



Trainer :

Rachmat Hidayat Muchlis

Kp. Manoko, RT/RW 001/003, Cikahuripan,

Lemban, West Java - Indonesia

amormawarbodas@gmail.com

+6281222391011

Farmer :

Firman

Pasir Langu RT 03/03No. 21, Cisarua, Lembang,

West Java - Indonesia

chimon24@yahoo.co.id

+6281320924000



12 Apr. - 21 Sept. 2020

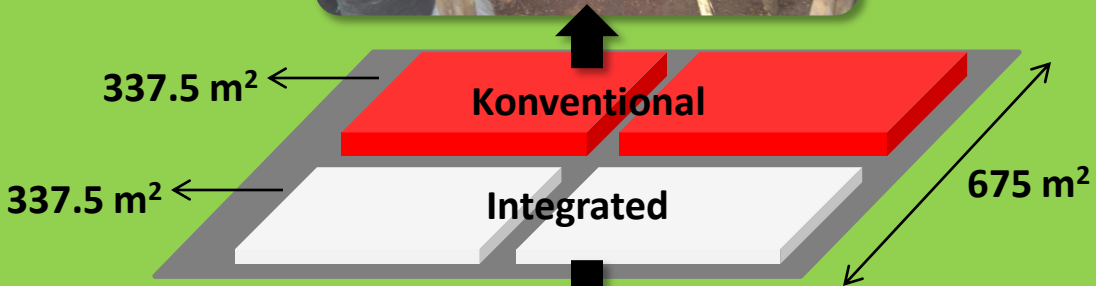
Demo Plot # 3

Crops : P a p r i c a

**Location of Demo Plot : Pasir Langu, Cisarua,
Bandung, West Java – Indonesia**

by Google Maps

<https://maps.google.com/?q=-6.809430,107.531738>



Integrated		Konvensional
	<u>Basic fertilizer :</u>	
2250 kg	Super Chicken	2250 kg
92.5 kg	Vermicompost	0 kg
1250 kg	Roasted Husk	1250 kg
6 ltr	EM4 (dekomposer)	6 ltr
0.074 kg	Soil Conditioner	0 kg

P a p r i c a

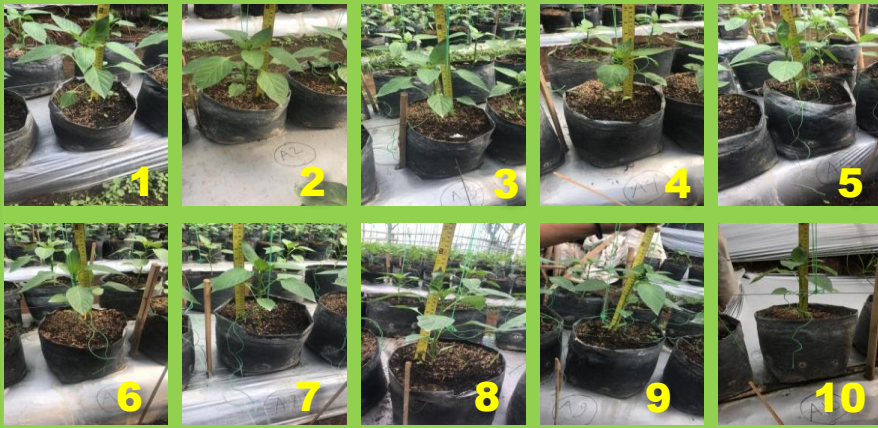
P l a n t i n g

12 April 2020 (0 DAP)

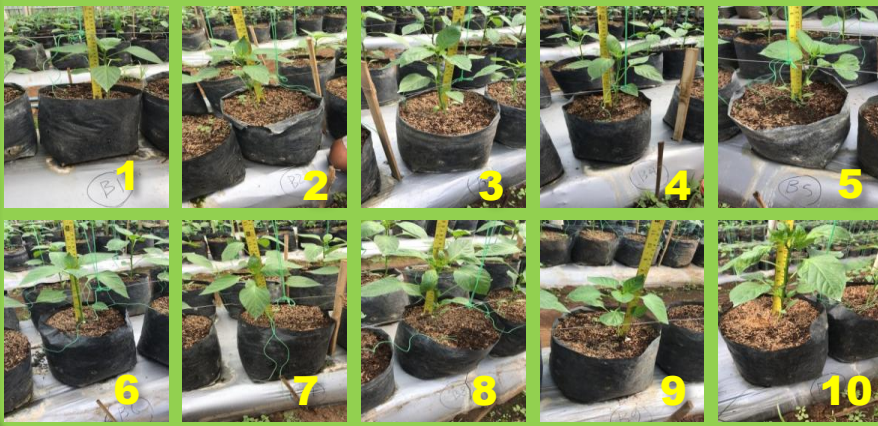
*Seeds : RIJK ZWAAN
Plant. Dist. : 30 X 30 CM
Integrated : 2000 Plants
Konvensional : 2000 Plants*



Integrated (sampling 1 – 10)



Konvensional (sampling 1 – 10)



21 DAP	Nu. Of Leaves	
	Integ.	Konv.
1.	26	10
2.	16	10
3.	14	12
4.	13	14
5.	14	10
6.	14	10
7.	16	11
8.	14	13
9.	12	9
10.	10	13
	14.9	11.2

3 May 2020 (21 DAP)
Maintenance
Paprica

Integrated

Konvensional

Maintenance fertilizer :

3 kg	AB MIX	4 kg
4.013 kg	Organic Fertilizer	0 kg
	Pesticide	

Konvensional



Integrated



Integrated (sampling 1 – 10)



Konvensional (sampling 1 – 10)



14 May 2020 (32 DAP)
Observation Data
P a p r i c a

32 DAP	Integrated			Konvensional		
	P. Height (cm)	Nu. of Leaves	Young Fruits	P. Height (cm)	Nu. of Leaves	Young Fruits
1.	45	41	27	42	39	21
2.	44	51	30	43	39	19
3.	46	51	26	45	44	24
4.	43	41	24	43	43	25
5.	43	55	27	38	32	16
6.	46	51	32	49	36	26
7.	44	61	35	45	32	29
8.	43	52	29	48	42	23
9.	50	45	26	33	39	19
10.	37	37	24	46	44	35
	44.1	48.5	28.0	43.2	39.0	23.7





Integrated



Konvensional



P a p r i c a
M a i n t e n a n c e
10 June 2020 (59 DAP)



P a p r i c a

M a i n t e n a n c e

14 May – 16 Aug. 2020 (32 - 59 DAP)



Fusarium Wilt :

*Deaths due to Fusarium Wilt were seen
in 32 DAP – 59 DAP*

<i>Inetgrated</i>	<i>Konventional</i>
<i>7 Plants</i>	<i>11 Plants</i>

After 59 DAP the Fusarium Wilt attack stop



Integrated

Paprica

Maintenance

11 July 2020 (90 DAP)

Konventional





*mosaic virus,
healed*



*mikronutrient
deficiency*



- 1) mosaic virus : attack light and can be healed
- 2) micronutrient deficiency : light to medium attack

P a p r i c a

M a i n t e n a n c e

15 Aug. 2020 (125 DAP)

**Integrated
Konventional**



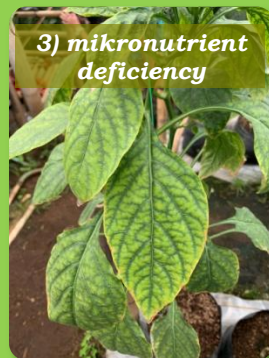
*1) mosaic virus,
continues*



*2) Pesticide
overdose*



- 1) mosaic virus : medium to heavy and countinuin
- 2) pesticides overdose : high doses and short interval (per 2-3 days)
- 3) micronutrient deficiency : medium to heavy



*3) mikronutrient
deficiency*

Paprica

Harvest Data

Production per Plot

	<i>Integ.(kg)</i>	<i>Konv.(kg)</i>	<i>Tot.(kg)</i>	<i>Price(Rp.)</i>	<i>Income(Rp.)</i>	
<i>16 June 20</i>	<i>47.7</i>	<i>73.6</i>	<i>121.3</i>	<i>21,500.-</i>	<i>2,607,950.-</i>	
<i>19 June 20</i>	<i>85.6</i>	<i>91.6</i>	<i>177.2</i>		<i>3,809,800.-</i>	
<i>21 June 20</i>	<i>59.2</i>	<i>73.7</i>	<i>132.9</i>		<i>2,857,350.-</i>	
<i>24 June 20</i>	<i>65.1</i>	<i>83.4</i>	<i>148.5</i>		<i>3,192,750.-</i>	
<i>27 June 20</i>	<i>98.7</i>	<i>108.2</i>	<i>206.9</i>		<i>4,448,350.-</i>	
<i>30 June 20</i>	<i>71.2</i>	<i>71.3</i>	<i>142.5</i>		<i>3,063,750.-</i>	
<i>2 July 20</i>	<i>87.9</i>	<i>82.7</i>	<i>170.6</i>		<i>3,667,900.-</i>	
<i>5 July 20</i>	<i>90.9</i>	<i>99.4</i>	<i>190.3</i>		<i>4,091,450.-</i>	
<i>9 July 20</i>	<i>98.2</i>	<i>0</i>	<i>98.2</i>		<i>2,111,300.-</i>	
<i>12 July 20</i>	<i>80.8</i>	<i>0</i>	<i>80.8</i>		<i>1,737,200.-</i>	
<i>16 July 20</i>	<i>15.1</i>	<i>0</i>	<i>15.1</i>		Stage - 1	<i>324,650.-</i>
<i>30 Aug. 20</i>	<i>34.5</i>	<i>37.2</i>	<i>71.7</i>		Stage - 2	<i>1,541,550.-</i>
<i>3 Sept. 20</i>	<i>44.6</i>	<i>47.4</i>	<i>92.0</i>			<i>1,978,000.-</i>
<i>6 Sept. 20</i>	<i>58.4</i>	<i>62.5</i>	<i>120.9</i>			<i>2,559,350.-</i>
<i>9 Sept. 20</i>	<i>72.4</i>	<i>69.3</i>	<i>141.7</i>			<i>3,046,550.-</i>
<i>12 Sept. 20</i>	<i>78.2</i>	<i>72.4</i>	<i>150.6</i>		<i>3,237,900.-</i>	
<i>15 Sept. 20</i>	<i>55.6</i>	<i>57.2</i>	<i>112.8</i>		<i>2,425,200.-</i>	
<i>18 Sept. 20</i>	<i>47.8</i>	<i>28.7</i>	<i>76.5</i>		<i>1,644,750.-</i>	
<i>21 Sept. 20</i>	<i>38.9</i>	<i>27.9</i>	<i>66.8</i>		<i>1,436,200.-</i>	
	1230.8	1086.5	2317.3	21,500.-	49,821,950.-	

Stage1 the harvest period goes to stage 2, the plant takes 2 months to return to fruit again

Data per harvest with standard fruit that is ready to sell

Under spec fruit less than 2 %

Paprica

Summary of Result Data

<i>Harvest & Cost Data</i>	<i>Integrated</i>	<i>Konventional</i>
<i>Population (plants)</i>	2000	2000
<i>Harvested Pop. (plants)</i>	1993	1989
<i>% Harvested Population</i>	99.7 %	99.5 %
<i>Total Yield (kg)</i>	1230.8	1086.5
<i>Yield per ha (ton)</i>	36.5	32.2
Income 2317.3 Kg X Rp.. 21,500.- = Rp. 49,821,950.-		
<i>Land Prepar. Costs (Rp.)</i>	6,591,900	6,365,000
<i>Maintenance Costs (Rp.)</i>	9,788,700	10,560,000
<i>Total Cost (Rp.)</i>	16,380,600	16,925,000
<i>Yield per plant (kg)</i>	0.62	0.55
<i>Cost per Plant (Rp.)</i>	8,219	8,509
<i>Cost (Rp./ha/year)</i>		
<i>Profit (Rp./ha/year)</i>		

Paprica

Post Harvest Data



Date	Integrated(gr)	Konvensional(gr)
11 July 2020 (0 dah)	416	303
18 July (7 dah)	379 (8.9%)	273 (9.9%)
Lose Weight	8.9 %	9.9 %



Land Preparation - Planting costs (without leasing land, GH & labor)

3											
paprica											
675 M2											
4000 plants											
konventional 337.5 M2				integrated 337.5 M2				TOTAL			
Q		hrg	Rp.	Q		hrg	Rp.	Q		Rp.	
seed / Nursery	1,000.0	plants	2,400.00	2,400,000.00	1,000.0	Plants	2,400.00	2,400,000.00	2,000.0	Plants	4,800,000.00
Mulsa	0.5	Roll	650,000.00	325,000.00	0.5	Roll	650,000.00	325,000.00	1.0	Roll	650,000.00
Vermicompost	-	Kg	-	-	92.5	kg	1,000.00	92,500.00	92.5	kg	92,500.00
Chicken Manure	2,250.0	Kg	333.33	750,000.00	2,250.0	kg	333.33	750,000.00	4,500.0	kg	1,500,000.00
Arang Sekam	1,250.0	Kg	200.00	250,000.00	1,250.0	kg	200.00	250,000.00	2,500.0	kg	500,000.00
humic acid	-	Kg	-	-	0.074	kg	600,000.00	44,400.00	0.1	kg	44,400.00
EM4	6.0	Btl	40,000.00	240,000.00	6.0	Btl	40,000.00	240,000.00	12.0	Btl	480,000.00
Seed Treatment :											
humic acid	-	Kg	-	-	0.10	kg	600,000.00	60,000.00	0.10	kg	60,000.00
Herbagreen Protect F	-	Kg	-	-	0.05	kg	600,000.00	30,000.00	0.05	kg	30,000.00
				3,965,000.00				4,191,900.00			8,156,900.00

Additional costs borne by the farmer himself :

Seed / Nursery	1000 Plants	2,400.00	2,400,000.00	1000 plants	2,400.00	2,400,000.00	2000 Plants	4,800,000.00
TOTAL			6,365,000.00			6,591,900.00		12,956,900.00

Maintenance Costs (without labor)

3										
paprica										
675 M2										
4000 plants										
konventional 337.5 M2			integrated 337.5 M2				TOTAL			
Q	hrg	Rp.	Q	hrg	Rp.	Q	Rp.			
4.0	kg	625,000.00	2,500,000.00	3.0	kg	625,000.00	1,875,000.00	7.0	kg	4,375,000.00
-	kg	600,000.00	-	1.50	kg	600,000.00	900,000.00	1.50	kg	900,000.00
Needs :										
AB MIX										
Humic Acid										
Spraying :										
Herbagreen Z20										
-	0	-	-	0.185	kg	600,000.00	111,000.00	0.185	Kg	111,000.00
Herbagreen Protect F										
-	0	-	-	0.278	kg	600,000.00	166,500.00	0.278	kg	166,500.00
Herbagreen Fluisan										
-	0	-	-	0.007	Ltr	4,000,000.00	29,600.00	0.007	Ltr	29,600.00
Pesticides :										
1. Endure 120 SC, 100 ML										
18.0	Btl	175,000.00	3,150,000.00	10.0	Btl	175,000.00	1,750,000.00	28.0	Btl	4,900,000.00
2. Abacell 18 EC, 1 ltr										
3.0	Btl	260,000.00	780,000.00	2.0	ML	260,000.00	520,000.00	5.0	Btl	1,300,000.00
3. Celus Tepung										
32.0	Schts	25,000.00	800,000.00	15.0	Schts	25,000.00	375,000.00	47.0	Schts	1,175,000.00
4. Buldok 25 EC, 250 ML										
5.0	Btl	70,000.00	350,000.00	-	Btl	-	-	5.0	Btl	350,000.00
5. Seaweed										
5.0	Kg	75,000.00	375,000.00	-	Kg	-	-	5.0	Kg	375,000.00
6. Nero 32.5 WP, 200 Gr										
10.0	Btl	170,000.00	1,700,000.00	7.0	Btl	170,000.00	1,190,000.00	17.0	Btl	2,890,000.00
7. Rampage 100 EC, 50 ML										
6.0	Btl	75,000.00	450,000.00	4.0	Btl	75,000.00	300,000.00	10.0	Btl	750,000.00
8. Josepat 80 WP, 400 gr										
5.0	Btl	76,000.00	380,000.00	-	Btl	-	-	5.0	Btl	380,000.00
9. Herbagreen Protect V										
-	Ltr	-	-	0.111	Ltr	600,000.00	66,600.00	0.111	Ltr	66,600.00
10. BOOSTER, 250 ML										
1.0	Btl	75,000.00	75,000.00	1.0	Btl	75,000.00	75,000.00	2.0	Btl	150,000.00
		10,560,000.00				7,358,700.00				17,918,700.00

Additional Needs :

Humic Acid, 100 gr	1.5 Kg	600,000.00	900,000.00
HG Z20, 50 gr	0.15 Kg	600,000.00	90,000.00
HG Protect F, 50 gr	0.4 Kg	600,000.00	240,000.00
HG Protect V, 250 ml	2 Ltr	600,000.00	1,200,000.00

TOTAL **10,560,000.00** **9,788,700.00** **20,348,700.00**

Fertilizing and Spraying in Integrated Plot

DAP	Product	humic acid 85 %	HG Protect F	HG Z20	HG Protect V	HG Fluisan
-30	Prepare the planting medium by fermentation					
0	humic acid 85 % (100 gr)	Flush 1				
3	HG Protect F (27.7 gr)		Spray 1			
7	HG Z20 (18.5 gr)			Spray 1		
14	humic acid 85 % (100 gr)	Flush 2				
17	HG Protect F (27.7 gr)		Spray 2			
21	HG Z20 (18.5 GR) + HG Protect V (27.7 ml)			Spray 2	Spray 1	
28	humic acid 85 % (100 gr)	Flush 3				
31	HG Protect F (27.7 gr) + HG Fluisan (3.5 ml)		Spray 3			Spray 1
35	HG Z20 (18.5 gr) + HG Protect V (27.7 ml)			Spray 3	Spray 2	
42	humic acid 85 % (100 gr)	Flush 4				
45	HG Protect F (27.7 gr)		Spray 4			
49	HG Z20 (18.5 gr) + HG Protect V (27.7 ml)			Spray 4	Spray 3	
56	humic acid 85 % (100 gr)	Flush 5				
59	HG Protect F (27.7 gr)		Spray 5			
63	HG Z20 (18.5 gr) + HG Protect V (27.7 ml)			Spray 5	Spray 4	
70	humic acid 85 % (100 gr)	Flush 6				
73	HG Protect F (27.7 gr)		Spray 6			
77	HG Z20 (18.5 gr)			Spray 6		
84	humic acid 85 % (100 gr)	Flush 7				
87	HG Protect F (27.7 gr)		Spray 7			
91	HG Z20 (18.5 gr)			Spray 7		
98	humic acid 85 % (100 gr)	Flush 8				
101	HG Protect F (27.7 gr)		Spray 8			
105	HG Z20 (18.5 gr)			Spray 8		
112	humic acid 85 % (100 gr)	Flush 9				
115	HG Protect F (27.7 gr) +HG Fluisan(3.5 ml)		Spray 9			Spray 2
119	HG Z20 (18.5 gr)			Spray 9		
126	humic acid 85 % (100 gr)	Flush 10				
129	HG Protect F (27.7 gr)		Spray 10			
133	HG Z20 (18.5 gr)			Spray 10		
140	humic acid 85 % (100 gr)	Flush 11				
154	humic acid 85 % (100 gr)	Flush 12				
168	humic acid 85 % (100 gr)	Flush 13				

Note :

1. Whenever fertilization is always added with AB MIX by subtracting 25 % AB MIX from the Konvensional dose
2. Every Spraying always adds pesticides but does not add other nutrients
(without Pesticides : Josepat, Buldok and Without seaweed nutrition)

Fertilizing and Spraying in Konvensional Plot

1. The Timing Application of nutrition was the same as the Integrated plot but the AB MIX dose was according to Konvensional habits.
2. Pesticides application time according to crop condition can be shorter than the interval of Integrated Plot application and the application dose higher.