DAFTAR PUSTAKA

Anggraheni, Y. G. D., Adi, E. B. M., Wibowo, H., & Mulyaningsih, E. S. (2019). Analisis Keragaman Jambu Air (*Syzygium* sp.) Koleksi Kebun Plasma Nutfah Cibinong Berdasarkan Morfologi Dan. *Biopropal Industri*, 10(2): 95-107.

Badriasih, K., Supartha, I. W., & Susila, I. W. 2019. Kepadatan Populasi dan Pola Penyebaran Lalat Buah (*Bactrocera* Spp.)(Diptera: Tephritidae) yang Menyerang Buah Mangga (*Mangifera indica* L.) di Kabupaten Buleleng. *Jurnal Agroekoteknologi Tropika* ISSN, 2301, 6515.

Balke M, Schmidt S. 2012. Indonesian-German Network for Teaching, Training and Research Collaborations (IGN-TTRC) Training of Trainers and Students Module II: DNA barcoding course material. Zoologische Staatssammlung Munich, Germany.

Bangol, I,. Momuat, L, I,. Kumaunang, M. 2014. *Barcod*e DNA Tumbuhan Pangi (*Pangium edule* R.) Berdasarkan Gen matK. 3(2) : 113-119.

Barthet, M.M. 2006. *Expression and function of the chloroplast-encoded gene matK. Virginia Polytechnic Institute and State University. Blacksburg*

Bhandaso, M. L., & Paranoan, N. 2019. Menggali Pengetahuan Lokal Tanaman Obat Untuk Meningkatkan Pendapatan Masyarakat Toraja Di Sulawesi Selatan. *Journal of Society Engagement*, 1(1), 33-43.

Bramasto, Y,. Sudajat ,D. J., Rustam, E, Y. 2015. Keragaman Morfologi Tanaman Jabon Merah (*Anthocephalus macrophyllus*) dan Jabon Putih (*Anthocephalus cadamba*) Berdasarkan Dimensi Buah, Benih dan Daun. 1(6): 1278-1283.

Faizal, F., Mahfudz, M., & Adelina, E. Karakteristik Mangga Lokal (*Mangifera* spp) Melalui Identifikasi Morfologi Dan Anatomi Di Kabupaten Donggala Dan Kabupaten Sigi. Agroland: *Jurnal Ilmu-ilmu Pertanian*, 24(1): 49-56.

Fitmawati, F., Swita, A., Sofyanti, N., & Herman, H. 2013. Analisis Kekerabatan Morfologi Mangifera Dari Sumatera Tengah. *Floribunda*, 4(7).

Hamzah, A.S. 2016. Dampak Perubahan Iklim Terhadap Fenologi Reproduksi Beberapa Spesies Mangga (*Mangifera* spp) Di Kota Makassar. *Tesis*. Universitas Hasanuddin, Makassar.

Hillis, D, M, dkk, 1996. Molecular Systematics. 2nd. edition. Sunderland, MA:Sinauer Associates, Inc

Hollingsworth .P.M, Forrest L.L, Spouge J.L, Hajibabaei. M, Ratnasingham R. 2009. A DNA barcode for land plants. *Proc. Natl*. Acad. Sci. USA. 106: 12794 - 12797.

Hollingsworth. P.M, Graham .S.W, Little D.P. 2011. Choosing and Using a Plant DNA Barcode. *journal pone*.0019254

Ihsan. M. 2020. Verifikasi Hasil Primer Spesifik 4CL Untuk Penyandi Warna dan Filogenetik Pada Kayu Nyemplung (Calophyllum inophyllum). *Skripsi*. Universitas Hasanuddin, Makassar.

Kolondam, B. J. (2012). Barcode DNA rbcL dan matK Aglaonema (*Aglaonema* sp.), Anthurium Gelombang Cinta (*Anthurium plowmanii*) dan Anggrek Payus Limondok (*Phaius tancarvilleae*)[tesis]. Program Pascasarjana UNSRAT, Manado.

Kostermans, A.J.G.H., dan Bompard, J.N. 1993. The Manggoes : *Their Botany, Nomenclature, Horticulture and Utilization*. IBPGR Academic Press Harcourte Brace & Company. London

Mumpuni, K. E., Susilo, H., & Rohman, F. (2013). Potensi tumbuhan lokal sebagai sumber belajar biologi. *Proceeding Biology Education Conference: Biology, Science, Enviromental, and Learning* :11(1) :825-829.

Nilasari, A. N., Heddy, J. B., & Wardiyati, T. (2013). Identifikasi keragaman morfologi daun mangga (*Mangifera indica* L.) pada tanaman hasil persilangan antara varietas Arumanis 143 dengan Podang Urang Umur 2 Tahun. *Jurnal Produksi Tanaman*, 1(1).

Polosakan, R. 2016. Sebaran Jenis-Jenis *Mangifera* di Indonesia. *Jurnal Penelitian dan Pengabdian kepada Masyarakat*.93-98.

Pramudi, M. I., Puspitarini, R. D., & Rahardjo, B. T. (2013). Keanekaragaman dan kekerabatan lalat buah (Diptera: Tephritidae) di Kalimantan Selatan berdasarkan karakter morfologi dan molekular (RAPD-PCR dan sekuensing DNA). *Jurnal Hama dan Penyakit Tumbuhan Tropika*, *13*(2), 192-202.

Putu, M, L., Kriswiyanti, E., & Defiani, M. R. 2017. Analisis Kekerabatan Beberapa Tanaman Mangga (*Mangifera* spp.) Berdasarkan Karakteristik Morfologi Dan Anatomi Daun. *Jurnal Simbiosis*, 7-10.

Ramadhani, R. (2017). Barcode DNA untuk Identifikasi Jenis-Jenis Kemenyan (*Styrax* sp) di Sumatera Utara. Skripsi. Universitas Sumatera Utara.

Rimbawanto, A., B. Leksono, dan Widyatmoko. 2012. Bioteknologi Hutan untuk Produksi dan Konservasi Sumber Daya Hutan. Prosiding Balai Besar Penelitian Bioteknologi dan Pemuliaan Tanaman Hutan; Yogyakarta, 9 Oktober 2012. Seminar Nasional Bioteknologi Hutan. Hlm 11- 20

Rohmawati, M. (2015). Karakterisasi morfologi dan anatomi pegagan (*Centella asiatica* (L.) Urban.) di Kabupaten Batang sebagai sumber belajar pada mata kuliah praktikum morfologi dan anatomi tumbuhan .Doctoral dissertation:UIN Walisongo.

Roru, M. D., Sariyyah, N., & Henakin, S. T. (2020). Penggunaan Media Tanaman Lokal Untuk Meningkatkan Aktivitas Belajar Ipa Di Sekolah Dasar. Prima Magistra: *Jurnal Ilmiah Kependidikan*, 1(2), 160-167.

Rosanti,D. 2013. Morfologi Tumbuhan. Jakarta: Erlangga.

Sa'adah, L. 2015. Karakterisasi morfologi dan anatomi selada air (*Nasturtum* spp.) di Kabupaten Batang dan Semarang sebagai sumber belajar dalam mata kuliah morfologi dan anatomi tumbuhan.Skripsi.UIN Walisongo.

Sarjani. T. M. Mawardi. Ekariana. Pandia, S. dan Wulandari, D. 2017. Identifikasi Morfologi dan Anatomi Tipe Stomata Famili Piperaceae Di kota Langsa. *Jurnal IPA dan Pembelajaran IPA*. 1(2):182-191.

Silalahi, M. 2016. Bahan Ajar Morfologi Tumbuhan. UKI

Soltis, P. S., D. E. Soltis, and J. J. Doyle. 1998. Molecular Systematics of Plants. International Thomson Publishing. New York.

Stevanus, S., & Pharmawati, M. 2021. Biodiversity and phylogenetic analyses using DNA barcoding rbcL gene of seagrass from Sekotong, West Lombok, Indonesia. *Biodiversitas Journal of Biological Diversity*, 22(1).

Sugita, M., K. Shinozaki, and M. Sugiura. 1985. Tobacco Chloroplast tRNALys(UUU) Gene Contains a 2,5-kilobase-pair Intron. Proceeding of the National Academy of Sciences. 82: 3557-3561.

Sumenda, L. 2011. Analisis kandungan klorofil daun mangga (*Mangifera indica* L.) pada tingkat perkembangan daun yang berbeda. Jurnal Bios Logos, 1:1.

Sunarti, S. I. T. I. 2015. Persebaran *Syzygium* endemik Jawa. In Prosidium Seminar Nasional Masyarakat Biodiversitas Indonesia. Vol. 1, No. 5 : 1093-1098

Thompson J. D, Higgins D. G, Gibson T. J. 1994. CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice. Nucleic Acids Res 22:4673-4680

Tindi, M., Mamangkey, N. G. F., & Wullur, S. 2017. DNA barcode dan analisis filogenetik molekuler beberapa jenis bivalvia asal perairan Sulawesi Utara berdasarkan gen COI. *Jurnal Pesisir dan Laut Tropis*, 5(2), 32-38.

Tjitrosoepomo, G. 2007. Morfologi Tumbuhan. Yogyakarta .Gadjah Mada University Press

Uji, T. 2007. Keanekaragaman jenis buah-buahan asli Indonesia dan potensinya. Biodiversitas Vol. 8 (2): 157–167.

Ura, R. Paembonan, S,A. Umar, A. 2015. Karakteristik Fungi Arbuskular Mikoriza Genus Glomus Pada Akar Beberapa Jenis Pohon Di Hutan Kota Universitas Hasanuddin Tamalanrea. *Jurnal Alam dan Lingkungan*. Vol. 6 (11).

Yonemori, K., Honsho, C., Kanzaki, S., Eiadthong, W., & Sugiura, A. 2002. Phylogenetic relationships of *Mangifera* species revealed by ITS sequences of nuclear ribosomal DNA and a possibility of their hybrid origin. Plant Systematics and Evolution, 231(1-4), 59-75.

Yu J, Xue JH, Zhou SL. 2011. New universal matK primers for DNA barcoding angiosperms. *Journal of Systematics and* Evolution 49:176-181.

LAMPIRAN

Lampiran 1. Data Morfologi Daun *Mangifera spp*

1. Sampel *Mangifera* M1

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M1	27	7.1	8	6.5	7.2	194.4	1.7
M1	33.5	6.8	8.6	5.9	7.1	237.9	1.9
M1	24.9	4.2	6.1	3.3	4.5	112.9	1.6
M1	26.2	6	7.2	5.4	6.2	162.4	1.4
M1	22.2	4.9	5.2	3.3	4.5	99.2	1
M1	30.3	7.1	9.1	7	7.7	234.3	1
M1	28.1	6.4	8.6	6.4	7.1	200.4	1.3
M1	29.9	6.6	10.3	7.4	8.1	242.2	0.8
M1	32.5	8	8.9	6.1	7.7	249.2	1.3
M1	23.6	6.1	8.8	6.8	7.2	170.7	1.5
M1	21.6	5.8	7.1	5.8	6.2	134.6	1.8
M1	20.6	5.4	5.9	4.3	5.2	107.1	1.3
M1	28.1	5.9	7.1	5.2	6.1	170.5	1.4
M1	27.3	6	8	5.9	6.6	181.1	1.3
M1	27.4	6.2	8.4	6	6.9	188.1	1.5
M1	19.9	3.3	4.4	3	3.6	71.0	1.1
M1	20.9	4.1	4.7	3.8	4.2	87.8	1.2
M1	26.6	6.1	7.4	5.5	6.3	168.5	1
M1	30.5	7.1	9.8	7.2	8.0	245.0	1.5
M1	28.9	6	7.3	5.5	6.3	181.1	2
M1	33.8	8	10.2	5.5	7.9	267.0	1.5
M1	26.5	6.1	7.1	4.2	5.8	153.7	1.3
M1	18.3	3.9	4.1	2.8	3.6	65.9	1.5
M1	29.5	6.5	7.5	4.7	6.2	183.9	1
M1	23.7	5.9	6.5	4.5	5.6	133.5	1.2
M1	27.2	5	6.9	5.4	5.8	156.9	1.3
M1	21	4.1	5.8	4.3	4.7	99.4	1.2
M1	26.8	5	6.5	5.1	5.5	148.3	1.4
M1	20.1	3.5	4.8	4.3	4.2	84.4	1
M1	31.5	5.2	7.4	5	5.9	184.8	1.3
M1	24.4	5.1	7.7	5.4	6.1	148.0	1.4
M1	23.2	5.4	6.7	4	5.4	124.5	1
M1	24.5	6.8	8.1	5.6	6.8	167.4	1.5
M1	25.9	5.9	7.2	4.5	5.9	151.9	1.5
M1	26.2	6.1	7.8	5.7	6.5	171.2	1.4
M1	19.1	5.3	6.8	3.4	5.2	98.7	1.2
M1	17.2	5.1	5.9	3.7	4.9	84.3	1.4
M1	25.4	7.3	8.4	5.3	7.0	177.8	1.3

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M1	17.8	5.4	5.7	3.3	4.8	85.4	1.2
M1	25.7	5.9	7	4.7	5.9	150.8	1.5
M1	24.2	5.6	7.1	4.2	5.6	136.3	1.4
M1	24.5	4.7	6.1	3.6	4.8	117.6	1.5
M1	22.7	5	7.4	6.1	6.2	140.0	1.3
M1	21.5	4.2	6.1	5.2	5.2	111.1	1.5
M1	20.9	5.6	6.5	4.9	5.7	118.4	1.2
M1	19.5	5.1	6.1	4.9	5.4	104.7	1
M1	23	6.8	7.9	5.7	6.8	156.4	1.4
M1	24.8	6.5	7.6	5.6	6.6	162.9	1.2
M1	21.7	5.4	6	4.6	5.3	115.7	1.3
M1	24.1	7	8.3	6.2	7.2	172.7	1.2
M1	22.5	5.4	5.6	3.3	4.77	107.3	1.2
M1	20.5	5	5.4	3.9	4.77	97.7	1
M1	31.3	6.9	7	4.9	6.27	196.1	1.4
M1	29.4	6.4	7.5	5.3	6.40	188.2	1.4
M1	23.9	4.6	5.1	3.7	4.47	106.8	1.1
M1	21.6	5.6	6.5	5.5	5.87	126.7	1.1
M1	25.5	5.6	6.7	4.7	5.67	144.5	1.2
M1	18.2	5.2	5.5	3.6	4.77	86.8	1.1
M1	21.4	6	6.4	4.4	5.60	119.8	1.2
M1	22.3	5.9	6.2	4.3	5.47	121.9	1.3
M1	26.3	5.6	5.3	3.6	4.83	127.1	1.5
M1	25.5	6.6	6.9	4.9	6.13	156.4	1.5
M1	30.3	6.7	7.8	5.5	6.67	202.0	1.3
M1	25.9	5.6	5.5	3.9	5.00	129.5	1.5
M1	28.8	7	8.2	6.1	7.10	204.5	1.2
M1	24.6	5.8	6.5	4.9	5.73	141.0	1.3
M1	23.2	5.8	6.2	4.1	5.37	124.5	1.2
M1	24.4	5.7	6.6	5.3	5.87	143.1	1.1
M1	27.5	6.2	6.8	5.8	6.27	172.3	1.4
M1	19.7	5.1	6	4.6	5.23	103.1	0.9
M1	29.9	6.5	7.2	5.1	6.27	187.4	1.4
M1	21.5	4.7	5.3	4.2	4.73	101.8	1.1
M1	21.4	5.3	5.4	3.5	4.73	101.3	1.2
M1	24.8	6.4	6.6	4.8	5.93	147.1	1.2
M1	29.1	6.2	6.5	5	5.90	171.7	0.8
M1	26.2	6.2	7.5	5.9	6.53	171.2	0.9
M1	17.9	4.6	5	3.9	4.50	80.6	0.9
M1	18.8	5.1	6.2	4.5	5.27	99.0	1.5

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M1	19.1	5	5.7	4.7	5.13	98.0	1.1
M1	18.7	5.1	6	4.8	5.30	99.1	1.3
M1	21.4	4.6	5.3	3.8	4.57	97.7	1.5
M1	18.6	5.9	6.8	5.5	6.07	112.8	1
M1	22.9	5.4	6.3	5.1	5.60	128.2	1.5
M1	20.7	5.3	6	4.1	5.13	106.3	1.3
M1	22.1	5.8	6.2	4.9	5.63	124.5	1.3
M1	20.9	5.6	6	4.1	5.23	109.4	1.1
M1	24.2	6	6.6	5.2	5.93	143.6	1.2
M1	19	6.2	7.7	6	6.63	126.0	1.4
M1	22.2	6.3	7.9	6.7	6.97	154.7	0.8
M1	23.6	5.6	6.2	5	5.60	132.2	1.4
M1	26.6	7.4	8.7	6.1	7.40	196.8	1.5
M1	26.6	7.5	8.4	5.8	7.23	192.4	1.7
M1	20.5	7	7.9	6.8	7.23	148.3	1.4
M1	23.2	6.1	6.6	5	5.90	136.9	1.8
M1	28.2	7.8	8	5.6	7.13	201.2	1.6
M1	31.7	8.3	9.2	6.7	8.07	255.7	1.7
M1	26.5	6.9	7.8	5.2	6.63	175.8	1.5
M1	23.7	6	7.3	5.3	6.20	146.9	1.2
M1	25.5	6.9	7.8	6.2	6.97	177.7	1.4
M1	25.6	7.5	8.1	6	7.20	184.3	1.7
Rata-rata	**24.386**	**5.864**	**6.92**	**5.005**	**5.929667**	**147.1985**	**1.31**

2. Sampel *Mangifera* M2

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M2	17.2	5.4	6.3	4.1	5.3	90.6	1.2
M2	20.6	5	6.1	5.4	5.5	113.3	1.0
M2	22.5	5.2	5.8	4.2	5.1	114.0	1.0
M2	19.9	4.2	5.3	3.9	4.5	88.9	1.1
M2	18.7	4.7	6	5.2	5.3	99.1	1.2
M2	23	5.2	6	4.7	5.3	121.9	0.9
M2	27.6	5.8	7.1	5.3	6.1	167.4	1.0
M2	22.2	5.7	6.4	4.7	5.6	124.3	1.1
M2	22.5	5.5	6.2	4.1	5.3	118.5	0.9
M2	18.4	4.4	5.6	4	4.7	85.9	0.8
M2	24.5	5.3	6.5	4.3	5.4	131.5	1.0
M2	22.5	4.9	5.7	4.2	4.9	111.0	0.9
M2	21.2	4.8	5.9	4.4	5.0	106.7	1.1
M2	24.5	5	5.8	4.8	5.2	127.4	1.0
M2	22.4	4.9	5.7	4.5	5.0	112.7	1.0
M2	20.8	5.5	6.2	4.4	5.4	111.6	1.2
M2	22.1	5.9	6.9	5.2	6.0	132.6	1.1
M2	21.2	4.6	6.2	4.9	5.2	110.9	0.8
M2	25.8	6.4	7.5	5.6	6.5	167.7	0.9
M2	19.2	5	6.1	4.8	5.3	101.8	1.1
M2	20.8	5	6	3.8	4.9	102.6	1.1
M2	23.9	5.1	6	4.7	5.3	125.9	1.2
M2	19.5	6.2	7.4	5.8	6.5	126.1	1.2
M2	24	5.8	7.3	5.2	6.1	146.4	1.1
M2	21.8	5.2	6.1	4.9	5.4	117.7	0.8
M2	18.6	4.9	5.7	4	4.9	90.5	1.0
M2	19.4	5	5.9	4.6	5.2	100.2	1.0
M2	19.9	4.9	5.7	3.9	4.8	96.2	1.1
M2	19.8	5.3	6.2	4.6	5.4	106.3	0.9
M2	19.9	5.1	6	4.6	5.2	104.1	0.8
M2	18.5	4.8	5.2	3.7	4.6	84.5	1.1
M2	22.5	5.1	5.9	4.7	5.2	117.8	1.2
M2	18.6	4.9	6.1	5.2	5.4	100.4	1.1
M2	24	6.9	7.8	5	6.6	157.6	1.1
M2	22	5.8	7.1	5.2	6.0	132.7	1.0
M2	21.1	5.7	6.1	4.6	5.5	115.3	1.2
M2	23.3	5.9	7.5	6	6.5	150.7	1.3
M2	24.4	5.2	6.5	5	5.6	135.8	1.2
M2	24.4	6.4	7.3	5.6	6.4	157.0	1.3

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M2	23.2	5.8	6.7	4.7	5.7	133.0	1.2
M2	18.6	4.8	5.4	3.6	4.6	85.6	1.0
M2	16.3	4.3	4.9	3.2	4.1	67.4	1.0
M2	20	4.8	5	3.6	4.5	89.3	1.1
M2	22.9	4.5	5	4.1	4.5	103.8	1.2
M2	23.1	5.3	6.7	5.7	5.9	136.3	1.1
M2	22.9	5.8	6.5	4.4	5.6	127.5	1.2
M2	17.7	5.2	6.1	4.6	5.3	93.8	1.0
M2	18	4.5	5.5	4.4	4.8	86.4	1.1
M2	22.2	5.9	7.3	5.6	6.3	139.1	1.1
M2	17.2	6.5	7.8	6.9	7.1	121.5	1.2
M2	25.1	5.6	6.1	5.3	5.7	142.2	1.7
M2	24.4	4.5	5.3	4.9	4.9	119.6	1.1
M2	19.6	4.2	4.9	3.8	4.3	84.3	1.2
M2	27.1	6.7	7.1	5.4	6.4	173.4	1.5
M2	19.7	4.9	5.3	4.2	4.8	94.6	1.4
M2	18.2	4.6	5.8	5.1	5.2	94.0	1
M2	16	4.3	4.4	3.4	4.0	64.5	0.9
M2	20.2	4.6	5.5	5.7	5.3	106.4	1.1
M2	21.1	4.8	5.1	4.5	4.8	101.3	0.8
M2	18.2	4.3	4.9	3.2	4.1	75.2	0.9
M2	17	3.6	4.2	3.6	3.8	64.6	0.8
M2	19	4.2	4.9	3.8	4.3	81.7	0.8
M2	19.3	4.1	5.3	4.3	4.6	88.1	0.9
M2	18	4.5	5	4.3	4.6	82.8	1
M2	19.5	3.5	4.4	3.1	3.7	71.5	1
M2	21.2	5.4	5.8	4.4	5.2	110.2	1.2
M2	19.6	4.3	4.8	3.8	4.3	84.3	1
M2	23.6	6.2	6.5	5.3	6.0	141.6	1.4
M2	26.3	5.5	6.6	5	5.7	149.9	1.3
M2	25.4	6.4	7.7	6.2	6.8	171.9	1.7
M2	18.9	4.9	5.8	5	5.2	98.9	1.4
M2	23.5	5.4	7	6	6.1	144.1	1.2
M2	24.4	5.2	5.9	4.4	5.2	126.1	1.1
M2	22.7	5.5	6.3	5	5.6	127.1	1.2
M2	22.3	5.3	6.1	5	5.5	121.9	1
M2	17.6	4.2	4.7	3.6	4.2	73.3	0.8
M2	23.3	6.8	7.9	6.6	7.1	165.4	1.1
M2	22.4	5.5	7.1	5.9	6.2	138.1	1.3
M2	22.1	4.6	5.3	4.2	4.7	103.9	0.9

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M2	22.7	5.5	6.5	5.7	5.9	133.9	1.2
M2	22.6	5.5	6.7	5.1	5.8	130.3	1.2
M2	20.8	5.2	5.8	4.9	5.3	110.2	1.3
M2	21.8	5	6.1	4.8	5.3	115.5	1
M2	21.9	5	6.2	4.9	5.4	117.5	1
M2	20.1	4.8	5.5	4.4	4.9	98.5	0.9
M2	22.6	5.9	7	7.1	6.7	150.7	1
M2	21.1	4.3	4.9	4.1	4.4	93.5	1
M2	25	5.9	6.5	4.8	5.7	143.3	1.1
M2	22.2	5.8	6.3	4.4	5.5	122.1	1.2
M2	20.9	4.4	5.3	4.1	4.6	96.1	0.8
M2	21.1	4.6	5.8	4.2	4.9	102.7	1
M2	22.1	5.4	5.8	5	5.4	119.3	1.2
M2	21.2	5.1	5.2	3.7	4.7	98.9	1.1
M2	16.7	4.1	4.5	4	4.2	70.1	0.7
M2	19.5	4.8	5.1	3.3	4.4	85.8	0.8
M2	19.1	4.2	5.1	3.8	4.4	83.4	0.8
M2	22.6	5.3	5.8	4.4	5.2	116.8	1.2
M2	21.6	5.8	6.6	4.8	5.7	123.8	1.1
M2	21.8	6	7.5	6.5	6.7	145.3	1
M2	30.9	6.7	8	6.5	7.1	218.4	1.2
Rata-rata	**21.393**	**5.169**	**6.039**	**4.701**	**5.303**	**114.6701**	**1.077**

3. Sampel *Mangifera* M3

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M3	20.9	5.8	6.1	5.2	5.7	119.1	1.2
M3	15.9	3.9	4.5	3.5	4.0	63.1	0.9
M3	16.3	4.2	5.5	4.4	4.7	76.6	1
M3	21.7	5.1	6.4	5.1	5.5	120.1	1
M3	17	4.5	5.1	3.2	4.3	72.5	1.2
M3	23.4	6	6.7	5.6	6.1	142.7	1.1
M3	24.4	5.9	6.3	5.1	5.8	140.7	1
M3	29.8	6	7.1	5.1	6.1	180.8	1.3
M3	25.1	5.4	6.5	4.4	5.4	136.4	1.1
M3	23.8	6.1	6.5	4.9	5.8	138.8	1.3
M3	20.4	4.6	5.2	4.4	4.7	96.6	1.1
M3	21.9	5.2	5.9	4.7	5.3	115.3	1.2
M3	24.7	5.5	6.3	4.8	5.5	136.7	1.4
M3	22.1	5	5.5	4.5	5.0	110.5	1.3
M3	20.8	5	6.4	5.2	5.5	115.1	1.3
M3	20.7	4.4	5.1	4.1	4.5	93.8	1.1
M3	19.7	4.5	5.5	4.4	4.8	94.6	1.3
M3	22.1	4.9	5.3	4.4	4.9	107.6	1.2
M3	24.8	5.4	5.8	4.5	5.2	129.8	1.2
M3	25.8	5.5	6	4.4	5.3	136.7	1.1
M3	28.6	6.1	7.5	6.5	6.7	191.6	1.4
M3	24.1	5.4	6.2	5.3	5.6	135.8	1.3
M3	19	3.9	5.7	4.7	4.8	90.6	1.2
M3	24.2	4.9	6.2	5.4	5.5	133.1	1.8
M3	29.3	6	7.2	5.2	6.1	179.7	1.2
M3	19.2	4.3	4.8	3.7	4.3	81.9	0.9
M3	20.8	4.4	5.2	4.1	4.6	95.0	1.1
M3	20.2	4.3	5.1	3.3	4.2	85.5	1
M3	21.6	4.7	5.6	4.4	4.9	105.8	1.2
M3	22.1	4.9	6	4.7	5.2	114.9	1.2
M3	18.2	3.9	5	4.4	4.4	80.7	1
M3	15.4	3.8	4.2	3.5	3.8	59.0	1.1
M3	18.5	4.3	4.7	4	4.3	80.2	1.1
M3	23.4	4.9	5.6	4.5	5.0	117.0	1
M3	24.5	5	5.7	4.8	5.2	126.6	1.1
M3	20.8	5.1	5.5	4.2	4.9	102.6	1.4
M3	27.1	6	6.7	5.5	6.1	164.4	1.1
M3	21.6	5.5	6	4.7	5.4	116.6	1.1
M3	30	6.9	8	6.2	7.0	211.0	1.3

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M3	27.5	6.3	7.1	5.8	6.4	176.0	1.2
M3	22.7	5	5.7	4.5	5.1	115.0	1.1
M3	23.1	5.1	5.6	4.8	5.2	119.4	1
M3	20.9	4.7	5	4.1	4.6	96.1	1
M3	19.7	4.3	4.9	4	4.4	86.7	0.9
M3	25	5.4	5.8	4.5	5.2	130.8	1.2
M3	22.1	4.9	6.1	4.7	5.2	115.7	1.1
M3	18.5	4.7	5.4	4.1	4.7	87.6	1
M3	27.8	5.7	6.8	5.1	5.9	163.1	1.1
M3	26.5	5.8	6.6	5	5.8	153.7	1.2
M3	20.6	4.6	5.1	4.4	4.7	96.8	1
M3	23.5	5.8	6.9	5.6	6.1	143.4	1.3
M3	22.1	5.6	7	5.5	6.0	133.3	1.5
M3	25.7	6.2	7.1	5.9	6.4	164.5	1.4
M3	27.8	5.9	7.3	6.1	6.4	178.8	1.6
M3	21.5	4.4	5.2	4.1	4.6	98.2	1.4
M3	28	5.7	6.7	5.1	5.8	163.3	1.4
M3	21.9	5	5.7	4.4	5.0	110.2	1.3
M3	27.6	6.1	6.2	5.2	5.8	161.0	1.3
M3	28.4	6	6.7	5.5	6.1	172.3	1.5
M3	24	5.6	6.1	5.1	5.6	134.4	1.2
M3	24.9	5.5	6	5	5.5	137.0	1.5
M3	25	5.5	6.6	5.8	6.0	149.2	1.4
M3	24.6	5.3	6.1	4.8	5.4	132.8	1.6
M3	25.7	5.6	6.3	4.9	5.6	143.9	1.3
M3	21.2	4.8	5	4.1	4.6	98.2	1.2
M3	21.6	4.6	5.5	4.4	4.8	104.4	1.4
M3	23.1	5.5	5.9	5.1	5.5	127.1	1.2
M3	24.2	5.7	6.8	5.1	5.9	142.0	1.3
M3	22.8	5	5.4	4.2	4.9	111.0	1.1
M3	20	4.4	4.9	3.9	4.4	88.0	1.1
M3	21.8	5	5.6	4.5	5.0	109.7	1.1
M3	28	5.5	6.6	5.3	5.8	162.4	1.4
M3	21.8	5.2	5.5	4.5	5.1	110.5	1.3
M3	24.8	5.4	6.4	5.1	5.6	139.7	1.2
M3	21.2	4.6	5.6	5	5.1	107.4	1.1
M3	23.9	5.1	6.1	4.6	5.3	125.9	1.3
M3	22.7	5.3	6.1	5	5.5	124.1	1
M3	26.3	5.6	6.6	5.4	5.9	154.3	1.5
M3	24.3	5	6.2	5.1	5.4	132.0	1

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M3	22.4	5	5.8	4.6	5.1	115.0	1.1
M3	22.9	5	5.7	4.8	5.2	118.3	1.1
M3	21.4	5	5.5	4.5	5.0	107.0	1
M3	22	4.7	5.7	4.6	5.0	110.0	1.1
M3	24	5.5	6.5	4.7	5.6	133.6	1.2
M3	24.6	5.4	6.3	5.5	5.7	141.0	1.1
M3	22.1	5.5	6	4.7	5.4	119.3	1
M3	19.7	5.3	6.3	4.5	5.4	105.7	1.2
M3	19.6	4.9	5	3.9	4.6	90.2	1.4
M3	19.1	4.9	5.1	4.2	4.7	90.4	0.9
M3	24.3	5.5	6.3	5.2	5.7	137.7	1.2
M3	17.5	4.4	4.9	3.8	4.4	76.4	1
M3	17.8	4.5	5	4.2	4.6	81.3	1
M3	18.6	4.3	4.9	4	4.4	81.8	1
M3	18.2	4.4	4.9	4	4.4	80.7	1.1
M3	17.4	4.3	5	4	4.4	77.1	1.1
M3	18.2	4.4	4.6	3.9	4.3	78.3	0.9
M3	17	3.9	4.4	3.8	4.0	68.6	1.1
M3	18.7	4.6	4.9	4.2	4.6	85.4	1.1
M3	17.6	4.4	4.7	3.9	4.3	76.3	1
M3	19.8	5.2	5.7	4.5	5.1	101.6	1.1
Rata-rata	**22.456**	**5.097**	**5.84**	**4.678**	**5.205**	**118.7513**	**1.182**

4. Sampel *Mangifera* M4

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M4	28	4.7	5.9	4.5	5.0	140.9	1.4
M4	22.5	3.1	4.1	3.1	3.4	77.3	1.2
M4	21.6	2.9	4.9	3.3	3.7	79.9	1
M4	23.8	4.6	5.7	3.7	4.7	111.1	0.9
M4	25.4	3.7	5.5	3.2	4.1	105.0	1.2
M4	24.3	3.5	5.6	3.1	4.1	98.8	1.2
M4	26	3	5.2	3.4	3.9	100.5	1
M4	23.4	3.3	5	3.1	3.8	88.9	1.05
M4	16.7	3	4.7	3.3	3.7	61.2	1.1
M4	26.7	3.2	4.8	3.2	3.7	99.7	1.15
M4	17.3	3.4	4.5	2.8	3.6	61.7	0.9
M4	23.4	3.7	5	3.1	3.9	92.0	1.2
M4	22.4	3.3	4.4	3.5	3.7	83.6	1.3
M4	20.6	3.3	4.3	3.7	3.8	77.6	0.9
M4	21.6	3.7	4.8	2.2	3.6	77.0	1.1
M4	23.5	4.3	6.1	4.1	4.8	113.6	0.8
M4	19.7	4	5.1	3.6	4.2	83.4	0.8
M4	24.4	4.4	5.9	3.6	4.6	113.1	1.1
M4	23.2	3.9	5.3	3.3	4.2	96.7	1.1
M4	22.7	3.6	5.2	3.6	4.1	93.8	1.05
M4	17.6	2.9	4	3.3	3.4	59.8	0.7
M4	20.7	3.1	4.1	3.9	3.7	76.6	0.8
M4	18.8	2.8	4.3	3.1	3.4	63.9	0.9
M4	16.6	3.1	4	2.8	3.3	54.8	1.1
M4	17.7	3	4.1	2.8	3.3	58.4	1
M4	23.9	4.4	5.8	4.3	4.8	115.5	1.1
M4	20.4	3.6	4.1	3.7	3.8	77.5	0.9
M4	19	3.5	5	3.4	4.0	75.4	1.3
M4	24.5	4.6	6.3	4.3	5.1	124.1	1.3
M4	23.6	3.9	5.7	3.9	4.5	106.2	1
M4	19	3.3	4.4	3.3	3.7	69.7	0.8
M4	18.7	2.9	3.8	2.4	3.0	56.7	0.7
M4	18.3	3.2	4.7	3	3.6	66.5	0.6
M4	16.7	3.3	4	3.3	3.5	59.0	0.8
M4	14.7	3.1	3.4	2.6	3.0	44.6	0.9
M4	19.2	3.3	4.3	3	3.5	67.8	1.4
M4	14.9	3	4.6	2.5	3.4	50.2	1.1
M4	22	3.6	5	3	3.9	85.1	1.3
M4	16.9	2.9	3.6	2.5	3.0	50.7	1

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M4	24	4	5.2	3.8	4.3	104.0	1.2
M4	21.6	4	5.1	3.7	4.3	92.2	1.3
M4	21.5	3.6	5.4	4.1	4.4	88.2	1.2
M4	25.1	4.7	5.5	3.8	4.7	95.4	0.9
M4	23.5	4	4.7	3.5	4.1	95.6	1.3
M4	12	2.6	3.2	2.4	2.7	32.8	0.6
M4	28.2	4.3	5.8	5	5.0	141.9	1.3
M4	20.8	3.8	4.7	3.4	4.0	82.5	1.1
M4	27.6	5.2	6.1	4.8	5.4	148.1	1.3
M4	23.9	4.5	5.7	4.2	4.8	114.7	1.2
M4	25	4.9	5.2	4.2	4.8	119.2	1.2
M4	17.3	3	3.9	3.4	3.4	59.4	1
M4	19.8	3.4	4.9	3.6	4.0	78.5	1.3
M4	20	4.4	5	3.6	4.3	86.7	1
M4	21.8	3.3	4.5	3.9	3.9	85.0	1.2
M4	20.7	4.1	5.1	3.3	4.2	86.3	1.1
M4	22.5	3.7	5.2	3.4	4.1	92.3	1
M4	16.4	3.3	4	2.6	3.3	54.1	0.9
M4	18.6	3.7	4.2	3	3.6	67.6	0.7
M4	20.6	3.4	4.1	3.5	3.7	75.5	1
M4	22.7	3.6	5	4.4	4.3	98.4	1
M4	24.3	3.3	5	4.3	4.2	102.1	1.1
M4	20.1	3.6	4.6	3.4	3.9	77.7	0.8
M4	22.2	3.4	4.3	3.9	3.9	85.8	1
M4	23.4	4	5.3	4.1	4.5	104.5	1.3
M4	19.6	3.2	4.4	3.2	3.6	70.6	1
M4	18.9	4.2	4.9	3.4	4.2	78.8	1.1
M4	21.6	3.4	4.5	3.3	3.7	80.6	1.1
M4	19.9	3.9	4.3	3.2	3.8	75.6	0.9
M4	20.7	3.3	4.3	3.1	3.6	73.8	1.1
M4	21.5	3.8	4.2	3.4	3.8	81.7	1.2
M4	20.7	3.4	4.5	3.8	3.9	80.7	0.9
M4	19.7	3.6	4.1	3.8	3.8	75.5	0.9
M4	16.9	3.6	4.3	3.5	3.8	64.2	0.8
M4	23	3.3	4.7	4.1	4.0	92.8	1.3
M4	23.6	3.6	4.3	3.8	3.9	92.0	1
M4	20.6	3.7	4.5	3.9	4.0	83.1	0.9
M4	22.2	3.9	4.8	3.8	4.2	92.5	1
M4	19.9	3.9	4	3.3	3.7	74.3	0.9
M4	21.1	3.3	4.2	3.5	3.7	77.4	1

Sampel	Panjang	Lebar Bawah	Lebar Tengah	Lebar Atas	Lebar Rata-rata	Luas Permukaan	Panjang Petiole
M4	22.3	3.4	4.4	3.8	3.9	86.2	1
M4	21.7	3.8	5.4	3.6	4.3	92.6	1
M4	18.8	4.1	4.3	3.3	3.9	73.3	1.1
M4	20	4.1	5.2	3.8	4.4	87.3	1.1
M4	24	5.2	5.9	4.5	5.2	124.8	1.3
M4	22.8	3.9	5.6	4.4	4.6	105.6	1.2
M4	21.7	4.1	4.5	3.6	4.1	88.2	1.1
M4	22.4	3.9	4.6	3.6	4.0	90.3	1
M4	18.9	4	4.6	3.4	4.0	75.6	0.9
M4	19.2	3.6	4.6	3.5	3.9	74.9	1
M4	18.5	3	4.3	3.2	3.5	64.8	1
M4	20.3	3.9	4.5	4	4.1	83.9	0.8
M4	19.3	3.3	5	4.5	4.3	82.3	1
M4	18.8	3.7	4.7	3.5	4.0	74.6	0.9
M4	21.7	3.6	4.1	3.5	3.7	81.0	1.1
M4	19.6	3.6	4.7	3.8	4.0	79.1	1.3
M4	25.4	4.9	5.6	5	5.2	131.2	1.2
M4	26	4.4	5.6	5	5.0	130.0	1
M4	23.7	3.6	5.1	4	4.2	100.3	1
M4	25.9	4.1	5.9	4.2	4.7	122.6	1.2
M4	24.4	4.4	5.6	4	4.7	113.9	1.2
Rata-rata	21.293	3.686	4.791	3.571	4.016	86.43037	1.0465

Lampiran 2. Nilai Rasio Bentuk Daun *Mangifera spp*

1. Rasio Bentuk Daun M1

Nilai Rasio	Bentuk Daun	
	Rasio	Jenis
0.853513	1.5	Obovate
	1	eliptic

2. Rasio Bentuk Daun M2

Nilai Rasio	Bentuk Daun	
	Rasio	Jenis
0.90946	1.5	Obovate
	1	eliptic

3. Rasio Bentuk Daun M3

Nilai Rasio	Bentuk Daun	
	Rasio	Jenis
0.917795	1.5	Obovate
	1	eliptic

4. Rasio Bentuk Daun M4

Nilai Rasio	Bentuk Daun	
	Rasio	Jenis
0.968801	1.5	Obovate
	1	eliptic

Lampiran 3. Data Hasil Uji Anova

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Panjang	M1	100	24.3860	3.89065	.38907	23.6140	25.1580	17.20	33.80
	M2	100	21.3930	2.64232	.26423	20.8687	21.9173	16.00	30.90
	M3	100	22.4560	3.31968	.33197	21.7973	23.1147	15.40	30.00
	M4	100	21.2930	3.01512	.30151	20.6947	21.8913	12.00	28.20
	Total	400	22.3820	3.46821	.17341	22.0411	22.7229	12.00	33.80
R.Lebar	M1	100	5.9307	1.00371	.10037	5.7315	6.1299	3.60	8.10
	M2	100	5.3100	.75765	.07577	5.1597	5.4603	3.70	7.10
	M3	100	5.2030	.64970	.06497	5.0741	5.3319	3.80	7.00
	M4	100	4.0170	.52244	.05224	3.9133	4.1207	2.70	5.40
	Total	400	5.1152	1.02237	.05112	5.0147	5.2157	2.70	8.10
L.Permukaan	M1	100	1.4720E2	44.34845	4.43484	138.3993	155.9987	65.90	267.00
	M2	100	1.1466E2	27.57827	2.75783	109.1909	120.1351	64.50	218.40
	M3	100	1.1875E2	31.21442	3.12144	112.5574	124.9446	59.00	211.00
	M4	100	86.4290	21.72683	2.17268	82.1179	90.7401	32.80	148.10
	Total	400	1.1676E2	38.73587	1.93679	112.9529	120.5681	32.80	267.00
Petiole	M1	100	1.3100	.23720	.02372	1.2629	1.3571	.80	2.00
	M2	100	1.0770	.18249	.01825	1.0408	1.1132	.70	1.70
	M3	100	1.1820	.17372	.01737	1.1475	1.2165	.90	1.80
	M4	100	1.0465	.17671	.01767	1.0114	1.0816	.60	1.40
	Total	400	1.1539	.21940	.01097	1.1323	1.1754	.60	2.00

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Panjang	5.729	3	396	.001
R.Lebar	14.085	3	396	.000
L.Permukaan	18.191	3	396	.000
Petiole	3.602	3	396	.014

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Panjang	Between Groups	618.553	3	206.184	19.530	.000
	Within Groups	4180.797	396	10.558		
	Total	4799.350	399			
R.Lebar	Between Groups	191.674	3	63.891	112.261	.000
	Within Groups	225.375	396	.569		
	Total	417.049	399			
L.Permukaan	Between Groups	185486.377	3	61828.792	59.255	.000
	Within Groups	413200.339	396	1043.435		
	Total	598686.716	399			
Petiole	Between Groups	4.261	3	1.420	37.628	.000
	Within Groups	14.946	396	.038		
	Total	19.206	399			

Multiple Comparisons

Dependent Variable		(I) Pohon	(J) Pohon	Mean Difference (I-J)	Std. Error	Sig.	99% Confidence Interval	
							Lower Bound	Upper Bound
Panjang	Tukey HSD	M1	M2	2.99300*	.45951	.000	1.5533	4.4327
			M3	1.93000*	.45951	.000	.4903	3.3697
			M4	3.09300*	.45951	.000	1.6533	4.5327
		M2	M1	-2.99300*	.45951	.000	-4.4327	-1.5533
			M3	-1.06300	.45951	.097	-2.5027	.3767
			M4	.10000	.45951	.996	-1.3397	1.5397
		M3	M1	-1.93000*	.45951	.000	-3.3697	-.4903
			M2	1.06300	.45951	.097	-.3767	2.5027
			M4	1.16300	.45951	.057	-.2767	2.6027
		M4	M1	-3.09300*	.45951	.000	-4.5327	-1.6533
			M2	-.10000	.45951	.996	-1.5397	1.3397
			M3	-1.16300	.45951	.057	-2.6027	.2767
	LSD	M1	M2	2.99300*	.45951	.000	1.8036	4.1824
			M3	1.93000*	.45951	.000	.7406	3.1194
			M4	3.09300*	.45951	.000	1.9036	4.2824
		M2	M1	-2.99300*	.45951	.000	-4.1824	-1.8036
			M3	-1.06300	.45951	.021	-2.2524	.1264
			M4	.10000	.45951	.828	-1.0894	1.2894
		M3	M1	-1.93000*	.45951	.000	-3.1194	-.7406
			M2	1.06300	.45951	.021	-.1264	2.2524
			M4	1.16300	.45951	.012	-.0264	2.3524
		M4	M1	-3.09300*	.45951	.000	-4.2824	-1.9036
			M2	-.10000	.45951	.828	-1.2894	1.0894
			M3	-1.16300	.45951	.012	-2.3524	.0264
R.Lebar	Tukey HSD	M1	M2	.62070*	.10669	.000	.2864	.9550
			M3	.72770*	.10669	.000	.3934	1.0620
			M4	1.91370*	.10669	.000	1.5794	2.2480
		M2	M1	-.62070*	.10669	.000	-.9550	-.2864
			M3	.10700	.10669	.748	-.2273	.4413

			M4	1.29300*	.10669	.000	.9587	1.6273
		M3	M1	-.72770*	.10669	.000	-1.0620	-.3934
			M2	-.10700	.10669	.748	-.4413	.2273
			M4	1.18600*	.10669	.000	.8517	1.5203
		M4	M1	-1.91370*	.10669	.000	-2.2480	-1.5794
			M2	-1.29300*	.10669	.000	-1.6273	-.9587
			M3	-1.18600*	.10669	.000	-1.5203	-.8517
	LSD	M1	M2	.62070*	.10669	.000	.3446	.8968
			M3	.72770*	.10669	.000	.4516	1.0038
			M4	1.91370*	.10669	.000	1.6376	2.1898
		M2	M1	-.62070*	.10669	.000	-.8968	-.3446
			M3	.10700	.10669	.317	-.1691	.3831
			M4	1.29300*	.10669	.000	1.0169	1.5691
		M3	M1	-.72770*	.10669	.000	-1.0038	-.4516
			M2	-.10700	.10669	.317	-.3831	.1691
			M4	1.18600*	.10669	.000	.9099	1.4621
		M4	M1	-1.91370*	.10669	.000	-2.1898	-1.6376
			M2	-1.29300*	.10669	.000	-1.5691	-1.0169
			M3	-1.18600*	.10669	.000	-1.4621	-.9099
L.Permukaan	Tukey HSD	M1	M2	32.53600*	4.56823	.000	18.2228	46.8492
			M3	28.44800*	4.56823	.000	14.1348	42.7612
			M4	60.77000*	4.56823	.000	46.4568	75.0832
		M2	M1	-32.53600*	4.56823	.000	-46.8492	-18.2228
			M3	-4.08800	4.56823	.808	-18.4012	10.2252
			M4	28.23400*	4.56823	.000	13.9208	42.5472
		M3	M1	-28.44800*	4.56823	.000	-42.7612	-14.1348
			M2	4.08800	4.56823	.808	-10.2252	18.4012
			M4	32.32200*	4.56823	.000	18.0088	46.6352
		M4	M1	-60.77000*	4.56823	.000	-75.0832	-46.4568
			M2	-28.23400*	4.56823	.000	-42.5472	-13.9208
			M3	-32.32200*	4.56823	.000	-46.6352	-18.0088
	LSD	M1	M2	32.53600*	4.56823	.000	20.7121	44.3599
			M3	28.44800*	4.56823	.000	16.6241	40.2719

		(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
			M4	60.77000*	4.56823	.000	48.9461	72.5939
		M2	M1	-32.53600*	4.56823	.000	-44.3599	-20.7121
			M3	-4.08800	4.56823	.371	-15.9119	7.7359
			M4	28.23400*	4.56823	.000	16.4101	40.0579
		M3	M1	-28.44800*	4.56823	.000	-40.2719	-16.6241
			M2	4.08800	4.56823	.371	-7.7359	15.9119
			M4	32.32200*	4.56823	.000	20.4981	44.1459
		M4	M1	-60.77000*	4.56823	.000	-72.5939	-48.9461
			M2	-28.23400*	4.56823	.000	-40.0579	-16.4101
			M3	-32.32200*	4.56823	.000	-44.1459	-20.4981
Petiole	Tukey HSD	M1	M2	.23300*	.02747	.000	.1469	.3191
			M3	.12800*	.02747	.000	.0419	.2141
			M4	.26350*	.02747	.000	.1774	.3496
		M2	M1	-.23300*	.02747	.000	-.3191	-.1469
			M3	-.10500*	.02747	.001	-.1911	-.0189
			M4	.03050	.02747	.684	-.0556	.1166
		M3	M1	-.12800*	.02747	.000	-.2141	-.0419
			M2	.10500*	.02747	.001	.0189	.1911
			M4	.13550*	.02747	.000	.0494	.2216
		M4	M1	-.26350*	.02747	.000	-.3496	-.1774
			M2	-.03050	.02747	.684	-.1166	.0556
			M3	-.13550*	.02747	.000	-.2216	-.0494
	LSD	M1	M2	.23300*	.02747	.000	.1619	.3041
			M3	.12800*	.02747	.000	.0569	.1991
			M4	.26350*	.02747	.000	.1924	.3346
		M2	M1	-.23300*	.02747	.000	-.3041	-.1619
			M3	-.10500*	.02747	.000	-.1761	-.0339
			M4	.03050	.02747	.268	-.0406	.1016
		M3	M1	-.12800*	.02747	.000	-.1991	-.0569
			M2	.10500*	.02747	.000	.0339	.1761
			M4	.13550*	.02747	.000	.0644	.2066
		M4	M1	-.26350*	.02747	.000	-.3346	-.1924
			M2	-.03050	.02747	.268	-.1016	.0406

			-.13550*	.02747	.000	-.2066	-.0644
		M3					

*. The mean difference is significant at the 0.01 level.

Panjang

	Pohon	N	Subset for alpha = 0.01	
			1	2
Tukey HSDª	M4	100	21.2930	
	M2	100	21.3930	
	M3	100	22.4560	
	M1	100		24.3860
	Sig.		.057	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

R.Lebar

	Pohon	N	Subset for alpha = 0.01		
			1	2	3
Tukey HSDª	M4	100	4.0170		
	M3	100		5.2030	
	M2	100		5.3100	
	M1	100			5.9307
	Sig.		1.000	.748	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

L.Permukaan

	Pohon	N	Subset for alpha = 0.01		
			1	2	3
Tukey HSD[a]	M4	100	86.4290		
	M2	100		1.1466E2	
	M3	100		1.1875E2	
	M1	100			1.4720E2
	Sig.		1.000	.808	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

Petiole

	Pohon	N	Subset for alpha = 0.01		
			1	2	3
Tukey HSD[a]	M4	100	1.0465		
	M2	100	1.0770		
	M3	100		1.1820	
	M1	100			1.3100
	Sig.		.684	1.000	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 100.000.

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Pohon	N	Percent	N	Percent	N	Percent
Panjang	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
L.Bawah	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
L.Tengah	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
L.Atas	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
R.Lebar	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
L.Permukaan	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%
Petiole	M1	100	100.0%	0	.0%	100	100.0%
	M2	100	100.0%	0	.0%	100	100.0%
	M3	100	100.0%	0	.0%	100	100.0%
	M4	100	100.0%	0	.0%	100	100.0%

Descriptives

	Pohon			Statistic	Std. Error
Panjang	M1	Mean		24.3860	.38907
		95% Confidence Interval for Mean	Lower Bound	23.6140	
			Upper Bound	25.1580	
		5% Trimmed Mean		24.2911	
		Median		24.3000	
		Variance		15.137	
		Std. Deviation		3.89065	
		Minimum		17.20	
		Maximum		33.80	
		Range		16.60	
		Interquartile Range		5.35	
		Skewness		.295	.241
		Kurtosis		-.524	.478
	M2	Mean		21.3930	.26423
		95% Confidence Interval for Mean	Lower Bound	20.8687	
			Upper Bound	21.9173	
		5% Trimmed Mean		21.3156	
		Median		21.4000	
		Variance		6.982	
		Std. Deviation		2.64232	
		Minimum		16.00	
		Maximum		30.90	
		Range		14.90	
		Interquartile Range		3.40	
		Skewness		.453	.241
		Kurtosis		.774	.478
	M3	Mean		22.4560	.33197
		95% Confidence Interval for Mean	Lower Bound	21.7973	
			Upper Bound	23.1147	
		5% Trimmed Mean		22.4211	

		Median		22.1000	
		Variance		11.020	
		Std. Deviation		3.31968	
		Minimum		15.40	
		Maximum		30.00	
		Range		14.60	
		Interquartile Range		4.55	
		Skewness		.166	.241
		Kurtosis		-.432	.478
	M4	Mean		21.2930	.30151
		95% Confidence Interval for Mean	Lower Bound	20.6947	
			Upper Bound	21.8913	
		5% Trimmed Mean		21.3133	
		Median		21.5500	
		Variance		9.091	
		Std. Deviation		3.01512	
		Minimum		12.00	
		Maximum		28.20	
		Range		16.20	
		Interquartile Range		4.30	
		Skewness		-.172	.241
		Kurtosis		.183	.478
L.Bawah	M1	Mean		5.8640	.09800
		95% Confidence Interval for Mean	Lower Bound	5.6696	
			Upper Bound	6.0584	
		5% Trimmed Mean		5.8656	
		Median		5.9000	
		Variance		.960	
		Std. Deviation		.97995	
		Minimum		3.30	
		Maximum		8.30	
		Range		5.00	

		Interquartile Range	1.30	
		Skewness	-.004	.241
		Kurtosis	.128	.478
M2	Mean		5.1690	.07053
	95% Confidence Interval for Mean	Lower Bound	5.0290	
		Upper Bound	5.3090	
	5% Trimmed Mean		5.1533	
	Median		5.1000	
	Variance		.498	
	Std. Deviation		.70535	
	Minimum		3.50	
	Maximum		6.90	
	Range		3.40	
	Interquartile Range		1.05	
	Skewness		.276	.241
	Kurtosis		-.120	.478
M3	Mean		5.0970	.06319
	95% Confidence Interval for Mean	Lower Bound	4.9716	
		Upper Bound	5.2224	
	5% Trimmed Mean		5.0967	
	Median		5.0000	
	Variance		.399	
	Std. Deviation		.63189	
	Minimum		3.80	
	Maximum		6.90	
	Range		3.10	
	Interquartile Range		.90	
	Skewness		.108	.241
	Kurtosis		-.411	.478
M4	Mean		3.6860	.05446
	95% Confidence Interval for Mean	Lower Bound	3.5779	
		Upper Bound	3.7941	
	5% Trimmed Mean		3.6622	

		Median		3.6000	
		Variance		.297	
		Std. Deviation		.54458	
		Minimum		2.60	
		Maximum		5.20	
		Range		2.60	
		Interquartile Range		.70	
		Skewness		.624	.241
		Kurtosis		.143	.478
L.Tengah	M1	Mean		6.9200	.12438
		95% Confidence Interval for Mean	Lower Bound	6.6732	
			Upper Bound	7.1668	
		5% Trimmed Mean		6.8933	
		Median		6.8000	
		Variance		1.547	
		Std. Deviation		1.24381	
		Minimum		4.10	
		Maximum		10.30	
		Range		6.20	
		Interquartile Range		1.77	
		Skewness		.311	.241
		Kurtosis		.015	.478
	M2	Mean		6.0390	.08654
		95% Confidence Interval for Mean	Lower Bound	5.8673	
			Upper Bound	6.2107	
		5% Trimmed Mean		6.0278	
		Median		6.0000	
		Variance		.749	
		Std. Deviation		.86537	
		Minimum		4.20	
		Maximum		8.00	
		Range		3.80	
		Interquartile Range		1.17	

		Skewness		.248	.241
		Kurtosis		-.388	.478
	M3	Mean		5.8400	.07622
		95% Confidence Interval for Mean	Lower Bound	5.6888	
			Upper Bound	5.9912	
		5% Trimmed Mean		5.8278	
		Median		5.8000	
		Variance		.581	
		Std. Deviation		.76224	
		Minimum		4.20	
		Maximum		8.00	
		Range		3.80	
		Interquartile Range		1.17	
		Skewness		.222	.241
		Kurtosis		-.358	.478
	M4	Mean		4.7910	.06473
		95% Confidence Interval for Mean	Lower Bound	4.6626	
			Upper Bound	4.9194	
		5% Trimmed Mean		4.7878	
		Median		4.7000	
		Variance		.419	
		Std. Deviation		.64731	
		Minimum		3.20	
		Maximum		6.30	
		Range		3.10	
		Interquartile Range		.90	
		Skewness		.199	.241
		Kurtosis		-.470	.478
L.Atas	M1	Mean		5.0050	.10098
		95% Confidence Interval for Mean	Lower Bound	4.8046	
			Upper Bound	5.2054	
		5% Trimmed Mean		4.9956	
		Median		5.0000	

	Variance		1.020	
	Std. Deviation		1.00979	
	Minimum		2.80	
	Maximum		7.40	
	Range		4.60	
	Interquartile Range		1.48	
	Skewness		.037	.241
	Kurtosis		-.487	.478
M2	Mean		4.7010	.08271
	95% Confidence Interval for Mean	Lower Bound	4.5369	
		Upper Bound	4.8651	
	5% Trimmed Mean		4.6700	
	Median		4.6500	
	Variance		.684	
	Std. Deviation		.82713	
	Minimum		3.10	
	Maximum		7.10	
	Range		4.00	
	Interquartile Range		1.10	
	Skewness		.549	.241
	Kurtosis		.306	.478
M3	Mean		4.6780	.06359
	95% Confidence Interval for Mean	Lower Bound	4.5518	
		Upper Bound	4.8042	
	5% Trimmed Mean		4.6678	
	Median		4.6000	
	Variance		.404	
	Std. Deviation		.63589	
	Minimum		3.20	
	Maximum		6.50	
	Range		3.30	
	Interquartile Range		.90	
	Skewness		.277	.241

		Kurtosis		.096	.478
	M4	Mean		3.5710	.05693
		95% Confidence Interval for Mean	Lower Bound	3.4580	
			Upper Bound	3.6840	
		5% Trimmed Mean		3.5644	
		Median		3.5000	
		Variance		.324	
		Std. Deviation		.56930	
		Minimum		2.20	
		Maximum		5.00	
		Range		2.80	
		Interquartile Range		.67	
		Skewness		.216	.241
		Kurtosis		.322	.478
R.Lebar	M1	Mean		5.9307	.10037
		95% Confidence Interval for Mean	Lower Bound	5.7315	
			Upper Bound	6.1299	
		5% Trimmed Mean		5.9248	
		Median		5.9000	
		Variance		1.007	
		Std. Deviation		1.00371	
		Minimum		3.60	
		Maximum		8.10	
		Range		4.50	
		Interquartile Range		1.42	
		Skewness		.074	.241
		Kurtosis		-.441	.478
	M2	Mean		5.3100	.07577
		95% Confidence Interval for Mean	Lower Bound	5.1597	
			Upper Bound	5.4603	
		5% Trimmed Mean		5.2944	
		Median		5.3000	
		Variance		.574	

		Std. Deviation	.75765	
		Minimum	3.70	
		Maximum	7.10	
		Range	3.40	
		Interquartile Range	.90	
		Skewness	.336	.241
		Kurtosis	-.178	.478
M3	Mean		5.2030	.06497
	95% Confidence Interval for Mean	Lower Bound	5.0741	
		Upper Bound	5.3319	
	5% Trimmed Mean		5.1900	
	Median		5.2000	
	Variance		.422	
	Std. Deviation		.64970	
	Minimum		3.80	
	Maximum		7.00	
	Range		3.20	
	Interquartile Range		.97	
	Skewness		.203	.241
	Kurtosis		-.379	.478
M4	Mean		4.0170	.05224
	95% Confidence Interval for Mean	Lower Bound	3.9133	
		Upper Bound	4.1207	
	5% Trimmed Mean		4.0089	
	Median		3.9500	
	Variance		.273	
	Std. Deviation		.52244	
	Minimum		2.70	
	Maximum		5.40	
	Range		2.70	
	Interquartile Range		.60	
	Skewness		.374	.241
	Kurtosis		.194	.478

L.Permukaan	M1	Mean		1.4720E2	4.43484
		95% Confidence Interval for Mean	Lower Bound	1.3840E2	
			Upper Bound	1.5600E2	
		5% Trimmed Mean		1.4527E2	
		Median		1.4405E2	
		Variance		1.967E3	
		Std. Deviation		4.43484E1	
		Minimum		65.90	
		Maximum		267.00	
		Range		201.10	
		Interquartile Range		67.40	
		Skewness		.549	.241
		Kurtosis		-.093	.478
	M2	Mean		1.1466E2	2.75783
		95% Confidence Interval for Mean	Lower Bound	1.0919E2	
			Upper Bound	1.2014E2	
		5% Trimmed Mean		1.1366E2	
		Median		1.1300E2	
		Variance		760.561	
		Std. Deviation		2.75783E1	
		Minimum		64.50	
		Maximum		218.40	
		Range		153.90	
		Interquartile Range		38.17	
		Skewness		.674	.241
		Kurtosis		1.003	.478
	M3	Mean		1.1875E2	3.12144
		95% Confidence Interval for Mean	Lower Bound	1.1256E2	
			Upper Bound	1.2494E2	
		5% Trimmed Mean		1.1771E2	
		Median		1.1550E2	
		Variance		974.340	
		Std. Deviation		3.12144E1	

		Minimum		59.00	
		Maximum		211.00	
		Range		152.00	
		Interquartile Range		42.82	
		Skewness		.454	.241
		Kurtosis		-.131	.478
	M4	Mean		86.4290	2.17268
		95% Confidence Interval for Mean	Lower Bound	82.1179	
			Upper Bound	90.7401	
		5% Trimmed Mean		85.7600	
		Median		83.5000	
		Variance		472.055	
		Std. Deviation		2.17268E1	
		Minimum		32.80	
		Maximum		148.10	
		Range		115.30	
		Interquartile Range		24.03	
		Skewness		.498	.241
		Kurtosis		.456	.478
Petiole	M1	Mean		1.3100	.02372
		95% Confidence Interval for Mean	Lower Bound	1.2629	
			Upper Bound	1.3571	
		5% Trimmed Mean		1.3067	
		Median		1.3000	
		Variance		.056	
		Std. Deviation		.23720	
		Minimum		.80	
		Maximum		2.00	
		Range		1.20	
		Interquartile Range		.30	
		Skewness		.171	.241
		Kurtosis		.240	.478
	M2	Mean		1.0770	.01825

	95% Confidence Interval for Mean	Lower Bound	1.0408	
		Upper Bound	1.1132	
	5% Trimmed Mean		1.0678	
	Median		1.1000	
	Variance		.033	
	Std. Deviation		.18249	
	Minimum		.70	
	Maximum		1.70	
	Range		1.00	
	Interquartile Range		.20	
	Skewness		.685	.241
	Kurtosis		1.541	.478
M3	Mean		1.1820	.01737
	95% Confidence Interval for Mean	Lower Bound	1.1475	
		Upper Bound	1.2165	
	5% Trimmed Mean		1.1744	
	Median		1.1500	
	Variance		.030	
	Std. Deviation		.17372	
	Minimum		.90	
	Maximum		1.80	
	Range		.90	
	Interquartile Range		.20	
	Skewness		.790	.241
	Kurtosis		.745	.478
M4	Mean		1.0465	.01767
	95% Confidence Interval for Mean	Lower Bound	1.0114	
		Upper Bound	1.0816	
	5% Trimmed Mean		1.0517	
	Median		1.0000	
	Variance		.031	
	Std. Deviation		.17671	
	Minimum		.60	

	Maximum	1.40	
	Range	.80	
	Interquartile Range	.30	
	Skewness	-.220	.241
	Kurtosis	-.317	.478
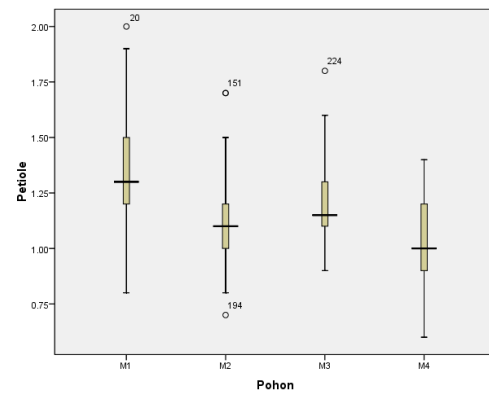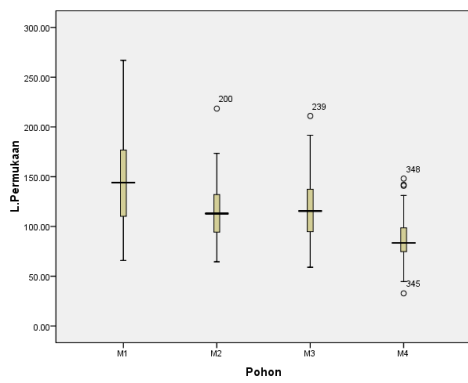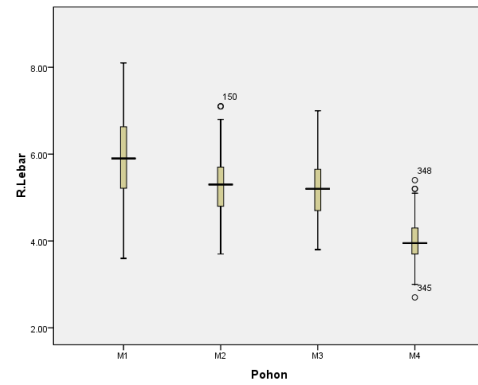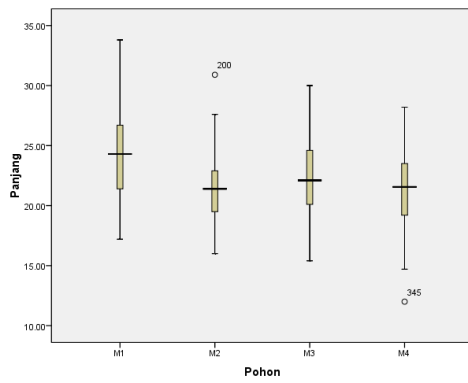
Lampiran 4. Data Molekuler *Order Form Squencing*

CUSTOMER DETAILS	
Name	Siti Halimah Larekeng
Institute name/department	Hasanuddin University/ Forest Faculty
Address	Jln Perintis Kemerdekaan Km 10, Makassar
Contact number	(office) : +62411 589592
	(mobile) : +6285242291851
Email address	sitih5h.82@gmail.com

TYPE OF SERVICE (indicate with "✓")*

Sample type	Raw sample	Pure isolate	gDNA	PCR Primer Name	PCR product size (bp)
Plant				RBCL	600
	✓			Maturase K (matK)	850
Fungi				Internal transcribed spacer (ITS)	700
Bacteria				16S RNA	1400
Fish				Cytochrome oxidase I (COI)	700
Insect				LCO1490 / HCO2198	700
				LepF1 / LepR1	700
Animal (cow, sheep, etc)				18S rRNA	1500

SAMPLE INFORMATION*

No.	Code Name (as indicated on the tubes)	Expected Species	Raw Sample (gram)	gDNA Sample			
				$A_{260/280}$	$A_{260/230}$	DNA Conc. (ng/μl)	Volume (μl)
1	Mangifera sp.	Mangifera sp.					
2							
3							
4							
5							
6							
7							
8							

Lampiran 5. Data Molekuler Hasil Sekuensing Laboratorium Genetika Science Indonesia

CUSTOMER DETAILS			
Ibu Siti Halimah Larekeng **Hasanuddin University/Forest Faculty** **Jl. Perintis Kemerdekaan Km 10, Makassar.** **Telp : +62 411 5895 92** **HP : +62 852 4229 1851** **Email : sitih5h.82@gmail.com**	**Service Order ID**	**:**	**GMS - 1279**
	Type of Service	**:**	**Species Barcoding**
	Date of Submission	**:**	**19/03/2021**
	Date Completed (with deliverables)	**:**	**29/03/2021**

SAMPLE INFORMATION
Sample Name   :   M1, M2, M3, M4 PCR Primer   :   Maturase K (matK) PCR Products   :   Species Barcoding (~850)

1. *Nucleic Acid (Genomic DNA) Quantification (Nanodrop)*

No.	Sample Name	Conc. (ng/µl)	$A_{260/280}$	$A_{260/230}$	Volume (µl)
1	M1	4.2	2.70	0.10	30
2	M2	30.8	1.70	0.20	30
3	M3	8.5	1.48	0.15	30
4	M4	43.4	1.58	0.25	

2. *Gel Photo – PCR Products*

1 µL PCR Products were assessed by electrophoresis with 1% TBE agarose

M, 100bp ladder (loaded 2,5 µL); samples ranged in the order of upper table
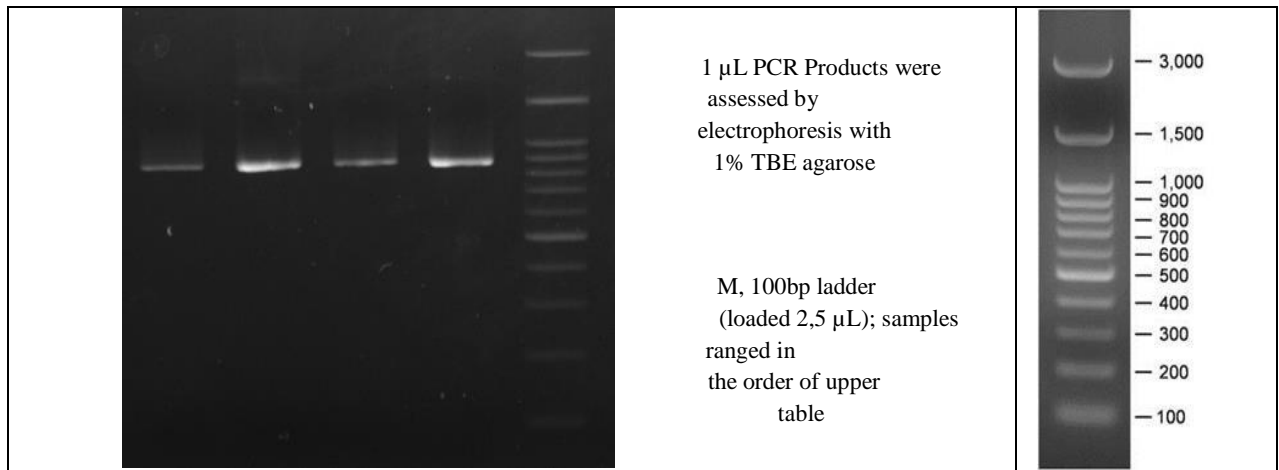
3. *Sequence Assembly Result – PCR Products*

No	Sample Name	Sequences
1.	M1	**Sequence Assembly 887bp** 1 CAGTCCCATC TGGAAATCTT GGTTCAAATC CTTCGCTGCT GGGTAAAAGA TGCCTCTTCT 61 TTACATTTAT TACGGTTCTT TCTACATGAG TATTTTAATT TGAATTGGAA TAGTCTTAGT 121 ACTCCAAAGA AATCTATTTC CATTTTTTCA AAAAGTAATT CAAGATTATT CTTGTTCCTA 181 TATAATTCTC ATGTATGTGA ATATGAATCC ATCTTCTTTT TTCTCCGTAA CCAATCTTCT 241 CATTTACGAT CAACATCTTC TGGAGTCCTT CTTGAGCGAA TAGATTTCTA TCGAAAAGTA 301 GAACATCTTG TCGAAGTCTT GGCTAATGAT TTTGATTTTC AGGACATCTT ATGCTTGTTC 361 AAGGATCCGT TCATGCATTA TGTTAAATAT AAAGGAAAAT CTATTCTGTC TTCAAAGGAT 421 ACGCCTCTTC TGATGAATAA ATGGAAATAT TACCTTGTCA ATTTATGGCA ATCGCATTTT 481 CACATGTGGT CTCAACCGGT AAGGGTTCAT AGAAAGCACT TCTACAAGCA TTCTATCAAT 541 TTTCTGGGTT ATCTTTCCAG TGTGCGACTA AATCTTTTGT TGGTACGGAG TCAAATGCTA 601 GAAAATTCAT TTATCATAGA TAAGACTATG AAGAAGTTCG ATACAACCGT TCCAATTATT 661 CCTCTGATTG GATCATTGAG TAAGGCGCGG TTTTGTAACA CCTTAGGGCA TCCCATTAGT 721 AAGTCGACCT GGGCTGATTC CTTAGATTTT GATATTATTG ACCGATTTGT GCGTATATGC 781 AGAAATCTTT CTCATTATCA CAGCGGGTCC TCAAAAAAAA AGAATTTGTA TCGAATAAAA 841 TATATACTTC GGATTTCTTG TGTTAAAAAT TTGGCTCGTA AACACAA
2	M2	**Sequence Assembly 890bp** 1 ACCCAGTCCC ACTGGAAATC TTGGTTCAAA TCCTTCGCTG CTGGGTAAAA GATGCCTCTT 61 CTTTACATTT ATTACGGTTC TTTCTACATG AGTATTTTAA TTTGAATTGG AATAGTCTTA 121 GTACTCCAAA GAAATCTATT CCATTTTTTT CAAAAAGTAA TTCAAGATTA TTCTTGTTCC 181 TATATAATTC TCATGTATGT GAATATGAAT CCATCTTCTT TTTTCTCCGT AACCAATCTT 241 CTCATTTACG ATCAACATCT TCTGGAGTCC TTCTTGAGCG AATAGATTTC TATCGAAAAG 301 TAGAACATCT TGTCGAAGTC TTGGCTAATG ATTTTGATTT TCAGGACATC TTATGCTTGT 361 TCAAGGATCC GTTCATGCAT TATGTTAAAT ATAAAGGAAA ATCTATTCTG TCTTCAAAGG 421 ATACGCCTCT TCTGATGAAT AAATGGAAAT ATTACCTTGT CAATTTATGG CAATCGCATT 481 TTCACATGTG GTCTCAACCG TAAGGGTTC ATAGAAAGCA CTTCTACAAG CATTCTATCA 541 ATTTTCTGGG TTATCTTTCC AGTGTGCGAC TAAATCTTTT GTTGGTACGG AGTCAAATGC 601 TAGAAAATTC ATTTATCATA GATAAGACTA TGAAGAAGTT CGATACAACC GTTCCAATTA 661 TTCCTCTGAT TGGATCATTG AGTAAGGCGC GGTTTTGTAA CACCTTAGGG CATCCCATTA 721 GTAAGTCGAC CTGGGCTGAT TCCTTAGATT TTGATATTAT TGACCGATTT GTGCGTATAT 781 GCAGAAATCT TTCTCATTAT CACAGCGGGT CCTCAAAAAA AAAGAATTTG TATCGAATAA 841 AATATATACT TCGGATTTCT TGTGTTAAAA ATTTGGCTCG TAAACACAAA

| 3 | M3 | **Sequence Assembly 889bp** |

3	M3	**Sequence Assembly 889bp** 1 CCAGTCCCCA CTGGAAATCT TGGTTCAAAT CCTTCGCTGC TGGGTACAAG ATGCCTCTTC 61 TTTACATTTA TTACGGTTCT TTCTACATGA GTATTTTAAT TTGAATTGGA ATAGTCTTAG 121 TACTCCAAAG AAATCTATTT CCATTTTTTC AAAAAGTAAT TCAAGATTAT CTTGTTCCT 181 ATATAATTCT CATGTATGTG AATATGAATC CATCTTCTTT TTTCTCCGTA ACCAATCTTC 241 TCATTTACGA TCAACATCTT CTGGAGTCCT TCTTGAGCGA ATAGATTTCT ATCGAAAGT 301 AGAACATCTT GTCGAAGTCT TGGCTAATGA TTTTTATTTT CAGGACATCT TATGCTTGTT 361 CAAGGATCCG TTCATGCATT ATGTTAAATA TAAAGGAAAA TCTATTCTGT CTTCAAAGGA 421 TACGCCTCTT CTGATGAATA AATGGAAATA TTACCTTGTC AATTTATGGC AATCGCATTT 481 TCACATGTGG TCTCAACCGG TAAGGGTTCA TAGAAAGCAC TTCTACAAGC ATTCTATCAA 541 TTTTCTGGGT TATCTTTCCA GTGTGCGACT AAATCTTTTG TTGGTACGGA GTCAAATGCT 601 AGAAAATTCA TTTATCATAG ATAAGACTAT GAAGAAGTTC GATACAACCG TTCCAATTAT 661 TCCTCTGATT GGATCATTGA GTAAGGCGCG GTTTTGTAAC ACCTTAGGGC ATCCCATTAG 721 TAAGTCGACC TGGGCTGATT CCTTAGATTT TGATATTATT GACCGATTTG TGCGTATATG 781 CAGAAATCTT TCTCATTATC ACAGCGGGTC CTCAAAAAAA AAGAATTTGT ATCGAATAAA 841 ATATATACTT CGGATTTCTT GTGTTAAAAA TTTGGCTCGT AAACACAAA
4	M4	**Sequence Assembly 891bp** 1 CCCAGTCCCA TCTGGAAATC TTGGTTCAAA TCCTTCGCTG CTGGGTAAAA GATGCCTCTT 61 CTTTACATTT ATTACGGTTC TTTCTACATG AGTATTTTAA TTTGAATTGG AATAGTCTTA 121 GTACTCCAAA GAAATCTATT CCATTTTTT CAAAAAGTAA TTCAAGATTA TTCTTGTTCC 181 TATATAATTC TCATGTATGT GAATATGAAT CCATCTTCTT TTTTCTCCGT AACCAATCTT 241 CTCATTTACG ATCAACATCT TCTGGAGTCC TTCTTGAGCG AATAGATTTC TATCGAAAAG 301 TAGAACATCT TGTCGAAGTC TTGGCTAATG ATTTTTATTT TCAGGACATC TTATGCTTGT 361 TCAAGGATCC GTTCATGCAT TATGTTAAAT ATAAAGGAAA ATCTATTCTG TCTTCAAAGG 421 ATACGCCTCT TCTGATGAAT AAATGGAAAT ATTACCTTGT CAATTTATGG CAATCGCATT 481 TTCACATGTG GTCTCAACCG GTAAGGGTTC ATAGAAAGCA CTTCTACAAG CATTCTATCA 541 ATTTTCTGGG TTATCTTTCC AGTGTGCGAC TAAATCTTTT GTTGGTACGG AGTCAAATGC 601 TAGAAAATTC ATTTATCATA GATAAGACTA TGAAGAAGTT CGATACAACC GTTCCAATTA 661 TTCCTCTGAT TGGATCATTG AGTAAGGCGC GGTTTTGTAA CACCTTAGGG CATCCCATTA 721 GTAAGTCGAC CTGGGCTGAT TCCTTAGATT TTGATATTAT TGACCGATTT GTGCGTATAT 781 GCAGAAATCT TTCTCATTAT CACAGCGGGT CCTCAAAAAA AAAGAATTTG TATCGAATAA 841 AATATATACT TCGGATTTCT TGTGTTAAAA ATTTGGCTCG TAAACACAAA G

4. *Top 10 Hit BLAST Results Against NCBI Database, Excluding Uncultured Sample Sequences*

No	Sample Name	Result Links
1	M1	 | Description	Max Score	Total Score	Query Cover	E value	Per. Ident	Accession | Mangifera indica chloroplast, complete genome — 1613 1613 98% 0.0 99.89% MN711724.1 Mangifera sylvatica chloroplast, complete genome — 1613 1613 98% 0.0 99.89% MN786795.1 Mangifera indica voucher PDBK 2014-0249 chloroplast, complete genome — 1613 1613 98% 0.0 99.89% KX871231.1 Mangifera indica chloroplast, complete genome — 1613 1613 98% 0.0 99.89% KY635882.1 Mangifera sylvatica plastid, complete genome — 1613 1613 98% 0.0 99.89% MN917211.1 Mangifera indica isolate 90 maturase K (matK) gene, partial cds; chloroplast — 1613 1613 98% 0.0 99.89% AY594472.1 Mangifera longipes plastid, complete genome — 1602 1602 98% 0.0 99.66% MN917210.1 Mangifera persiciforma chloroplast, complete genome — 1602 1602 98% 0.0 99.66% MN917209.1 Mangifera persiciforma chloroplast, complete genome — 1602 1602 98% 0.0 99.66% MN917208.1 Mangifera cochinchinensis chloroplast matK gene for maturase K, partial cds, specimen_voucher: KYUM\<JPN\>:42 — 1502 1502 91% 0.0 99.88% AB924713.1 https://www.ncbi.nlm.nih.gov/nuccore/MN711724.1,MN786795.1,KX871231.1,KY635882.1,MN917211.1,AY594472.1,MN917210.1,MN917209.1,MN917208.1,AB924713.1

2	M2						

	Description	Max Score	Total Score	Query Cover	E value	Per. Ident	Accession
☑	Mangifera indica chloroplast, complete genome	1615	1615	98%	0.0	99.89%	MN711724.1
☑	Mangifera sylvatica chloroplast, complete genome	1615	1615	98%	0.0	99.89%	MN786795.1
☑	Mangifera indica voucher PDBK 2014-0249 chloroplast, complete genome	1615	1615	98%	0.0	99.89%	KX871231.1
☑	Mangifera indica chloroplast, complete genome	1615	1615	98%	0.0	99.89%	KY635882.1
☑	Mangifera sylvatica plastid, complete genome	1615	1615	98%	0.0	99.89%	MN917211.1
☑	Mangifera indica isolate 90 maturase K (matK) gene, partial cds; chloroplast	1615	1615	98%	0.0	99.89%	AY594472.1
☑	Mangifera longipes plastid, complete genome	1604	1604	98%	0.0	99.66%	MN917210.1
☑	Mangifera persiciforma chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN917209.1
☑	Mangifera persiciforma chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN917208.1
☑	Semecarpus australiensis maturase K (matK) gene, partial cds; chloroplast	1504	1504	98%	0.0	97.49%	AY594479.1

https://www.ncbi.nlm.nih.gov/nuccore/MN711724.1,MN786795.1,KX871231.1,KY635882.1,MN917211.1,AY594472.1,MN917210.1,MN917209.1,MN917208.1,AY594479.1

3	M3						

	Description	Max Score	Total Score	Query Cover	E value	Per. Ident	Accession
☑	Mangifera indica chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN711724.1
☑	Mangifera sylvatica chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN786795.1
☑	Mangifera indica voucher PDBK 2014-0249 chloroplast, complete genome	1604	1604	98%	0.0	99.66%	KX871231.1
☑	Mangifera indica chloroplast, complete genome	1604	1604	98%	0.0	99.66%	KY635882.1
☑	Mangifera sylvatica plastid, complete genome	1604	1604	98%	0.0	99.66%	MN917211.1
☑	Mangifera longipes plastid, complete genome	1604	1604	98%	0.0	99.66%	MN917210.1
☑	Mangifera persiciforma chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN917209.1
☑	Mangifera persiciforma chloroplast, complete genome	1604	1604	98%	0.0	99.66%	MN917208.1
☑	Mangifera indica isolate 90 maturase K (matK) gene, partial cds; chloroplast	1604	1604	98%	0.0	99.66%	AY594472.1
☑	Mangifera duperreana chloroplast matK gene for maturase K, partial cds, specimen_voucher: KYUM<JPN>:209	1496	1496	91%	0.0	100.00%	AB924859.1

https://www.ncbi.nlm.nih.gov/nuccore/MN711724.1,MN786795.1,KX871231.1,KY635882.1,MN917211.1,MN917210.1,MN917209.1,MN917208.1,AY594472.1,AB924859.1

4	M4						

	Description	Max Score	Total Score	Query Cover	E value	Per. Ident	Accession
☑	Mangifera indica chloroplast, complete genome	1609	1609	98%	0.0	99.77%	MN711724.1
☑	Mangifera sylvatica chloroplast, complete genome	1609	1609	98%	0.0	99.77%	MN786795.1
☑	Mangifera indica voucher PDBK 2014-0249 chloroplast, complete genome	1609	1609	98%	0.0	99.77%	KX871231.1
☑	Mangifera indica chloroplast, complete genome	1609	1609	98%	0.0	99.77%	KY635882.1
☑	Mangifera sylvatica plastid, complete genome	1609	1609	98%	0.0	99.77%	MN917211.1
☑	Mangifera longipes plastid, complete genome	1609	1609	98%	0.0	99.77%	MN917210.1
☑	Mangifera persiciforma chloroplast, complete genome	1609	1609	98%	0.0	99.77%	MN917209.1
☑	Mangifera persiciforma chloroplast, complete genome	1609	1609	98%	0.0	99.77%	MN917208.1
☑	Mangifera indica isolate 90 maturase K (matK) gene, partial cds; chloroplast	1609	1609	99%	0.0	99.33%	AY594472.1
☑	Semecarpus australiensis maturase K (matK) gene, partial cds; chloroplast	1498	1498	99%	0.0	96.97%	AY594479.1

https://www.ncbi.nlm.nih.gov/nuccore/MN711724.1,MN786795.1,KX871231.1,KY635882.1,MN917211.1,MN917210.1,MN917209.1,MN917208.1,AY594472.1,AY594479.1

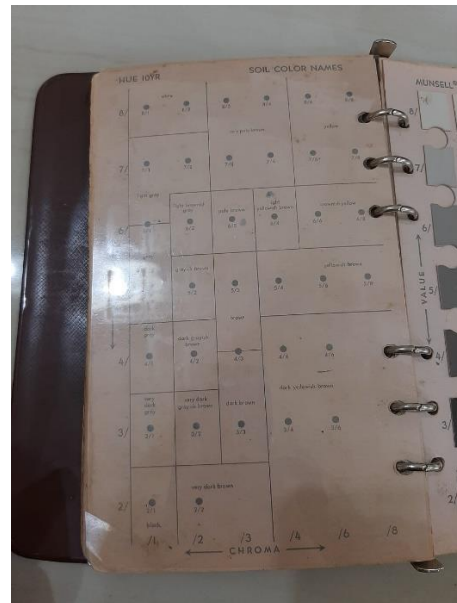**Lampiran 6.** Dokumentasi Kegiatan Penelitian

1. Pengambilan Sampel

2. Pengukuran Sampel

3. Pengamatan Warna Daun Dengan Buku MSCC (*Munsell Soil Color Chart)*

4. Pengiriman Sampel ke Genetika Science Indonesa