3.75
	C	1.92	1.79	2.12	1.94
	BC	2.50	2.56	2.82	2.63
C	M	3.55	3.20	3.07	3.28
	C	3.12	2.50	2.11	2.58
	BC	2.29	2.65	2.52	2.49
M	M	2.58	2.56	2.35	2.50
	C	2.35	2.36	2.73	2.48
	BC	2.83	2.65	2.46	2.65
Rata – rata		2.61	2.50	2.99	

Tabel Lampiran 8b. Sidik Ragam Karakter Panjang Buah (cm)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.47	0.24	0.46 ^{tn}	3.32	5.39
P1	3	15.1	5.03	9.93 ^{**}	2.92	4.51
P2	3	7.57	2.52	4.98 ^{**}	2.92	4.51
P1:P2	9	20.74	2.31	4.55 ^{**}	2.21	3.07
Galat a	30	15.20	0.57			
DGU	3	6.98	2.33	2.27 ^{tn}	2.92	4.51
Galat b	165.5		1.03			
DGK	6	6.59	1.1	6.73 ^{**}	2.42	3.47
Resiprokal	6	0.9	0.15	0.92 ^{tn}	2.42	3.47
Galat c	30	4.9	0.16			
Total	62	63.25				

Keterangan: ** : sangat nyata
* : nyata
tn : tidak nyata

Tabel Lampiran 9a. Data Diameter Buah (cm)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	2.28	2.21	6.65	3.71
	C	2.12	1.93	2.20	2.08
	BC	2.39	2.63	2.87	2.63
C	M	3.09	2.74	2.61	2.82
	C	2.78	2.43	2.06	2.42
	BC	3.17	2.58	2.85	2.87
M	M	2.87	2.89	2.88	2.88
	C	2.65	2.70	3.15	2.83
	BC	5.48	5.18	4.03	4.90
Rata - rata		2.98	2.81	3.26	

Tabel Lampiran 9b. Sidik Ragam Karakter Diameter Buah (cm)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.23	0.11	0.20 ^{tn}	3.32	5.39
P1	3	8.89	2.96	5.36 ^{**}	2.92	4.51
P2	3	7.55	2.52	4.55 ^{**}	2.92	4.51
P1:P2	9	10.5	1.17	2.11 ^{tn}	2.21	3.07
Galat a	30	16.59	0.55			
DGU	3	5.23	1.74	3.67 [*]	2.92	4.51
Galat b	72.5		0.47			
DGK	6	3	0.5	2.85 [*]	2.42	3.47
Resiprokal	6	0.76	0.13	0.72 ^{tn}	2.42	3.47
Galat c	30	5.26	0.18			
Total	62	31.41				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 10a. Data Kadar Brix (%)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	7.07	7.13	6.93	7.04
	C	9.27	9.40	9.70	9.46
	BC	6.67	6.50	6.47	6.54
C	M	4.33	5.17	4.67	4.72
	C	5.50	5.07	5.70	5.42
	BC	5.67	5.87	5.60	5.71
M	M	8.00	7.97	8.20	8.06
	C	5.33	6.00	5.90	5.74
	BC	5.73	6.40	5.40	5.84
Rata - rata		6.40	6.61	6.51	

Tabel Lampiran 10b. Sidik Ragam Karakter Brix (%)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	0.06	0.03	0.37 ^{tn}	3.32	5.39
P1	3	27.92	9.31	124.36 ^{**}	2.92	4.51
P2	3	13.53	4.51	60.27 ^{**}	2.92	4.51
P1:P2	9	22.4	2.49	33.26 ^{**}	2.21	3.07
Galat a	30	2.24	0.07			
DGU	3	11.32	3.77	6.95 ^{**}	2.92	4.51
Galat b	590.5		0.54			
DGK	6	3.51	0.59	24.44 ^{**}	2.42	3.47
Resiprokal	6	6.45	1.08	44.88 ^{**}	2.42	3.47
Galat c	30	0.72	0.02			
Total	62	85.9				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 11a. Data Kandungan Likopen (mg g⁻¹)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	29.79	32.96	15.28	26.01
	C	29.50	27.80	26.17	27.82
	BC	35.56	29.36	32.45	32.46
C	M	27.95	28.88	26.01	27.61
	C	28.28	24.47	24.50	25.75
	BC	40.73	41.71	41.58	41.34
M	M	38.50	39.46	38.00	38.66
	C	36.81	25.13	30.98	30.97
	BC	25.78	24.25	24.94	24.99
Rata - rata		32.54	30.45	28.88	

Tabel Lampiran 11b. Sidik Ragam Karakter Likopen (mg g⁻¹)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	37.33	18.66	1.17 ^{tn}	3.32	5.39
P1	3	735.61	245.2	15.34 ^{**}	2.92	4.51
P2	3	258.94	86.31	5.40 ^{**}	2.92	4.51
P1:P2	9	1247.46	138.61	8.67 ^{**}	2.21	3.07
Galat a	30	479.69	15.99			
DGU	3	302.82	100.94	2.54 ^{tn}	2.92	4.51
Galat b	193.9		39.75			
DGK	6	255.7	42.62	7.91 ^{**}	2.42	3.47
Resiprokal	6	188.81	31.47	5.84 ^{**}	2.42	3.47
Galat c	30	161.57	5.39			
Total	62	3188.25				

Keterangan: ** : sangat nyata
 * : nyata
 tn : tidak nyata

Tabel Lampiran 12a. Data Produksi (kg)

P1	P2	Ulangan			Rata-rata
		I	II	III	
BC	M	1403.23	1824.50	1049.53	1425.75
	C	665.77	921.67	430.00	672.48
	BC	2273.30	1770.41	2885.20	2309.64
C	M	334.70	525.90	854.23	571.61
	C	2310.70	1369.06	2203.13	1960.96
	BC	1512.65	1354.65	3402.89	2090.06
M	M	1825.77	2042.77	1693.22	1853.92
	C	2979.10	4442.20	2.652.2	3710.65
	BC	8278.88	6727.48	8966.13	7990.83
Rata - rata		2398.23	2330.96	2685.54	

Tabel Lampiran 12b. Sidik Ragam Karakter Produksi (kg)

SK	Db	JK	KT	F Hitung	F Tabel	
					0.05	0.01
U	2	18754505	9377252	6.34 ^{**}	3.32	5.39
P1	3	111915816	37305272	25.21 ^{**}	2.92	4.51
P2	3	34048849	11349616	7.67 ^{**}	2.92	4.51
P1:P2	9	24177330	2686370	1.82 ^{tn}	2.21	3.07
Galat 1	30	44389556	1479652			
DGU	3	39078897	13026299	12.35 ^{**}	2.92	4.51
Galat b	57.7		1054717			
DGK	6	6609055	1101509	2.23 ^{tn}	2.42	3.47
Resiprokal	6	11026046	1837674	3.73 [*]	2.42	3.47
Galat c	30	14796520	493217.3			
Total	62	260407018				

Keterangan: ** : sangat nyata

* : nyata

tn : tidak nyata



Black Cherry



Chung



Mawar

Gambar 2. Penampilan Tetua



Black Cherry x Chung



Black Cherry x Chung



Chung x Black Cherry

Gambar 3. Penampilan Hibrida



Chung x Mawar

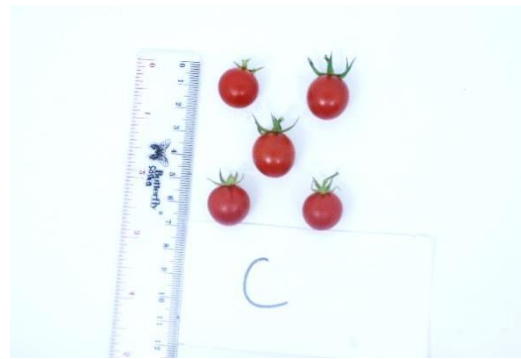


Mawar x Chung

Gambar 4. Penampilan Hibrida



Black Cherry



Chung



Mawar

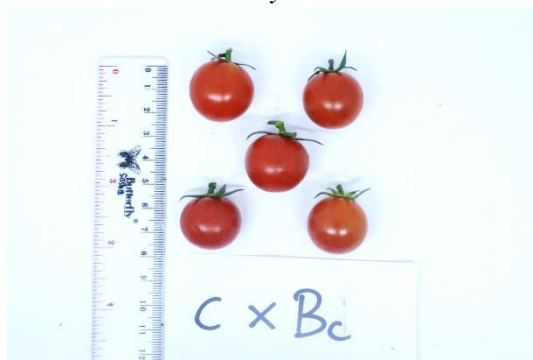
Gambar 5. Penampilan Buah Tetua



Black Cherry x Mawar



Black Cherry x Chung

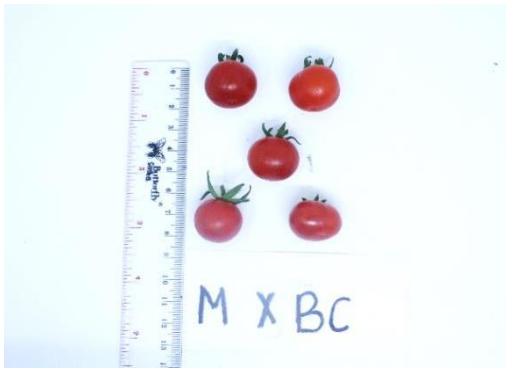


Chung x Black Cherry



Chung x Mawar

Gambar 6. Penampilan Buah Hibrida



Mawar x *Black Cherry*



Mawar x Chung

Gambar 7. Lanjutan



Gambar 8. Persemaian Benih Tomat



Gambar 9. Pemindahan Semaian ke *Polybag* Pembibitan



Gambar 10. Pengaplikasian Pupuk Kandang



Gambar 11. Pemasangan Mulsa



Gambar 12. Pengaplikasian NPK (1)



Gambar 13. Pengamatan Parameter Jumlah Bunga Per Tandan



Gambar 14. Pengukuran Kadar Brix



Gambar 15. Proses Pengukuran Kadar Likopen