DAFTAR PUSTAKA

Abramovitch, R. B., Anderson, J.C., Martin, G. B. 2006. Bacterial elicitation and Evasion of Plant Innat Immunity. *National Library of Medicine*. Nat Rev Mol Cell Biol. 2006 Aug; 7(8): 601-611. doi: 10.1038/nrm1984.

Apsal, H.P. 2018. *Eksplorasi Mikroorganisme di Lahan Rawa Pasang Surut pada Empat Tipe Luapan*. Skripsi. Universitas Sriwijaya, Palembang.

Artursson, V., Finlay, R.D., Jansson, J.K. 2006. Interactions between arbuscular mycorrhizal fungi and bacteria and their potential for stimulating plant growth. *Environ Microbiol*. 2006 Jan;8(1):1-10.

Asaf, S., Numan, M., Khan, A.L., dan Al-Harrasi, A. 2020. Sphingomonas: dari Keanekaragaman dan Genomik hingga Peran Fungsional dalam Remediasi lingkungan dan pertumbuhan . *Kritik Pdt. Bioteknologi*. 40, 138-152. doi: 10.1080/07388551.2019.1709793.

Baharuddin N dan Kuswinanti T, 2005. *Pengaruh Pemberian Pseudomonas fluorescens dan "Effective Microorganism 4" dalam Menekan Penyakit Layu Bakteri (Ralstonia solanacearum) Pada Tanaman Cabai (Capsicum annum L.)*. Prosiding Seminar Ilmiah dan Pertemuan Tahunan EI dan PFI XVI Komda Sul-Sel. UNHAS.

Chen, Y. Y., Chen, P. C., dan Tsay, T. T. 2016. The biocontrol efficacy and antibiotic activity of Streptomyces plicatus on the oomycete Phytophthora capsici. *Biological Control*, 98, 34-42.

Drancourt, M., Bollet, C. dan Carlioz, A. 2000. 16S Ribosomal DNA Sequence Analysis of a Large Collection of Enviromental and Clinical Unidentifiable Bacterial Isolates. *Journal of Clinical Microbiology*. 38(3623-3630)

Ekamaida. 2017. Menghitung total Bakteri pada Tanah Organik Limbah Rumah Tangga dan Tanah Anorgaik dengan Metode total Plate Count (TPC). *Jurnal Penelitian Agrisamudra*. 4(2) : 87-91.

Ermiana, R., Sehendrayatna. Sugianto. 2021. Identifikasi Salinitas Tanah Menggunakan Instrumen Induksi Elektromagentik EM38 di Kecamatan Baitussalam Kabupaten Aceh Besar. *Jurnal IPA dan Pembelajaran IPA*. JIPI5(4):293-304,2021.

Feng, G.D., Wang, Y. H., Zhang, X. J., Chen, W. D., Zhang, J., Xiong, X. 2019. *Sphingomonas lenta* sp. slow - growing bacteria isolated from an Abandoned lead-zinc mine. *Microbial*. 69, 2214-2219. doi: 10.1099/ ijsem.0.003427.

Gabor, E. M., de Vries, E. J., dan Janssen, D. B. 2003. Efficient recovery of environmental DNA for expression cloning by indirect extraction extraction methods.methods. FEMS Microbiol. Ecol. 44, 153–163.

Gao, Y., Mo, S., Cao, H., Zhi, T., Ma, X., Huang, Z., Li,B., wu, J., Zhang, K.,dan Jin, L. 2023. Efficacy and mechanism of water extract of Angelica sinensis (Oliv.) Diels roots based on RNA sequencing and 16s rDNA sequencing in alleviating polycystic ovary syndrome. *Fitomedis*.Jilid 120 November 2023, 155013.

Gillespie, DE, Brady, SF, Bettermann, AD, Cianciotto, NP, Liles, MR, dan Rondon, M. R. (2002). Isolation of antibiotics turbomycin a and B from a metagenomic library of soil microbial DNA. Appl. *Environ. Microbiol.* 68, 4301–4306. doi: 10.1128/AEM.68.9.4301-4306.2002

Holt, J. G., Krieg, N. R., Sneath, P. H. A., Staley, J. T., dan Williams, S. T. 2000. *Bergey's manual of determinative bacteriology ninth edition*. Maryland: Lippicott Williams & Wilkins, a wolters Kluwer company.

Kielak, A., Pijl, A. S., VanVeen, J. A., dan Kowalchuk, G. A.2009. Phylogenetic diversity of Acidobacteria in a former agricultural soil. *International Society for Microbial Ecology Journal*, 3(3), 378-382.

Klett, P. F., Garbaye, J., dan Tarkka, M. 2007. The mycrorrhiza bacteria revisited. *New Phytologist (*2007) 176: 22-36.

Larsbrink, J., dan Mckee, L. S. 2020. Bacteroidetes bacteria in soil: glycan acquisition, enzyme secretion, and gliding motility. *Natioanl Library of Medicine*. 2020:110:63. doi: 10.1016/bs.aambs.2019.11.001.

Mahyarudin. 2014. *Studi metagenomik aktinomisetes berdasarkan gen 16s rRNA dan deteksi gen nifH pada tanah dan akar empat varietas tanaman padi dengan teknik DGGE*. Tesis. Institut Pertanian Bogor, Bogor.

Mishra, J., dan Arora, N. K. 2018. Secondary metabolites of fluorescent pseudomonads in biocontrol of phytopathogens for sustainable agriculture. *Applied Soil Ecology*, 125, 35-4

Nazir, Rashid. 2021. *Long-term Effects of Combination of Organic and Inorganic Fertilizer on Soil Properties and Microorganisms in a Quarternary Red Clay*. Plos One. 2021; 16(12) : e0261387.

Nuro, Fiqolbi. 2017. Metagenomik : Penelusuran Makhluk tak Kasat mata dalam Tanah. *BioTrends* Vol.8 No.2 tahun 2017

Nurrani, A., Hidayat, N. dan Munasik. 2023. Pengaruh Level Nitrogen dari Tiga Jenis Pupuk Anorganik pada Luas Daun dan Warna Daun Rumput Benggala. *Prosiding Seminar Nasional Teknologi dan Agribisnis Peternakan X*. Peningkatan Kapasitas Sumberdaya Peternakan dan Kearifan Lokal untuk Menghadapi Era Society 5.0. Purwokerto, 20-21 Juni 2023 : Fakultas Peternakan Universitas Jenderal Soedirman.

Ottman, N., Davids, M., Suarez-Dies, M., Boaren, S., Schaap, P. J., dan Martins, D.P. 2017. Genome-Scale Modeling and Omics Analysis of the Metabolic Capacity of *Akkermansia Muchiniphila* Reveals A Preferential Mucin-Degrading Lifestyle. *Environmental Microbiol Applications.* (2017) 83:e00578-21. Doi: 10.1128/AEM.01014-17.

Prakoso, S. P., Wirajana, I. N., dan Suarsa, I. W. 2017. Amplifikasi Fragmen Gen 18S rRNA pada DNA Metagenomik Madu dengan Teknik PCR (Polymerase Chain Reaction). *Indonesian Journal of Legal and Forensic Sciences (IJLFS)*. 7(3): 1.

Purwaningrahayu, R.D. dan Taufiq, A. 2017. Respon Morfologi Empat Genotip Kedelai terhadap Cekaman Salinitas. *Jurnal Biologi Indonesia* 13(2):175-188 (2017).

Rachman, A. 2018. *Pengelolaan Sawah Salin Berkadar Garam Tinggi*. Jakarta : IAARD PRESS

Rao S, 2007. *Mikroorganisme Tanah dan Pertumbuhan Tanaman*. Jakarta Universitas Indonesia Press.

Saxena, A. K., Kumar, M., Chakdar,H., Anuroopa, N., dan Bagyaraj, D. J. 2020. Bacillus species in soil as a natural resource for plant health and nutrition. *Journal of Applied Microbiology*, 128(6), 1583-1594.

Schneider, D., Engelhaupt, M., Allen, K., Kurniawan, S., Krashevska, V., Heinemann, M., dan Daniel, R. .2015. *Impact of lowland rainforest transformation on diversity and composition of soil prokaryotic communities in Sumatra (Indonesia)*. Frontiers in Microbiology, 6(1339)1-12.

Sihotang, Tambun. 2021. Pengaruh Cekaman Salinitas terhadap Pertumbuhan tanaman Semusim. *Jurnal Pertanian Agroteknologi*, 9 (2) (2021) pp. 45-51.

Singh, J., dan Yadav, A. N. (Eds.). 2020. *Natural bioactive products in sustainable agriculture. Springer Nature.*

Sighn, R. P., Shelke, G. M., Kumar, A., dan Jha, P.N. 2015. *Biochemistry and Genetics of ACC Deaminase : A Weapon to "Suppress Ethylene" Produced in Plants*. Frontiers in Microbiology. 2015; 6:937

Syltie, P.W. 2011. *Vitazyme an All Natural Biostimulant Concentrate. A Summary of Experiments Using Viatzyme Soil and Plant Biostimulant on Field, Orchard, and Greenhouse Crops*. Texas, U.S.A

Tanveer, Aiman, Yadav Sangeeta, dan Dinesh Yadav. 2016. *Comparative assessment of methods for metagenomic DNA isolation from soils of different crop growing fields*. 3 Biotech, (2016) 6:220.

Trujillo, M. E., Riesco, R., Benito, P., dan Carro, L. 2015 Endophytic Actinobacteria and *Micromonospora* Interactions and Nitrogen Fixing Plants. *Frontiers in Microbiology*. 6: 1341.

Uchiyama, T., dan Miyazaki, K., 2009. Functional Metagenomics for Enzyme Discovery: Challenges.

Umahati, B. K. 2018. *Efektivitas Biostimulan Terhadap Perakaran Tanaman Tebu (Saccharum Officinarum L.) Varietas Kidang Kencana Guna*

Meningkatkan Toleransi Cekaman Kekeringan. Universitas Brawijaya : Malang.

Verma, P., Yadav, A. N., Kumar, V., Singh, D. P., dan Saxena, A. K. 2017. *Beneficial plant-microbes interactions: biodiversity of microbes from diverse extreme environments and its impact for crop improvement*. In Plant-microbe interactions in agro-ecological perspectives (pp. 543-580). Singapore: Springer

Widawati, Sri. 2015. Peran bakteri fungsional tahan salin (PGPR) pada pertumbuhan padi ditanah berpasir salin.1(8):1856-1860, Desember 2015.

Widiyawati, I., Sugiyanto, Junaedi, A., dan Widyaastuti, R. 2014. Peran Bakteri Penambat Nitrogen untuk Mengurangi Dosis Pupuk Nitrogen Anorganik pada Padi sawah. *Jurnal Agron Indonesia* 42 (2) : 96-102 (2014).

Wilhm, J.L, dan Dorris, T.C .1968. Parameter biologis untuk kriteria kualitas air. Biosains , 477-481.

Yabuuchi, E., dan Y. Kosako. 2005. Order IV. Sphingomonadales ord. nov. In : Garrity, G.M., Brenner, D.J., Krieg, N.R., Staley, J.T (Eds). Bergeys Manual of Systematic Bacteriology Second Edition. Department of Microbiology and Molecular Genetics, Michigan State University. USASingleton, P., dan Sainsbury, D. 2006. Dictionary of Microbiology And Molecular Biology. Edisi ke-3. John Wiley & Sons Ltd. UK.

Yama, D.I., dan Kartiko, H. 2020. Pertumbuhan dan Kandungan Klorofil Pakcoy (*Brassica rappa* L) pada Beberapa Konsenrasi AB Mix dengan Sistem Wick. *Jurnal Teknologi Universitas Muhammadiyah Jakarta*. Volume 12 No. 1 Januari 2020.

Yuniarti, F., Hidayati, W., Fitriani, Sarah, A. 2021. Skrining Antibakteri dan Identifikasi Molekuker Bakteri Asam laktat daari Fermentasi Buah Kakao Merah (*Theobroma cacao* L. Varietas Criollo) terhadapBakteri Shigella dysenteriae. *Jurnal Biologi*, 16(1), 2023, 21-29.

Zhalnina, K., Louie, K. B., Hao, Z., Mansoori, N., da Rocha, U. N., Shi, S., Cho, H., Karaoz, U., Loqué, D., Bowen, B.P., dan Brodie, E. L. 2018. Dynamic root exudate chemistry and microbial substrate preferences drive patterns in rhizosphere microbial community assembly. *Nature Microbiology*, 3(4), 470-480.

LAMPIRAN

Lampiran 1. Dokumentasi kegiatan

Pembuatan larutan NaCl

Pengaplikasian larutan NaCl

Pembuatan formula Biostimulan

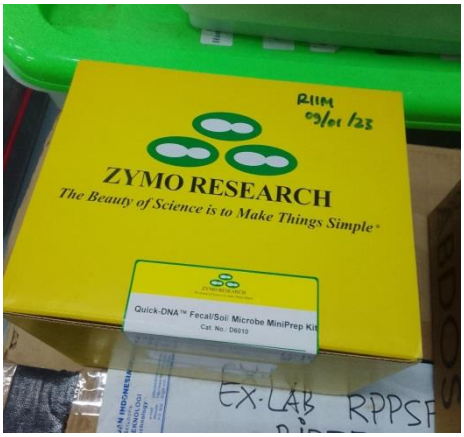

Pengaplikasian Biostimulan pada tanah


Mengukur Nilai EC

Alat *Chlorophyll Content Meter*

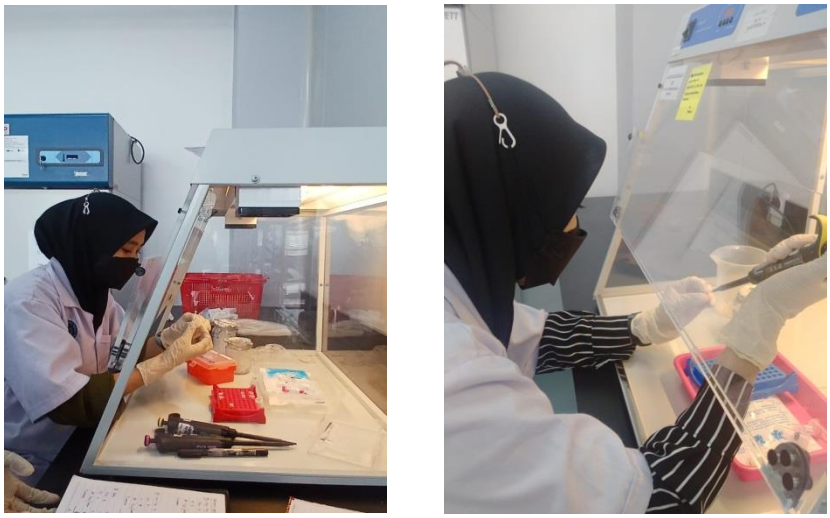

Pengambilan sampel tanah

Sampel tanah



ZymoBIOMICS DNA Miniprep Kit

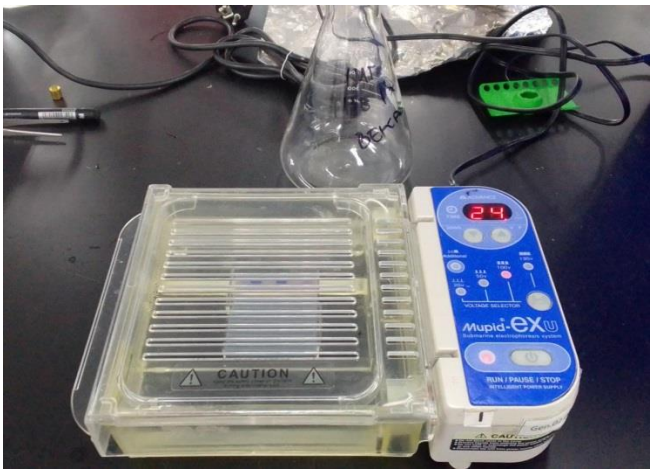
Ekstraksi DNA



Pembuatan PCR mix

DNA tanah

Alat PCR BIO-RAD T100 Thermal Chycler



Proses elektroforesis

Mengukur kemurnian dan konsentrasi DNA menggunakan alat Nanodrop

Lampiran 2. Data hasil pengamatan 45 HST

Perlakuan	Ulangan	Tinggi Tanaman	Jumlah Daun	Anakan	Klorofil	pH Tanah	Salinitas Tanah (EC)
K0 (0mM)	1	48.5	14	4	20.7	6.5	0.36
	2	47.25	18.5	4.5	17.75	6.5	0.29
	3	46	23	5	14.8	6.5	0.22
	4	44.5	18	6	19.03	6	0.35
	5	46	22	4	28.5	6	0.36
Total		**232.25**	**95.5**	**23.5**	**100.78**	**31.5**	**1.58**
Standar Deviasi		**1.50**	**3.58**	**0.84**	**5.14**	**0.27**	**0.06**
Rata-rata		**46.45**	**19.1**	**4.7**	**20.156**	**6.3**	**0.316**
K0 (25 mM)	1	44	14	4	21.3	4.5	1.26
	2	47.8	12	3	23.1	6.5	0.94
	3	41.7	24	7	22.4	5	1.00
	4	41.5	15	5	18.6	6.0	1.24
	5	36.2	12	3	19.3	5.5	1.24
Total		**211.2**	**77**	**22**	**104.7**	**27.5**	**5.68**
Standar Deviasi		**4.22**	**4.98**	**1.67**	**1.94**	**0.79**	**0.15**
Rata-rata		**42.24**	**15.4**	**4.4**	**20.94**	**5.5**	**1.136**
K0 (50 mM)	1	44	21	5	38.9	4.5	2.24
	2	23.7	4	2	30.5	4.5	1.80
	3	38.3	9	3	22.1	4.0	1.70
	4	50	18	4	14.5	4.5	2.01
	5	31	20	6	14.5	4.0	2.62
Total		**187**	**72**	**20**	**120.5**	**21.5**	**10.37**
Standar Deviasi		**10.39**	**7.50**	**1.58**	**10.59**	**0.27**	**0.37**
Rata-rata		**37.4**	**14.4**	**4**	**24.1**	**4.3**	**2.074**
K0 (75 mM)	1	29.6	3	2	38.9	4.5	2.66
	2	28.5	11	6	30.5	4.5	3.15
	3	38.5	12	4	22.1	4.5	3.05
	4	35.2	27	8	11.5	4.5	3.92
	5	39	18	5	23.3	4.5	3.08
Total		**170.8**	**71**	**25**	**87.4**	**22.5**	**15.9**
Standar Deviasi		**4.90**	**8.93**	**2.24**	**7.83**	**0.00**	**0.46**
Rata-rata		**34.16**	**14.2**	**5**	**21.85**	**4.5**	**3.2**
K0 (100 mM)	1	17	5	3	19.15	4.0	3.84
	2	40	14	4	18.6	4.0	3.61
	3	41.6	26	8	19.7	4.0	4.23
	4	42	16	4	16.9	4.0	4.64
	5	48.5	20	5	28	4.0	4.17
Total		**189.1**	**81**	**24**	**102.35**	**20.0**	**20.5**
Standar Deviasi		**12.08**	**7.76**	**1.92**	**4.34**	**0.00**	**0.39**
Rata-rata		**37.82**	**16.2**	**4.8**	**20.47**	**4.0**	**4.1**

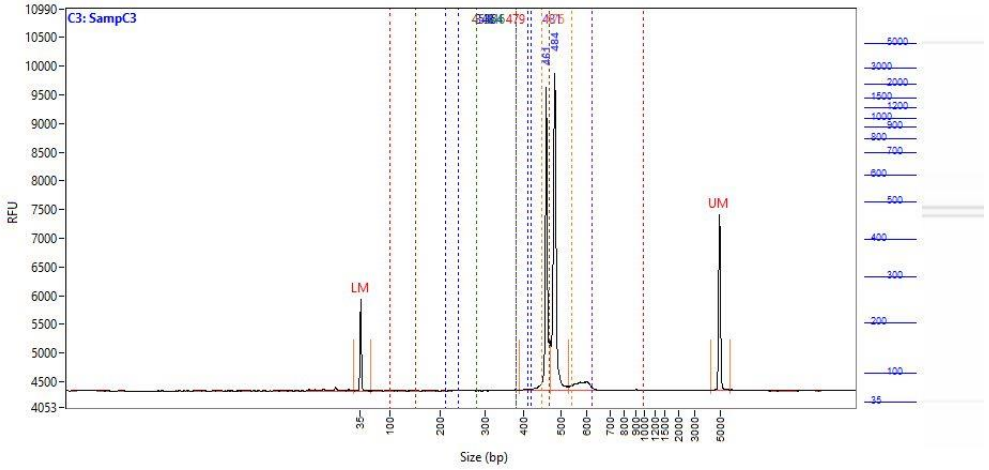
Perlakuan	Ulangan	Tinggi Tanaman	Jumlah Daun	Anakan	Klorofil	pH Tanah	Salinitas Tanah (EC)
KN (0mM)	1	41.5	23	7	24.5	4.0	0.92
	2	36.5	25	6	27.8	4.0	0.96
	3	44.5	17	4	18.1	4.5	0.84
	4	39.9	24	5	17.6	4.5	0.87
	5	41.5	31	5	27.6	4.5	0.95
Total		**203.9**	**120**	**27**	**115.6**	**21.5**	**4.54**
Standar Deviasi		**2.91**	**5.00**	**1.14**	**4.99**	**0.27**	**0.05**
Rata-rata		**40.78**	**24**	**5.4**	**23.12**	**4.3**	**0.908**
KN (25 mM)	1	39.5	18	5	21.6	4.5	2.57
	2	42.3	19	5	29.5	4.5	2.45
	3	37.2	17	4	23.9	4.5	2.35
	4	40.5	37	9	27.8	4.5	2.47
	5	44	23	7	26.1	4.0	2.37
Total		**203.5**	**114**	**30**	**128.9**	**22**	**12.21**
Standar Deviasi		**2.61**	**8.26**	**2.00**	**3.12**	**0.22**	**0.09**
Rata-rata		**40.7**	**22.8**	**6**	**25.78**	**4.4**	**2.442**
KN (50 mM)	1	43.5	24	5	19.7	4.5	4.49
	2	43.5	32	7	23.7	4.5	3.13
	3	30.2	5	2	23.3	4.5	3.57
	4	44	27	7	22.9	4.5	4.22
	5	43	22	7	38	4.5	4.19
Total		**204.2**	**110**	**28**	**127.6**	**22.5**	**19.6**
Standar Deviasi		**5.96**	**10.22**	**2.19**	**7.15**	**0.00**	**0.56**
Rata-rata		**40.84**	**22**	**5.6**	**25.52**	**4.5**	**3.92**
KN(75 mM)	1	46.5	16	4	23.9	4.5	4.43
	2	36.5	15	3	26	4.0	4.42
	3	44.5	9	2	35.4	4.0	4.46
	4	39.9	25	6	21.6	3.5	4.4
	5	41.5	12	3	20.7	3.5	3.43
Total		**208.9**	**77**	**18**	**127.6**	**19.5**	**21.14**
Standar Deviasi		**3.91**	**6.02**	**1.52**	**5.90**	**0.42**	**0.45**
Rata-rata		**41.78**	**15.4**	**3.6**	**25.52**	**3.9**	**4.228**
KN (100 mM)	1	43	19	5	24.9	3.5	5.54
	2	43	21	6	20	3.5	5.67
	3	46.5	21	4	37	4.5	4.54
	4	45	16	4	28.2	4.5	4.99
	5	43.5	15	4	34	4.5	5.15
Total		**221**	**92**	**23**	**144.1**	**20.5**	**25.89**
Standar Deviasi		**1.52**	**2.79**	**0.89**	**6.84**	**0.55**	**0.45**
Rata-rata		**44.2**	**18.4**	**4.6**	**28.82**	**4.1**	**5.178**

Perlakuan	Ulangan	Tinggi Tanaman	Jumlah Daun	Anakan	Klorofil	pH Tanah	Salinitas Tanah
NB (0mM)	1	40.5	25	6	28.7	6.0	0.35
	2	46	25	6	15.8	5.0	0.78
	3	39.7	31	7	17.4	6.0	0.68
	4	41.6	28	6	16.8	4.5	0.49
	5	41.1	25	6	15.8	4.5	0.81
Total		**208.9**	**134**	**31**	**94.5**	**26**	**3.11**
tandar Deviasi		**2.46**	**2.68**	**0.45**	**5.52**	**0.76**	**0.20**
Rata-rata		**41.78**	**26.8**	**6.2**	**18.9**	**5.2**	**0.622**
NB (25 mM)	1	46.2	14	4	26	4.5	0.76
	2	37.6	21	7	28.7	4.5	0.70
	3	43.8	17	5	23.6	4.5	0.58
	4	42.2	20	6	15.6	4.5	0.94
	5	41.2	21	5	22	4.5	0.67
Total		**211**	**93**	**27**	**115.9**	**22.5**	**3.65**
tandar Deviasi		**3.19**	**3.05**	**1.14**	**4.94**	**0.00**	**0.13**
Rata-rata		**42.2**	**18.6**	**5.4**	**23.18**	**4.5**	**0.73**
NB (50 mM)	1	42.7	18	5	23.5	5.0	1.50
	2	45	17	5	47	4.5	1.85
	3	43.65	19	5.5	48.5	4.25	1.685
	4	42.3	21	6	50	4.0	1.52
	5	44.6	23	5	14.5	4.5	1.64
Total		**218.25**	**98**	**26.5**	**183.5**	**22.25**	**8.195**
tandar Deviasi		**1.17**	**2.41**	**0.45**	**16.50**	**0.37**	**0.14**
Rata-rata		**43.65**	**19.6**	**5.3**	**36.7**	**4.45**	**1.639**
NB (75 mM)	1	43.3	14	3	27	4.5	2.22
	2	43	17	5	13.2	4.5	3.25
	3	42	22	6	14.8	4.5	2.97
	4	42	27	6	13.4	4.5	2.18
	5	46.2	15	3	26.6	4.5	2.68
Total		**216.5**	**95**	**23**	**95**	**22.5**	**13.3**
tandar Deviasi		**1.72**	**5.43**	**1.52**	**7.15**	**0.00**	**0.47**
Rata-rata		**43.3**	**19**	**4.6**	**19**	**4.5**	**2.66**
NB (100 mM)	1	47	14	3	24.3	4.5	4.19
	2	45	20	5	27.6	4.5	3.54
	3	40	12	4	12.5	4.5	3.67
	4	44	12	3	23	4.5	4.96
	5	45.8	21	5	20.7	4.0	3.97
Total		**221.8**	**79**	**20**	**108.1**	**22**	**20.33**
tandar Deviasi		**2.67**	**4.38**	**1.00**	**5.68**	**0.22**	**0.56**
Rata-rata		**44.36**	**15.8**	**4**	**21.62**	**4.4**	**4.066**

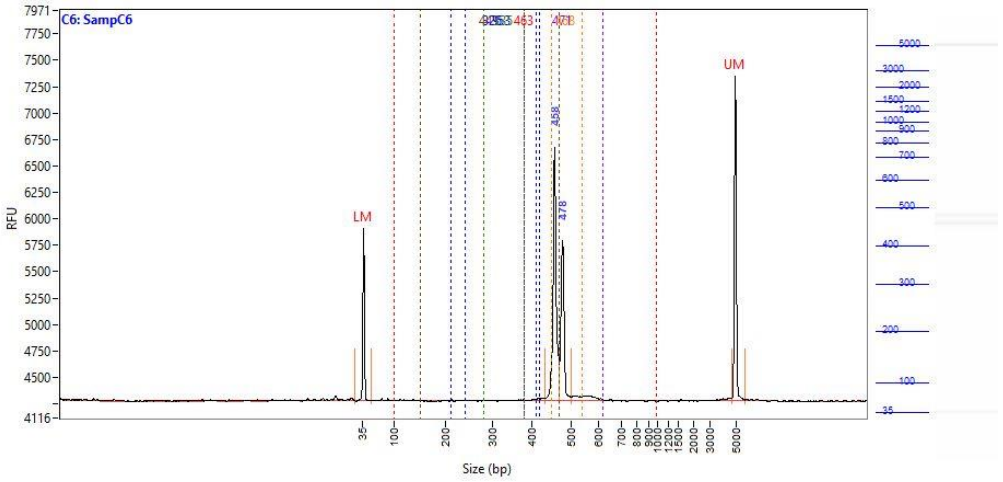
Perlakuan	Ulangan	Tinggi Tanaman	Jumlah Daun	Anakan	Klorofil	pH Tanah	Salinitas Tanah
NB + KN 50% (0mM)	1	41.3	30	6	18.6	4.5	0.90
	2	42.9	14	3	26.2	4.5	0.99
	3	48.1	15	3	16.9	4.5	0.88
	4	40.5	31	6	32.6	4.5	0.72
	5	51.5	20	5	26.3	4.5	0.78
Total		**224.3**	**110**	**23**	**120.6**	**22.5**	**4.27**
Standar Deviasi		**4.75**	**8.09**	**1.52**	**6.40**	**0.00**	**0.11**
Rata-rata		**44.86**	**22**	**4.6**	**24.12**	**4.5**	**0.854**
NB + KN 50% (25 mM)	1	46	20	4	29.2	4.0	2.01
	2	49.5	12	3	26.3	4.5	2.85
	3	46.8	20	5	15.1	4.5	1.47
	4	48	23	6	11.3	4.5	2.02
	5	44.9	21	5	25.8	4.5	1.82
Total		**235.2**	**96**	**23**	**107.7**	**22**	**10.17**
Standar Deviasi		**1.78**	**4.21**	**1.14**	**7.84**	**0.22**	**0.51**
Rata-rata		**47.04**	**19.2**	**4.6**	**21.54**	**4.4**	**2.034**
NB + KN 50% (50 mM)	1	41.7	9	3	36	5.5	3.00
	2	44.5	22	5	21	4.5	2.67
	3	44.5	25	5	17.65	4.5	2.755
	4	44.5	28	5	14.3	4.5	2.84
	5	42	25	5	27.7	4.5	4.47
Total		**217.2**	**109**	**23**	**116.65**	**23.5**	**15.735**
Standar Deviasi		**1.46**	**7.46**	**0.89**	**8.64**	**0.45**	**0.75**
Rata-rata		**43.44**	**21.8**	**4.6**	**23.33**	**4.7**	**3.147**
NB + KN 50% (75 mM)	1	38	16	5	24.4	4.5	3.48
	2	37.5	21	7	21	4.5	3.55
	3	42.5	25	5	21	4.5	2.86
	4	48	12	3	40	4.5	3.93
	5	14	4	3	30.5	4.5	4.37
Total		**180**	**78**	**23**	**136.9**	**22.5**	**18.19**
Standar Deviasi		**13.00**	**8.14**	**1.67**	**8.05**	**0.00**	**0.56**
Rata-rata		**36**	**15.6**	**4.6**	**27.38**	**4.5**	**3.638**
NB + KN 50% (100 mM)	1	45	21	5	39	5.0	5.20
	2	47	25	5	15.4	4.5	6.30
	3	41	22	6	29.7	4.5	4.85
	4	43	22	5	31	4.5	5.57
	5	42.5	21	5	30	4.5	3.1
Total		**218.5**	**111**	**26**	**145.1**	**23**	**25.02**
Standar Deviasi		**2.33**	**1.64**	**0.45**	**8.52**	**0.22**	**1.19**
Rata-rata		**43.7**	**22.2**	**5.2**	**29.02**	**4.6**	**5.004**

Perlakuan	Ulangan	Tinggi Tanaman	Jumlah Daun	Anakan	Klorofil	pH Tanah	Salinitas Tanah
NB + VAM (0mM)	1	41.5	14	4	52	5.5	0.45
	2	43.6	31	9	15.6	4.5	0.44
	3	44.5	14	3	19.1	4.5	0.43
	4	41.5	17	3	50	6.0	0.17
	5	40	19	6	16.1	5.5	0.28
Total		**211.1**	**95**	**25**	**152.8**	**26**	**1.77**
Standar Deviasi		**1.81**	**7.04**	**2.55**	**18.72**	**0.67**	**0.12**
Rata-rata		**42.22**	**19**	**5**	**30.56**	**5.2**	**0.354**
NB + VAM (25 mM)	1	42.1	18	5	39	6.0	0.68
	2	19	3	1	33.7	6.0	0.57
	3	51.5	23	6	28.4	5.5	0.63
	4	47.1	22	6	11.7	4.5	0.99
	5	45	20	6	20.7	4.5	1.06
Total		**204.7**	**86**	**24**	**133.5**	**26.5**	**3.93**
Standar Deviasi		**12.73**	**8.17**	**2.17**	**10.77**	**0.76**	**0.22**
Rata-rata		**40.94**	**17.2**	**4.8**	**26.7**	**5.3**	**0.786**
NB + VAM (50 mM)	1	48.8	18	4	32.4	6.0	1.49
	2	48.4	15	6	11.4	5.5	1.47
	3	45.5	23	5	23.4	4.5	0.64
	4	43.6	17	5	27.6	5.5	0.90
	5	43.7	15	4	12.3	5.0	0.77
Total		**230**	**88**	**24**	**107.1**	**26.5**	**5.27**
Standar Deviasi		**2.49**	**3.29**	**0.84**	**9.30**	**0.57**	**0.40**
Rata-rata		**46**	**17.6**	**4.8**	**21.42**	**5.3**	**1.054**
NB + VAM (75 mM)	1	40.5	20	5	20.4	4.5	1.05
	2	41.5	17	5	26.5	4.5	1.68
	3	50.5	18	5	11.8	5.0	2.46
	4	46.4	17	4	28	4.5	2.80
	5	47.7	19	5	36.5	4.5	3.35
Total		**226.6**	**91**	**24**	**123.2**	**23**	**11.34**
Standar Deviasi		**4.23**	**1.30**	**0.45**	**9.20**	**0.22**	**0.91**
Rata-rata		**45.32**	**18.2**	**4.8**	**24.64**	**4.6**	**2.268**
NB +VAM (100 mM)	1	42.7	25	7	19.2	5.5	4.99
	2	47	21	5	29.2	4.5	3.22
	3	47	15	3	35.8	4.5	3.50
	4	47.5	13	4	24.2	4.5	3.90
	5	48.5	22	5	14.6	4.5	3.89
Total		**232.7**	**96**	**24**	**123**	**23.5**	**19.5**
Standar Deviasi		**2.23**	**5.02**	**1.48**	**8.31**	**0.45**	**0.67**
Rata-rata		**46.54**	**19.2**	**4.8**	**24.6**	**4.7**	**3.9**

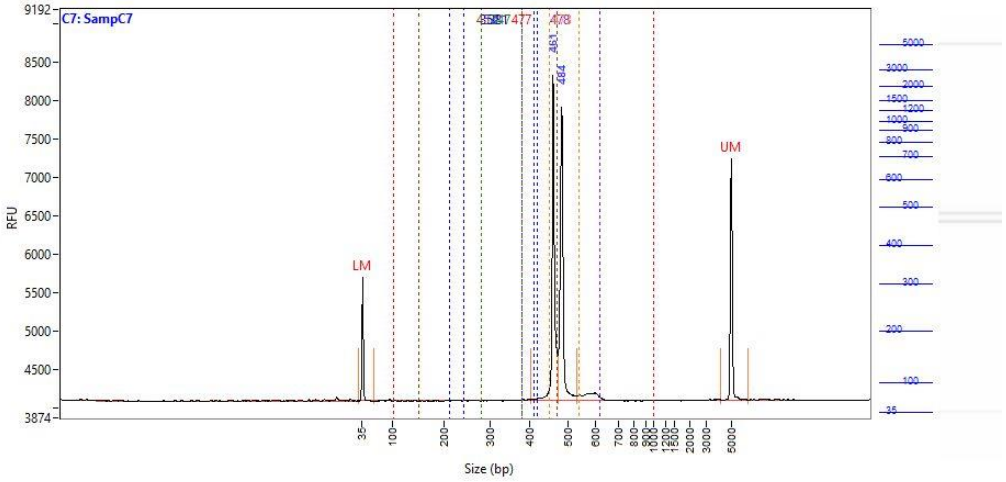
Lampiran 3. Hasil uji lanjut kelayakan analisis metagenomik



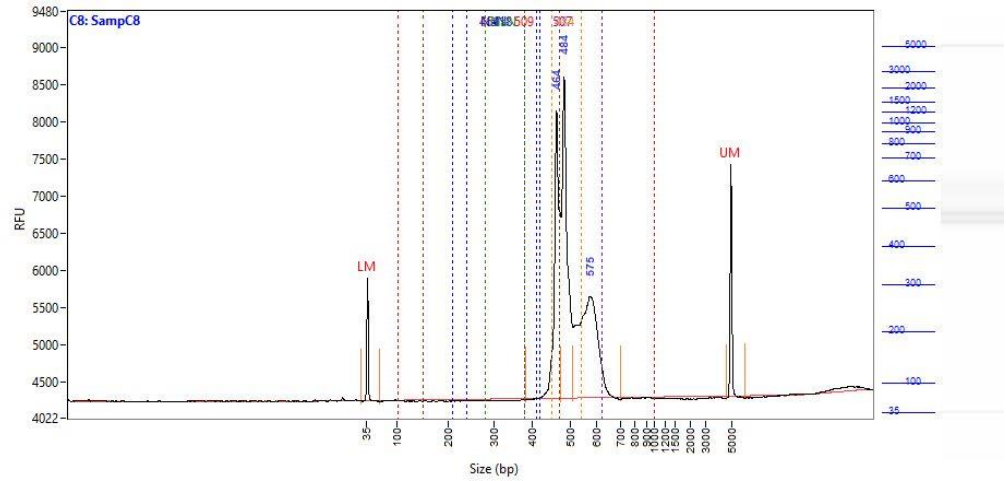
Sampel 1



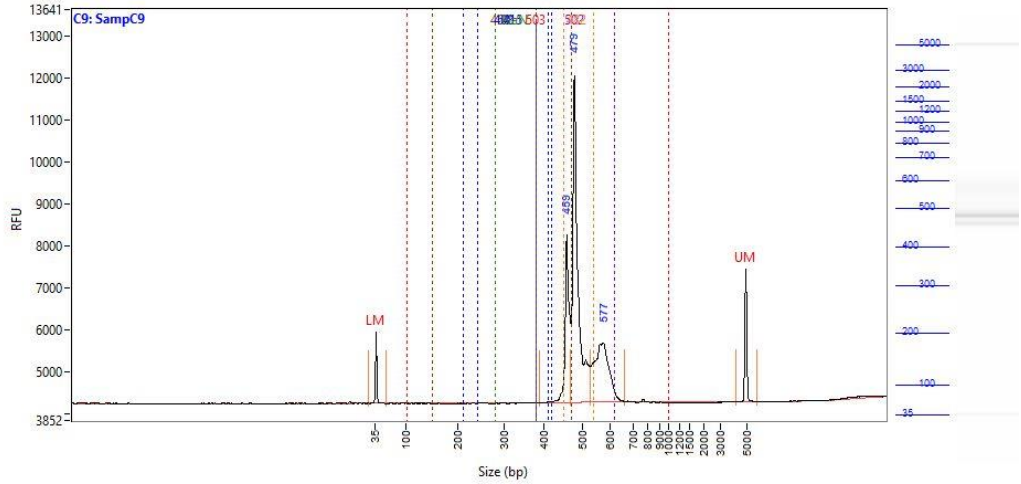
Sampel 2



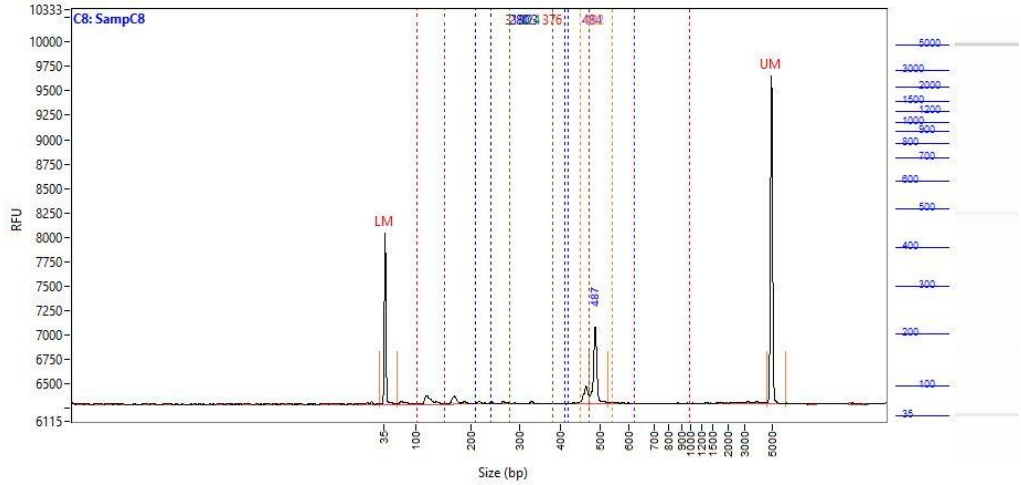
Sampel 3



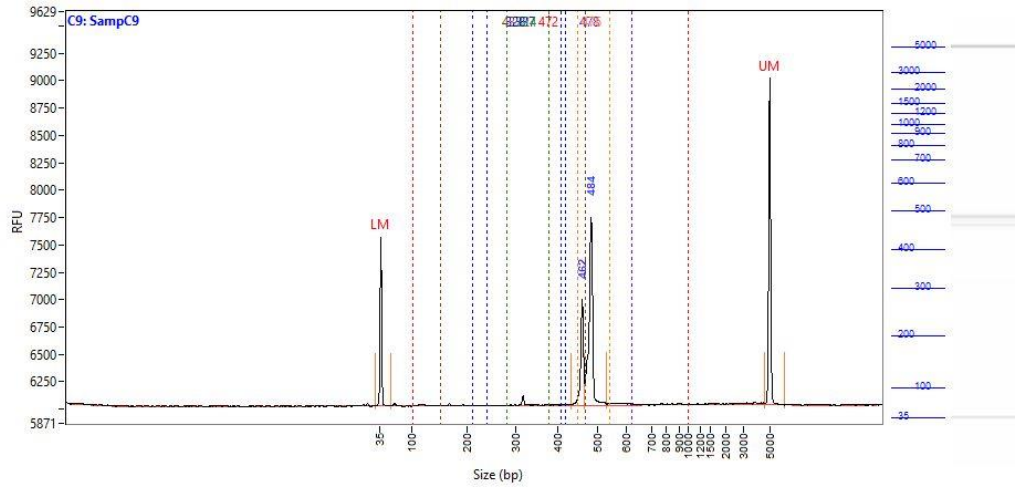
Sampel 4



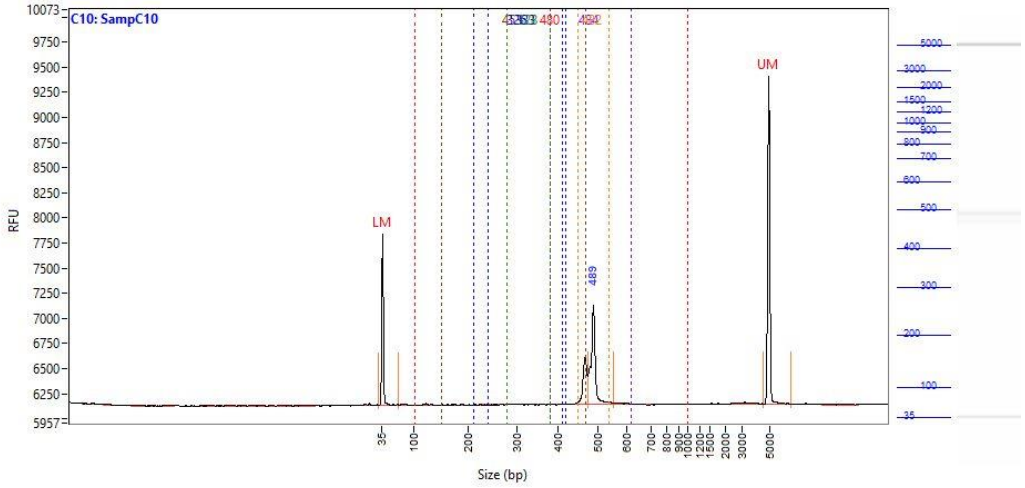
Sampel 5



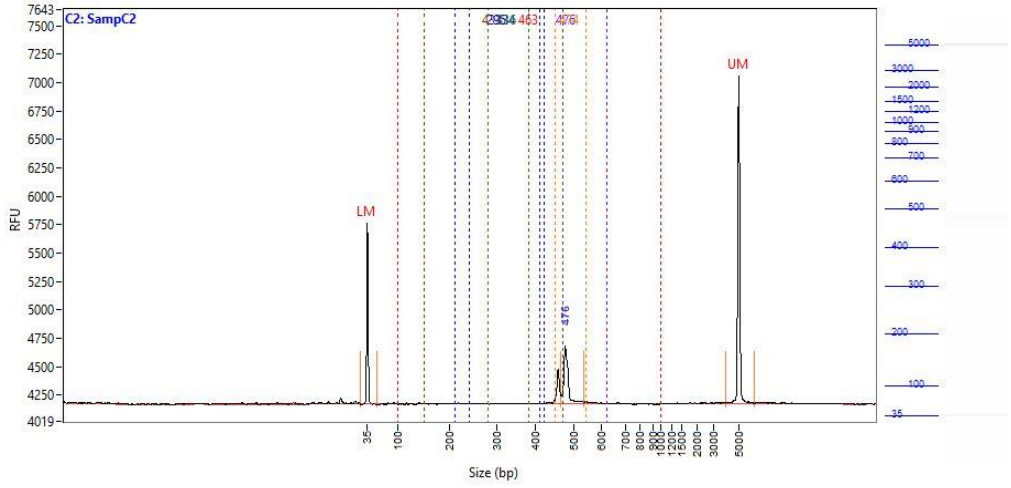
Sampel 6



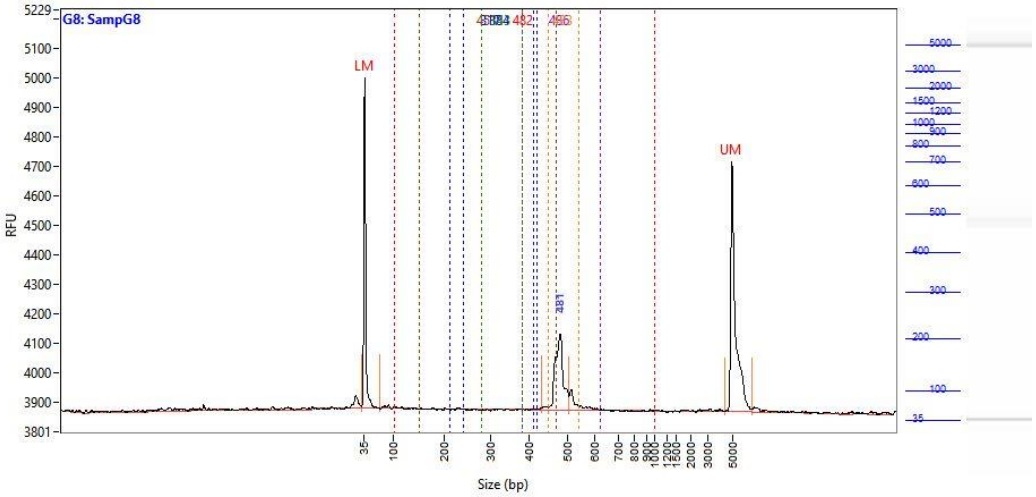
Sampel 7



Sampel 8



Sampel 9



Sampel 10

Lampiran 4. Data Alpha Diversity

sample	observed_species	shannon	chao1	ACE	PD_whole_tree
A.0	104	5.662	111.5	111.366	15.33
A.8	245	6.147	254.848	256.16	32.20
B.0	102	5.645	104	104.132	18.40
B.8	68	4.828	68	68.281	24.29
C.0	229	7.144	248.125	237.577	24.74
C.8	326	6.464	366.932	378.99	36.81
D.0	908	7.793	1524.84	1586.83	75.06
D.8	845	7.387	1402.83	1523.42	76.29
E.0	57	4.923	57	57.326	8.61
E.8	69	3.128	78	74.752	9.82