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LAMPIRAN

Lampiran 1. Hasil Analisis Residu Metil Metsulfuron Pada Tanah

Tabel Hasil Analisis GC-MS Sampel Tanah H-1					
Peak	Retention Time (min)	Area (%)	Senyawa Teridentifikasi	Rumus Kimia	Bobot Molekul
7	16.196	22.63	Octadec-9-enoic acid (Oleic acid)	C18H34O2	282
4	14.346	17.73	Hexadecanoic acid (Palmitic acid)	C16H32O2	256
8	16.498	9.36	2-Monopalmitin	C19H38O4	330
11	18.037	6.74	Cyclopentadecanone	C15H28O	224
12	18.408	6.20	Oleic acid methyl ester	C19H36O2	296
24	25.497	5.11	Di-(9-octadecenoyl)-glycerol	C39H72O5	620
27	27.104	4.34	9-Octadecenal (Z)	C18H34O	266
6	14.988	3.81	Methyl oleate	C19H36O2	296
21	23.969	2.67	Di-(9-octadecenoyl)-glycerol	C39H72O5	620
16	20.741	2.10	Octadecanoic acid	C18H36O2	284
14	19.778	1.90	Hexadecene oxide	C16H32O	240
10	17.343	1.62	9-Octadecenal (Z)	C18H34O	266
5	14.757	1.49	9-Octadecenal (Z)	C18H34O	266
32	31.089	1.23	Glycerol dipalmitate	C35H68O5	569
22	24.124	0.99	Oleic acid propyl ester	C21H40O2	324
17	21.408	0.94	Hexadecanoic acid ester	C17H34O2	270
15	20.158	0.91	Pentadecanoic acid	C15H30O2	242
18	22.158	0.91	Cyclotridecanone	C13H24O	196
1	9.274	0.90	Dodecanoic acid	C12H24O2	200
9	16.871	0.84	Dipalmitin	C35H68O5	569
2	11.559	0.83	Tetradecanoic acid	C14H28O2	228
25	26.008	0.81	Octadecanal	C18H36O	268
23	24.658	0.75	Oleic acid butyl ester	C22H42O2	338
28	27.858	0.70	Cyclopentadecanone derivative	C15H28O	224
31	29.522	0.67	Oleic acid ester	C19H36O2	296
20	23.108	0.65	Heptadecanone	C17H34O	254
19	22.660	0.64	Hexadecanal	C16H32O	240
30	28.758	0.59	Octadecenoic acid derivative	C18H34O2	282
26	26.558	0.59	Hexadecanoic acid glyceride	C19H38O4	330
3	13.134	0.45	Hexadecanoic acid methyl ester	C17H34O2	270
29	28.274	0.39	Hexadecanoic acid derivative	C16H32O2	256
13	19.406	0.26	Tridecanoic acid	C13H26O2	214
33	34.808	0.25	Long-chain fatty acid derivative	C18H36O2	284

Tabel Hasil Analisis GC-MS Sampel Tanah H+1					
Peak	Retention Time (min)	Area (%)	Senyawa Teridentifikasi	Rumus Kimia	Bobot Molekul
2	14.321	24.98	Hexadecanoic acid (Palmitic acid)	C16H32O2	256
5	16.121	21.45	Octadec-9-enoic acid (Oleic acid)	C18H34O2	282
21	27.269	14.94	9-Octadecenal (Z)	C18H34O	266
19	25.605	13.30	Octadecanoic acid (Stearic acid)	C18H36O2	284
9	18.017	4.60	Oleic acid, 3-hydroxypropyl ester	C21H40O3	340
18	24.180	3.09	1-Monoolein (Glyceryl monooleate)	C21H40O4	356
12	18.398	3.06	9-Octadecenoic acid methyl ester (Methyl oleate)	C19H36O2	296
6	16.470	2.66	2-Monopalmitin	C19H38O4	330
20	26.140	1.83	Nonadecane	C19H40	268
4	14.990	1.34	9-Octadecenoic acid methyl ester	C19H36O2	296
7	16.861	1.29	1,3-Dipalmitin	C35H68O5	569
15	19.786	1.25	Pentadecanoic acid	C15H30O2	242
3	14.789	1.22	9-Octadecenal	C18H34O	266
14	19.426	0.49	Cyclopentadecanone	C15H28O	224
16	20.745	0.48	Hexadecanal	C16H32O	240
22	27.983	0.44	Octadecanal	C18H36O	268
17	23.999	0.31	Oleic acid propyl ester	C21H40O2	324
13	18.550	0.28	Heptadecanoic acid	C17H34O2	270
30	34.556	0.26	Eicosane	C20H42	282
29	32.581	0.25	Nonadecane	C19H40	268
27	31.260	0.25	Octadecanoic acid methyl ester	C19H38O2	298
1	13.175	0.24	Hexadecanoic acid methyl ester	C17H34O2	270
11	18.171	0.23	Hexadecanoic acid ethyl ester	C18H36O2	284
24	28.483	0.20	Octadecanoic acid ethyl ester	C20H40O2	312
26	31.058	0.20	Docosane	C22H46	310
8	17.488	0.17	Oleamide	C18H35NO	281
10	18.117	0.16	Octadecanoic acid methyl ester	C19H38O2	298
23	28.133	0.16	Eicosane	C20H42	282
28	31.622	0.35	Docosane	C22H46	310
25	29.640	0.52	Heneicosane	C21H44	296

Tabel Hasil Analisis GC-MS Sampel Tanah H+14

Peak	Retention Time (min)	Area (%)	Senyawa Teridentifikasi	Rumus Kimia	Bobot Molekul
2	14.345	23.56	Hexadecanoic acid (Palmitic acid)	C16H32O2	256
7	16.129	19.50	Octadec-9-enoic acid (Oleic acid)	C18H34O2	282
25	27.349	18.74	9-Octadecenal (Z)	C18H34O	266
23	25.654	15.84	Octadecanoic acid (Stearic acid)	C18H36O2	284
11	18.030	3.89	Oleic acid, 3-hydroxypropyl ester	C21H40O3	340
22	24.212	3.29	Hexadecanoic acid methyl ester	C17H34O2	270
13	18.414	3.01	Linoleic acid (9,12-Octadecadienoic acid)	C18H32O2	280
8	16.480	2.24	2-Monopalmitin	C19H38O4	330
17	19.808	1.33	Oleamide	C18H35NO	281
9	16.875	1.11	1,3-Dipalmitin	C35H68O5	569
4	14.808	0.75	9-Octadecenal (Z)	C18H34O	266
6	15.004	0.67	Methyl oleate	C19H36O2	296
27	29.717	0.66	Nonadecane	C19H40	268
19	20.767	0.55	Hexadecanal	C16H32O	240
26	28.050	0.56	Octadecanoic acid methyl ester	C19H38O2	298
16	19.444	0.53	Cyclopentadecanone	C15H28O	224
24	26.300	0.52	Eicosane	C20H42	282
3	14.750	0.46	Octadecanoic acid allyl ester	C21H40O2	324
12	18.189	0.33	Heptadecanoic acid	C17H34O2	270
28	31.706	0.33	Heneicosane	C21H44	296
14	18.567	0.31	Cyclodecanol	C10H20O	156
29	32.679	0.29	Docosane	C22H46	310
30	34.621	0.29	Tricosane	C23H48	324
21	24.025	0.28	Oleic acid propyl ester	C21H40O2	324
5	14.942	0.26	Linoleic acid	C18H32O2	280
10	17.501	0.18	Oleamide	C18H35NO	281
18	19.963	0.15	Hexadecanal	C16H32O	240
1	13.188	0.14	Hexadecanoic acid methyl ester	C17H34O2	270
20	22.832	0.12	Octadecanal	C18H36O	268
15	18.999	0.11	Pentadecanoic acid	C15H30O2	242

Tabel Hasil Analisis GC-MS Sampel Tanah H+28					
Peak	Retention Time (min)	Area (%)	Senyawa Teridentifikasi	Rumus Kimia	Bobot Molekul
2	14.346	22.08	Hexadecanoic acid (Palmitic acid)	C16H32O2	256
23	27.387	20.94	9-Octadecenal (Z)	C18H34O	266
7	16.122	18.56	Cyclopentadecanone, 2-hydroxy	C15H28O2	240
21	25.672	17.25	Octadecanoic acid (Stearic acid)	C18H36O2	284
10	18.038	3.43	Oleic acid, 3-hydroxypropyl ester	C21H40O3	340
20	24.223	3.29	Hexadecanoic acid methyl ester	C17H34O2	270
12	18.423	2.90	Linoleic acid	C18H32O2	280
8	16.485	1.91	2-Monopalmitin	C19H38O4	330
16	19.822	1.32	Cyclopentadecanone	C15H28O	224
9	16.881	0.99	1,3-Dipalmitin	C35H68O5	569
4	14.819	0.84	Hexadecane epoxide	C16H32O	240
26	29.759	0.63	Nonadecane	C19H40	268
18	20.782	0.59	Hexadecanal	C16H32O	240
22	26.216	0.54	Octadecanoic acid methyl ester	C19H38O2	298
15	19.457	0.54	Cyclopentadecanone	C15H28O	224
6	15.015	0.53	Methyl oleate	C19H36O2	296
27	31.754	0.48	Heneicosane	C21H44	296
24	28.092	0.47	Eicosane	C20H42	282
3	14.758	0.45	9-Octadecenal (Z)	C18H34O	266
28	32.737	0.31	Docosane	C22H46	310
29	34.665	0.26	Tricosane	C23H48	324
1	13.950	0.26	9-Octadecenal (Z)	C18H34O	266
11	18.198	0.25	Heptadecanoic acid	C17H34O2	270
14	19.009	0.23	Pentadecanoic acid	C15H30O2	242
5	14.950	0.21	Linoleic acid	C18H32O2	280
13	18.575	0.17	Cyclodecanol	C10H20O	156
17	19.976	0.16	Hexadecanal	C16H32O	240
25	28.242	0.14	Octadecanoic acid	C18H36O2	284
19	24.039	0.27	Oleic acid propyl ester	C21H40O2	324

Lampiran 2. Hasil Analisis Parameter Tanah

TABEL ANALISIS PARAMETER SIFAT FISIK TANAH

Tabel Analisis Tekstur Tanah (%)				
Waktu	Pasir	Debu	Liat	Kelas Tekstur
H-1	73	19	8	Lempung Berpasir
H+1	74	19	7	Lempung Berpasir
H+14	73	17	7	Lempung Berpasir
H+28	72	21	7	Lempung Berpasir

Permeabilitas Tanah (cm/jam)	
Waktu	Nilai
H-1	7,08
H+1	7,28
H+14	7,53
H+28	8,31

TABEL ANALISIS PARAMETER SIFAT KIMIA TANAH

pH Tanah	
Waktu	Nilai
H-1	5,27
H+1	5,21
H+14	5,29
H+28	5,24

C-organik (%)	
Waktu	Nilai
H-1	1,4
H+1	1,14
H+14	1,27
H+28	1,45

KTK (cmol(+)/kg)	
Waktu	Nilai
H-1	2,98
H+1	2,72
H+14	2,84
H+28	2,87

TABEL ANALISIS PARAMETER SIFAT BIOLOGI TANAH

Populasi Mikroba Tanah (CFU/g)	
Waktu	Populasi Bakteri
H - 1	2,5
H - 1	2,3
H + 14	2,4
H + 28	2,4

Populasi Mikroba Tanah (CFU/g)	
Waktu	Jamur
H - 1	1,8
H + 1	1,7
H + 14	1,6
H + 28	1,7

Lampiran 3. Pengambilan Sampel Tanah



Persiapan alat dan bahan



Pengambilan sampel tanah kedalaman 0-20 cm



Sampel tanah yang sudah di kompositkan

Lampiran 4. Preparasi Sampel Tanah GC-MS



Penimbangan sampel tanah



Preparasi tanah residu



Vortex sampel tanah agar homogen



Sentrifuge sampel tanah

Lampiran 5. Dokumentasi Analisis Populasi Mikroorganisme dengan menggunakan metode *plate count*



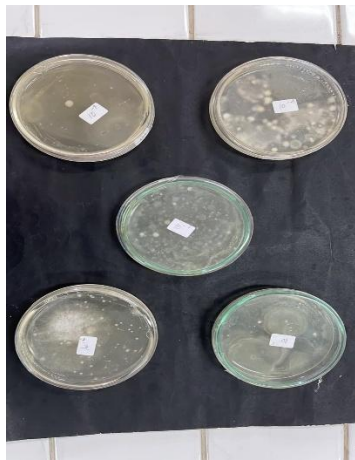
Pengenceran bertingkat dan vortex sampel tanah



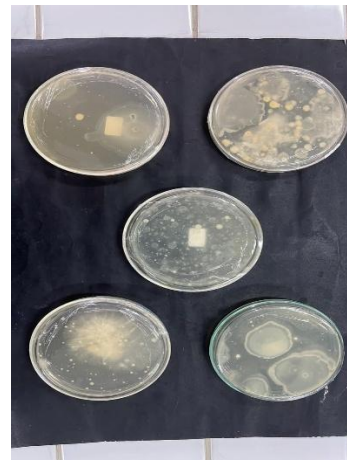
Pembuatan media tumbuh jamur dan bakteri



Isolasi bakteri dan jamur pada media tumbuh.



Hasil isolasi bakteri



Hasil isolasi jamur