

## DAFTAR PUSTAKA

- Agmala, A.B., Mukaromah, A.H., & Prastiyanto, M.E. (2017). *Aktivitas Antibakteri Ekstrak Metanol Serbuk Biji Cempedak (Artocarpus champeden) terhadap Pertumbuhan Methicillint Resistan Staphylococcus aureus (MRSA)*. Universitas Muhammadiyah Semarang, Semarang.
- Aragosa, A., Specchia, V., & Frigione, M. (2021). PHB Produced by Bacteria Present in the Argan Field Soil: A New Perspective for the Synthesis of the Bio-Based Polymer. *MDPI*, 69(5).
- Boleng, D. T. (2015). *Konsep-Konsep Dasar Bakteriologi*. UMM Press, Malang.
- Christopher, K., & Bruno, E. (2003). Identification of Bacterial Species. *Association for Biology Laboratory Education (ABLE)*, 24, 103-130.
- Dong, C.J., Wang, L.L., Li, Q., & Shang, Q.M. (2019). Bacterial Communities in The Rhizosphere, Phyllosphere, and Endosphere of Tomato Plants. *PLoS ONE*, 14(11).
- Hardiansyah, M. Y., Musa, Y., & Jaya, A. B. (2020). Identifikasi Plant Growth Promoting Rhizobacteria pada Rizosfer Bambu Duri dengan Gram KOH 3%. *Agrotechnology Research Journal*, 4(1), 41-46.
- Junaidi, S.H., Gunawan. (2018). Persepsi Petani Tentang Teknologi Aplikasi Media Tanam dan Pemberian PGPR (Plan Growth Promoting Rhizobacteria) terhadap Produksi Tanaman Stroberi (*Fragaria sp.*) di Desa Pandanjero Kecamatan Bumiaji Kota Batu Provinsi Jawa Timur. *Prosiding Seminar Nasional 2018 Membangun Kemandirian Korporasi Petani Indonesia Menuju Kedaulatan Pangan Berkelanjutan*, 185-192.
- Lumbanraja, P. (2013). *Rhizosfer dan Bakteri Pelarut Fosfat*. Sekolah Pascasarjana Universitas Sumatera Utara, Medan.
- Mutaqin, Z., Saputra, H., & Ahyuni, D. (2019). Respons Pertumbuhan dan Produksi Jagung Manis terhadap Pemberian Pupuk Kalium dan Arang Sekam. *Jurnal Planta Simbiosis Volume*, 1(1), 39-50.
- Nahlunnisa, H., Zuhud, E. A. M., & Santosa, Y. (2016). Keanekaragaman Spesies Tumbuhan di Areal Nilai Konservasi Tinggi (NKT) Perkebunan Kelapa Sawit Provinsi Riau. *Media Konservasi*, 21(1), 91-98.
- Nashahi, C. (2010). *Peran Mikroba dalam Pertanian Organik*. Universitas Padjadjaran, Bandung.
- Nazirah, L., & Irfi Syafrullah Marpaung, A. (2021). Pertumbuhan dan Hasil Beberapa Varietas Jagung (*Zea mays L*) Akibat Pemberian Pupuk Organik Eceng Gondok (*Eichhornia crassipes*). *Jurnal Agrotek Indonesia (Indonesian Journal of Agrotech)*, 6(2), 15–21.
- Nuraini, C., Saida, Suryanti, & Nontji, M. (2020). Isolasi dan Identifikasi Bakteri Rhizosfer Tanaman Jagung pada Fase Vegetatif dan Generatif. *Jurnal AGrotekMAS*, 1(20), 24-30.

- Panjaitan, F.J., Bachtiar, T., Arsyad, I., Lele, O. K., & Indriyani, W. (2020). Karakterisasi Mikroskopis dan Uji Biokimia Bakteri Pelarut Fosfat (BPF) dari Rhizosfer Tanaman Jagung Vase Vegetatif. *CIWAL: Jurnal Ilmu Pertanian dan Lingkungan*, 1(1), 9-17.
- Pratama, E. A. (2018). *Isolasi Dan Uji Potensi Bakteri Dari Tempat Pembuangan Akhir Sampah Sebagai Biodekomposer Dan Biofertilizer*. Universitas Muhammadiyah Malang, Malang.
- Prayudyaningsih, R., Nursyamsi, & Sari, R. (2015). Mikroorganisme Tanah Bermanfaat pada Rhizosfer Tanaman Umbi di Bawah Tegakan Hutan Rakyat Sulawesi Selatan. *Prosiding Seminar Nasional Masyarakat Biodiversitas Indonesia*, 1(4), 954-959.
- Putri, M. H., Sukini, & Yodong. (2017). *Mikrobiologi*. KEMENKES RI, Indonesia.
- Rini, C.S., & Rohmah, J. (2020). *Bakteriologi Dasar*. Universitas Muhammadiyah Sidoarjo, Sidoarjo.
- Sudjianto, A.T. (2020). *Mekanika Tanah : Konsep Dasar dan Pengukuran Laboratorium*. Malang : Intimediam.\
- Suleman, R., Kandowanko, N.Y., & Abdul, A. (2019). Karakterisasi Morfologi dan Analisis Proksimat Jagung (*Zea mays, L.*) Varietas Momala Gorontalo. *Jambura Edu Biosfer Journal*, 1(2), 72-81.
- Sulistiyani, T. H., Rahayuningsih, M., & Partaya. (2014). Keanekaragaman Jenis Kupu-Kupu (Lepidoptera: Rhopalocera) di Cagar Alam Ulolanang Kecubung Kabupaten Batang. *Unnes Journal of Life Science*, 3(1), 9-17.
- Sumarsih, S. (2003). *Mikrobiologi Dasar*. Yogyakarta : UPN Veteran.
- Wartapa, A., Slamet, M., Ariwibowo, K., & Hartati, S. (2019). Teknik Budidaya Jagung (*Zea mayz L*) untuk Meningkatkan Hasil. *Jurnal Ilmu-ilmu Pertanian*, 26(2), 1-13.
- Zul, D., Fibriarti, B. L., & Mursida, E. (2017). *Analisis Keanekaragaman Bakteri Tanah Gambut Asal Kawasan Cagara Biosfer Giam Siak Kecil-Bukit Batu, Riau*. Universitas Riau, Pekanbaru.

## LAMPIRAN

### Lampiran 1. Jumlah Koloni

Sampel		Hari ke-1	Hari ke-2	Hari ke-3	
Sampel 1	10(-4)	U1	52	68	66
		U2	38	26	31
		U3	15	15	14
	10(-5)	U1	0	14	18
		U2	3	11	9
		U3	1	8	12
	10(-6)	U1	3	1656	2000
		U2	768	888	880
		U3	144	129	86
Sampel 2	10(-4)	U1	32	71	68
		U2	22	7	8
		U3	42	51	48
	10(-5)	U1	1	1	1
		U2	1	4	5
		U3	10	44	2
	10(-6)	U1	0	3	4
		U2	0	5	11
		U3	0	1	15
Sampel 3	10(-4)	U1	8	4	4
		U2	35	6	10
		U3	31	7	7
	10(-5)	U1	0	192	84
		U2	0	2	2
		U3	2	5	5
	10(-6)	U1	0	0	0
		U2	1	1084	2080
		U3	0	2	4
Sampel 4	10(-4)	U1	19	56	49
		U2	10	9	9
		U3	45	23	23
	10(-5)	U1	27	33	38
		U2	7	12	6
		U3	3	8	6
	10(-6)	U1	0	0	3
		U2	3	5	5
		U3	5	5	6
Sampel 5	10(-4)	U1	844	712	656
		U2	112	262	244
		U3	74	72	71
	10(-5)	U1	92	137	142

	<b>U2</b>	2	109	136
	<b>U3</b>	25	141	168
	<b>U1</b>	1084	1124	1006
<b>10(-6)</b>	<b>U2</b>	131	62	55
	<b>U3</b>	106	53	64

## Lampiran 2. Perhitungan Indeks Keragaman dan Kemerataan

Tipe	Jumlah	Pi	Ln Pi	Pi(Ln Pi)
1	2	0,08	-2,52573	-0,20206
2	1	0,04	-3,21888	-0,12876
3	1	0,04	-3,21888	-0,12876
4	2	0,08	-2,52573	-0,20206
5	1	0,04	-3,21888	-0,12876
6	2	0,08	-2,52573	-0,20206
7	1	0,04	-3,21888	-0,12876
8	1	0,04	-3,21888	-0,12876
9	1	0,04	-3,21888	-0,12876
10	1	0,04	-3,21888	-0,12876
11	1	0,04	-3,21888	-0,12876
12	1	0,04	-3,21888	-0,12876
13	1	0,04	-3,21888	-0,12876
14	1	0,04	-3,21888	-0,12876
15	1	0,04	-3,21888	-0,12876
16	1	0,04	-3,21888	-0,12876
17	1	0,04	-3,21888	-0,12876
18	1	0,04	-3,21888	-0,12876
19	1	0,04	-3,21888	-0,12876
20	1	0,04	-3,21888	-0,12876
21	1	0,04	-3,21888	-0,12876
22	1	0,04	-3,21888	-0,12876
			H	3,052521
			E	0,987538

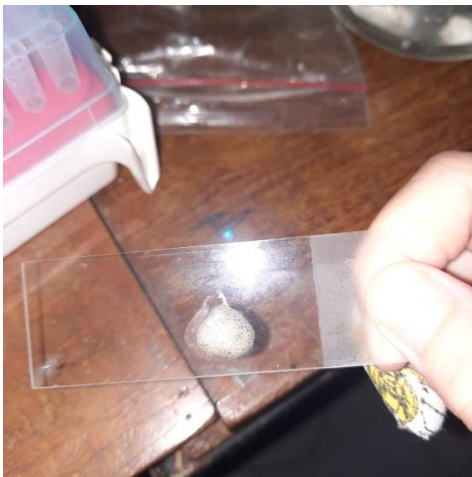
**Lampiran 3. Lahan Jagung di Kel. Wiringpalenna, Kec. Tempe, Kab. Wajo**



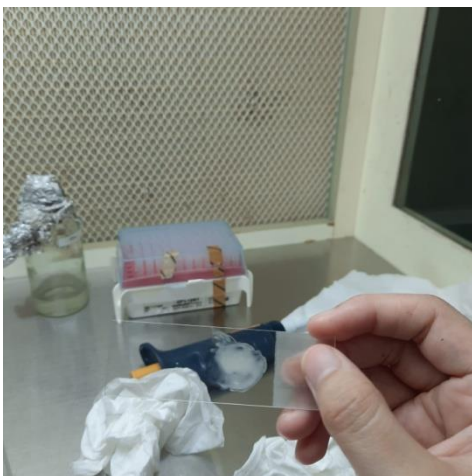
#### Lampiran 4. Isolasi Koloni Murni



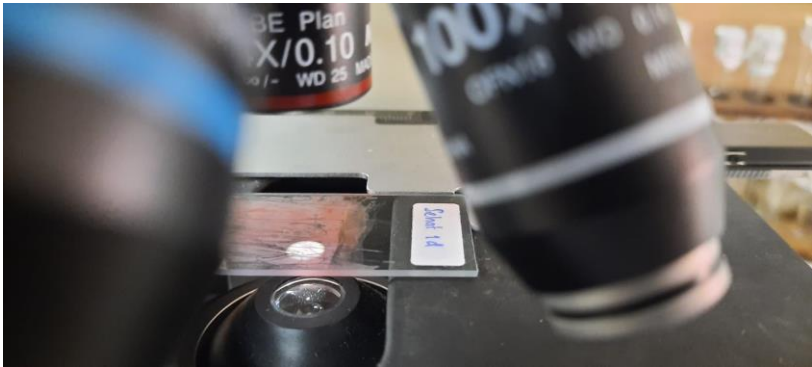
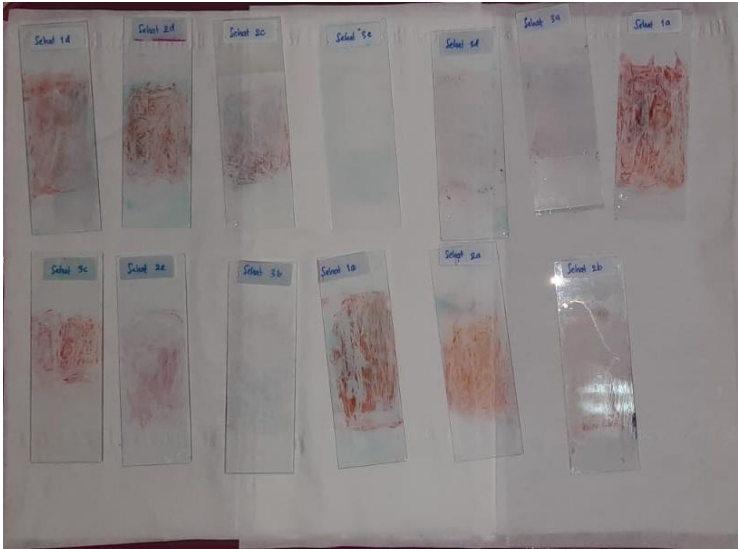
#### Lampiran 5. Uji H<sub>2</sub>O<sub>2</sub>



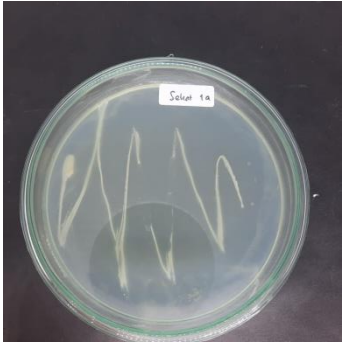
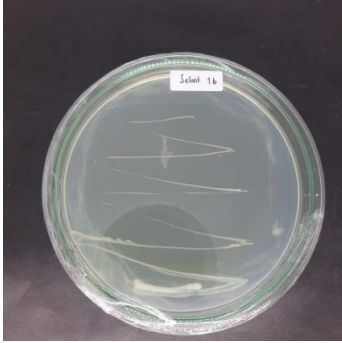
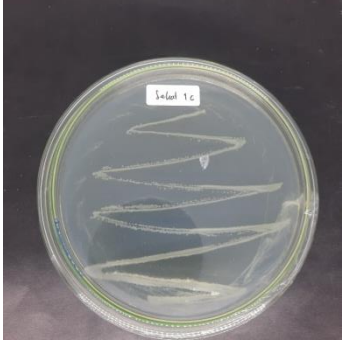

#### Lampiran 6. Uji KOH




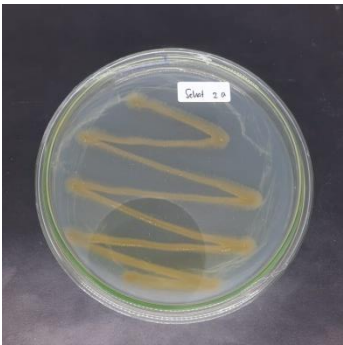
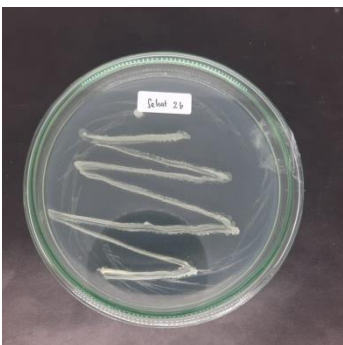

**Lampiran 7. Uji Pembentukan Endospora**

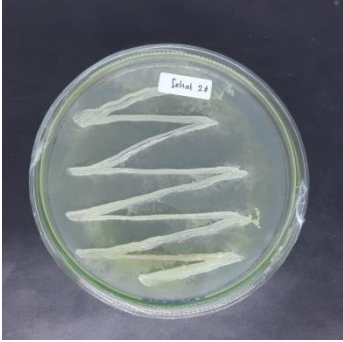
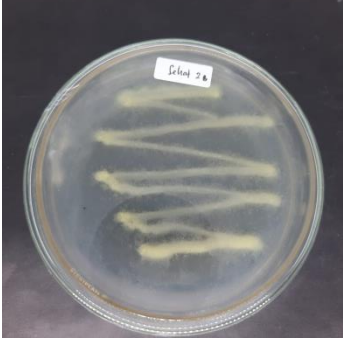

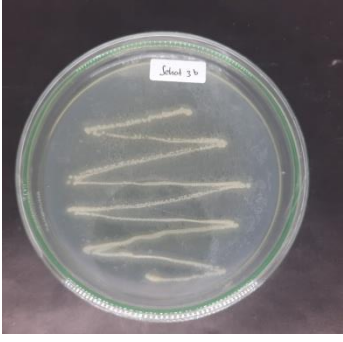


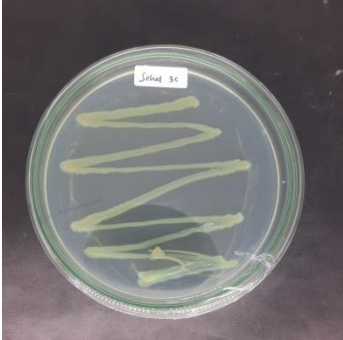

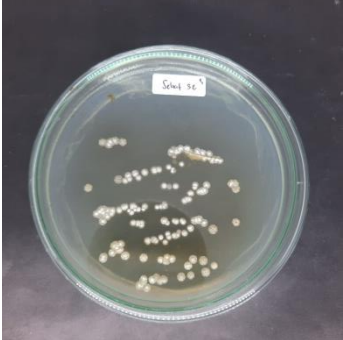

### Lampiran 8. Hasil Pemurnian Isolat Bakteri



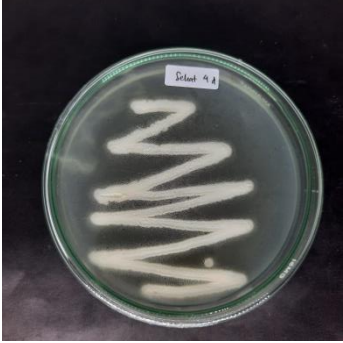
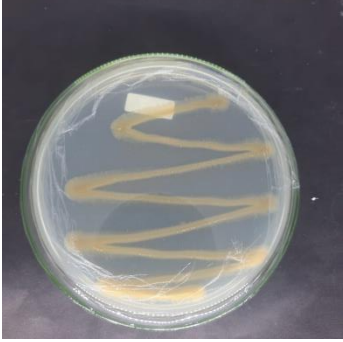
Kode Isolat	Hasil Pemurnian
1a	
1b	
1c	
1d	



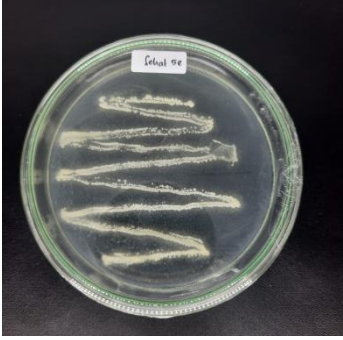


<p><b>1e</b></p>	 A petri dish containing a bacterial culture. The medium is clear, and there are several distinct, parallel, yellowish streaks of bacterial growth. The streaks are somewhat irregular and spread across the surface of the agar.
<p><b>2a</b></p>	 A petri dish labeled "Seton 2a" containing a bacterial culture. The medium is clear, and there are several distinct, parallel, yellowish streaks of bacterial growth. The streaks are somewhat irregular and spread across the surface of the agar.
<p><b>2b</b></p>	 A petri dish labeled "Seton 2b" containing a bacterial culture. The medium is clear, and there are several distinct, parallel, yellowish streaks of bacterial growth. The streaks are somewhat irregular and spread across the surface of the agar.
<p><b>2c</b></p>	 A petri dish labeled "Seton 2c" containing a bacterial culture. The medium is clear, and there are several distinct, parallel, yellowish streaks of bacterial growth. The streaks are somewhat irregular and spread across the surface of the agar.

<p><b>2d</b></p>	
<p><b>2e</b></p>	
<p><b>3a</b></p>	
<p><b>3b</b></p>	

<p>3c</p>	
<p>3d</p>	
<p>3e</p>	
<p>4a</p>	

<p>4b</p>	
<p>4c</p>	
<p>4d</p>	
<p>4e</p>	

<p>5c</p>	 <p>A petri dish labeled 'Lab 9c' containing a bacterial culture. The culture is shown as several distinct, parallel, wavy streaks of a light yellowish color on a clear agar surface.</p>
<p>5d</p>	 <p>A petri dish labeled 'Lab 9d' containing a bacterial culture. The culture is shown as several distinct, parallel, wavy streaks of a light yellowish color on a clear agar surface.</p>
<p>5e</p>	 <p>A petri dish labeled 'Lab 9e' containing a bacterial culture. The culture is shown as several distinct, parallel, wavy streaks of a light yellowish color on a clear agar surface.</p>