



19 April - 10 August 2020

Demo Plot # 8

Crops : Chilli

Location of Demo Plot : Kp. Cibedug, Lembang,
West Java – Indonesia

by Google Maps
[https://maps.google.com/?q=-6.](https://maps.google.com/?q=-6)



Trainer :
Tuti Nurhayati, S.P, M.P
SMK-PPN, Cikole, Lembang West Java -
Indonesia
tutigerlongkg@gmail.com
+628116689031



Farmer :
Yaya Kurniadi
Kp. Cibedug RT 06/013, Cikole, Lembang,
West Java – Indonesia
yayakurniadi23@gmail.com
+6281321297022

Assistant Trainer :
M. Nizar Khoerudin, S.P
SMK-PPN, Cikole, Lembang West Java -
Indonesia
nizar.soller@gmail.com
+6281321004800



Chilli

Land Preparation – 1

17 March – 18 Apr. 2020

Land is located 1200 m above
sea level with a slope of 20%,
Integrated: 440 m²
Konvensional: 440 m²
soil type: Andosol



Application of chicken manure, vermicompost & dolomit



Integrated



Konventionel

Basic fertilizer :

6750 kg	Chicken Manure	6750 kg
220 kg	Vermicompost	0 kg
0 kg	Dolomit	50 kg
7.5 kg	Urea (ZA)	10 kg
15 kg	Pospat (TSP)	20 kg
15 kg	KCL	20 kg
0.1 kg	Soil Conditioner	2 Ltr

Chilli

Land Preparation - 2

1 – 18 Apr. 2020



humic acid application



Mix Input Material

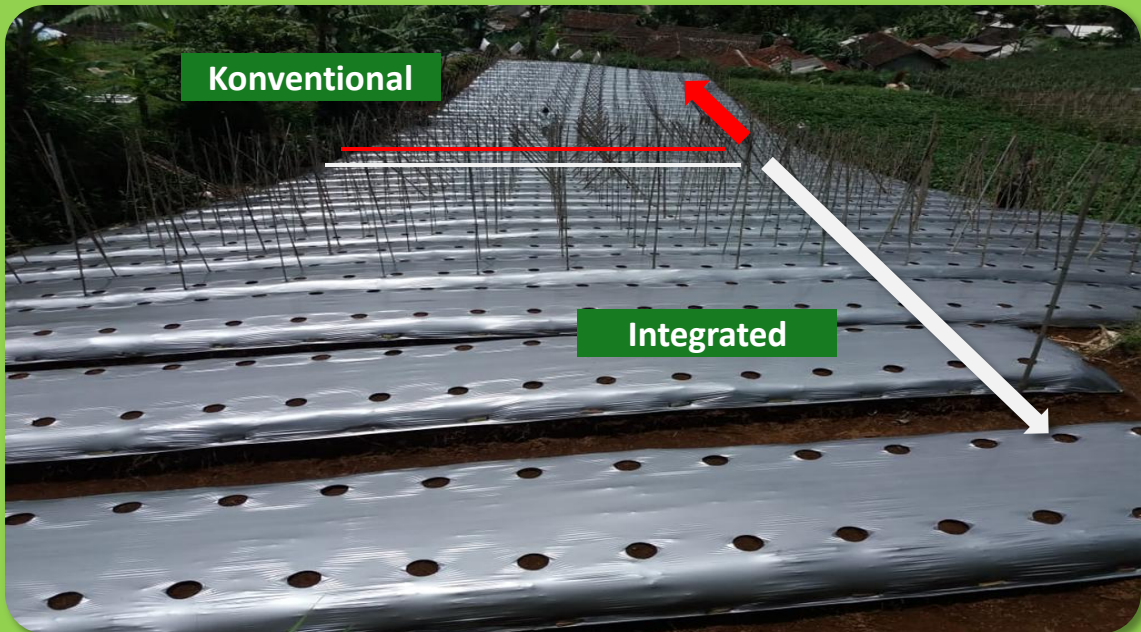




Chilli

Land Preparation - 3

1 - 18 Apr. 2020



Final Preparation





Chilli

Planting

19 April 2020 (0 DAP)

*Local Seeds : Pilar (F-1)
Plant. Dist. : 40 X 60 CM
Integrated : 2000 Plants
Konvensional : 2000 Plants*

Integrated

Konvensional

Maintenance fertilizer :

<i>50 kg</i>	<i>NPK</i>	<i>100 kg</i>
<i>0 kg</i>	<i>Urea (ZA)</i>	<i>15 kg</i>
<i>20 kg</i>	<i>Pospat (TSP)</i>	<i>30 kg</i>
<i>20 kg</i>	<i>KCL</i>	<i>30 kg</i>
<i>0 kg</i>	<i>Calcinit</i>	<i>10 kg</i>
<i>3 kg</i>	<i>Soil Conditioner</i>	<i>0 kg</i>



Chilli

Maintenance

19 April 2020 (0 DAP)



humic acid application to shorten the stress period



Chilli

Observation Data

5 - 11 May 2020 (15 - 21 DAP)



Integrated (sampling 1 - 8)



Konventional (sampling 1 - 8)



Chilli

Observation Data

2020 (15 - 30 DAP)

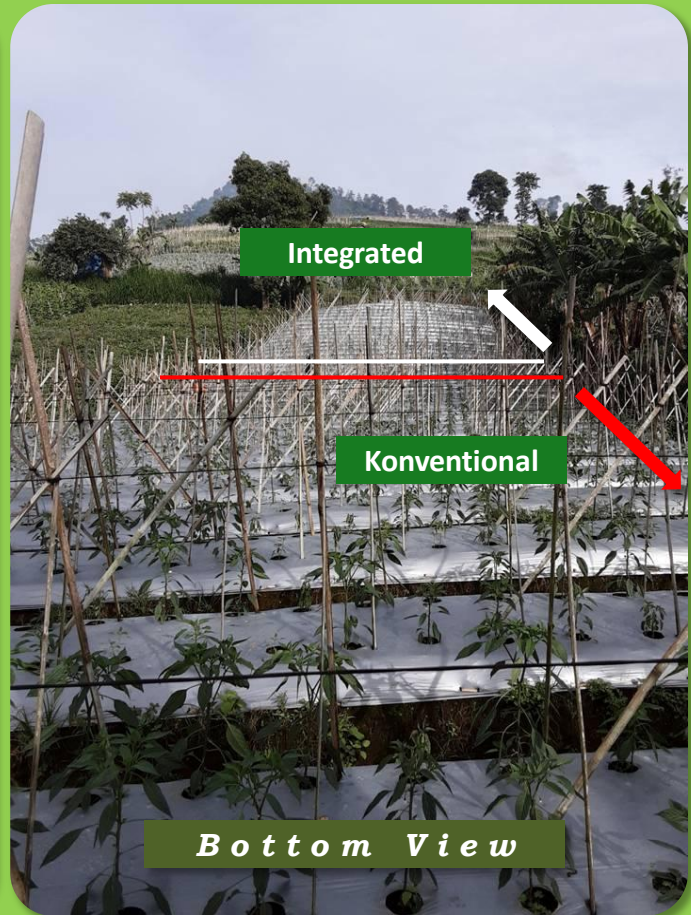
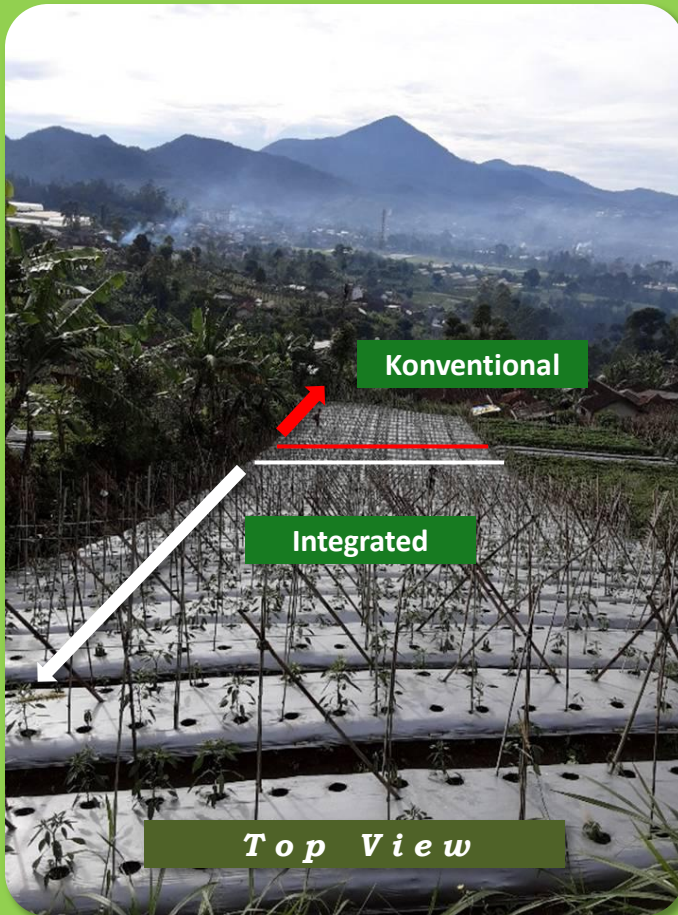
Nu.	Integrated			Konvensional		
	Leaf Buds	Plant Height(cm)	Young Fruit	Leaf Buds	Plant Height(cm)	Young Fruit
	15 DAP	15 DAP	30 DAP	15 DAP	15 DAP	30 DAP
1	2	2	1	6	10.5	5
2	2	2	2	6	9.6	7
3	0	0	0	3	8	1
4	4	4	3	2	8.5	0
5	5	5	1	2	8	1
6	5	5	3	4	8	3
7	4	4	5	6	9	8
8	6	6	4	5	9.5	0
9	6	6	2	6	10	9
10	5	5	2	5	7.5	0
	3.9	7.72	2.1	4.2	8.86	3.4



Chilli

Maintenance

31 May 2020 (42 DAP)



View of plot, different population growth, due to sporadic replanting in areas affected by Fusarium Wilt and Naked Snails

Replanting in the same hole up to 2 times stil attacked by Fusarium Wilt

Herbagreen Protect F to the soil, Herbagreen Z20 and Pesticides routine spray are not able to prevent Fusarium Wilt

Chilli → Brokoli (green cauli flower)

Planting

3 July 2020 (75 DAP Chili ---- 6 DAP Brokoli)

***At 69 DAP Chilli, finally we
(trainer, farmer) decided to replant brokoli (green cauli
flower) in problematic planting hole***

***Replanting brokoli 27 June 2020 :
Integrated Plot 1500 plants ;
Konventional Plot 1500 plants***



***Plot View with the remaining population in chilli 70 %
and after planting of replacement crops
(brokoli / green cauli flower)***

Chilli → *Brokoli*

Maintenance

26 July 2020 (98 DAP Chilli ---- 30 DAP Brokoli)



*Brokoli maintenance is adjusted according to
time, ingredients and chili care application*



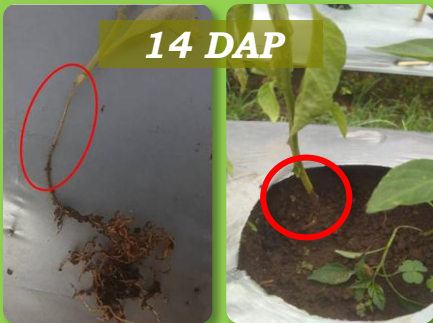
Chilli

Maintenance

26 Apr. – 23 July (7 - 95 DAP)



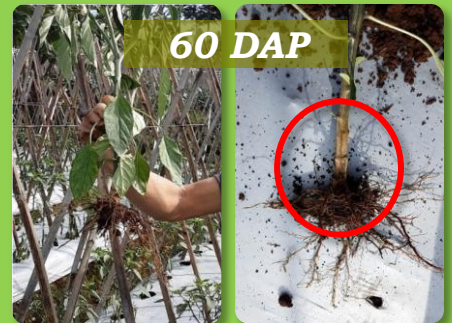
From 0 – 7 dap, attacked by naked snails & Fusarium Wilt, loss of population up to 30 %



14 DAP



21 DAP



60 DAP

In 60 DAP the attack of Fusarium Wilt continued, even in the planting hole that had been replaced new plants were still attacked, it was decided to replace the affected plants with Brokoli (green cauli flower)



High rainfall, all kinds of means to save (herbagreen & pesticides), every 5 days were not able to save the population

In 95 – 125 DAP, Fusarium Wilt attacks still occur, total population loss is 80 %

Attack of caterpillars and aphids (10 %) can be handled

Chilli

Maintenance

2 Aug. 2020 (105 DAP)



Integrated



Konvensional





Chilli

Harvest

10 Aug. 2020 (112 DAP)



Integrated



Konventional



Total Population harvested :

Integrated

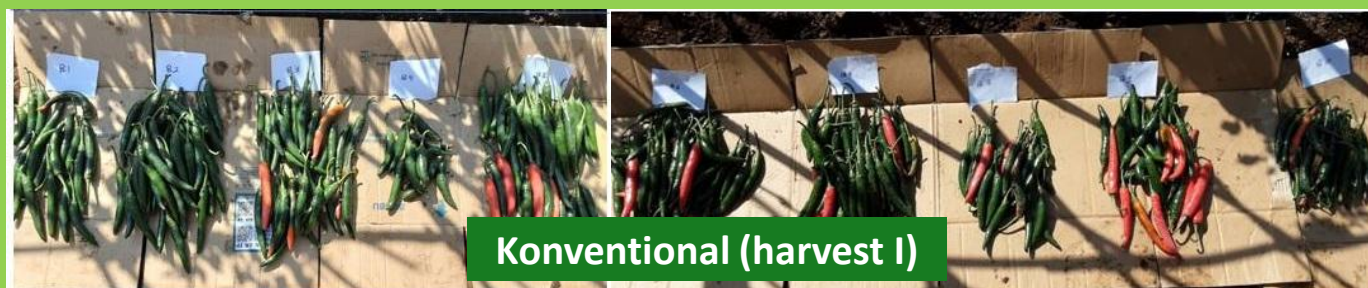
Konventional

365 plants

465 plants

Chilli

Harvest Data



Sample Nu.	Integrated				Konvensional			
	Number of fruit / harvest to :				Number of fruit / harvest to :			
	I	II	III	Tot.	I	II	III	Tot.
1	22	5	2	29	15	5	6	26
2	13	9	19	41	34	6	3	43
3	11	7	9	27	30	3	2	35
4	30	8	3	41	10	5	2	17
5	36	16	8	60	32	5	11	48
6	33	11	3	47	37	5	5	47
7	57	4	4	65	43	4	3	50
8	26	10	3	39	21	6	12	39
9	22	9	1	32	27	4	10	41
10	27	7	2	36	17	5	6	28
Tot. (Kg)	7.338	1.266	0.435	9.039	6.844	0.806	0.566	8.216
plant(kg)	0.734	0.127	0.044	0.904	0.684	0.081	0.057	0.822



C h i l l i
Post Harvest Data



Each sample : 30 pieces

Date	Integrated(gr)	Konvensional(gr)
10 Aug.2020 (0 dah)	762	761
17 Aug. (7 dah)	637 (16%)	639 (16%)
24 Aug. 2020(13 dah)	538 (16%)	540 (16%)
01 Sept. 2020(20 dah)	407 (24%)	409 (24%)
07 sept. 2020(26 dah)	304 (25%)	314 (23%)
Lose Weight	60 %	59 %

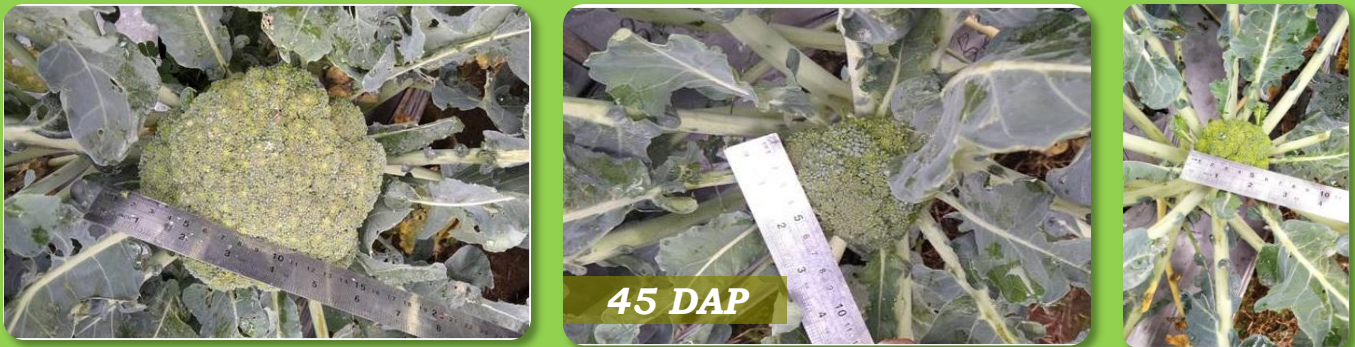
26 dah sample konvensional is moldy



→ **Brokoli (green cauli flower)**

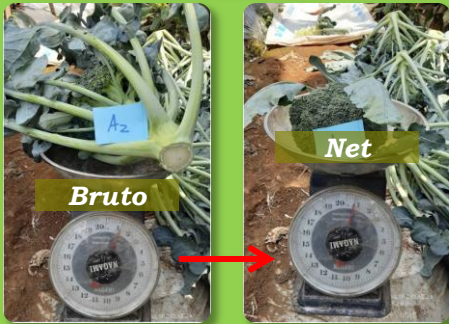
Maintenance

1 – 11 Aug. 2020 (35 - 45 DAP)



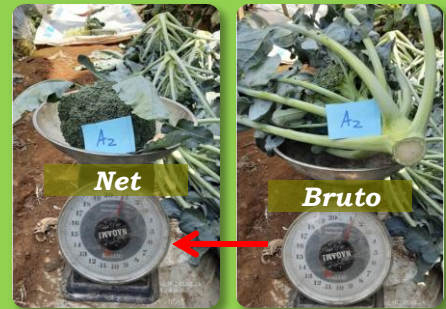
Nu.	Integrated					Konvensional				
	Leaves		Plant Height (cm)	Plant Height (cm)	Diameter Fruit	Leaves		Plant Height (cm)		Diameter Fruit
	15 DAP	30 DAP	15 DAP	30 DAP	45 DAP	15 DAP	30 DAP	15 DAP	30 DAP	45 DAP
1	6.0	11.0	6.5	9.5	5.0	5.0	9.0	5.0	10.2	1.0
2	5.0	10.0	4.5	11.0	2.5	6.0	10.0	6.0	10.3	1.0
3	4.0	9.0	3.5	8.0	2.0	6.0	11.0	7.5	13.0	15.5
4	6.0	10.0	5.5	11.0	1.0	5.0	10.0	5.0	10.5	4.5
5	6.0	11.0	7.0	12.0	5.5	6.0	11.0	7.0	11.5	5.5
6	5.0	10.0	6.0	11.0	2.5	6.0	13.0	6.0	13.0	4.0
7	6.0	12.0	4.0	11.5	2.5	6.0	9.0	6.5	11.0	1.0
8	5.0	9.0	5.0	11.0	1.5	6.0	11.0	6.0	12.0	8.5
9	5.0	10.0	7.0	12.0	1.5	6.0	10.0	7.0	13.0	6.0
10	6.0	11.0	5.5	10.5	5.0	6.0	11.0	6.5	10.5	2.5
Tot.	54.0	103	54.50	107.5	29.0	58.0	105.0	62.5	115.0	49.5
	5.4	10.3	5.45	10.8	2.9	5.8	10.5	6.25	11.5	4.9





Integrated

Konvensional



→ **Brokoli (green cauli flower)**
Harvest
18 Aug. – 7 Oct. 2020 (52 – 72 DAP)

Nu.	Integrated (Kg)		Konvensional (Kg)	
	Bruto	Net	Bruto	Net
1	1.20	0.50	1300	550
2	1.30	0.65	1100	500
3	1.35	0.50	1200	550
4	1.40	0.55	1400	650
5	0.90	0.60	1500	550
6	1.50	0.60	1100	500
7	1.10	0.50	1050	500
8	1.35	0.60	1250	450
9	1.35	0.55	1200	450
10	1.35	0.55	1150	450
TOT. (Kg)	12.8	5.60	14.4	5.10



Chilli → Brokoli (green cauli flower)

Harvest Data

Production per Plot

Chilli	Int.(kg)	Konv.(kg)	Tot.(kg)	Price(Rp.)	Income(Rp.)
10 Aug. 20	26	40	66	8,000.-	528,000.-
16 Aug. 20	127	139	266	7,000.-	1,862,000.-
18 Aug. 20	34	40	74	7,000.-	518,000.-
21 Aug. 20	32	40	72	10,000.-	720,000.-
27 Aug. 20	19	27	46	9,000.-	414,000.-
9 Sept. 20	7	10	17	10,000.-	170,000.-
1 Oct. 20	12	30	42	8,000.-	336,000.-
9 Oct. 20	15	20	35	9,000.-	315,000.-
Total	272	346	618		4,863,000.-

Brokoli	Int.(kg)	Konv.(kg)	Tot.(kg)	Price(Rp.)	Income(Rp.)
18 Aug. 20	40	30	70	5,000.-	350,000.-
21 Aug. 20	70	50	120	6,000.-	720,000.-
24 Aug. 20	70	60	110	6,000.-	660,000.-
27 Aug. 20	90	70	160	5,000.-	800,000.-
30 Aug. 20	80	75	155	5,000.-	775,000.-
3 Sept. 20	60	70	130	6,000.-	780,000.-
7 Sept. 20	65	50	110	5,000.-	550,000.-
11 Sept. 20	35	30	75	5,000.-	375,000.-
15 Sept. 20	30	27	57	3,000.-	171,000.-
20 Sept. 20	40	30	70	4,000.-	280,000.-
30 Sept. 20	25	35	75	3,000.-	225,000.-
7 Oct. 20	45	40	85	5,000.-	425,000.-
Total	650	567	1,217		6,111,000.-



Chili → Brokoli (green cauli flower)

Summary of Result Data

Harvest & Cost Data	Integrated	Konventional
Chilli :		
Population (plants)	2000	2000
Harvested Pop. (plants)	365	465
% Harvested Population	18.2 %	23.3 %
Brokoli :		
Population (plants)	1500	1500
Harvested Pop. (plants)	1458	1451
% Harvested Population	97.2 %	96.7 %
Total Yield :		
Chilli (kg)	272	346
Brokoli (kg)	650	567
Yield per ha :		
Chilli (ton)	-	-
Brokoli (ton)	-	-
<p>Income Chili 618 Kg kg X Rp. 7,000 – Rp. 10,000 = Rp. 4,863,000.- Income Brokoli 1217 Kg X Rp. 3,000 – Rp. 6,000 = Rp. 6,111,000.- TOTAL INCOME = Rp. 10,974,000.-</p>		
Land Preparation Costs(Rp.)	5,390,600.-	5,562,500.-
Maintenance Costs (Rp.)	5,701,350.-	10,285,000.-
Total Cost (Rp.)	11,091,950.-	15,847,500.-
Yield per plant :		
Chilli (kg)	0.75	0.74
Brokoli (kg)	0.45	0.39
Cost per Plant (Rp.)	-	-
Cost (Rp./ha/year)		
Profit (Rp./ha/year)		



↑ Brokoli (green cauli flower)
Post Harvest Data

↑ Integrated ↓

↑ Konvensional ↓



Date	Integrated(gr)	Konvensional(gr)
24 Aug.2020 (0 dah)	933	971
28 Aug. (4 dah)	671 (28.1%)	723 (25.6%)
1 Sept. 2020(7 dah)	517 (22.9%)	560 (22.5%)
7 Sept. 2020(13 dah)	343 (33.6%)	380 (32.1%)
Lose Weight	63 %	60.9 %



Chilli → Brokoli (green cauli flower)

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

8											
chili											
880 M2											
4000 plants											
konvensional 440 M2				integrated 440 M2				TOTAL			
Q	hrg	Rp.		Q	hrg	Rp.		Q	Rp.		
seed / Nursery	2,000.0	bbt	250.00	500,000.00	2,000.0	bbt	250.00	500,000.00	4,000.0	bbt	1,000,000.00
Mulsa	1.0	roll	650,000.00	650,000.00	1.0	roll	650,000.00	650,000.00	2.0	roll	1,300,000.00
Vermicompost	-	Kg	-	-	220.0	kg	1,000.00	220,000.00	220.0	kg	220,000.00
chicken manure	6,750.0	Kg	416.67	2,812,500.00	6,750.0	kg	416.67	2,812,500.00	13,500.0	kg	5,625,000.00
Dolomit	50.0	Kg	4,000.00	200,000.00	-	kg	-	-	50.0	kg	200,000.00
Asam Humate	2.0	Ltr	150,000.00	300,000.00	-	Ltr	-	-	2.0	Ltr	300,000.00
humic acid	-	kg	-	-	0.18	Kg	600,000.00	105,600.00	0.18	Kg	105,600.00
ZA	10.0	kg	4,000.00	40,000.00	7.5	Kg	4,000.00	30,000.00	17.5	kg	70,000.00
TSP	20.0	kg	7,500.00	150,000.00	15.0	kg	7,500.00	112,500.00	35.0	kg	262,500.00
KCL	20.0	kg	8,000.00	160,000.00	15.0	kg	8,000.00	120,000.00	35.0	kg	280,000.00
Seed treatment :											
humic acid	-		-	-	0.10	kg	600,000.00	60,000.00	0.10	kg	60,000.00
Herbagreen Protect F	-		-	-	0.05	kg	600,000.00	30,000.00	0.05	kg	30,000.00
				4,812,500.00				4,640,600.00			9,453,100.00

Replanting Seeds :									
Chilli	1500	250	375,000.00	1500	250	375,000.00	3000	750,000.00	
Brokoli	1500	250	375,000.00	1500	250	375,000.00	3000	750,000.00	

5,562,500.00

5,390,600.00

10,953,100.00





Fertilization

DAP	Konventional	Application	Integrated	Application
-30	- Chicken Manure - Nitrogen (ZA) - Pospat (TSP 36) - KCL - Soil Conditioner		- Chicken Manure - Vermicompost - Nitrogen (ZA) - Pospat (TSP 36) - KCL - Soil Conditioner (humic acid)	
0	-		Humic Acid (0.100 Kg)	Flush
3	Soil Incekticide	Spread	Soil Incekticide	spread
7	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.150 Kg)	Flush
14 - 19			HG Protect F (0.100Kg) (2 times)	Flush
Routine every week				
140				

Spraying

DAP	Konventional	Application	Integrated	Application
3	Pesticides+ Atonik	Spray	HG Protect F (0.050Kg)	Spray
5	Pesticides+Atonik	Spray	Pesticides	Spray
7	Pesticides	Spray	HG Z20 (0.037 Kg) + Pesticides	Spray
14	Pesticides	Spray	HG Fluisan (0.0045 Ltr)	Spray
21	Pesticides	Spray	HG Protect F (0,063 Kg) + Pesticides	Spray
28	Pesticides	Spray	HG Z20 (0.037Kg)+ HG Protect V (0.066 ltr)	Spray
35	Pesticides	Spray	HG Protect V (0.066 Ltr) + Pesticides	Spray
40	Pesticides	Spray	HG Protect F (0.063Kg) + Pesticides	Spray
45	Pesticides	Spray	HG Z20 (0.037 KG) + HG Protect V (0.066 Ltr)	Spray
50	Pesticides	Spray	HG Protect F (0.063Kg) + Pesticides	Spray
55	Pesticides	Spray	HG Z20 (0.037 Kg)+ HG Protect V (0.066 ltr) + Pesticides	Spray
60	Pesticides	Spray	HG Protect F (0.063Kg) + Pesticides	Spray
65	Pesticides	Spray	HG Z20 (0.037Kg)+ HG Protect V (0.066 ltr)	Spray
70	Pesticides	Spray	HG Z20 (0.063Kg)+Pesticides	Spray
75	-	Spray	HG Fluisan (0.0045 Ltr)	Spray
80	Pesticides	Spray	HG Z20 (0.037Kg)+HG Protect V (0.066 Ltr) + Pesticides	Spray
85	-	Spray	HG Protect F (0.063 Kg)+ Pesticides	Spray
90	Pesticides	Spray	HG Protect V (0.066 Ltr)+Pesticides	Spray
95	Pesticides	Spray	HG Protect F (0.063Kg) + Pesticides	Spray
100	-	Spray	HG Z20 (0.037 Kg)+ HG Protect V (0.066Ltr) + Pesticides	Spray
105	Pesticides	Spray	-	Spray
110	Pesticides	Spray	HG Protect F (0.063Kg)+ Pesticides	Spray
115	Pesticides	Spray	-	Spray
120	-	Spray	Pesticides	Spray
125	Pesticides	Spray	Pesticides	Spray
130	Pesticides	Spray	Pesticides	Spray
135	Pesticides	Spray	Pesticides	Spray
140	Pesticides	Spray	Pesticides	Spray

