

DAFTAR PUSTAKA

- Advinda L, Fifendy M & Anhar A. 2018. The Addition of Several Mineral Sources on Growing Media of Fluorescent Pseudomonad for the Biosynthesis of Hydrogen Cyanide. *IOP Conference Series: Materials Science and Engineering*. 335 012016.
- Akram, N.A., Shafiq, F. and Ashraf, M., 2017. Ascorbic acid-a potential oxidant scavenger and its role in plant development and abiotic stress tolerance. *Frontiers in plant science*, 8, p.238088.
- Albani, A. and Baharuddin, R., 2023, December. Pengaruh Pupuk Hayati dan Rock Fosfat Terhadap Pertumbuhan serta Produksi Tanaman Bawang Merah (*Allium ascalonicum* L.) pada Media Gambut. In *Prosiding Seminar Nasional Perhimpunan Hortikultura Indonesia* (Vol. 1, No. 2).
- Ali, T., Bhagat, N., Magotra, S. & Vakhlu, J., 2024. Plant growth promotion and induction of defense response in *Crocus sativus* L. by two native *Bacillus* species against *Fusarium oxysporum* R1. *Journal of Plant Growth Regulation*, 43(3), pp.787-806.
- Ali, M.N. & Mashkooor, S.A., 2023, December. Efficiency of Bacterial Biofertilizers and Spraying with Nano-Phosphates on Vegetative and Root Growth Indicators of Iris Flowers. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1262, No. 4, p. 042060). IOP Publishing.
- Aliche, E.B.; Oortwijn, M.; Theeuwens, T.P.; Bachem, C.W.; Visser, R.G.; van der Linden, C.G. Drought Response in Field Grown Potatoes and the Interactions between Canopy Growth and Yield. *Agric. Water Manag.* 2018, 206, 20–30
- Anis, N. & Budi, A.S., 2023. Sistem Penyiraman Tanaman Bawang Merah berdasarkan Kondisi Suhu Udara, Kelembapan Tanah, dan PH Tanah dengan Metode Logika Fuzzy. *Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer*, 7(4), pp.1810-1816.
- Anggraini, N., Faridah, E. & Indrioko, S., 2015. Pengaruh cekaman kekeringan terhadap perilaku fisiologis dan pertumbuhan bibit black locust (*Robinia pseudoacacia*). *Jurnal Ilmu Kehutanan*, 9(1), pp.40-56.
- Ardian, A., Deviona, D. & Nathisa, D., 2024. Pengujian Beberapa Varietas Kedelai (*Glycine max* L.) Pada Kondisi Cekaman Kekeringan. *Jurnal Pertanian Agros*, 26(1), pp.5245-5262.
- Ardiana, M & Advinda, L. 2022. The Ability of Fluorescent Pseudomonad to Produce Indole Acetic Acid (IAA). *Serambi Biologi*. 7(1): 59-64.
- Ardiansyah, A., Nurlansi, N. and Musta, R., 2018. Waktu Optimum Hidrolisis Pati Limbah Hasil Olahan Ubi Kayu (*Manihot esculenta* Crantz var. Lahumbu) Menjadi Gula Cair Menggunakan Enzim α -Amilase Dan Glukoamilase. *Indonesian Journal of Chemical Research*, 5(2), pp.86-95.
- Bashir, S.S., A. Hussain., S.J. Hussain., O. A. Wani., S. Z. Nabi., N.A. Dar., F. S. Baloch & S. Mansoor. 2021. Plant drought stress tolerance: understanding its physiological, biochemical and molecular mechanisms. *Biotechnology & Biotechnological Equipment*. 35(1): 1912-1925.

- Berlian, M.A., Pratama, H.D., Damayanti, N.A., Zulkarnaen, M.D. & Radianto, D.O. 2023. Peningkatan Inovasi Superlizer Menggunakan Biokatalisator EM4 untuk Mempercepat Pertumbuhan Tanaman Cabai. *VISA: Journal of Vision and Ideas*, 3(3), pp.493-503.
- Bibi, S., Ahmad, M.S.A., Hameed, M. and Alvi, A.K., 2022. Modulation of physiological plasticity through structural and functional modifications in *Stipagrostis plumosa* L. for adaptability to hyper-arid environments. *Turkish Journal of Botany*, 46(5), pp.435-458.
- Bhardwaj, D., Ansari, M.W., Sahoo, R.K., Tuteja, N., 2014. Biofertilizers function as key player in sustainable agriculture by improving soil fertility, plant tolerance and crop productivity. *Microb. Cell Factories* 13 (1), 66.
- Buda, I., Agung, I.G.A.M.S. and Ardhana, I., 2018. Nitrogen fertilizer increased bulb diameter and yields of true seed and bulb-propagated shallot varieties. *International Journal of Innovative Research in Science, Engineering and Technology*, 7(1), pp.80-86.
- Boldaji H., S.A., Khavari-Nejad, R.A., Hassan Sajedi, R., Fahimi, H. and Saadatmand, S., 2012. Water availability effects on antioxidant enzyme activities, lipid peroxidation, and reducing sugar contents of alfalfa (*Medicago sativa* L.). *Acta physiologiae plantarum*, 34, pp.1177-1186.
- Cahyani, N.A., Hasanah, Y. and Sarifuddin, S., 2022. Increased Production Of True Shallot Seed With Applications Of Paclobutrazol And Salicylic Acid On Drought Conditions. *AGRITEPA: Jurnal Ilmu dan Teknologi Pertanian*, 9(1), pp.181-196.
- Chatterjee P, Samaddar S, Anandham R, Kang Y, Kim K, Selvakumar G, et al. Beneficial soil bacterium *Pseudomonas frederiksbergensis* OS261 augments salt tolerance and promotes red pepper plant growth. *Front Plant Sci.* 2017 (8): 1-9.
- Chaudhry, U.K., Z.N.O. Gökçe & A.F. Gökçe. 2020. Effects of Salinity and Drought Stresses on the Physio-Morphological Attributes of Onion Cultivars at Bulbification Stage. *International Journal of Agriculture & Biology*, 24:1681–1691.
- Chang, D.C.; Jin, Y.I.; Nam, J.H.; Cheon, C.G.; Cho, J.H.; Kim, S.J.; Yu, H.-S. .2018. Early Drought Effect on Canopy Development and Tuber Growth of Potato Cultivars with Different Maturities. *Field Crops Res.* 215, 156–162.
- Chen, Y., Z. Yao., Y. Sun., E. Wang., C.Tian., Y. Sun., J. Liu., C. Sun & L. Tian. 2022. Current Studies of the Effects of Drought Stress on Root Exudates and Rhizosphere Microbiomes of Crop Plant Species. *International Journal of Molecular Sciences*, 23: 1-11.
- Chu, T.N., Tran, B.T.H., Van Bui, L. & Hoang, M.T.T. 2019. Plant growth-promoting rhizobacterium *Pseudomonas* PS01 induces salt tolerance in *Arabidopsis thaliana*. *BMC research notes*, 12(1), p.11.
- Cruz-Hernández, M.A., Mendoza-Herrera, A., Bocanegra-García, V. & Rivera, G. 2022. *Azospirillum* spp. from plant growth-promoting bacteria to their use in bioremediation. *Microorganisms*, 10(5), p.1057.
- Das, H.K., 2019. Azotobacters as biofertilizer. *Advances in applied microbiology*, 108, pp.1-43.

- Dasgupta, D., Kumar, K., Miglani, R., Mishra, R., Panda, A.K. and Bisht, S.S., 2021. Microbial biofertilizers: Recent trends and future outlook. *Recent Advancement in Microbial Biotechnology*, pp.1-26.
- Despita, R., A. Nizar., Purnomo, D & Y. Fernanda. 2020. Produksi Bawang Merah Tumpangsari dengan Cabai pada Beberapa Jarak Tanam. *Jurnal Agriekstensi*, 19 (2): 172-180.
- Dewi, T.K., E.S. Arum, H. Imamuddin, & S. Atonius. 2015. Karakteristik Mikrobia Perakaran (PGPR) Agen Penting Pendukung Pupuk Organik. *Hayati*. 1(2): 289-295.
- Dien, D.C.; Mochizuki, T.; Yamakawa, T. Effect of various drought stresses and subsequent recovery on proline, total soluble sugar and starch metabolisms in Rice (*Oryza sativa* L.) varieties. *Plant Prod. Sci.* 2019, 22, 530–545.
- Egamberdieva D., Jabborova D. & Hashem A .2015. *Pseudomonas* induces salinity tolerance in cotton (*Gossypium hirsutum*) and resistance to Fusarium root rot through the modulation of indole-3-acetic acid. *Saudi J Biol Sci.*, 22(6):773–9
- Ennab, H.A., 2016. Effect of organic manures, biofertilizers and NPK on vegetative growth, yield, fruit quality and soil fertility of Eureka lemon trees (*Citrus limon* (L.) Burm). *J. Soil Sci. Agri. Eng. Mansoura University*. 7 (10), 767–774.
- Fanny, T., Eliyani., O.F. Kurniadinata. 2020. Can We Grow Shallot (*Allium ascalonicum* L.) Root in Hydroponic System with Simple Growing Media?. *Journal of Tropical Horticulture*, 3(2): 54-59.
- Farid, A.I.N., N. Helilusiatiningsih & T. Handayani. 2022. Effect of Planting Media Composition and NPK Dosage on The Growth and Production of Shallots (*Allium Cepa* L.) Thailand Varieties. *Journal of Soilscape and Agriculture*, 1(1): 22-31.
- Faried, M., Syam'un, E. and Mantja, K., 2021. Pertumbuhan biji botani bawang merah (true shallot Seed) yang diaplikasi vermikompos dan pupuk hayati. *Jurnal Agrivigor*, 12(2), pp.65-74.
- Fathi, A., & Tari, D. B. 2016. Effect of Drought Stress and its Mechanism in Plants. *International Journal of Life Sciences*, 10(1), 1–6.
- Fatimah, F., Millah, A.I., Fadilah, R.L.A., Salsabila, S., Ramly, Z.A., Sugiarti, T., Nurhariyati, T. and Affandi, M., 2022. Isolation and potency test of endophytic bacteria as nitrogen fixer from mangrove plant in Lamongan. *Jurnal Riset Biologi dan Aplikasinya*, 4(1), pp.26-33.
- Fauziah, R., A.D. Susila & E. Sulistyono. 2016. Budidaya Bawang Merah (*Allium ascalonicum* L.) pada Lahan Kering Menggunakan Irigasi Sprinklerpada berbagai Volume dan Frekuensi. *J. Hort. Indonesia*, 7(1): 1-8.
- Fitriana, N & R. Susandarini. 2019. Morphology and taxonomic relationships of shallot (*Allium cepa* L. group aggregatum) cultivars from Indonesia. *BIODIVERSITAS*. 20(10): 2809-2814
- Forniawan, A., Sujarwanta, A. and Muhfahroyin, M., 2017. PENGARUH INTENSITAS CAHAYA DAN PUPUK CAIR LCN TERHADAP PRODUKSI BAWANG MERAH (Eksperimen untuk Bahan Problem Based Learning). *Jurnal Lentera Pendidikan Pusat Penelitian LPPM UM METRO*, 2(2), pp.133-141.



- Gentili, R., A. Roberto., M. Chiara., C. Sarah & C. Sandra. 2018. Effect of Soil pH on the Growth, Reproductive Investment and Pollen Allergenicity of *Ambrosia artemisiifolia* L. *Frontiers in Plant Science*. 9, p. 1335
- Ghodke. P.H., P.S. Andhale., U.M. Gijare., A. Thangasamy., Y.P. Khade., V. Mahajan & M. Singh. Physiological and Biochemical Responses in Onion Crop to Drought Stress. *International Journal of Current Microbiology and Applied Sciences*. 7(1) : 2054-2062.
- Griffiths, H, & Parry, JA, 2002, Plant Responses to Water Stress, *Annals of Botany*, vol. 89, Diakses tanggal 15 Maret 2015
- Grover, M., Bodhankar, S., Sharma, A., Sharma, P., Singh, J. and Nain, L., 2021. PGPR mediated alterations in root traits: way toward sustainable crop production. *Frontiers in Sustainable Food Systems*, 4, p.618230.
- Grudzińska, M., Boguszevska-Mańkowska, D. and Zarzyńska, K., 2022. Drought stress during the growing season: Changes in reducing sugars, starch content and respiration rate during storage of two potato cultivars differing in drought sensitivity. *Journal of Agronomy and Crop Science*, 208(5), pp.609-620.
- Guo, J. Y.; S. Z. Suo; K. Z. Shao; Q. Zhao; D. Yao; H. P. Li; J. L. Zhang and C. Rensing. 2020. 'Biofertilizers with beneficial rhizobacteria improved plant growth and yield in chili (*Capsicum annuum* L.)', *World Journal of Microbiology and Biotechnology*, 36:86, 1-12.
- Gupta, M., Sharma, R., Sharma, M., Sharma, S. and Sharma, P., 2024. Influence of inorganic fertilizers with biofertilizers on biochemical components, growth and yield of garlic under subtropical irrigated condition. *Journal of Plant Nutrition*, 47(6), pp.837-849.
- Gupta G, Parihar SS, Ahirwar NK, Snehi SK, Singh V. 2015. Plant growth promoting rhizobacteria (PGPR): Current and future prospects for development of sustainable agriculture. *Journal of Microbial & Biochemical Technology*.7(2): 96– 102.
- Gupta, P., Trivedi, J., Sharma, P.K., Devi, S. and Siwna, Y., 2023. Effect of different bio-fertilizers and organic substances on quality parameters of rabi onion (*Allium cepa* L.). *The Pharma Innovation Journal*, 12(4), pp.209-212.
- Hasanah, Y., L. Mawarni & H. Hanum. 2022. Research Article Physiological Characteristics of Shallot (*Allium ascalonicum*) Varieties in Highlands and Lowlands. *Asian Journal of Plant Sciences*, 21 (2): 236-242.
- Hardiansyah, V & B. Guritno. 2022. Effect of Difference Bulb Size Seedling and Application of Various Doses Nitrogen on the Growth and Yield of Shallot (*Allium ascalonicum* L.). *Journal of Agricultural Science*. 7(1): 69-80.
- Hartati, NS dan Prana, TK. 2011. Analisis Kadar Pati dan Serat Kasar Tepung Beberapa Kultivar Talas (*Colocasia esculenta* L. Schott). Puslit Bioteknologi LIPI
- Henry, A., A.J. Cal, T.C. Batoto, R.O. Torres, R.Serraj. 2012. Root attributes affecting water uptake of rice (*Oryza sativa*) under drought. *J. Exp. Bot.* 63:4751-4763
- Herman, D. J., Knowles, L. O., & Knowles, N. R. 2016. Heat stress affects carbohydrate metabolism during cold-induced sweetening of potato (*Solanum tuberosum* L.), *Planta*, 245(3), 563-582

- Hong, L., Orikasa, Y., Sakamoto, H. & Ohwada, T., 2019. Plant tissue localization and morphological conversion of azospirillum brasilense upon initial interaction with allium cepa L. *Microorganisms*, 7(9), p.275.
- Indrawan, A.D., Suryaminarsih, P. & Mujoko, T. 2021. Prospect of Utilization of Microorganisms Streptomyces sp. and Trichoderma sp. in Supporting Sustainable Agriculture in the Age of Modern Agriculture. *Nusantara Science and Technology Proceedings*, pp.32-38.
- Indriyani, Rauf, A.W. and Nappu, M.B., 2021, July. Respons growth and production of shallot (*Allium ascalonicum* L.) on Complementary Liquid Fertilizer (CLF) dosage and interval of application time. In *IOP Conference Series: Earth and Environmental Science*. 803(1): 1-9
- Irawan, T.B., Soelaksini, L.D. and Nuraisyah, A., Respon Pertumbuhan Bibit Kakao (*Theobroma cacao* L.) DENGAN PEMBERIAN.
- Ismail M. A., Amin M. A., Eid A.M., Hassan S.E.D., Mahgoub H.A., Lashin I. & Fouda A. 2021. Comparative study between exogenously applied plant growth hormones versus metabolites of microbial endophytes as plant growth-promoting for *Phaseolus vulgaris* L. *Cells*. 10(5): 1059
- Junaid, M.D., Öztürk, Z.N. & Gökçe, A.F. 2023. Drought stress effects on morphophysiological and quality characteristics of commercial carrot cultivars. *Turkish Journal of Botany*, 47(2), pp.111-126.
- Kalra, A., Goel, S. and Elias, A.A., 2023. Understanding role of roots in plant response to drought: Way forward to climate-resilient crops. *The Plant Genome*, p.e20395.
- Kapoor D, Singh S, Kumar V, Romero R, Prasad R et al. (2019). Antioxidant enzymes regulation in plants in reference to reactive oxygen species (ROS) and reactive nitrogen species (RNS). *Plant Gene* 19: 100182.
- Kartikawati A, Trisilawati O, Darwati I. 2017. Pemanfaatan pupuk hayati (biofertilizer) pada tanaman rempah dan obat/Biofertilizer utilization on spices and medicinal plants. *Perspektif*, 16(1): 33–43.
- Kim, Y., Chung, Y.S., Lee, E., Tripathi, P., Heo, S. and Kim, K.H., 2020. Root response to drought stress in rice (*Oryza sativa* L.). *International journal of molecular sciences*, 21(4), p.1513.
- Khairunnisa, N.A & D.U. Siswanti. 2021. Effect of biofertilizer and salinity stress on productivity and vitamin C levels of *Amaranthus tricolor* L. *BIOGENESIS*, 9(2): 146-155.
- Kochhar, S. L. & Gujral, S.K. 2018. Plant Physiology: Theory and Applications, 2nd Edition. University Printing House, Cambridge CB2 8BS, United Kingdom.
- Khokar, K. M. (2019). Mineral Nutrient Management for Onion Bulb Crops: A Review. *The Journal of Horticulture Science and Biotechnology* 10.
- Kumar, S., Kundu, M., Das, A., Rakshit, R., Siddiqui, Md.W., Rani, R., 2019. Substitution of mineral fertilizers with biofertilizer: an alternate to improve the growth, yield and functional biochemical properties of strawberry (*Fragaria×ananassa* Duch.) cv. Camarosa. *J. Pl. Nutr.* 42, 1818–1837
- Kumar, T.B., Kumar, G.P., Kumar, R.S. and Muruganandam, C., 2020. Effect of nutrient management through bio-organic manures on fruit setting, fruit drop and fruit retention of acid lime (*Citrus aurantifolia* Swingle). *Plant*

- Archives*, 20(1), pp.1570-1572.
- Li, W., Wang, Y., Zhang, Y., Wang, R., Guo, Z. and Xie, Z., 2020. Impacts of drought stress on the morphology, physiology, and sugar content of Lanzhou lily (*Lilium davidii* var. unicolor). *Acta Physiologiae Plantarum*, 42, pp.1-11.
- Li, Y., Fan, X., Zhang, H., Ai, F., Jiao, Y., Zhang, Q. and Zhang, Z., 2022. Pretreatment of corn stover by torrefaction for improving reducing sugar and biohydrogen production. *Bioresource Technology*, 351, p.126905.
- Li, L., Qian, R., Liu, W., Wang, W., Biederman, J., Zhang, B 2022. Drought timing influences the sensitivity of a semiarid grassland to drought. *Geoderma* 412, 115714. doi: 10.1016/j.geoderma.2022.115714
- Lovitna, G., Nuraini, Y. & Istiqomah, N. 2021. Effect of Application of Phosphate-Solubilizing Bacteria and Inorganic Phosphate Fertilizer on Population of Phosphate-Solubilizing Bacteria, Available P, and Corn Yield on an Alfisol. *Jurnal Tanah dan Sumberdaya Lahan*. 8(2): 437-449.
- Lumbantoruan, S.M. & Anggraini, S., 2021. Biofertilizer Formulation in Stimulating Corn Growth in Drought Stress Peatland. *Jurnal Agroqua: Media Informasi Agronomi dan Budidaya Perairan*, 19(2), pp.345-353.
- Major, N., Goreta Ban, S., Urlić, B., Ban, D., Dumičić, G. & Perković, J. 2018. Morphological and biochemical diversity of shallot landraces preserved along the Croatian coast. *Frontiers in plant science*, 9, p.1749.
- Makbul, S., N.S. Guler, N. Durmus, S. Guven. 2011. Changes in anatomical and physiological parameters of soybean under drought stress. *Turk. J. Bot*, 35:369- 377.
- Malak, B.I., 2017. IDENTIFIKASI ANATOMI TUMBUHAN SIRIH HUTAN (*Piper aduncum* L). *Biolearning Journal*, 4(2), pp.49-54.
- Manurung, G.P., Kusumiyati & J.S. Hamdani. 2022. Pengaruh interval penyiraman terhadap pertumbuhan dan adaptasi tiga bawang merah komersial. *Jurnal Kultivasi*, 21(1): 24-32.
- Maurel, C., & Nacry, P. (2020). Root architecture and hydraulics converge for acclimation to changing water availability. *Nature Plants*, 6(7), 744–749
- Meena, M.; P. Swapnil; M. Aamir; M. K. Dubey; J. Goutam and R. Upadhyay. 2017. Beneficial Microbes for Disease Suppression and Plant Growth Promotion , *In Plant-Microbe Interactions in Agro-Ecological Perspectives*, Springer: Singapore, (2): 395-432
- Mittler, R., 2017. ROS are good. *Trends in plant science*, 22(1) : 11-19.
- Morales-Diaz.; H.O.Ortega; A.M. Juárez; G.P. Cadenas; S.M.González and Benavides-Mandoza, A.2017. Application of nanoelements in plant nutrition and its impact in ecosystems. *Advances in Natural Sciences: Nanoscience and Nanotechnology*, 8 :13
- Mudhor, M. A., Dewanti, P., Handoyono, T & Ratmnasari, T. 2022. Pengaruh Cekaman Kekeringan Terhadap Pertumbuhan dan Produksi Tanaman Padi Hitam Varietas Jeliteng. *Jurnal Agrikultura*. 33(3): 247-256.
- Nanda, A., I. Sari & E.Y.Yusuf. 2022. Pertumbuhan Dan Produksi Bawang Merah (*Allium Cepa* L) Dengan Pemberian Mikroorganisme Lokal (Mol) Feses Walet Pada Media Gambut. *Jurnal Agro Indragiri*, 9(1): 22-34.
- Nasir, M. W & Toth, Z. 2022. Effect of Drought Stress on Potato Production: A

- Review. *Agronomy*. 12(635):1-22
- Nawaz F, Shehzad MA, Majeed S. 2020. Role of mineral nutrition in improving drought and salinity tolerance in field crops. *Springer*. Singapore. p. 129–147.
- Negi, Y.K., Sajwan, P., Uniyal, S. & Mishra, A.C., 2021. Enhancement in yield and nutritive qualities of strawberry fruits by the application of organic manures and biofertilizers. *Scientia Horticulturae*, 283, p.110038.
- Nikirahayu, M., M. Syafi'i., R.Y. Agustini & P. Soedomo. 2021. Keragaan Karakter Morfologi Bawang Merah (*Allium ascalonicum* L.) Varietas Katumi dan Violetta 3 Agrihorti di Lembang. *Jurnal Agrotek Indonesia*, 6(2): 55-61.
- Nisa, D., Susilowati, L.E. & Arifin, Z., 2024. Karakteristik Kualitas Kompos Berbahan Baku Campuran Limbah Baglog dan Kotoran Sapi yang Dikomposkan dengan Berbagai Jenis Dekomposes. *Agroteksos*, 34(1), pp.62-70.
- Nugroho, F.M & N. Khoiriyah. 2023. Pengaruh Pupuk Hayati Cair Terhadap Produksi Budidaya Bawang Merah di Kecamatan Sedan. *Journal of Integrated Agricultural Socio Economics and Entrepreneurial Research*, 1(2): 5-11.
- Nugroho, M.V.P., M. Arifin & B.W. Widjajani. 2023. Sifat Fisik Tanah Pada Lahan Bawang Merah Di Kecamatan Gondang Nganjuk dan Kecamatan Kedungadem Bojonegoro. *Jurnal Solum*, 1(1): 23-28.
- Nunilahwati, H., Marlina, N., Purwanti, Y., Nisfuriah, L., Aryani, I., Rosmiah, R. and Zulfakar, Z., 2023, January. Efek Takaran Pupuk Hayati terhadap Pertumbuhan dan Produksi Caisim (*Brassica juncea* L.). In *Seminar Nasional Lahan Suboptimal* 10(1) : 226-233.
- Nurmayanti, N., 2020. Pengaruh Konsentrasi Pemberian Pupuk rin Terhadap Pertumbuhan dan Hasil Tanaman Okra (*Abelmoshus esculentus* L. Moench) Pada Kondisi Pemberian Air yang Berbeda. *Crop Argo*. 16(1):52-64
- Nova, N., Zakiah, Z. and Mukarlina, M., 2020. Pertumbuhan Bawang Merah (*Allium cepa* var. Bauji) Pada Tanah Gambut Dengan Penambahan Tricho-Kompos Kotoran Bebek. *Jurnal Protobiont*, 9(2). 109-116.
- Oktrisna, D., F, Puspita, dan E, Zuhry. 2017. Uji bakteri *Bacillus* sp. Endofit diformulasi dengan beberapa limbah terhadap tanaman padi sawah (*Oryza sativa* L.). *Jom Faperta*, 4(1): 1-12.
- Ozturk M, Turkyilmaz Unal B, García-Caparrós P, Khursheed A & Gul A .2021. Osmoregulation and its actions during the drought stress in plants. *Physiologia Plantarum* 172 (2): 1321- 1335.
- Paciolla, C., Fortunato, S., Dipierro, N., Paradiso, A., De Leonardis, S., Mastropasqua, L. and De Pinto, M.C., 2019. Vitamin C in plants: from functions to biofortification. *Antioxidants*, 8(11), p.519.
- Pandia, W., Tarigan, S., Sihalohe, N. K., Dahang, D., & Pintubatu, R. P. A. 2022. Pengaruh Ukuran Benih Dan Pemakaian Pestisida Terhadap Pertumbuhan Dan Hasil Bawang Merah (*Allium Ascalonicum* L.). *Agroteknosains*, 6(2), 114–123.
- Pangestuti, N.H & D.U. Siswanti. 2021. Viability, productivity, and anatomical response of groundnuts (*Arachis hypogaea* L.) to biofertilizer-sludge

- biogasapplications. *BIOGENESIS*, 9(1): 57-65.
- Pena-Valdivia, C.B., A.B. Sanchez-Urdaneta, J.M. Rangel, J.J. Munoz, R. Garcia-Nava, R.C. Velazquez. 2010. Anatomical root variations in response to water deficit: wild and domesticated common bean (*Phaseolus vulgaris* L.). *Biol. Res.* 43 :417-427.
- Peña-Valdivia C.B., Sánchez-Urdaneta A.B., Effects of substrate water potential in root growth of *Agave salmiana* Otto ex Salm-Dyck seedlings, *Biol. Res.*, 2009, 42, 239-248
- Pérez O., R., Nieto García, J.C., Gallegos-Cedillo, V.M., Domene Ruiz, M.Á., Santos Hernández, M., Nájera, C., Miralles Mellado, I. & Diánez Martínez, F., 2023. Biofertilizers Enriched with PGPB Improve Soil Fertility and the Productivity of an Intensive Tomato Crop. *Agronomy*, 13(9), p.2286.
- Piri, H & A. Naserin. 2020. Effect of different level of water, applied nitrogen, and irrigation methods on yield, yield component and IWUE of onion. *Scientia. Hort.* 268: 1-11
- Pirzad A, MR Shakiba, SZ Salmasi, SA Mohammadi, R Darvishzadeh, A Samadi. 2011. Effect of water stress on leaf relative water content, chlorophyll, proline and soluble carbohydrates in *Matricaria chamomilla* L. *Journal of Medicinal Plants Research.* 5:2483-2488
- Polakitan, A., Salamba, H.N. and Manoppo, C.N., 2022. The effect of watering techniques for increasing the yield of shallots (*Allium cepa* L) in dry land. In *E3S Web of Conferences.* (361). p. 04021.
- Prihastanti, E. 2010. Perubahan struktur pembuluh xilem akar kakao (*Theobroma cacao* L.) dan *Gliricidia sepium* pada cekaman kekeringan. *BIOMA.* 12:24-28.
- Purwaningsih, S., Agustiyani, D. and Antonius, S., 2021. Diversity, activity, and effectiveness of *Rhizobium* bacteria as plant growth promoting rhizobacteria (PGPR) isolated from Dieng, central Java. *Iranian journal of microbiology*, 13(1), p.130.
- Purwanto, P., Wijonarko, B.R. & Tarjoko, T., 2019. Perubahan karakter biokimia dan fisiologi tanaman kacang hijau pada berbagai kondisi cekaman kekeringan. *Kultivasi*, 18(1), pp.827-836.
- Putri, G. M., Suryana, I. M., Udiyana, B.P & Sujana, I. P. 2022. Pertumbuhan dan Hasil Tanaman Bawang Merah (*Allium ascalonicum* L.) pada Uji Pupuk Guano di Tanah Sawah Renon. *Jurnal Pertanian Berbasis Keseimbangan Ekosistem.* 12(23): 19-23.
- Radhakrishnan R., Hashem A & Abd-Allah E.F. 2017. *Bacillus*: a biological tool for crop improvement through bio-molecular changes in adverse environments. *Front Physiol*, 8:667
- Rana, S., Thakur, K.S., Bhardwaj, R.K., Kansal, S. and Sharma, R., 2020. Effect of biofertilizers and micronutrients on growth and quality attributes of cabbage (*Brassica oleracea* var. capitata L.). *Int. J. Chem. Studies*, 8(1), pp.1656-1660.
- Rao, N.K.S. (2016). Onion. In: Rao, N.K.S., Shivashankara, K.S., Laxman, R.H. (Eds.). *Abiotic stress physiology of horticultural crops*. 1st ed. *Springer (India) Pvt. Ltd* : 133–149
- Ratmadanti, F. R & Maryani. 2017. Changes in Root Anatomy Due to Different

- Watering Supply in the Growth of *Capsicum frutescens* L. on Verticulture Technique. *J. Trop. Biotech.* 2: 1-9
- Ribboni, Matheo., M. Galbiati, C. Tonelli & L. Conti. 2013. GIGANTEA Enables Drought Escape Response via Absciscic Acid-Dependent Activation of the Florigens and Suppressor of Overexpression Of Contants1. *Plant Physiology American Society of Plant Biologists.* 162(2013): 1706-1719. (AR)
- Rosawanti, P., M. Ghulamahdi & N. Khumaida. 2015. Respon Anatomi dan Fisiologi Akar Kedelai terhadap Cekaman Kekeringan. *J. Agron. Indonesia*, 43(3): 186-192.
- Rykaczewska, K. Impact of Heat and Drought Stresses on Size and Quality of the Potato Yield. *Plant Soil Environ.* 2017, 63, 40–46.
- Sah, S., Krishnani, S. & Singh, R., 2021. Pseudomonas mediated nutritional and growth promotional activities for sustainable food security. *Current Research in Microbial Sciences*, 2, p.100084.
- Salem, A., Khandaker, M.M., Mahmud, K., Alsufyani, S.J., Majrashi, A.A., Rashid, Z.M., Alenazi, M.M., Osman, N. & Badaluddin, N.A., 2024. Enhancing photosynthesis and root development for better fruit quality, aroma, and lessening of radioactive materials in key lime (*Citrus aurantifolia*) using *Trichoderma harzianum* and *Bacillus thuringiensis*. *Plant Physiology and Biochemistry*, 206, p.108295.
- Sansan, O.C., Ezin, V., Ayenan, M.A.T., Chabi, I.B., Adoukonou-Sagbadja, H., Saïdou, A. and Ahanchede, A., 2024. Onion (*Allium cepa* L.) and Drought: Current Situation and Perspectives. *Scientifica*, 2024.
- Santos, K.F.D.N., Moure, V.R., Hauer, V., Santos, A.R.S., Donatti, L., Galvao, C.W., Pedrosa, F.O., Souza, E.M., Wassem, R., Steffens, M.B.R. 2017. Wheat colonization by an *Azospirillum brasilense* ammonium-excreting strain reveals upregulation of nitrogenase and superior plant growth promotion. *Plant Soil*, 415, pp. 245–255.
- Saputra, H., Purnamasari, A., Julsento, H.P., Puspitasari, H.M., Ariefin, M.N., Wisnubroto, M.P. & Khairi, A., 2024. The impact of applying liquid organic fertilizer and inorganic fertilizer on the growth and yield of curly red chili in dryland. *Tanah Samawa: Journal of Sustainable Agriculture*, 1(1), pp.45-54.
- Schimel, J. P. (2018). Life in dry soils: effects of drought on soil microbial communities and processes. *Annu. Rev Ecol Evol* S.49, 409–432
- Seleiman, M.F., Al-Suhaibani, N., Ali, N., Akmal, M., Alotaibi, M., Refay, Y., Dindaroglu, T., Abdul-Wajid, H.H. and Battaglia, M.L., 2021. Drought stress impacts on plants and different approaches to alleviate its adverse effects. *Plants*. 2021; 10: 259.
- Shahid, I., Han, J., Hanoog, S., Malik, K.A., Borchers, C.H., Mehnaz, S, 2021. Profiling of metabolites of *Bacillus* spp. and their application in sustainable plant growth promotion and biocontrol. *Front. Sustain. Food Syst.* 5, 605195
- Siddiqui, M.H.; Alamri, S.; Al-Khaishany, M.Y.; Khan, M.N.; Al-Amri, A.; Ali, H.M.; Alaraidh, I.A.; Alsahli, A.A. Exogenous melatonin counteracts NaCl-induced damage by regulating the antioxidant system, proline and carbohydrates metabolism in tomato seedlings. *Int. J. Mol. Sci.* 2019, 20,

353.

- Siebielec, S., Siebielec, G., Klimkowicz-Pawlas, A., Gałazka, A., Grządziel, J. and Stuczyński, T., 2020. Impact of water stress on microbial community and activity in sandy and loamy soils. *Agronomy*, 10(9), p.1429.
- Siswanti, D.U. & Rachmawati, D., 2011. Plant Response and Nitrate Reductase Activity in vivo on Rice (*Oryza sativa* L.) Cultivars IR-64 to Biofertilizer Application And Drought. *Proceeding ICBS Faculty of Biology, Universitas Gadjah Mada*.
- Siswanti, D.U & D. Rachmawati. 2013. Pertumbuhan Tiga Kultivar Padi (*Oryza sativa* L.) Terhadap Aplikasi Pupuk Bio Cair dan Kondisi Tanah Pertanian Pasca Erupsi Merapi 2010. *BIOGENENSIS*, 1(2): 110-115.
- Siswanti, D.U. 2015. Pertanian Organik Terpadu di Desa Wukirsari, Sleman, Yogyakarta Sebagai Usaha Pemulihan Kesuburan Lahan Terimbas Erupsi Merapi 2010 dan Pencapaian Desa Mandiri Sejahtera. *Indonesian Journal of Community Engagement*, 1(1): 62-78.
- Siswanti, D.U & M.F. Lestari. 2019. Growth rate and capsaicin level of curly red chili (*Capsicum annum* L.) on biofertilizer and biogas sludge application. *Jurnal Biodjati*. 4(1): 126-137.
- Siswanti, D.U., Utaminingsih & N.H.Pangestuti. 2019. Capsaicin level and anatomy response of curly red chili (*Capsicum annum* L.) to bio fertilizer and sludge biogas application. *ICOST 2019: 1st International Conference on Science and Technology*. pp, 107-114.
- Siswanti, D.U., N. H. Pangestuti & N. Wulansari. 2021. Growth and Productivity of Lurik Peanuts (*Arachis hypogaea* L. var. Lurikensis) after Biofertilizer-Sludge Biogas Application. *7th International Conference on Biological Science: Advances in Biological Sciences Research*, 22: 505-512.
- Siswanti, D.U., Pangestuti, N.H. & Wulansari, N., 2022, May. Growth and Productivity of Lurik Peanuts (*Arachis hypogaea* L. var. Lurikensis) after Biofertilizer-Sludge Biogas Application. In *7th International Conference on Biological Science (ICBS 2021)* (pp. 505-512).
- Siswanti, D.U & N. Umah. 2021. Effect of Biofertilizer and Salinity on Growth and Chlorophyll Content of *Amaranthus tricolor* L. *IOP Conference Series: Earth and Environmental Science*, 662(2021): 10.1088/1755-1315/662/1/012019
- Siswanti, D.U & O.S. Riesty. 2021. Effects of biofertilizer and manure application on growth rate and chlorophyll content of spinach (*Amaranthus tricolor* L.) under salinity stress condition. *BIO Web of Conferences: ICAVESS*, 33(2021): <https://doi.org/10.1051/bioconf/20213305003>
- Smirnoff, N 2018. Ascorbic acid metabolism and functions: a comparison of plants and mammals. *Free Radic. Biol. Med.* 122, 116–129. doi: 10.1016/j.freeradbiomed.2018.03.033
- Sofihidayati, T., F.D. Sulistiyono., B.L Sari. 218. Penetapan Kadar Flavonoid dan Aktivitas Antimikroba Ekstrak Etanol Kulit Bawang Merah (*Allium Cepa* L.) terhadap *Staphylococcus aureus*. *Fitofarmaka Jurnal Ilmiah Farmasi*. 8(2): 1-6.
- Sumbul, A., Ansari, R.A., Rizvi, R. & Mahmood, I., 2020. Azotobacter: A potential bio-fertilizer for soil and plant health management. *Saudi journal of biological sciences*, 27(12), pp.3634-3640.

- Suryaminarsih, P., Harijani, W.S. & Guniarti, G., 2019. Possibility of *Streptomyces* sp. and *Trichoderma* sp. in Liquid Media to Control Chilli Yellow Leaf Cruel Virus (CYLCV) Diseases. In *International Conference on Agriculture* (pp. 146-151).
- Susilowati, R.D., Sulistyaningsih, E. and Murti, R.H., 2023. Increasing the growth and yield of shallot (*Allium cepa* L. *Aggregatum* group) by using Methyl Jasmonic Acid (MeJA) concentrations under drought condition. *Ilmu Pertanian (Agricultural Science)*, 8(1), pp.55-68.
- Suwatanti, E.P.S. & Widiyaningrum, P. Pemanfaatan MOL Limbah Sayur pada Proses Pembuatan Kompos. *Jurnal MIPA*. 40(1): 1-6
- Swasono, F.D.H. (2012a). Peran ABA dan Prolin dalam Mekanisme Adaptasi Tanaman Bawang Merah terhadap Cekaman Kekeringan di Tanah Pasir Pantai. *Jurnal AgriSains*, 4(5), 71-79
- Takeno, K. 2016. Stress Induced Flowering: The Third Category of Flowering Response. *J. of. Experimental Bot.* 67(17):4925-4934
- Tamiru, G. 2023. Role of Bio-Fertilizers in Improving Soil Fertility and Crop Production. *Cross Current Int J Agri Vet Sci.* 5(6), 118-127.
- Teshika, J.D., Zakariyyah, A.M., Zaynab, T., Zengin, G., Rengasamy, K.R., Pandian, S.K. and Fawzi, M.M., 2019. Traditional and modern uses of onion bulb (*Allium cepa* L.): a systematic review. *Critical reviews in food science and nutrition*, 59(sup1), pp.S39-S70.
- Taiwo AF, Daramola O, Sow M, et al. 2020. *Ecophysiology and responses of plants under drought*. In: Hasanuzzaman M, editor. Plant ecophysiology and adaptation under climate change: mechanisms and perspectives I. Springer. Singapore. p. 231–268
- Taiz, L., Zeiger, E., Moller, I. M. & Murphy, A. *Plant Physiology and Development: Sixth Edition*. Sinauer Associates : Sunderland, Massachusetts U.S.A.
- Tambunan, E.P., 2018. Pengaruh konsentrasi mikroorganisme lokal dari limbah tomat dan limbah air kelapa terhadap pertumbuhan tanaman cabai (*Capsicum annum* L.). *KLOROFIL: Jurnal Ilmu Biologi dan Terapan*, 1(2), pp.64-68.
- Tinna, D., Garg, N., Sharma, S., and G. Pandove. 2020. Utilization of plant growth promoting rhizobacteria as root dipping of seedlings for improving bulb yield and curtailing mineral fertilizer use in onion under field conditions. *Scientia Horticulturae* 2:109–16.
- Tirta, F.A., D. Indradewa, dan E. Ambarwati. 2017. Pertumbuhan dan hasil sembilan kultivar kedelai (*Glycine max* (L.) Merrill) yang ditanam bersamaan dengan jagung (*Zea mays* L.) dalam satu lubang tanam. *Vegetalika* 6(1): 22-34.
- Thakur, J., and P. Kumar. 2018. Studies of conjoint application of nutrient sources and PGPR on growth, yield, quality and economics of cauliflower (*Brassica oleracea* var. botrytis L.). *Journal of Plant Nutrition* 41 (1):1–6.
- Tuti, H.K., 2023. Pengaruh Komposisi Media Tanam terhadap Pertumbuhan Tanaman Kangkung Darat (*Ipomea reptans* Poir). *AGRISIA-Jurnal Ilmu-Ilmu Pertanian*, 15(2), pp.1-7.
- Utari, S.S., D. Rachmina. & N. Tinaprilla. 2023. Efisiensi Teknis Usaha Tani

- Bawang Merah di Provinsi Aceh. *Jurnal Ilmu Pertanian Indonesia*, 28(1): 114-122.
- Vargas, M.F., Mestre, M.V., Vergara, C., Maturano, P., Pettrignani, D., Pesce, V. and Vazquez, F., 2024. Residual brewer's *Saccharomyces cerevisiae* yeasts as biofertilizers in horticultural seedlings: towards a sustainable industry and agriculture. *Frontiers in Industrial Microbiology*, 2, pp.1-11
- Vijayaraghavareddy, P., S.V. Lekshmy., P.C. Struik., U. Makarla., X. Yin & S. C. Struik. 2022. Production and scavenging of reactive oxygen species confer to differential sensitivity of rice and wheat to drought stress. *Crop and Environment*, 1: 15-23.
- Waduwaru-Jayabahu, C.I., 2007. Onion root anatomy and the uptake of sulphate and phosphate ions (Master's thesis, University of Waterloo)
- Wan, W., Liu, Z., Li, J., Xu, J., Wu, H., and Xu, Z 2022 . Spatiotemporal patterns of maize drought stress and their effects on biomass in the Northeast and North China Plain from 2000 to 2019. *Agr. For. Meteorol.* 315, 108821.
- Wang GL, Que F, Xu ZS, Wang F, Xiong AS (2017). Exogenous gibberellin enhances secondary xylem development and lignification in carrot taproot. *Protoplasma* 254: 839-848.
- Wahono, E., Izzati, M. and Parman, S., 2018. Interaksi antara Tingkat Ketersediaan Air dan Varietas terhadap Kandungan Prolin serta Pertumbuhan Tanaman Kedelai (*Glycine max* L. Merr). *Buletin Anatomi dan Fisiologi*, 3(1), pp.11-19.
- Wilberta N., N.T. Sonya & S.H Lydia. 2021. Analisis Kandungan Gula Reduksi Pada Gula Semut dari Nira Aren yang Dipengaruhi pH dan Kadar Air. *Bioedukasi: Jurnal Pendidikan Biologi Universitas Muhammadiyah Metro*. 12(1): 101-108.
- Wijiyanti, P., Hastuti, E.D. and Haryanti, S., 2019. Pengaruh masa inkubasi pupuk dari air cucian beras terhadap pertumbuhan tanaman sawi hijau (*Brassica juncea* L.). *Buletin Anatomi dan Fisiologi*, 4(1), pp.21-28.
- Xi, Q., Lai, W., Cui, Y., Wu, H., & Zhao, T. 2019. Effect of yeast extract on seedling growth promotion and soil improvement in afforestation in a semiarid chestnut soil area. *Forests* 10 (1), 76
- Xu, W.; Cui, K.; Xu, A.; Nie, L.; Huang, J.; Peng, S. 2015. Drought stress condition increases root to shoot ratio via alteration of carbohydrate partitioning and enzymatic activity in rice seedlings. *Acta Physiol. Plant.* 2015, 37, 1760.
- Xu, H., Tang, L., Wang, Y. and Wang, W., 2022. Differential influence of cortical and stele components on root tip diameter in different types of tropical climbing plants. *Frontiers in Plant Science*, 13, p.961214.
- Yang, H., Huntingford, C., Wiltshire, A., Sitch, S. & Mercado, L. 2019. Compensatory climate effects link trends in global runoff to rising atmospheric CO2 concentration. *Environ. Res. Lett*, 14, 124075
- Yin, J., Gentine, P., Zhou, S., Sullivan, S.C., Wang, R., Zhang, Y. & Guo. S. 2018. Large increase in global storm runoff extremes driven by climate and anthropogenic changes. *Nat. Commun*, 9, 1–10.
- Zakari, S.M., H. Haruna & A. A. Aliko 2017. Correlation analysis of bulb yield with growth and yield components of garlic (*Allium sativum* L.). *Nigerian Journal of Basic and Applied Science*, 25(1), 58-62



Zhang, X., Bilyera, N., Fan, L., Duddek, P., Ahmed, M. A., Carminati, A., et al. 2023. The spatial distribution of rhizosphere microbial activities under drought: water availability is more important than root-hair-controlled exudation. *New Phytol.* 237, 780–792. doi: 10.1111/nph.18409