DAFTAR PUSTAKA

Agustina, D.U., Fahmi, A.R., Slamet, S., dan Catur, W., 2024. Evaluasi Pupuk Nitrogen Lepas Lambat pada Tanaman Jagung (*Zea mays* L.). Jurnal Tanah dan Sumberdaya Lahan. 11(1), pp. 95-102. doi: 10.21776/ub.jtsl.2024.011.1.11.

Alam, I., Zhang, H., Du, H., ur Rehman, N., Manghwar, H., Lei, X., et al., 2023. Bioengineering techniques to improve nitrogen transformation and utilization: implications for nitrogen use efficiency and future sustainable crop production. Journal of Agricultural and Food Chemistry. 71(9), pp. 3921-3938. doi: 10.1021/acs.jafc.2c08051

Badan Pusat Statistik. 2023. Ekonomi Indonesia Triwulan III-2023 Tumbuh 4,94 Persen (y-on-y), https://www.bps.go.id/id/pressrelease/2023/11/06/2000/ekonomi-indonesia-triwulaniii-2023-tumbuh-4-94-persen--y-on-y-.html

Badan Pusat Statistik. 2024. Luas panen, Produksi, dan Produktivitas Jagung Menurut Provinsi. Badan Pusat Statistik, https://www.bps.go.id/id/statistics-table/2/MjIwNCMy/luas-panen--produksi--dan-produktivitas-jagung-menurut-provinsi.html

Bahtiar, Arsyad, M., Salman, D., Azrai, M., Tenrirawe, A., Yasin, M., et al., 2023. Promoting the new superior variety of national hybrid maize: Improve farmer satisfaction to enhance production. Agriculture. 13(1): 174. doi: 10.3390/agriculture13010174.

Banik, C., Bakshi, S., Laird, D.A., Smith, R.G. and Brown, R.C., 2023. Impact of biochar-based slow-release N-fertilizers on maize growth and nitrogen recovery efficiency. J. Environ. Qual. 52(3), pp. 630-640. doi: 10.1002/jeq2.20468.

BMKG [Badan Meteorologi Klimatologi Dan Geofisika]. 2023. Monthly Rainfall Data. Meteorology, Climatology and Geophysics Agency, Climatology Station Class I, Maros, South Sulawesi.

Bozsik, N., T, J.P.C., Stalbek, B., Vasa, L. and Magda, R., 2022. Food security management in developing countries: Influence of economic factors on their food availability and access. Plos One. 17(7), pp. 1-24. doi: 10.1371/journal.pone.0271696

isboa, I.P., Besen, M.R., Otto, R., Cantarella, H., Inoue, T.T. and .., 2024. Nitrogen: from discovery, plant assimilation, sustainable rent enhanced efficiency fertilizers technologies – A review. Rev Solo. 48: e0230037. doi: 10.36783/18069657rbcs20230037

Chien, S.H., Menon, R.G. and Billingham, K.S., 1996. Phosphorus availability from phosphate rock as enhanced by water-soluble phosphorus. Soil Science Society of America Journal. 60(4), pp. 1173-1177. doi: 10.2136/sssaj1996.03615995006000040031x

da Silva, T.C.P., Fortes, A.g.d.S., de Abreu, I.R., de Carvalho, L.H., de Almeida, Y.M.B., Alves, T.S. and Barbosa, R., 2022. Development of biodegradable PLA/PBAT-based filaments for fertilizer release for agricultural applications. Materials. 15(19), p. 6764. doi: 10.3390/ma15196764.

Das, S.K. and Ghosh, G.K. Developing biochar-based slow-release N-P-K fertilizer for controlled nutrient release and its impact on soil health and yield. Biomass Conv. Bioref. 13, 13051-13063. doi: 10.1007/s13399-021-02069-6

DeBruin, J., Hensley, R., Underwood, H., Munaro, E., 2023. Yield response of maize hybrids with different ear flex to nitrogen rate and plant density. Agronomy Journal. 116(1), pp. 260-275. doi: 10.1002/agj2.21495

Delvia, N. D., Hendarto, K., Ginting, Y. C., dan Pangaribuan, D. H. 2022. Pengaruh aplkasi pupuk hayati dan pupuk pelengkap alkalis terhadap pertumbuhan dan produksi tanaman semangka *(Citrullus vulgaris* Shard). Jurnal Agrotek Tropika. 10(2), pp 579-583. doi: 10.23960.jat.v10i4.6464

Dida, E.N., Solihin, Denny K., 2022. A review of synthetic and earth's resource-based slow-release fertilizers and their potential role in reducing groundwater pollution. Riset Geologi dan Pertambangan Indonesian Journal of Geology and Mining. 32(1), pp 27-36. doi: 10.14203/risetgeotam2022.v32.1199

Dinas Pertanian dan Ketahanan Pangan D.I Yogyakarta. 2023. Gebyar Perbenihan Tanaman Pangan Tahun 2023, DPKP Yogyakarta, https://dpkp.jogjaprov.go.id/detail-benih/Jagung+Varietas+Bisi-18/190523/fdfc4e7d83593e2e92d48ae6916c292f4eb6673b9e358a93eb2e75101beaa055715

Elhassani, C. E., El Gharrak, A., Essamlali, Y., Elamiri, S., Dânoun, K., Aboulhrouz, S. and Zahouily, M., 2023. Lignin nanoparticles filled chitosan/polyvinyl alcohol polymer blend as a coating material of urea with a slow-release property. Journal of Applied Polymer Science. 140(16), e53755. doi: 10.1002/app.53755

Fall, A.F., Nakabonge, G., Ssekandi, J., Founoune-Mboup, H., Badji, A., Ndiaye, A., et al., 2023. Combined effects of indigenous Arbuscular Mycorrhizal Fungi (AMF) and NPK fertilizer on growth and yields of maize and soil nutrient Sustainability. 15, 2243. doi: 10.3390/su15032243

Fauziah, L., Setyorini, D., Saraswati, D.P., Krismawati, A., Baswarsiati, Arifin, Z., Sugiono. and Istiqomah, N., 2023. Liquid organic fertilizer (LOF) as a substitute for nitrogen fertilizer in rice on acid soils. In: 5th International Conference on Sustainable Agriculture (eds.) IOP Conf. Series: Earth and Environmental Science; 20-21 July 2022, Online. IOP Publishing: United Kingdom, 1172(2023). 012011. doi:10.1088/1755-1315/1172/1/012011.

Fidiyawati, E., Latifah E., Krismawati, A., Sihombing, D., Setyorini, D., Bakar A. and Sugiono, 2022. Effectivity of inorganic fertilizer NPK (15-15-6) to growth and yield of lowland rice (*Oryza sativa* L.) on alfisol soil. In: The 4th International Conference on Food and Agriculture (eds.) IOP Conf. Series: Earth and Environmental Science; 6-7 Nov 2021, Jember, Indonesia. IOP Publishing: United Kingdom, 980(2021). 012014. doi:10.1088/1755-1315/980/1/012014.

Firmanda, A., Fahma, F., Syamsu, K., Mahardika, M., Suryanegara, L., Munif, A., et al., 2024. Biopolymer-based slow/controlled-release fertilizer (SRF/CRF): Nutrient release mechanism and agricultural sustainability. Journal of Environmental Chemical Engineering. 12(2), 112177. doi: 10.1016/j.jece.2024.112177

Galindo, F.S., Pagliari, P.H., da Silva, E.C., de Lima, B.H., Fernandes, G.C., Thiengo, C.C., et al., Impact of nitrogen fertilizer sustainability on corn crop yield: the role of beneficial microbial inoculation interactions. BMC Plant Biol. 24. 268. doi: 10.1186/s12870-024-04971-3

Handajaningsih, M., Marwanto, Lubis, S.M., Adiprasetyo, T. and Prasetyo, 2023. The effectiveness application of urea fertilizer coated with compost of empty oil palm bunch in tablet formula on growth, yield, and N content of celery. In: The 5th International Conference on Agriculture and Life Science 2021 (eds.). AIP Conf. Proc.; 3-4 Nov 2021, Jember, Indonesia. United States, 2583(2023), 020036. doi: 10.1063/5.0116209.

Iseki, K., Ikazaki, K. and Batieno, B.J., 2023. Heterogeneity effects of plant density and fertilizer application on cowpea grain yield in soil types with different physicochemical characteristics. F. Crops Res. 292, p. 108825. doi: 10.1016/j.fcr.2023.108825.

Jariwala, H., Santos, R.M., Lauzon, J.D., Dutta, A. and Chiang, Y.W., 2022. Controlled release fertilizers (CRFs) for climate-smart agriculture practices: a comprehensive review on release mechanism, materials, methods of preparation, and effect on environmental parameters. Environ. Sci. Pollut. Res. 29(36), pp. 53967-53995. doi: 10.1007/s11356-022-20890-y.

E.H., El Bauchtaoui, F.Z., Jaouahar, M. and El Achaby, M. 2024. ated slow/ controlled release granular fertilizers: Fundamentals h trends. Progress in Materials Science. 144(2024), 101269. doi: natsci.2024.101269

Khairati, S., Jusni and Farid BDR M, 2023. Comparison of financial feasibility between hybrid maize farming for seed production and feed production in Bone District, South Sulawesi. In: 4th International Conference of Food Security and Sustainable Agriculture in the Tropics (eds.) Proceedings of IOP Conf. Series: Earth and Environmental Science; 15-16 Feb 2023, Makassar, Indonesia. IOP Publishing: United Kingdom, 1230 (2023), 012222.

Khalaf, N., Leahy, J.J. and Kwapinski W., 2023. Phosphorus recovery from hydrothermal carbonization of organic waste: a review. J. Chem. Technol. Biotechnol. 98(10), pp. 2365-2377. doi:10.1002/jctb.7475.

Khah, A., Panthari, D., Sharma, R.S., Punetha, A., Singh, A.V. and Upadhayay, V.K., 2023. Biofertilizers: a microbial-assisted strategy to improve plant growth and soil health. In: Pandey, S.C., Pande, V., Sati, D. and Samant, M. (eds). In Developments in Applied Microbiology and Biotechnology, Advanced Microbial Techniques in Agriculture, Environment, and Health Management, Academic Press, pp. 97-118. Doi: 10.1016/B978-0-323-91643-1.00007-7.

Krismawati, A., Arifin, Z., Latifah, E., Baswarsiati, Fauziah, L., Purbiati, T. and Anggraeni, L., 2024. Effectiveness of NPK compound (15-15-6) fertilizer to improve maize performance in inceptisol soil. In: 6th International Conference on Food and Agriculture (eds.) IOP Conf. Series: Earth and Environmental Science; 18-19 Nov 2024, Surabaya, Indonesia. IOP Publishing: United Kingdom, 1338 (2024), 012011.

Kuligowski, K., Cenian, A., Konkol, I., Swierczek, L., Chojnacka, K., Izydorczyk, G., et al., 2023. Application of leather waste fractions and their biochars as organic fertilisers for ryegrass growth: Agri-environmental aspects and plants response modelling. Energies. 16(9), pp. 3883. doi: 10.3390/en16093883.

Lamlom, S.F., Irshad, A. and Mosa, W.F.A., 2023. The biological and biochemical composition of wheat (Triticum aestivum) as affected by the bio and organic fertilizers. BMC Plant Biol. 23, 111. doi: 10.1186/s12870-023-04120-2

Li, W., Gu, X., Du, Y., Zheng, X., Lu, S., Cheng, Z., Cai, W. and Chang, T., 2023. Optimizing nitrogen, phosphorus, and potassium fertilization regimes to improve maize productivity under double ridge-furrow planting with full film mulching. Agricultural Water Management. 287(2023), 108439. doi: 10.1016/j.agwat.2023.108439

Lindsey, A.J., Ortez, O.A., Thomison, P.R., Carter, P.R., Coulter, J.A., Roth, G.W., et al., 2024. Severe storm damage and short-term weather stresses on corn: A [illegible] Science. 64(3), pp. 1129-1166. doi: 10.1002/csc2.21212

[illegible]i, W., Ali, A., Chen, J., Sun, M., et al., 2023. Moderate organic [illegible]ostitution for partial chemical fertilizer improved soil microbial [illegible]ce utilization and bacterial community composition in rain-fed [illegible]s: current year. Front. Microbiol. 14, p. 1190052. doi: [illegible]cb.2023.1190052.

Liu, Y., Ma, C., Li, G., Jiang, Y., Hou, P., Xue, L., Yang, L. and Ding, Y., 2023. Lower dose of controlled/*slow release fertilizer* with higher rice yield and N utilization in paddies: Evidence from a meta-analysis. F. Crops Res. 294, p. 108879. doi: 10.1016/j.fcr.2023.108879.

Lopez, F.B., Barclay, G.F. and Badal, S., 2024. Plant anatomy and physiology. In: McCreath, S.B. and Clement, Y.N. (eds). Pharmacognosy. Academic Press, pp. 29-48. doi: 10.1016/B978-0-443-18657-8.00011-6.

Mackay, A.D., Syers, J.K. and Gregg, P.E.H., 1983. Ability of chemical extraction procedures to assess the agronomic effectiveness of phosphate rock materials. New Zealand Journal of Agricultural Research. 27(2), pp. 219-230. doi: 10.1080/00288233.1984.10430424

Mashatleh, M., Assayed, A., Al-Hmoud, N., Ali, A.H., Al Abaddi, R. and Alrwashdeh, M., 2024. Enhancing sustainable solutions for food security in Jordan: using bacterial biofertilizer to promote plant growth and crop yield. Front. Sustain. Food Syst. 8,1423224. doi: 10.3389/fsufs.2024.1423224

Maulana, H., Maxiselly, Y., Yuwariah, Y. and Ruswandi, D., 2023. Heritability and selection using gge biplots and the sustainability index (SI) of maize mutants under different cropping systems in upland. Sustainability. 15(8), pp. 6824. doi: 10.3390/su15086824.

Peng, J., Han, X., Li, N., Chen, K., Yang, J., Zhan, X., Luo, P. and Liu, N. 2021. Combined application of biochar with fertilizer promotes nitrogen uptake in maize by increasing nitrogen retention in soil. Biochar 3:367-379.

Pinzon-Nuñez, D.A., Wiche, O., Bao, Z., Xie, S., Fan, B., Zhang, W., et al., 2023. Selenium species and fractions in the rock–soil–plant interface of maize (*Zea mays* L.) grown in a natural ultra-rich Se environment. Int. J. Environ. Res. Public. Health. 20(5), pp. 4032. doi:10.3390/ijerph20054032.

Prayogo, C., Prasetya, B., Afarita, N. 2021. Comparative effects of the combination of biofertilizer, NPK, and mycorrhizal application on maize production system. In:The 8th International Conference on Sustainable Agriculture and Environment (eds.) IOP Conf. Series: Earth and Environmental Science; 24-25 August 2021. doi: 10.1088/1755-1315/905/1/012003.

Priya, E., Sarkar, S. and Maji, P.K., 2024. A review on slow-release fertilizer: Nutrient release mechanism and agricultural sustainability. Journal of Environmental Chemical Engineering. 12(4), 113211. doi: 10.1016/j.jece.2024.113211

rja, R. And Sofyan, E.T., 2024. Effect of NPK Bio-organomineral zer on harvest index, wet weight, dry weight and fertilization n the waste contaminated soil. International Journal of Life l Agriculture Research. 3(3). doi: 10.55677/ijlsar/V03I3Y2024-04

Riseh, R.S., Vatankhah, M., Hassanisaadi, M. And Kennedy, J.F., 2023. Increasing the efficiency of agricultural fertilizers using cellulose nanofibrils: A review. Carbohydrate Polymers. 321(2023), 121313. doi: 10.1016/j.carbpol.2023.121313

Rosliani, R., Saadah, I.R., Musaddad, D. and Kharitiyatun, N., 2023. Potato growth, yield and quality affected by calcium and nitrogen (CaN) compound fertilizers on andisol soil type in Lembang. In: 5th International Conference on Sustainable Agriculture (eds.) IOP Conf. Series: Earth and Environmental Science; 20-21 July 2023, IOP Publishing: United Kingdom, 1172 (2023), 012019. doi:10.1088/1755-1315/1172/1/012019.

Santos, T.d.O., Junior, A.t.d.A. and Moulin, M.M., 2023. Maize breeding for low nitrogen inputs in agriculture: Mechanisms underlying the tolerance to the abiotic stress. Stresses. 3(1), pp. 136-152. doi: 10.3390/stresses3010011.

Shrestha, S., Niraula, D., Regmi, S., Basnet, S., Chhetri, S.T. and Kandel, B.P., 2023. Performance evaluation and genetic parameters estimation of multi-companies maize hybrids in Lamahi Dang, Nepal. Heliyon. 9(3), p. e14552, doi: 10.1016/j.heliyon.2023.e14552.

Srivastav, A.L., Patel, N., Rani, L., Kumar, P., Dutt, I., Maddodi, B.S., Chaudhary, V.K., 2024. Sustainable options for fertilizer management in agriculture to prevent water contamination: a review. Environ Dev Sustain. 26, pp. 8303-8327. doi: 10.1007/s10668-023-03117-z

Verma, J., Kumar, C., Sharma, M., Shukla, A.C. and Saxena, S., 2024. Exploitation of microbial consortia for formulating biofungicides, biopesticides, and biofertilizers for plant growth promotion. In: Shukla, A.C. (eds). In Developments in Applied Microbiology and Biotechnology, Entrepreneurship with Microorganisms, Academic Press, pp. 227-257. doi: 10.1016/B978-0-443-19049-0.00019-0.

Yahaya, S.M., Mahmud, A.A., Abdullahi, M. and Haruna, A., 2023. Recent advances in the chemistry of nitrogen, phosphorus and potassium as fertilizers in soil: A review. Pedosphere. 33(3), pp. 385-406. doi: 10.1016/j.pedsph.2022.07.012

Yustisia, Raharjo, B., Suparwoto, Khairullah, I. and Riyanto, D., 2023. Productivity and agronomic efficiency of inundationtolerancerice in the swampland: A review. In: 5th International Conference on Sustainable Agriculture (eds.) IOP Conf. Ser.: Earth Environ. Sci; 20-21 july 2022. IOP Publishing: United Kingdom, 1172(2023), 012005. doi: 10.1088/1755-1315/1172/1/012005

Zhang, Y., Xu, W., Xie, R., Ming, B., et al., 2022. Effect of the nitrogen application on dry matter accumulation and yield formation of dryland planted maize. Sustainability. 14(22), p. 14940, doi: 10.3390/su142214940.

LAMPIRAN

Tabel lampiran 1. Sidik ragam tinggi tanaman jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	86.21	43.10	2.27	tn	3.63	6.23
Perlakuan	8	9583.14	1197.89	63.12	**	2.59	3.89
p0 vs p1-p8	1	9431.41	9431.41	496.94	**	4.49	8.53
p1 vs p2-p8	1	0.01	0.01	0.00	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.17	0.17	0.01	tn	4.49	8.53
p2 vs p3, p4	1	55.12	55.12	2.90	tn	4.49	8.53
p3 vs p4	1	62.08	62.08	3.27	tn	4.49	8.53
p5, p7 vs p6, p8	1	19.25	19.25	1.01	tn	4.49	8.53
p5 vs p7	1	6.20	6.20	0.33	tn	4.49	8.53
p6 vs p8	1	8.88	8.88	0.47	tn	4.49	8.53
Galat	16	303.66	18.98				
Total	26	9973.02					

KK = 2.04%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 2. Sidik ragam tinggi letak tongkol jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	89.33	44.67	3.70	*	3.63	6.23
Perlakuan	8	2466.24	308.28	25.57	**	2.59	3.89
p0 vs p1-p8	1	2182.50	2182.50	181.00	**	4.49	8.53
p1 vs p2-p8	1	0.89	0.89	0.07	tn	4.49	8.53
p2-p4 vs p5-p8	1	20.92	20.92	1.73	tn	4.49	8.53
p2 vs p3, p4	1	12.00	12.00	1.00	tn	4.49	8.53
p3 vs p4	1	32.20	32.20	2.67	tn	4.49	8.53
p5, p7 vs p6, p8	1	21.87	21.87	1.81	tn	4.49	8.53
p5 vs p7	1	7.71	7.71	0.64	tn	4.49	8.53
p6 vs p8	1	188.16	188.16	15.60	**	4.49	8.53
Galat	16	192.93	12.06				
Total	26	2748.51					

KK = 3.29%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 3. Sidik ragam panjang daun jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.84	0.42	0.14	tn	3.63	6.23
Perlakuan	8	2000.78	250.10	81.84	**	2.59	3.89
p0 vs p1-p8	1	1959.03	1959.03	641.03	**	4.49	8.53
p1 vs p2-p8	1	20.93	20.93	6.85	*	4.49	8.53
p2-p4 vs p5-p8	1	3.74	3.74	1.22	tn	4.49	8.53
p2 vs p3, p4	1	5.34	5.34	1.75	tn	4.49	8.53
p3 vs p4	1	9.63	9.63	3.15	tn	4.49	8.53
p5, p7 vs p6, p8	1	1.69	1.69	0.55	tn	4.49	8.53
p5 vs p7	1	0.43	0.43	0.14	tn	4.49	8.53
p6 vs p8	1	0.00	0.00	0.00	tn	4.49	8.53
Galat	16	48.90	3.06				
Total	26	2050.51					

KK = 2.02%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 4. Sidik ragam lebar daun jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.13	0.06	0.76	tn	3.63	6.23
Perlakuan	8	17.26	2.16	25.64	**	2.59	3.89
p0 vs p1-p8	1	16.43	16.43	195.19	**	4.49	8.53
p1 vs p2-p8	1	0.13	0.13	1.56	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.03	0.03	0.32	tn	4.49	8.53
p2 vs p3, p4	1	0.01	0.01	0.08	tn	4.49	8.53
p3 vs p4	1	0.19	0.19	2.31	tn	4.49	8.53
p5, p7 vs p6, p8	1	0.00	0.00	0.02	tn	4.49	8.53
p5 vs p7	1	0.00	0.00	0.00	tn	4.49	8.53
p6 vs p8	1	0.48	0.48	5.66	*	4.49	8.53
Galat	16	1.35	0.08				
Total	26	18.74					

KK = 3.12%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 5. Sidik ragam diameter batang jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	2.91	1.46	1.56	tn	3.63	6.23
Perlakuan	8	156.08	19.51	20.92	**	2.59	3.89
p0 vs p1-p8	1	153.28	153.28	164.37	**	4.49	8.53
p1 vs p2-p8	1	1.30	1.30	1.39	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.81	0.81	0.87	tn	4.49	8.53
p2 vs p3, p4	1	0.00	0.00	0.00	tn	4.49	8.53
p3 vs p4	1	0.44	0.44	0.47	tn	4.49	8.53
p5, p7 vs p6, p8	1	0.01	0.01	0.01	tn	4.49	8.53
p5 vs p7	1	0.17	0.17	0.18	tn	4.49	8.53
p6 vs p8	1	0.06	0.06	0.07	tn	4.49	8.53
Galat	16	14.92	0.93				
Total	26	173.91					

KK = 5.05%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 6. Sidik ragam umur berbunga betina jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.52	0.26	1.93	tn	3.63	6.23
Perlakuan	8	149.85	18.73	139.52	**	2.59	3.89
p0 vs p1-p8	1	146.69	146.69	1092.55	**	4.49	8.53
p1 vs p2-p8	1	0.02	0.02	0.18	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.25	0.25	1.89	tn	4.49	8.53
p2 vs p3, p4	1	0.06	0.06	0.41	tn	4.49	8.53
p3 vs p4	1	1.50	1.50	11.17	**	4.49	8.53
p5, p7 vs p6, p8	1	1.33	1.33	9.93	**	4.49	8.53
p5 vs p7	1	0.00	0.00	0.00	tn	4.49	8.53
p6 vs p8	1	0.00	0.00	0.00	tn	4.49	8.53
Galat	16	2.15	0.13				
Total	26	152.52					

KK = 0.65%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 7. Sidik ragam umur berbunga jantan jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.89	0.44	4.00	*	3.63	6.23
Perlakuan	8	38.00	4.75	42.75	**	2.59	3.89
p0 vs p1-p8	1	35.04	35.04	315.37	**	4.49	8.53
p1 vs p2-p8	1	0.48	0.48	4.34	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.67	0.67	6.04	*	4.49	8.53
p2 vs p3, p4	1	0.22	0.22	2.00	tn	4.49	8.53
p3 vs p4	1	0.67	0.67	6.00	*	4.49	8.53
p5, p7 vs p6, p8	1	0.75	0.75	6.75	*	4.49	8.53
p5 vs p7	1	0.00	0.00	0.00	tn	4.49	8.53
p6 vs p8	1	0.17	0.17	1.50	tn	4.49	8.53
Galat	16	1.78	0.11				
Total	26	40.67					

KK = 0.60%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 8. Sidik ragam berat tongkol kelobot jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	885.90	442.95	1.27	tn	3.63	6.23
Perlakuan	8	69072.08	8634.01	24.85	**	2.59	3.89
p0 vs p1-p8	1	57803.15	57803.15	166.37	**	4.49	8.53
p1 vs p2-p8	1	107.58	107.58	0.31	tn	4.49	8.53
p2-p4 vs p5-p8	1	2076.62	2076.62	5.98	*	4.49	8.53
p2 vs p3, p4	1	2625.71	2625.71	7.56	*	4.49	8.53
p3 vs p4	1	2211.84	2211.84	6.37	*	4.49	8.53
p5, p7 vs p6, p8	1	3413.81	3413.81	9.83	**	4.49	8.53
p5 vs p7	1	421.68	421.68	1.21	tn	4.49	8.53
p6 vs p8	1	411.68	411.68	1.18	tn	4.49	8.53
Galat	16	5558.95	347.43				
Total	26	75516.93					

KK = 8.19%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 9. Sidik ragam bobot tongkol jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	817.23	408.62	1.34	tn	3.63	6.23
Perlakuan	8	54404.60	6800.58	22,26	**	2.59	3.89
p0 vs p1-p8	1	46810.78	46810.78	153.25	**	4.49	8.53
p1 vs p2-p8	1	94.80	94.80	0.31	tn	4.49	8.53
p2-p4 vs p5-p8	1	1135.39	1135.39	3.72	tn	4.49	8.53
p2 vs p3, p4	1	1872.72	1872.72	6.13	*	4.49	8.53
p3 vs p4	1	1936.81	1936.81	6.34	*	4.49	8.53
p5, p7 vs p6, p8	1	1938.02	1938.02	6.34	*	4.49	8.53
p5 vs p7	1	372.88	372.88	1.22	tn	4.49	8.53
p6 vs p8	1	243.21	243.21	0.80	tn	4.49	8.53
Galat	16	4887.25	305.45				
Total	26	60109.08					

KK = 8.47%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 10. Sidik ragam berat janggel jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	23.50	11.75	1.54	tn	3.63	6.23
Perlakuan	8	1255.90	156.99	20.57	**	2.59	3.89
p0 vs p1-p8	1	998.89	998.89	130.91	**	4.49	8.53
p1 vs p2-p8	1	0.17	0.17	0.02	tn	4.49	8.53
p2-p4 vs p5-p8	1	74.15	74.15	9.72	**	4.49	8.53
p2 vs p3, p4	1	49.34	49.34	6.47	*	4.49	8.53
p3 vs p4	1	42.67	42.67	5.59	*	4.49	8.53
p5, p7 vs p6, p8	1	61.20	61.20	8.02	*	4.49	8.53
p5 vs p7	1	29.48	29.48	3.86	tn	4.49	8.53
p6 vs p8	1	0.01	0.01	0.00	tn	4.49	8.53
Galat	16	122.09	7.63				
Total	26	1401.50					

KK = 9.88%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 11. Sidik ragam bobot tongkol panen jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.69	0.35	0.81	tn	3.63	6.23
Perlakuan	8	174.44	21.80	51.23	**	2.59	3.89
p0 vs p1-p8	1	150.97	150.97	354.67	**	4.49	8.53
p1 vs p2-p8	1	0.08	0.08	0.18	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.80	0.80	1.88	tn	4.49	8.53
p2 vs p3, p4	1	5.27	5.27	12.38	**	4.49	8.53
p3 vs p4	1	7.89	7.89	18.53	**	4.49	8.53
p5, p7 vs p6, p8	1	7.68	7.68	18.04	**	4.49	8.53
p5 vs p7	1	0.13	0.13	0.30	tn	4.49	8.53
p6 vs p8	1	1.62	1.62	3.81	tn	4.49	8.53
Galat	16	6.81	0.43				
Total	26	181.94					

KK = 5.84%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 12. Sidik ragam panjang tongkol jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	11.05	5.53	4.73	*	3.63	6.23
Perlakuan	8	123.88	15.49	13.26	**	2.59	3.89
p0 vs p1-p8	1	113.88	113.88	97.49	**	4.49	8.53
p1 vs p2-p8	1	0.08	0.08	0.07	tn	4.49	8.53
p2-p4 vs p5-p8	1	1.13	1.13	0.97	tn	4.49	8.53
p2 vs p3, p4	1	1.34	1.34	1.15	tn	4.49	8.53
p3 vs p4	1	1.08	1.08	0.93	tn	4.49	8.53
p5, p7 vs p6, p8	1	2.18	2.18	1.86	tn	4.49	8.53
p5 vs p7	1	3.95	3.95	3.38	tn	4.49	8.53
p6 vs p8	1	0.24	0.24	0.21	tn	4.49	8.53
Galat	16	18.69	1.17				
Total	26	153.63					

KK = 6.20%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 13. Sidik ragam panjang tongkol berbiji jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	8.64	4.32	4.57	*	3.63	6.23
Perlakuan	8	154.35	19.29	20.42	**	2.59	3.89
p0 vs p1-p8	1	142.35	142.35	150.66	**	4.49	8.53
p1 vs p2-p8	1	0.20	0.20	0.21	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.26	0.26	0.27	tn	4.49	8.53
p2 vs p3, p4	1	1.25	1.25	1.33	tn	4.49	8.53
p3 vs p4	1	2.95	2.95	3.13	tn	4.49	8.53
p5, p7 vs p6, p8	1	4.81	4.81	5.09	*	4.49	8.53
p5 vs p7	1	2.17	2.17	2.30	tn	4.49	8.53
p6 vs p8	1	0.35	0.35	0.37	tn	4.49	8.53
Galat	16	15.12	0.94				
Total	26	178.11					

KK = 5.76%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 14. Sidik ragam diameter tongkol jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	2.60	1.30	0.77	tn	3.63	6.23
Perlakuan	8	200.30	25.04	14.76	**	2.59	3.89
p0 vs p1-p8	1	138.94	138.94	81.92	**	4.49	8.53
p1 vs p2-p8	1	0.76	0.76	0.45	tn	4.49	8.53
p2-p4 vs p5-p8	1	17.29	17.29	10.19	**	4.49	8.53
p2 vs p3, p4	1	24.50	24.50	14.44	**	4.49	8.53
p3 vs p4	1	8.17	8.17	4.81	*	4.49	8.53
p5, p7 vs p6, p8	1	4.84	4.84	2.85	tn	4.49	8.53
p5 vs p7	1	1.32	1.32	0.78	tn	4.49	8.53
p6 vs p8	1	4.49	4.49	2.65	tn	4.49	8.53
Galat	16	27.14	1.70				
Total	26	230.04					

KK = 2.95%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 15. Sidik ragam jumlah baris jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.10	0.05	0.20	tn	3.63	6.23
Perlakuan	8	23.80	2.98	11.78	**	2.59	3.89
p0 vs p1-p8	1	21.72	21.72	86.00	**	4.49	8.53
p1 vs p2-p8	1	0.07	0.07	0.29	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.05	0.05	0.19	tn	4.49	8.53
p2 vs p3, p4	1	0.27	0.27	1.06	tn	4.49	8.53
p3 vs p4	1	0.06	0.06	0.24	tn	4.49	8.53
p5, p7 vs p6, p8	1	0.04	0.04	0.16	tn	4.49	8.53
p5 vs p7	1	0.28	0.28	1.12	tn	4.49	8.53
p6 vs p8	1	1.31	1.31	5.17	*	4.49	8.53
Galat	16	4.04	0.25				
Total	26	27.94					

KK = 3.41%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 16. Sidik ragam jumlah biji per baris jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	15.36	7.68	1.93	tn	3.63	6.23
Perlakuan	8	699.06	87.38	21.91	**	2.59	3.89
p0 vs p1-p8	1	657.31	657.31	164.78	**	4.49	8.53
p1 vs p2-p8	1	1.23	1.23	0.31	tn	4.49	8.53
p2-p4 vs p5-p8	1	7.30	7.30	1.83	tn	4.49	8.53
p2 vs p3, p4	1	2.88	2.88	0.72	tn	4.49	8.53
p3 vs p4	1	12.33	12.33	3.09	tn	4.49	8.53
p5, p7 vs p6, p8	1	10.64	10.64	2.67	tn	4.49	8.53
p5 vs p7	1	7.04	7.04	1.77	tn	4.49	8.53
p6 vs p8	1	0.33	0.33	0.08	tn	4.49	8.53
Galat	16	63.82	3.99				
Total	26	778.25					

KK = 5.88%

Keterangan: tn : berpengaruh tidak nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 17. Sidik ragam bobot 1000 biji jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	13.74	6.87	0.03	tn	3.63	6.23
Perlakuan	8	14777.19	1847.15	8.92	**	2.59	3.89
p0 vs p1-p8	1	7768.80	7768.80	37.53	**	4.49	8.53
p1 vs p2-p8	1	97.22	97.22	0.47	tn	4.49	8.53
p2-p4 vs p5-p8	1	1018.43	1018.43	4.92	*	4.49	8.53
p2 vs p3, p4	1	2544.22	2544.22	12.29	**	4.49	8.53
p3 vs p4	1	2083.21	2083.21	10.06	**	4.49	8.53
p5, p7 vs p6, p8	1	602.08	602.08	2.91	tn	4.49	8.53
p5 vs p7	1	233.13	233.13	1.13	tn	4.49	8.53
p6 vs p8	1	430.11	430.11	2.08	tn	4.49	8.53
Galat	16	3311.82	206.99				
Total	26	18102.75					

KK = 4.54%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel lampiran 18. Sidik ragam rendemen jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel 0.05	F. Tabel 0.01
Kelompok	2	0.59	0.29	0,35	tn	3.63	6.23
Perlakuan	8	11.74	1.47	1,75	tn	2.59	3.89
p0 vs p1-p8	1	4.79	4,79	5,72	*	4.49	8.53
p1 vs p2-p8	1	0.19	0.19	0,22	tn	4.49	8.53
p2-p4 vs p5-p8	1	3.59	3,59	4,28	tn	4.49	8.53
p2 vs p3, p4	1	0.12	0.12	0,15	tn	4.49	8.53
p3 vs p4	1	0.04	0.04	0,05	tn	4.49	8.53
p5, p7 vs p6, p8	1	0.67	0.67	0.80	tn	4.49	8.53
p5 vs p7	1	1.32	1.32	1.57	tn	4.49	8.53
p6 vs p8	1	1.03	1.03	1.22	tn	4.49	8.53
Galat	16	13.41	0.84				
Total	26	25.74					

KK = 1.06%

Keterangan: tn : berpengaruh tidak nyata, dan * : berpengaruh nyata.

Tabel lampiran 19. Sidik ragam kadar air jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel	
						0.05	0.01
Kelompok	2	2.96	1.48	2.34	tn	3.63	6.23
Perlakuan	8	10.24	1.28	2.03	tn	2.59	3.89
p0 vs p1-p8	1	5.26	5.26	8.33	*	4.49	8.53
p1 vs p2-p8	1	0.56	0.56	0.89	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.40	0.40	0.64	tn	4.49	8.53
p2 vs p3, p4	1	0.64	0.64	1.02	tn	4.49	8.53
p3 vs p4	1	0.81	0.81	1.28	tn	4.49	8.53
p5, p7 vs p6, p8	1	0.01	0.01	0.05	tn	4.49	8.53
p5 vs p7	1	0.03	0.03	2.96	tn	4.49	8.53
p6 vs p8	1	2.53	2.53	1.06	tn	4.49	8.53
Galat	16	10.10	0.63				
Total	26	23.29					

KK = 3.21%

Keterangan: tn : berpengaruh tidak nyata, dan * : berpengaruh nyata

Tabel lampiran 20. Sidik ragam produktivitas jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

SK	DB	JK	KT	F. Hitung		F. Tabel	
						0.05	0.01
Kelompok	2	0.46	0.23	1.07	tn	3.63	6.23
Perlakuan	8	67.44	8.43	39.16	**	2.59	3.89
p0 vs p1-p8	1	58.64	58.64	272.43	**	4.49	8.53
p1 vs p2-p8	1	0.02	0.02	0.08	tn	4.49	8.53
p2-p4 vs p5-p8	1	0.10	0.10	0.47	tn	4.49	8.53
p2 vs p3, p4	1	1.80	1,80	8.36	*	4.49	8.53
p3 vs p4	1	2.79	2.79	12.94	**	4.49	8.53
p5, p7 vs p6, p8	1	2.87	2.87	13.35	**	4.49	8.53
p5 vs p7	1	0.13	0.13	0.58	tn	4.49	8.53
p6 vs p8	1	1.10	1.10	5.10	*	4.49	8.53
Galat	16	3.44	0.22				
Total	26	71.35					

KK = 6.52%

Keterangan: tn : berpengaruh tidak nyata, * : berpengaruh nyata, dan ** : berpengaruh sangat nyata.

Tabel Lampiran 21. Deskripsi varietas jagung Bisi-18

No. SK	: 571/Kpts/SR.120/10/2004/ 12 Oktober 2004
Golongan	: Hibrida silang tunggal (*Single Cross*)
Umur	: Genjah
Potensi hasil	: 12 ton/ha pipilan kering pada KA 15%
Rata-rata hasil	: 9,1 ton/ha pipilan kering pada KA 15%
Bobot 1000 biji	: 303 g
Tipe biji	: Semi mutiara
Asal	: Thailand
Adaptasi	:Beradaptasi baik di dataran rendah hingga 1.000mdpl
Ketahanan hama/penyakit	: Agak tahan terhadap bulai (*Peronosclerospora philipinnensis*)
Instansi	: PT. Bisi

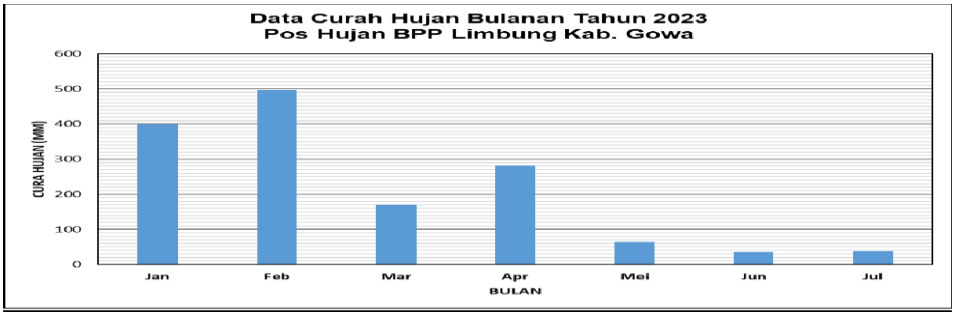
Sumber: Dinas Pertanian dan Ketahanan Pangan D.I Yogyakarta, 2023

BADAN METEOROLOGI KLIMATOLOGI DAN GEOFISIKA
BESAR METEOROLOGI KLIMATOLOGI DAN GEOFISIKA WILAYAH IV MAKASSAR
STASIUN KLIMATOLOGI SULAWESI SELATAN
JL. DR. RATULANGI No. 75A Telp. (0411) 372366 Fax. (0411) 372367
E.mail : staklim.maros@bmkg.go.id, klimat_maros@yahoo.com
MAROS – SULAWESI SELATAN

PELAYANAN JASA INFORMASI KLIMATOLOGI

DATA CURAH HUJAN BULANAN (MILIMETER)

Nama Propinsi	**: SULAWESI SELATAN**	**Lintang : 05º 17' 26.3" LS**
Nama Kabupaten	**: GOWA**	**Bujur : 119º 26' 16.6" BT**
Nama Stasiun	**: KIPP LIMBUNG/BPP LIMBUNG**	**Tinggi : 10 m**
Tahun : 2023		



Gambar Lampiran 1. Data curah hujan bulanan tahun 2023

Keterangan :

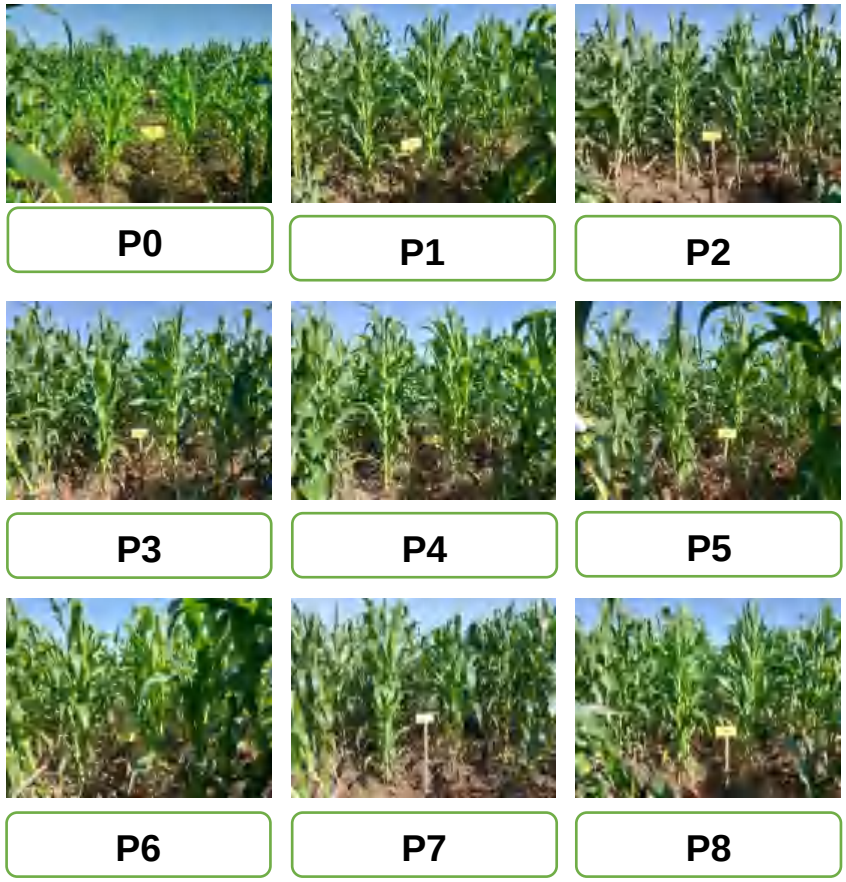
Curah hujan (mm) merupakan ketinggian air hujan yang jatuh pada tempat yang datar dengan asumsi tidak menguap, tidak meresap dan tidak mengalir. Curah hujan 1 (satu) mm adalah air hujan setinggi 1 (satu) mm yang jatuh (tertampung) pada tempat yang datar seluas 1 m^2 dengan asumsi tidak ada yang menguap, mengalir dan meresap.

Kriteria Curah Hujan Bulanan BMKG

0 – 100 mm	: Rendah
101 – 300 mm	: Menengah
301 – 400 mm	: Tinggi
401 – > 500	: Sangat Tinggi

Maros, 05 Juli 2023
Pemberi Informasi

Serly, S.Tr.Klim



Gambar Lampiran 2. Fenologi tanaman jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

3. Penampilan tongkol jagung Bisi-18 pada beberapa jenis paket pemupukan NPK dan pupuk hayati

CURRICULUM VITAE

A. Data Pribadi

1. Nama : Fira Novianti
2. Tempat, tgl. Lahir : Ujung Pandang, 30 November 1997
3. Alamat : Perumahan Azziqrul Toaha B No.8
4. Kewarganegaraan : Warga Negara Indonesia

B. Riwayat Pendidikan

1. Tamat SLTA tahun 2015 di SMAN 2 Pangkajene
2. Sarjana (S1) tahun 2019 di Universitas Hasanuddin

C. Pekerjaan dan Riwayat Pekerjaan

- Jenis pekerjaan : Pegawai Negeri Sipil
- NIP : 199711302020122017
- Pangkat/Jabatan : Penata Muda Tingkat I / Penyuluh Pertanian – Ahli Pertama

D. Karya Ilmiah yang telah dipublikasikan:

1. Fadhli, N., Farid, M., Azrai, M., Nur, A., Efendi, R., Priyanto, S.B., Nasruddin, A.D. and Novianti, F., 2023. Morphological parameters, heritability, yield component correlation, and multivariate analysis to determine secondary characters in selecting hybrid maize. Biodiversitas. 24(7), pp. 2750-3757. doi: 10.13057/biodiv/d240712
2. Farid, M., Azrai, M., Nur, A., Fadhli, N., Efendi, R., Salengke, Musa, Y., Baharuddin, Kuswinanti, T., Thamrin, S., Suwarno, W.B., Anshori, M.F., Andayani, N.N., Z, B., Mirsam, H., Priyanto, S.B., Suriani, Novianti, F., 2023. Identification of Lines Inducing Male Sterility in Hybrid Maize. Int. J. Agr. Syst. 11(2): 65-73. doi: 10.20956/ijas.v11i2.4994
3. Novianti, F., Syaiful, S.A., Dachlan, A. and Fadhli, N., 2023. Efficiency of Fertilizing Maize Plants Through the Application of *Slow release* NPK Tablet Fertilizer with Biofertilizer. Indonesian Journal of Agricultural Research. 6(3), pp. 223-236. doi: 0.32734/injar.v6i3.13904
4. Riadi, M., Amin, A.R., Novianti, F., Musa, Y., Farid, M., Dungga, N.E. and Sahur., A. 2021. Response of three maize varieties (*Zea mays* L.) to different nitrogen dosages. The 3rd International Conference on Food nd Sustainable Agriculture in the Tropics. 8-9 January 2021. s Hasanuddin, Indonesia.