

LAMPIRAN

Lampiran I Dokumentasi Penelitian

Pembuatan EM4



Penimbangan gula



Pengambilan EM4



Bioaktivator EM4

Persiapan pengomposan



Pengambilan daun bambu tali kering



Pengambilan kulit buah nanas



Pengambilan batang pisang kepok



Batang pisang kepok yang sudah dipotong-potong



Daun bambu tali kering yang sudah dipotong-potong



Kulit buah nanas yang sudah dipotong-potong

Pengomposan



Penimbangan bahan

Pencampuran bahan

Pengukuran pH, suhu,
dan kelembaban dengan
alat soil tester

Kadar air



Penimbangan sampel

Pengovenan sampel
POP

Desikator

C-organik



Penimbangan

Furnace sampel POP

Penimbangan

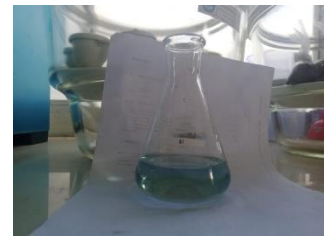
Nitrogen



Penimbangan sampel POP

Penimbangan natrium
tiosulfat

Sampel sebelum
dipanaskan



Proses pemanasan

Proses destilasi

Sebelum dititrasi



Sesudah titrasi

Aplikasi tanaman kemangi



Benih kemangi



Benih kemangi yang direndam air hangat



Tanaman kemangi yang sudah tumbuh

Hasil pupuk organik padat



Lampiran II Data dan Perhitungan

Pengukuran pH

No	Perlakuan	pH Minggu ke 1						
		Hari ke-						
		1	2	3	4	5	6	7
1	K	6,7	6,7	6,6	6,6	6,5	6,5	6,5
2	A1	6,7	6,6	6,6	6,5	6,4	6,4	6,0
3	A2	6,8	6,6	6,6	6,6	6,5	6,4	6,0
4	B1	6,8	6,5	6,6	6,7	6,5	6,5	6,5

5	B2	6,7	6,6	6,6	6,6	6,5	6,2	6,0		
No	Perlakuan	pH Minggu ke 2								
		Hari ke-								
		8	9	10	11	12	13	14		
1	K	6,5	6,0	6,0	6,0	6,2	6,1	6,0		
2	A1	6,0	6,0	6,0	6,1	6,2	6,0	6,0		
3	A2	6,0	6,5	6,4	6,2	6,2	6,2	6,0		
4	B1	6,0	6,0	6,2	6,0	6,3	6,3	6,0		
5	B2	6,5	6,1	6,1	6,0	6,1	6,1	6,0		
No	Perlakuan	pH Minggu ke 3								
		Hari ke-								
		15	16	17	18	19	20	21		
1	K	6,0	6,0	6,5	6,5	6,5	6,5	6,5		
2	A1	6,5	6,5	6,5	6,6	6,6	6,6	6,6		
3	A2	6,0	6,0	6,5	6,5	6,5	6,6	6,6		
4	B1	6,5	6,0	6,5	6,5	6,5	6,5	6,5		
5	B2	6,5	6,0	6,5	6,6	6,0	6,0	6,5		
No	Perlakuan	pH Minggu ke 4								
		Hari ke-								
		22	23	24	25	26	27	28	29	30
1	K	6,5	6,5	6,5	6,5	6,5	6,6	6,6	6,8	6,9
2	A1	6,6	6,6	6,6	6,6	6,6	6,7	6,7	7,0	7,0
3	A2	6,6	6,6	6,6	6,6	6,7	6,7	6,7	6,8	7,0
4	B1	6,5	6,5	6,5	6,5	6,6	6,6	6,7	6,7	6,8
5	B2	6,5	6,5	6,5	6,6	6,6	6,7	6,7	6,7	6,9

Pengukuran Suhu

No	Perlakuan	Suhu Minggu ke 1								
		Hari ke-								
		1	2	3	4	5	6	7		
1	K	34	34	34	32	32	33	29		
2	A1	33	33	34	32	32	31	29		
3	A2	34	33	34	34	34	31	29		
4	B1	34	33	34	32	33	31	30		
5	B2	34	35	33	32	34	31	29		
No	Perlakuan	Suhu Minggu ke 2								
		Hari ke-								
		8	9	10	11	12	13	14		
1	K	28	28	30	29	33	33	29		
2	A1	28	29	31	30	34	32	30		
3	A2	28	29	30	29	30	29	29		
4	B1	29	29	31	30	33	34	30		
5	B2	28	29	30	29	30	30	29		
No	Perlakuan	Suhu Minggu ke 3								
		Hari ke-								
		15	16	17	18	19	20	21		
1	K	28	28	32	34	28	28	31		
2	A1	29	30	33	33	30	29	33		
3	A2	29	27	29	30	28	29	29		
4	B1	29	30	32	33	30	29	32		
5	B2	29	28	28	30	29	29	29		
No	Perlakuan	Suhu Minggu ke 4								
		Hari ke-								
		22	23	24	25	26	27	28	29	30
1	K	32	32	36	34	33	29	29	29	29
2	A1	32	31	37	39	33	30	30	29	29

3	A2	29	29	29	30	30	29	29	29	29
4	B1	33	34	32	34	31	30	30	29	29
5	B2	29	30	30	32	29	29	29	29	29

Kelembaban Pengomposan

No	Perlakuan	Kelembaban Minggu ke 1								
		Hari ke								
		1	2	3	4	5	6	7		
1	K	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
2	A1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
3	A2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
4	B1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
5	B2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
No	Perlakuan	Kelembaban Minggu ke 2								
		Hari ke-								
		8	9	10	11	12	13	14		
1	K	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
2	A1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
3	A2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
4	B1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
5	B2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
No	Perlakuan	Kelembaban Minggu ke 3								
		Hari ke-								
		15	16	17	18	19	20	21		
1	K	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
2	A1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
3	A2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
4	B1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
5	B2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	
No	Perlakuan	Kelembaban Minggu ke 4								
		Hari ke-								
		22	23	24	25	26	27	28	29	30

1	K	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
2	A1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
3	A2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
4	B1	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet
5	B2	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet	Wet

Presentase Penyusutan Bahan

No	Perlakuan	Komposisi Pembuatan Pupuk (gram)			Massa Bahan Pengomposan (gram)		Penyusutan (%)
		Batang Pohon Pisang	Daun Bambu Tali Kering	Kulit Nanas	Sebelum	Sesudah	
1	K	2000	-	-	2000	1186	40,7 %
2	A1	1000	500	500	2000	1428	28,6 %
3	A2	1000	550	450	2000	1442	27,9 %
4	B1	1000	600	400	2000	1547	22,65 %
5	B2	1000	650	350	2000	1618	19,1 %

Pengujian Kadar Air POP

a. Data Pengujian Kadar Air

Simbol	Sampel (gram)	Oven 4 jam (gram)	Oven 8 jam (gram)	Oven 12 jam (gram)	Oven 16 jam (gram)	Oven 20 jam (gram)	Kadar Air (%)	fk
K	10	6,5344	4,5354	3,0606	3,0598	3,0598	69,402	3,268187463
A1	10	6,7398	4,8867	3,1177	3,1102	3,1101	68,899	3,215330697
A2	10	6,4345	4,4002	2,9842	2,9804	2,9804	70,196	3.355254328
B1	10	7,2066	5,4013	3,7847	3,7812	3,781	62,19	2,644802962
B2	10	6,5843	4,8549	3,0146	2,998	2,9978	70,022	3,335779572
T	10	9,3491	9,3315	9,3513	9,3448	9,3448	6,552	1,07011386

b. Perhitungan

$$\text{Kadar air} = \frac{W_1 - W_2}{W_1} \times 100\%$$

Dengan:

W_1 = Berat sampel (gram)

W_2 = Berat sampel setelah dikeringkan (gram)

$$\text{Faktor koreksi kadar air} = \frac{100}{100 - \text{kadar air}}$$

1. Sampel K

$$\text{Kadar air} = \frac{10 - 3,0598}{10} \times 100\% = 69,402\%$$

$$\text{Fk} = \frac{100}{100 - 69,402} = 3,268187463$$

2. Sampel A1

$$\text{Kadar air} = \frac{10 - 3,1101}{10} \times 100\% = 68,899\%$$

$$\text{fk} = \frac{100}{100 - 68,899} = 3,215330697$$

3. Sampel A2

$$\text{Kadar air} = \frac{10 - 2,9804}{10} \times 100\% = 70,196\%$$

$$\text{fk} = \frac{100}{100 - 70,196} = 3,355254328$$

4. Sampel B1

$$\text{Kadar air} = \frac{10 - 3,781}{10} \times 100\% = 62,19\%$$

$$\text{fk} = \frac{100}{100 - 62,19} = 2,644802962$$

5. Sampel B2

$$\text{Kadar air} = \frac{10 - 2,9978}{10} \times 100\% = 70,022\%$$

$$\text{fk} = \frac{100}{100 - 70,022} = 3,335779572$$

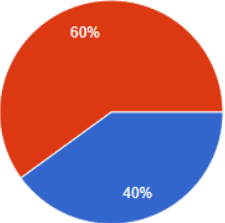
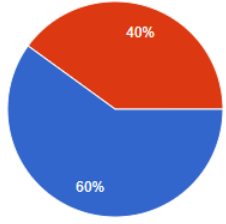
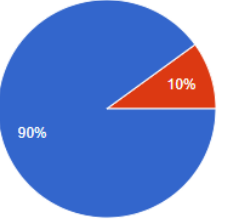

6. Sampel T

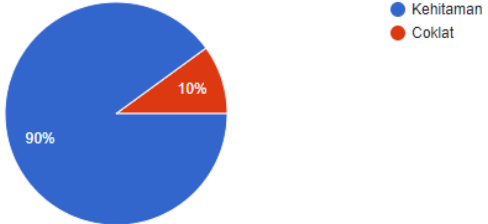



$$\text{Kadar air} = \frac{10 - 9,3448}{10} \times 100\% = 6,552\%$$

$$\text{fk} = \frac{100}{100 - 6,552} = 1,07011386$$

Hasil Uji Organoleptik

Hasil uji organoleptic dilakukan berdasarkan hasil kuisioner 10 responden terhadap bau dan warna POP

Simbol	Warna	Bau
K	<p data-bbox="309 491 488 549">Warna POP Kontrol 10 jawaban</p>  <p data-bbox="882 592 981 635"> ● Kehitaman ● Coklat </p>	<p data-bbox="1294 501 1442 558">Bau POP Kontrol 10 jawaban</p>  <p data-bbox="1845 596 2002 639"> ● Berbau Tanah ● Berbau Menyengat </p>
A1	<p data-bbox="320 908 456 965">Warna POP A1 10 jawaban</p>  <p data-bbox="882 1007 981 1050"> ● Kehitaman ● Coklat </p>	<p data-bbox="1294 911 1406 968">Bau POP A1 10 jawaban</p>  <p data-bbox="1845 1007 2002 1050"> ● Berbau Tanah ● Berbau Menyengat </p>

A2	<p>Warna POP A2 10 jawaban</p> <p style="text-align: right;">Salin</p>  <p>● Kehitaman ● Coklat</p>	<p>Bau POP A2 10 jawaban</p> <p style="text-align: right;">Salin</p>  <p>● Berbau Tanah ● Berbau Menyengat</p>
B1	<p>Warna POP B1 10 jawaban</p> <p style="text-align: right;">Salin</p>  <p>● Kehitaman ● Coklat</p>	<p>Bau POP A2 10 jawaban</p> <p style="text-align: right;">Salin</p>  <p>● Berbau Tanah ● Berbau Menyengat</p>

B2

Warna POP B2

10 jawaban


 Salin

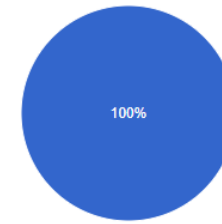


- Kehitaman
- Coklat

Bau POP B2

10 jawaban

 Salin



- Berbau Tanah
- Berbau Menyengat

Pengujian C-organik

a. Data

No	Simbol	Sebelum di Furnace (gram)	Setelah di Furnace (gram)	C-organik (%)
1	K	3,0598	0,6663	16,724
2	A1	3,1101	0,6758	17,477
3	A2	2,9804	0,6565	15,135
4	B1	3,781	0,9433	19,7301
5	B2	2,9978	0,5834	20,349
6	T	9,3448	8,5796	1,0160

b. Perhitungan

$$\text{Kadar abu (\%)} = \frac{W_2}{W_1} \times 100\%$$

$$\text{Kadar bahan organik (\%)} = 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu})$$

$$\text{Kadar C-organik (\%)} = \% \text{ kadar bahan organik} \times 0,58 \times \text{fk}$$

Dengan:

W_2 = berat abu (gram).

W_1 = berat contoh sampel (gram).

0,58 = faktor konversi bahan organik ke C-organik.

Fk = faktor koreksi kadar air.

1. Sampel K

$$\begin{aligned} \text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{0,6663}{3,0598} \times 100\% = 21,775\% \end{aligned}$$

$$\begin{aligned} \text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (69,402\% + 21,775\%) \\ &= 8,823\% \end{aligned}$$

$$\begin{aligned} \text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 8,823\% \times 0,58 \times 3,268187463 \\ &= 16,724\% \end{aligned}$$

2. Sampel A1

$$\begin{aligned}\text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{0,6758}{3,1101} \times 100\% = 21,729\%\end{aligned}$$

$$\begin{aligned}\text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (68,899\% + 21,729\%) \\ &= 9,372\%\end{aligned}$$

$$\begin{aligned}\text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 9,372\% \times 0,58 \times 3,215330697 \\ &= 17,477\%\end{aligned}$$

3. Sampel A2

$$\begin{aligned}\text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{0,6565}{2,9804} \times 100\% = 22,027\%\end{aligned}$$

$$\begin{aligned}\text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (70,196\% + 22,027\%) \\ &= 7,777\%\end{aligned}$$

$$\begin{aligned}\text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 7,777\% \times 0,58 \times 3,355254328 \\ &= 15,134\%\end{aligned}$$

4. Sampel B1

$$\begin{aligned}\text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{0,9433}{3,781} \times 100\% = 24,948\%\end{aligned}$$

$$\begin{aligned}\text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (62,19\% + 24,948\%) \\ &= 12,862\%\end{aligned}$$

$$\begin{aligned}\text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 12,862\% \times 0,58 \times 2,644802962 \\ &= 19,7301\%\end{aligned}$$

5. Sampel B2

$$\begin{aligned}\text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{0,5834}{2,9978} \times 100\% = 19,460\%\end{aligned}$$

$$\begin{aligned}\text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (70,022\% + 19,460\%) \\ &= 10,518\%\end{aligned}$$

$$\begin{aligned}\text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 10,518\% \times 0,58 \times 3,335779572 \\ &= 20,349\%\end{aligned}$$

6. Sampel T

$$\begin{aligned}\text{Kadar abu (\%)} &= \frac{W_2}{W_1} \times 100\% \\ &= \frac{8,5796}{9,3448} \times 100\% = 91,811\%\end{aligned}$$

$$\begin{aligned}\text{Kadar bahan organik (\%)} &= 100(\%) - (\% \text{ kadar air} + \% \text{ kadar abu}) \\ &= 100\% - (6,552\% + 91,811\%) \\ &= 1,637\%\end{aligned}$$

$$\begin{aligned}\text{Kadar C-organik (\%)} &= \% \text{ kadar bahan organik} \times 0,58 \times \text{fk} \\ &= 1,637\% \times 0,58 \times 1,07011386 \\ &= 1,0160\%\end{aligned}$$

Pengujian Nitrogen

$$\text{Kadar Nitrogen \%} = \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times \text{fk}$$

Keterangan

V1 = volume larutan H₂SO₄ yang digunakan untuk titrasi sampel (ml)

V2 = volume larutan H₂SO₄ yang digunakan untuk titrasi blanko (ml)

N = normalitas larutan H₂SO₄

14,008 = bobot atom Nitrogen

fk = faktor koreksi kadar air

W = berat contoh (mg)

1. Sampel K

$$\begin{aligned} \text{N (\%)} &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times \text{fk} \\ &= \frac{(8,5 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 3,268187463 \\ &= 3,433\% \end{aligned}$$

2. Sampel A1

$$\begin{aligned} \text{N (\%)} &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times \text{fk} \\ &= \frac{(5 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 3,215330697 \\ &= 1,801\% \end{aligned}$$

3. Sampel A2

$$\begin{aligned} \text{N (\%)} &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times \text{fk} \\ &= \frac{(5 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 3,355254328 \\ &= 1,880\% \end{aligned}$$

4. Sampel B1

$$\begin{aligned} \text{N (\%)} &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times \text{fk} \\ &= \frac{(4 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 2,644802962 \\ &= 1,481\% \end{aligned}$$

5. Sampel B2

$$\begin{aligned} N (\%) &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times f_k \\ &= \frac{(3 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 3,335779572 \\ &= 0,934\% \end{aligned}$$

6. Sampel T

$$\begin{aligned} N (\%) &= \frac{(V_1 - V_2) \times N \times 14,008}{W} \times 100\% \times f_k \\ &= \frac{(4 \text{ ml} - 1 \text{ ml}) \times 0,05 \text{ N} \times 14,008}{500 \text{ mg}} \times 100\% \times 1,07011386 \\ &= 0,44\% \end{aligned}$$

C/N Rasio

Kode Sampel	C-Organik (%)	Nitrogen (%)	C/N Rasio
K	16,724	3,433	4,871
A1	17,477	1,801	9,704
A2	15,135	1,880	8,050
B1	19,7301	1,481	13,322
B2	20,349	0,934	21,786

Perhitungan C/N Rasio

$$C/N = \frac{\% \text{ C-organik}}{\% \text{ Nitrogen}}$$

a. Sampel K

$$C/N = \frac{16,724\%}{3,433\%} = 4,871$$

b. Sampel A1

$$C/N = \frac{17,477\%}{1,801\%} = 9,704$$

c. Sampel A2

$$C/N = \frac{15,135\%}{1,880\%} = 8,050$$

d. Sampel B1

$$C/N = \frac{19,7301\%}{1,481\%} = 13,322$$

e. Sampel B2

$$C/N = \frac{20,349\%}{0,934\%} = 21,786$$



KEMENTERIAN PERTANIAN
BADAN STANDARDISASI INSTRUMEN PERTANIAN
BALAI BESAR PENGUJIAN STANDAR INSTRUMEN SUMBERDAYA LAHAN PERTANIAN
BALAI PENGUJIAN STANDAR INSTRUMEN LINGKUNGAN PERTANIAN

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 Fax : 62-(0295) – 4749045

FORMULIR	
F.07 LAPORAN HASIL PENGUJIAN RESULT OF ANALYSIS	No. Dokumen : F. 07 Edisi/Revisi : 01/1 Tanggal Edisi : 26 Juni 2023 Tanggal Revisi : 29 Agustus 2023 Halaman : 2 dari 2

Hasil Pengujian / Result of analysis

1. Contoh tanah

Nomor/ Number	Kode Distribusi/ Distribution Code	Kode Contoh/ Sample Code	*Kadar Air	P-Total	K-Total
			%		
1	028.4.001	tanah	6,94	0,51	0,19

2. Contoh Pupuk Organik Padat

Nomor/ Number	Kode Distribusi/ Distribution Code	Kode Contoh/ Sample Code	*Kadar Air	P ₂ O ₅	K ₂ O
			%		
1	028.14.001	Kontrol	67,76	0,45	2,74
2	028.14.002	A1	72,22	0,93	3,36
3	028.14.003	A2	69,78	0,42	2,54
4	028.14.004	B1	72,66	0,88	3,04
5	028.14.005	B2	84,43	3,28	9,93

Metode Pengujian :

1. Kadar Air = Gravimetri
2. P-Total (P₂O₅) = Pengabuan basah, Ekstrak HNO₃, Spektrofotometri
3. K Total (K₂O) = Pengabuan basah, Ekstrak + HNO₃, AAS

Pati, 24 Juni 2024

Manajer Teknis/ Technical Manager

Fitra Purnariyanto, A.Md.,A.K

NIP. 19810801200604 1 001

1. *Komplain hanya dapat dilakukan paling lambat 14 hari kalender setelah laporan ini diterbitkan.*
2. *Hasil pengujian ini tidak untuk di gandakan dan hanya berlaku untuk contoh dan parameter didalamnya.*
3. *Laboratorium BPSI Lingsan tidak melakukan pengambilan contoh/sampling.*
4. *Laboratorium BPSI Lingsan tidak bertanggung jawab dalam proses pengambilan contoh yang diantarkan langsung oleh pelanggan*
5. *Hasil pengujian untuk contoh tanah, tanaman, dan pupuk organik dinyatakan dalam ABBK (Analisis Berdasarkan Berat Kering) atau Dry Basis.*
6. *Hasil pengujian untuk parameter residu pestisida berdasarkan pada bobot basah contoh.*

***Ruang Lingkup Akreditasi**

- Hasil Pengujian hanya berlaku untuk contoh yang diuji
The test result is only valid for the tested sample
- Hasil Pengujian berlaku untuk kelompok (Lot)
The test result is valid for the group sample

Laporan Hasil Pengujian ini dilarang diperbanyak kecuali atas persetujuan tertulis dari Manajer Puncak Laboratorium/Balai Pengujian Standar Instrumen Lingkungan Pertanian
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3. SMA Negeri 1 Wangon (2017 – 2020)
4. Politeknik Negeri Cilacap (2020 – 2024)