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**4 Feb. – 3 May 2020**

**Demo Plot # 7**

**Crops : S h a l l o t**

**Location of Demo Plot : Pasir Pogor, Cimenyan,  
Bandung, West Java – Indonesia**

**by Google Maps**

**<https://maps.google.com/?q=-6.857687.107.659846>**



*S h a l l o t*

*Land Preparation*

*4 – 18 Feb. 2020*

*Basic fertilizer :*  
*Super Chicken Manure*  
*Vermicompost*  
*Amophos (N P S)*  
*Mutiara (N P K)*  
*Rock Pospat*  
*Soil Conditioner*



*Total Area 949 m<sup>2</sup>*



*Shallot*

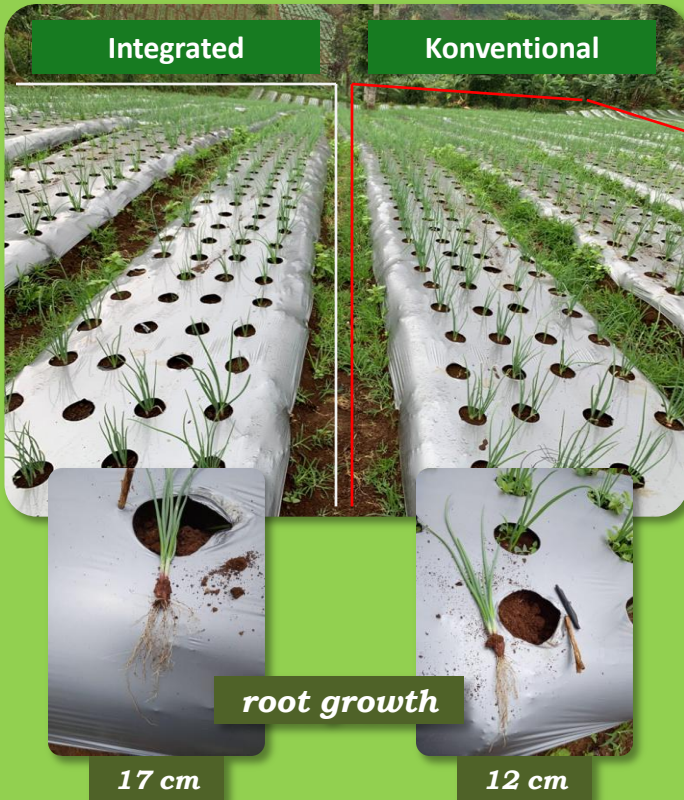
*Planting*

*19 Feb. 2020 (0 DAP)*

*Local Seeds : 150 kg  
Plant. Dist. : 25 X 25 CM  
Integrated : 4608 Plants  
Konventional : 5040 Plants*

<i>Integrated</i>		<i>Konventional</i>	
<i>Basic fertilizer :</i>			
<i>6000 kg</i>	<i>Super Chicken Manure</i>	<i>6000 kg</i>	
<i>237.3 kg</i>	<i>Vermicompost</i>	<i>0 kg</i>	
<i>37.5 kg</i>	<i>Mutiara (NPK)</i>	<i>50 kg</i>	
<i>18.5 kg</i>	<i>Amophos (NPS)</i>	<i>25 kg</i>	
<i>7.5 kg</i>	<i>Rock Pospat</i>	<i>10 kg</i>	
<i>0.38 kg</i>	<i>Soil Conditioner</i>	<i>0.14 kg</i>	





15 DAP	Plant High		Num. Of Tiller	
	I (cm)	K (cm)	I	K
1.	32	28	3	5
2.	30	37	3	2
3.	34	32	2	6
4.	30	35	6	3
5.	30	36	4	3
6.	34	37	3	3
7.	33	31	3	3
8.	26	28	3	3
9.	37	33	3	3
10.	38	34	3	3
	32.4	33.1	3.3	3.4

**Shallot**  
**Maintenance**  
**5 Mar. 2020 (15 DAP)**

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**



Integrated

Konvensional

**Integrated**



**Konvensional**



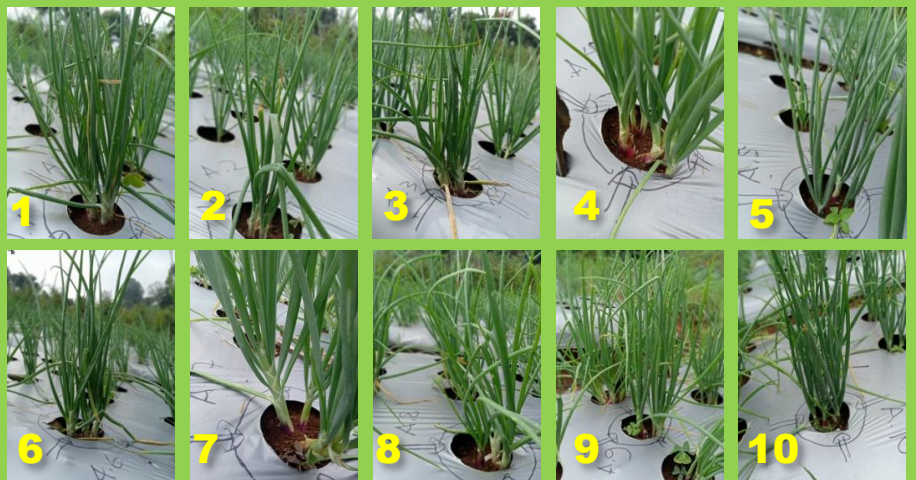
**Shallot**  
**Maintenance**  
**25 Mar. 2020 (35 DAP)**

35 DAP	Plant High		Num. Of Tiller	
	I (cm)	K (cm)	I	K
1.	52	44	3	5
2.	44	54	3	2
3.	53	40	3	6
4.	40	56	7	3
5.	39	52	4	3
6.	49	52	3	3
7.	49	50	4	3
8.	46	52	3	3
9.	54	55	4	5
10.	48	55	3	4
	47.4	51.1	3.7	3.7

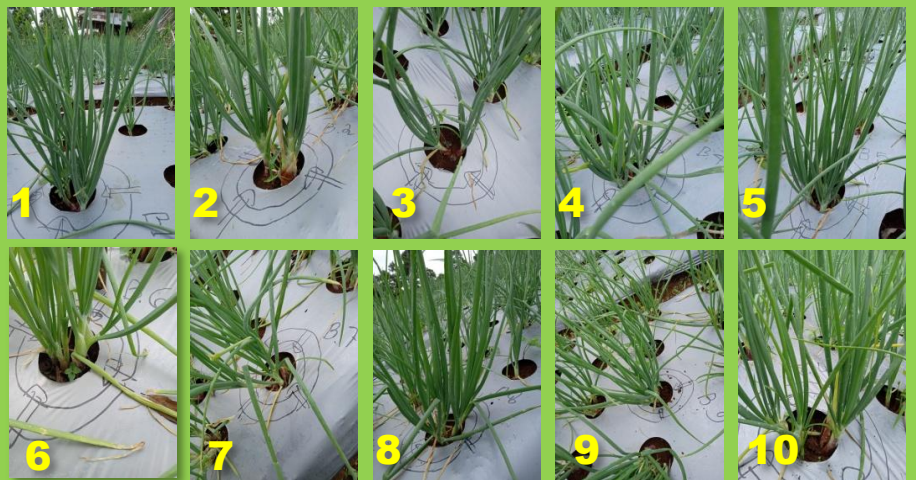


**Shallot**  
**Maintenance**  
**5 Apr. 2020 (50 DAP)**

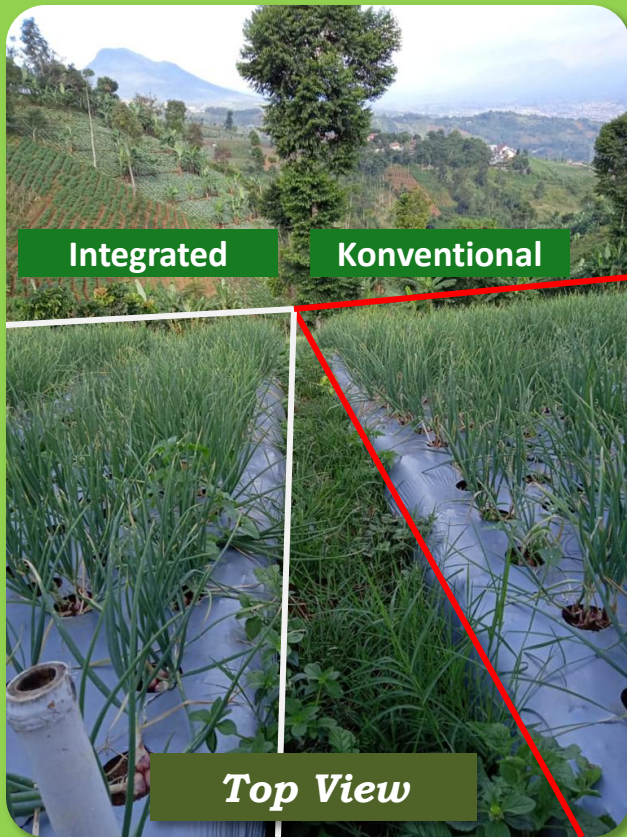
**Integrated (sampling 1 – 10)**



**Konventional (sampling 1 – 10)**



50 DAP	Num. Of Tiller	
	I	K
1.	7	5
2.	5	4
3.	4	7
4.	7	6
5.	4	4
6.	4	5
7.	6	5
8.	6	4
9.	5	6
10.	3	4
	5.1	5.0



*S h a l l o t*

*M a i n t e n a n c e*

*24 Apr. 2020 (65 DAP)*



*Shallot*

*Maturation Stage*

*30 Apr. 2020 (71 DAP)*





*S h a l l o t*  
*H a r v e s t*  
*3 M a y . 2 0 2 0 ( 7 6 D A P )*



**Integrated (sampling 1 – 10)**



**Konvensional (samping 1 – 10)**



**Shallot**  
**Harvest Data**  
**3 May . 2020 (76 DAP)**

76 DAP	Integrated		Konvensional	
	Bulbs	W(kg)*	Bulbs	W (kg)*
1.	13	0.30	13	0.30
2.	7	0.15	11	0.35
3.	9	0.30	8	0.15
4.	15	0.35	13	0.40
5.	8	0.30	10	0.25
6.	12	0.40	9	0.20
7.	12	0.35	9	0.20
8.	12	0.25	8	0.30
9.	10	0.25	10	0.20
10.	10	0.25	10	0.20
	108	2.90	101	2.55

\* Including Roots & Leaves

# Shallot

## Summary of Results Data

growth	Integrated					Konvensional				
	P. High(cm)		Number. Of Tiller			P. High(cm)		Number Of Tiller		
	15 DAP	35 DAP	15 DAP	35 DAP	50 DAP	15 DAP	35 DAP	15 DAP	35 DAP	50 DAP
1.	32	52	3	3	7	28	44	5	5	5
2.	30	44	3	3	5	37	54	2	2	4
3.	34	53	2	3	4	32	40	6	6	7
4.	30	40	6	7	7	35	56	3	3	6
5.	30	39	4	4	4	36	52	3	3	4
6.	34	49	3	3	4	37	52	3	3	5
7.	33	49	3	4	6	31	50	3	3	5
8.	26	46	3	3	6	28	52	3	3	4
9.	37	54	3	4	5	33	55	3	5	6
10.	38	48	3	3	3	34	55	3	4	4
	32.4	47.4	3.3	3.7	5.1	33.1	51.1	3.4	3.7	5.0

Harvest & Cost Data	Integrated	Konvensional
Population (plants)	4608	5040
Yield (kg)	432*	448*
Yield per ha (ton)	9.5	9.1
<b>Income 880 kg X Rp. 30,000.- = Rp. 26,400,000.-</b>		
Land Preparation Costs (Rp.)	6,508,135	6,227,910
Maintenance Costs (Rp.)	1,430,850	2,445,000
Total Cost (Rp.)	7,938,985	8,672,910
Yield per plant (kg)	0.094	0.089
Cost per Plant (Rp.)	1,722.9	1,720.8
Cost (Rp./ha/year)		
Profit (Rp./ha/year)		

\* Without roots & leaves, clean, ready to sell  
Parts of leaves & roots 30 - 35 % of the total plant

# Shallot

## Post Harvest (ph) Data



### 10 day post harvest (dph)

	Integrated		Konventional	
	Bulbs	W (kg)	Bulbs	W (kg)
<b>0 dph</b>	<i>Including roots &amp; leaves</i>			
	108	2.90	101	2.55
<b>10 dph</b>	<i>Without roots &amp; leaves</i>			
	108	1.64	101	0.82
<b>40 dph</b>	<i>Without roots &amp; leaves</i>			
	84	1.34	86	0.78
	<i>Lose weight</i>			
	53.8%		69.4%	

### Seedlings ready for planting



### 40 day post harvest (dph)

### Reject



# Shallot

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

Needs	7										
	shallot										
	949 M2										
	9648 plants										
	konvensional 493.5 M2			integrated 455.5 M2			TOTAL				
	Q	hrg	Rp.	Q	hrg	Rp.	Q		Rp.		
Seed / Nursery	75.0	kg	30,000.00	2,250,000.00	75.0	kg	30,000.00	2,250,000.00	150.0	kg	4,500,000.00
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	-	-	237.3	kg	1,000.00	237,250.00	237.3	kg	237,250.00
chicken manure super	6,000.0	kg	416.67	2,500,000.00	6,000.0	kg	416.67	2,500,000.00	12,000.0	kg	5,000,000.00
humic acid	0.14	kg	600,000.00	85,410.00	0.38	kg	600,000.00	227,760.00	0.52	kg	313,170.00
NPK Mutiara	50.0	kg	10,000.00	500,000.00	37.5	kg	10,000.00	375,000.00	87.5	kg	875,000.00
NPK Amophos	25.0	kg	7,500.00	187,500.00	18.8	kg	7,500.00	140,625.00	43.8	kg	328,125.00
Pospat Alam	10.0	kg	5,500.00	55,000.00	7.5	kg	5,000.00	37,500.00	17.5	kg	92,500.00
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
				6,227,910.00				6,508,135.00			12,736,045.00

## Maintenance Costs (without labor)

Needs	7										
	shallot										
	949 M2										
	9648 plants										
	konvensional 493.5 M2			integrated 455.5 M2			TOTAL				
	Q	hrg	Rp.	Q	hrg	Rp.	Q		Rp.		
NPK Mutiara	25.0	kg	10,000.00	250,000.00	18.75	kg	10,000.00	187,500.00	43.75	kg	437,500.00
Boron	25.0	kg	10,000.00	250,000.00	-	kg	-	-	25.00	kg	250,000.00
KNO Putih	5.0	kg	25,000.00	125,000.00	3.75	kg	25,000.00	93,750.00	8.8	kg	218,750.00
Humic Acid	-	kg	-	-	0.200	kg	600,000.00	120,000.00	0.200	kg	120,000.00
Penyemprotan :											
Herbagreen Z20	-	kg	-	-	0.285	kg	600,000.00	170,820.00	0.285	kg	170,820.00
Herbagreen Protect F	-	kg	-	-	0.285	kg	600,000.00	170,820.00	0.285	kg	170,820.00
Herbagreen Fluisan	-	kg	-	-	0.0095	Ltr	4,000,000.00	37,960.00	0.0095	Ltr	37,960.00
Pestisida :											
1. Raincozeb 80 WP, 800 gr	2.0	Pack	110,000.00	220,000.00	1.0	Pack	110,000.00	110,000.00	3.0	Pack	330,000.00
2. Amistartop 325 EC, 250 ML	1.0	Btl	250,000.00	250,000.00	-	Btl	-	-	1.0	Btl	250,000.00
3. Phytoklor 82.5 WG, 500 gr	2.0	Pack	135,000.00	270,000.00	1.0	Pack	135,000.00	135,000.00	3.0	Pack	405,000.00
4. Endure 120 SC, 200 ML	1.0	Btl	330,000.00	330,000.00	1.0	Btl	330,000.00	330,000.00	2.0	Btl	660,000.00
5. 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
				1,770,000.00				1,430,850.00			3,875,850.00
Add pesticides (purchase by farmers)											
1. Pancozeb 1 kg	1	kg	100,000.00	100,000.00							
2. Nativo 50 gr	2	btl	75,000.00	150,000.00							
3. Previcur 500 ml	1	btl	170,000.00	170,000.00							
4. Preza 100 ml	1	btl	100,000.00	100,000.00							
5. Trivia 200 gr	1	Pack	85,000.00	85,000.00							
6. Gotik 250 ml	0.5	btl	140,000.00	70,000.00							
				675,000.00							
				2,445,000.00							

# Shallot

% of Pests & Diseases																
Pests / Diseases	Konvensional							Integrated								
	15 DAP	30 DAP	45 DAP	60 DAP	75 DAP	90 DAP	105 DAP	15 DAP	30 DAP	45 DAP	60 DAP	75 DAP	90 DAP	105 DAP		
1 Purple Blotch	15	-	-	-	-	-	-	5	-	-	-	-	-	-		
2 Wilt (moler/inul)	-	-	5	-	-	-	-	-	-	10	-	-	-	-		
3 Caterpillar (ulat penggerak)	-	15	-	-	-	-	-	-	15	-	-	-	-	-		

## Application of Planting - Harvesting

### KONVENTIONAL : 493.5 M2

Time		Fertilization - Spraying			Immersed / Flush the Fertilizer	Spraying of Pesticide - Fertilizer
Date	DAP	Immersed	Flush	Spray		
11 Mar. 2020	21			√		Raincozeb, Amistartop, Nativo, Previcur , Booster
15 Mar. 2020	25		NPK Mutiara, KNO-Whie Humic Acid		Humic acid 0.200 kg Mix NPK Mutiara KNO-White	
25 Mar. 2020	35			√		Raincozeb, Endure, Amistartop, Trivia HG Z20 300 gr
4 Apr. 2020	45			√		Pancozeb, Gotik, Nativo Trivia, MKP, Booster
19 apr. 2020	60			√		Pancozeb, Antracol, Trivia , Nativo 50 gr ; Booster

# Shalot

## Application of Planting - Harvesting

**INTEGRATED = 455.5 M2**

Time		Fertilization - Spraying			Immersed / Flush the Fertilizer	Spraying of Pesticide – Fertilizer
Date	DAP	Immersed	Flush	Spray		
19 feb. 2020	0			Humic Acid		Humic Acid : 0.100 kg
5 Mar. 2020	15			HG Protect F (1) Single		HG Protect F : 0.050 kg
12 Mar. 2020	22			HG Protect F (2) Mix HG Fluisan (1)		HG Protect F : 0.070 kg Mix HG Fluisan : 0.0045 Ltr
15 Mar. 2020	25		NPK Mutiara KNO-White Humic Acid		Humic Acid : 0.200 kg Mix NPK Mutiara & KNO-White	
	25			1 Incek + 1 Fungi		1 Incek + 1 Fungi, Normal dsg
passed up	27			HG Z20 (1) Mix 1 Fungi		HG Z20 : 0.070 kg Mix 1 Fungi, Normal dsg
24 Mar. 2020	34			HG Protect F (3) Mix 1 Incek		HG Protect F : 0.070 kg Mix 1 Incek, Normal dsg
31 Mar. 2020	41			HG Z20 (2) Mix 1 Fungi		HG Z20 : 0.070 kg Mix 1 Fungi, Normal dsg
7 Apr. 2020	48			HG Protect F (4) MIX HG Fluisan (2)		HG Protect F : 0.070 kg Mix HG Fluisan : 0.0045 Ltr
14 Apr. 2020	55			HG Z20 (3) Mix 1 Incek + 1 Fungi		HG Z20 : 0.070 kg Mix 1 Incek + 1 Fungi, Normal dsg
21 Apr. 2020	62			HG Protect F (5) Mix 1 Incek		HG Protect F : 0.070 kg Mix 1 Incek, Normal dsg
28 Apr. 2020	69			HG Z20 (4) Mix 1 Incek + 1 Fungi		HG Z20 : 0.070 kg Mix 1 Incek + 1 Fungi, Normal dsg