



21 Apr. - 6 June 2020

Demo Plot # 5

Crops : *Baby Beans (kenya beans)*

Location of Demo Plot : *Kp. Pengkolan, Cikidang, Lembang, West Java - Indonesia*

by Google Maps :

<https://maps.app.goo.gl/uSHZYKH5qYgYaG9eA>



Farmer

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Baby Beans (kenya beans)

Land Preparation

2 – 20 Apr. 2020

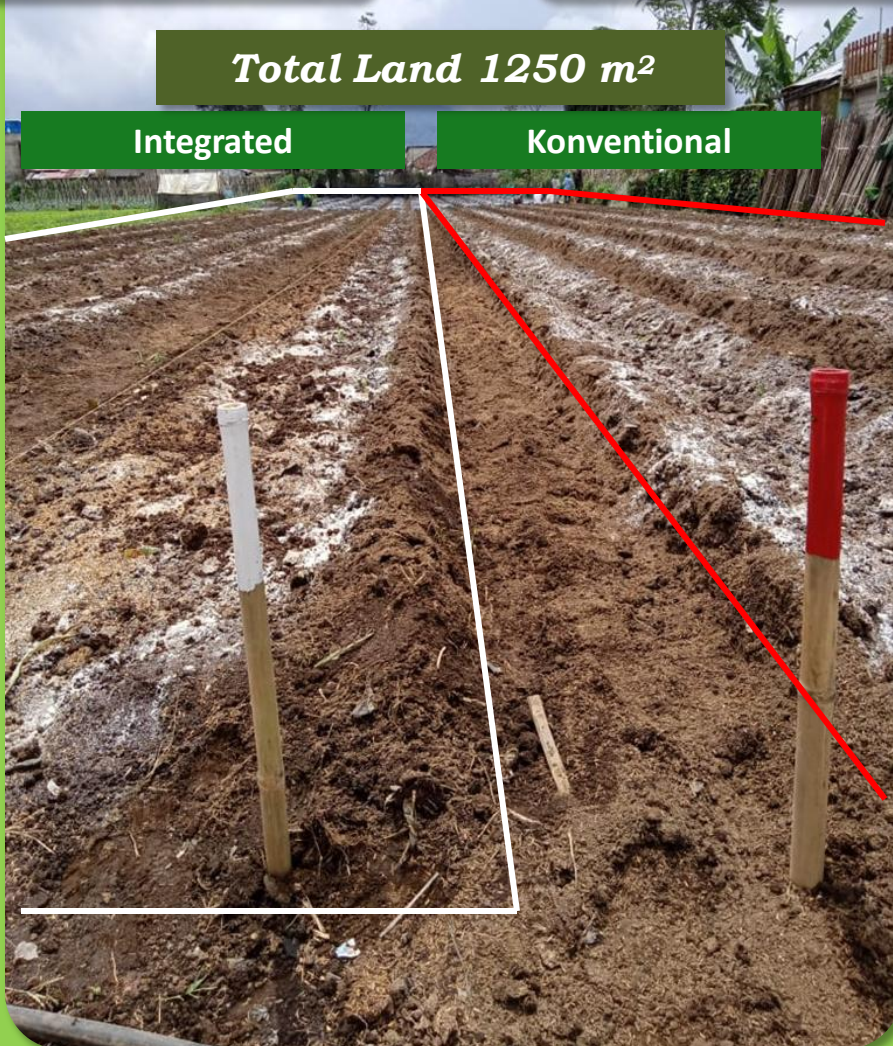
Basic fertilizer :
Chicken Manure - Vermicompost
Urea (ZA)
Pottasium (KCL)
Pospat (TSP)
Trichogramma - Soil Conditioner



Total Land 1250 m²

Integrated

Konventional



Local Seeds : 1.5 kg
Plant. Dist. : 25 X 25 CM
Integrated : 1799 Plants
Konventional : 1875 Plants

Baby Beans (kenya beans)

Planting

21 Apr. 2020



Integrated	<u>Basic fertilizer :</u>	Konventional
3375 kg	Super Chicken Manure	3375 kg
312.5 kg	Vermicompost	0 kg
150 kg	Dolomit	150 kg
0 kg	Nitrogen (ZA)	25 kg
18.8 kg	Pottasium (KCL)	25 kg
25 kg	Pospat (TSP)	25 kg
0.25 kg	Soil Conditioner	0 kg
2 kg	Trichogramma	2 kg



Baby Beans (kenya beans)

Maintenance

5 May 2020 (15 DAP)



Integrated

Konvensional

Maintenance fertilizer :

18.75 kg	Mutiara (NPK)	25 kg
0 kg	Boron	25 kg
3.75 kg	KNO - White	5 kg
0.6 kg	Organic Fertilizer	0.3 kg

Pesticide



Baby Beans (kenya beans)

Observation Data

5 May 2020 (15 DAP)

Integrated

Sampling 1 - 5



Sampling 6 - 10



Konvensional

Sampling 1 - 5



Sampling 6 - 10



15 DAP	Plant High		Branch	
	I (cm)	K (cm)	I (cm)	K (cm)
1.	4	5	14	12
2.	5	4	16	12
3.	4	6	13	17
4.	3	5	14	14
5.	3	6	12	16
6.	5	5	12	14
7.	6	5	15	15
8.	5	6	15	14
9.	4	5	13	12
10.	4	5	14	15
	4.3	5.2	13.8	14.1

Baby Beans (kenya beans)

M a i n t e n a n c e

3 June 2020 (43 DAP)



Integrated

Konventional



Baby Beans (kenya beans)

Observation Data

3 June 2020 (43 DAP)

Integrated (sampling 1 – 10)



Konvensional (sampling 1 – 10)



43 DAP	young fruits*	
	I	K
1.	32	18
2.	9	17
3.	37	8
4.	26	12
5.	32	4
6.	39	18
7.	33	15
8.	37	24
9.	13	18
10.	17	25
	27.5	15.9

From the planting period – vegetative – generative there is no serious problem of pests and diseases

* Young fruits : fruit size 1 – 2 cm, observing the development of the top fruit as a follow up large fruit that will soon harvested

Baby Beans (kenya beans)

Observation Data

3 June 2020 (43 DAP)



Integrated

Konventional





Baby Beans (kenya beans)

Harvest

6 June 2020 (46 DAP)



Baby Beans (kenya beans)

Harvest

6 June - 13 July 2020

Production per Plot

	Int.(kg)	Konv.(kg)	Tot.(kg)	Price(Rp.)	Income(Rp.)
6 June 20	3	7	10	12,000.-	120,000.-
9 June 20	70	71	141	12,000.-	1,692,000.-
12 June 20	92	78	170	12,000.-	2,040,000.-
15 June 20	109	99	208	12,000.-	2,496,000.-
18 June 20	89	116	205	12,000.-	2,460,000.-
21 June 20	92	100	192	12,000.-	2,304,000.-
24 June 20	105	90	195	12,000.-	2,340,000.-
27 June 20	90	70	160	12,000.-	1,920,000.-
30 June 20	42	30	72	12,000.-	864,000.-
3 July 20	74	65	139	12,000.-	1,668,000.-
7 July 20	57	48	105	12,000.-	1,260,000.-
10 July 20	94	82	176	12,000.-	2,112,000.-
13 July 20	55	46	101	12,000.-	1,212,000.-
	972	902	1,874		22,488,000.-



Data per harvest is production
ready for sale, export standard

Reject fruit per harvest < 3 %

Baby Beans (kenya beans)

Summary of Results Data

<i>Harvest & Cost Data</i>	<i>Integrated</i>	<i>Konventional</i>
<i>Population (plants)</i>	1799	1875
<i>Harvested Pop. (plants)</i>	22	17
<i>% Harvested Population</i>	98.8 %	99.1 %
<i>Total Yield (kg)</i>	972	902
<i>Yield per ha (ton)</i>	15.6	14.4
Income 1874 kg X Rp. 12,000.- = Rp. 22,488,000.-		
<i>Land Preparation Costs(Rp.)</i>	4,075,000.-	4,272,500.-
<i>Maintenance Costs (Rp.)</i>	2,017,000.-	3,484,000.-
<i>Total Cost (Rp.)</i>	6,092,500.-	7,756,500.-
<i>Yield per plant (kg)</i>	0.54	0.48
<i>Cost per Plant (Rp.)</i>	3,386.6	4,126.8
<i>Cost (Rp./ha/year)</i>		
<i>Profit (Rp./ha/year)</i>		



**Baby Beans (kenya beans)
Post Harvest Data**



	Integrated (gr)	Konvensional (gr)
29 June 2020	28	26
1 July 2020 (2 dah)	23 (17.9%)	20 (23.1%)
4 July 2020 (5 dah)	18 (35.7%)	16 (38.5%)
11 July 2020(12 dah)	11 (60.7%)	11 (57.7%)
Lose Weight	60.7 %	57.7 %



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

5											
baby bean											
1250 M2											
..... plants											
konvensional 625 M2				integrated 625 M2			TOTAL				
Q		hrg	Rp.	Q	hrg	Rp.	Q	Rp.			
seed / Nursery	0.75	kg	1,800,000.00	1,350,000.00	0.75	kg	1,800,000.00	1,350,000.00	1.5	kg	2,700,000.00
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	-	-	312.5	kg	1,000.00	312,500.00	312.5	kg	312,500.00
chicken manure	3,375.0	kg	333.33	1,125,000.00	3375.0	kg	333.33	1,125,000.00	6750.0	kg	2,250,000.00
DOLOMIT	300.0	kg	2,000.00	600,000.00	-	kg	-	-	300.0	kg	600,000.00
humic acid	-	kg	-	-	0.25	kg	600,000.00	150,000.00	0.25	kg	150,000.00
ZA	25.0	kg	4,000.00	100,000.00	-	kg	-	-	25.0	kg	100,000.00
TSP	25.0	kg	7,500.00	187,500.00	25.0	kg	7,500.00	187,500.00	50.0	kg	375,000.00
KCL	25.0	kg	8,000.00	200,000.00	18.8	kg	8,000.00	150,000.00	43.8	kg	350,000.00
Trichogramma	2.0	Schts	30,000.00	60,000.00	2.0	Schts	30,000.00	60,000.00	4.0	schts	120,000.00
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
				4,272,500.00				4,075,000.00			8,347,500.00

Maintenance Costs (without labor)

5											
baby bean											
1250 M2											
..... plants											
konvensional 625 M2				integrated 625 M2			TOTAL				
Q		hrg	Rp.	Q	hrg	Rp.	Q	Rp.			
ZA	25.0	kg	4,000.00	100,000.00	-	kg	-	-	25.0	kg	100,000.00
TSP	25.0	kg	7,500.00	187,500.00	25.0	kg	7,500.00	187,500.00	50.0	kg	375,000.00
KCL	25.0	kg	8,000.00	200,000.00	18.8	kg	8,000.00	150,000.00	43.8	kg	350,000.00
NPK Mutiara	25.0	kg	10,000.00	250,000.00	18.8	kg	10,000.00	187,500.00	43.8	kg	438,000.00
Calcinit	2.0	kg	12,000.00	24,000.00	-	kg	-	-	2.0	kg	24,000.00
Biohara	50.0	ltr	25,000.00	1,250,000.00	-	Ltr	-	-	50.0	Ltr	1,250,000.00
ROSASOL N	1.0	kg	85,000.00	85,000.00	-	kg	-	-	1.0	kg	85,000.00
Humic Acid	-	kg	-	-	0.50	kg	600,000.00	300,000.00	0.50	kg	300,000.00
Spraying :											
Herbagreen Z20	0.0	-	-	-	0.313	kg	600,000.00	187,500.00	0.313	kg	187,500.00
Herbagreen Protect F	0.0	-	-	-	0.313	kg	600,000.00	187,500.00	0.313	kg	187,500.00
Herbagreen Fluisan	0.0	-	-	-	0.0125	Ltr	4,000,000.00	50,000.00	0.0125	Ltr	50,000.00
Pestisida :											
1. SCORE 250 EC, 250 ML	1.0	Btl	165,000.00	165,000.00	-	Btl	-	-	1.0	Btl	165,000.00
2. Amistartop 325 EC, 250 ML	2.0	Btl	250,000.00	500,000.00	-	Btl	-	-	2.0	Btl	500,000.00
3. SAAF 75 WP, 1 kg	1.0	Kg	187,500.00	187,500.00	1.0	Kg	187,500.00	187,500.00	2.0	Kg	375,000.00
4. ENDURE 120 SC, 100 ML	2.0	Btl	180,000.00	360,000.00	1.0	Btl	180,000.00	180,000.00	3.0	Btl	540,000.00
5. ZIPL0 90 WP, 1 Kg	1.0	Pack	100,000.00	100,000.00	1.0	Pack	100,000.00	100,000.00	2.0	Pack	200,000.00
6. Herbagreen Protect V	-	ltr	-	-	0.375	Ltr	600,000.00	225,000.00	0.375	Ltr	225,000.00
7. 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
				3,484,000.00				2,017,500.00			5,502,000.00

Fertilization

DAP	Konventional	Application	Integrated	Application
-10	- Chicken Manure - Nitrogen (ZA) - Pospat (TSP 36) - KCL - Dolomit - Trichogramma		- Chicken Manure - Vermicompost - Pospat (TSP 36) - KCL - Trichogramma - Soil Conditioner (humic acid)	
0	-		Humic Acid (0.100 Kg)	Spray
10	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush
17	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush
21	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush
28	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush
35	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush
42	NPK+TSP+KCL	Flush	NPK+TSP+KCL+ Humic Acid (0.083 Kg)	Flush

Spraying

DAP	Konventional	Application	Integrated	Application
7	Pesticides	Spray	HG Protect F (0.050Kg)	Spray
14	Pesticides	Spray	HG Z20 (0.050 Kg) + Pesticides	Spray
21	Pesticides	Spray	HG Protect F (0.050 Kg) + HG Fluisan (0.0062 Ltr)	Spray
28	Pesticides	Spray	HG Z20 (0.050Kg) + HG Protect V (0.095 Ltr)	Spray
35	Pesticides	Spray	HG Protect F (0.050 Kg) + Pesticides	Spray
42	Pesticides	Spray	HG Protect F (0.050 Kg)+ Pesticides	Spray
49	Pesticides	Spray	HG Z20 (0.071Kg)+ HG Protect F (0.071Kg) + HG Protect V (0.095 Ltr)	Spray
56	Pesticides	Spray	HG Protect F (0.071 Kg) + HG Fluisan (0.0062 Ltr)	Spray
63	Pesticides	Spray	HG Z20 (0.071Kg)+ HG Protect V (0.095 Ltr)+ Pesticides	Spray
70	Pesticides	Spray	HG Protect F (0.071 Kg) + Pesticides	Spray
77	Pesticides		HG Protect F (0.071Kg) + HG Protect V (0.095 Ltr)	Spray