

## DAFTAR PUSTAKA

- Afek, U., Rinaldelli, E., Menge, J.A., Johnson, E.L.V. and Pond, E. (1990). Mycorrhizal species, root age, and position of mycorrhizal inoculum influence colonization of cotton, onion, and pepper seedlings. *Journal of the American Society for Horticultural Science*, 115(6), pp.938-942. <https://journals.ashs.org/jashs/downloadpdf/view/journals/jashs/115/6/article-p938.pdf>
- Agrios, G.N. (2005). *Plant Pathology 5<sup>th</sup> Edition*. Elsevier Academic Press. New York. pp. 163-164, 325, 538-540, 613-614, 893.
- Aji, O. R., Utami, I., & Cahyanti, C. (2021). Abundance of associated arbuscular mycorrhizal fungi with pioneer plants in affected area by mount Merapi eruption. *Jurnal Manajemen Hutan Tropika*, 27(2), 100-100. <https://doi.org/10.7226/jtfm.27.2.100>
- Alayya, N. P., & Prasetya, B. (2022). Kepadatan spora dan persen koloni mikoriza vesikula arbuskula (MVA) pada beberapa tanaman pangan di lahan pertanian Kecamatan Jabung Malang. *Jurnal Tanah dan Sumberdaya Lahan*, 9(2), 267-276. <https://doi.org/10.21776/ub.jtsl.2022.009.2.7>
- Alkhalifah, D.H.M., Damra, E., Melhem, M.B., Hozzein, W.N. (2023). Fungus under a changing climate: modeling the current and future global distribution of *Fusarium oxysporum* using geographical information system data. *Microorganisms* 11(2), 468. <https://doi.org/10.3390/microorganisms11020468>
- Ansari, M. W., Shukla, A., Pant, R. C., & Tuteja, N. (2012). First evidence of ethylene production by *Fusarium mangiferae* associated with mango malformation. *Plant Signaling & Behavior*, 8(1). <https://doi.org/10.4161/psb.22673>
- Ariska, N. (2016). *Pertumbuhan Dan Kandungan Minyak Atsiri Tiga Kultivar Bawang Merah (Allium cepa L.) Pada Ketersediaan Air Berbeda*. Tesis, Fakultas Biologi, Universitas Gadjah Mada, hal. 21, 28-36.
- Badan Meteorologi, Klimatologi, dan Geofisika (BMKG). (2020). *Tanya Jawab: La Nina, El Nino, dan Musim di Indonesia*. <https://perpustakaan.bmkg.go.id/buku/tanya-jawab-la-nina-el-nino-dan-musim-di-indonesia>
- Badan Meteorologi, Klimatologi, dan Geofisika (BMKG). 2022. *Pandangan Iklim 2023 (Climate Outlook)*. hal. 15.

<https://iklim.bmkg.go.id/bmkgadmin/storage/buletin/BMKG%20Climate%20Outlook%202023.pdf>

- Badan Pusat Statistik (BPS). (2023). Statistik Hortikultura 2022. hal. 7, 79. <https://www.bps.go.id/id/publication/2023/06/09/03847c5743d8b6cd3f08ab76/statistik-hortikultura-2022.html>
- Basuki, R. (2014). Problems identification and shallots farming analyze in the highland at rainy season in Majalengka District. *Jurnal Hortikultura* 24 (3), 266-275. <http://dx.doi.org/10.21082/jhort.v24n3.2014.p266-275>
- Bates, L.S., Waldren, R.P. & Teare, I.D. (1973). Rapid determination of free proline for water-stress studies. *Plant Soil* 39, 205–207. <https://doi.org/10.1007/BF00018060>
- Cahyaningrum, H., Suryanti, Widiastuti, A. (2020). Response and Resistance Mechanism of Shallot Var. Topo, a North Molluca's Local Variety Against Basal Rot Disease. In 5th International Conference on Food, Agriculture and Natural Resources (FANRes 2019) (pp. 71-75). *Atlantis Press*. <https://doi.org/10.2991/aer.k.200325.015>
- Cameron, D.D., Neal, A.L., van Wees, S.C. and Ton, J., (2013). Mycorrhiza-induced resistance: more than the sum of its parts?. *Trends in plant science*, 18(10), pp.539-545. <https://doi.org/10.1016/j.tplants.2013.06.004>
- Cao, F. Y., Yoshioka, K., & Desveaux, D. (2011). The roles of ABA in plant–pathogen interactions. *Journal of plant research*, 124, 489-499. <https://doi.org/10.1007/s10265-011-0409-y>
- Chan, C., Liao, Y.Y. and Chiou, T.J. (2021). The impact of phosphorus on plant immunity. *Plant and Cell Physiology*, 62(4), pp.582-589. <https://doi.org/10.1093/pcp/pcaa168>
- Chowdhary, V., Alooparampil, S., Pandya, R.V., Tank, J.G. (2021). *Physiological Function of Phenolic Compounds in Plant Defense System*. IntechOpen. <https://doi.org/10.5772/intechopen.101131>
- Christgen, S. L., & Becker, D. F. (2019). Role of proline in pathogen and host interactions. *Antioxidants & redox signaling*, 30(4), 683-709. <https://doi.org/10.1089/ars.2017.7335>
- Chutia, J. & Borah, S.P. (2012). Water stress effects on leaf growth and chlorophyll content but not the grain yield in traditional rice (*Oryza sativa* Linn.) genotypes of Assam, India II. protein and proline status in seedlings under

- PEG induced water stress. *American Journal of Plant Science*, 3:971-980.  
<http://dx.doi.org/10.4236/ajps.2012.37115>
- Datanesia, 2023. *Defisit Komoditas Strategis*, Edisi: 217, 31 Juli 2023, hal. 12.  
<https://datanesia.id/defisit-komoditas-strategis/>
- Elshafey, R. A., Tahoona, A. M., & El-Emary, F. A. (2018). Analysis of varietal response to bakanae infection *Fusarium fujikuroi* and gibberellic acid through morphological, anatomical and hormonal changes in three rice varieties. *Journal of Phytopathology and Disease Management*, 5(2), 63–87. Retrieved from <https://ppmj.net/index.php/ppmj/article/view/167>
- FAO, (2023). *Soil Water Content: Gravimetric Method*. Global Soil Doctors Programme – Food and Agriculture Organization of the United Nations.  
[https://www.fao.org/fileadmin/user\\_upload/GSP/GSDP/Field\\_exercises/NE\\_W\\_Field\\_exercises/P06b-gravimetric-soil-water-EN-1-2.pdf](https://www.fao.org/fileadmin/user_upload/GSP/GSDP/Field_exercises/NE_W_Field_exercises/P06b-gravimetric-soil-water-EN-1-2.pdf)
- Ghaemi, A., Rahimi, A., Banihashemi, Z. (2009). Effects of water stress and *Fusarium oxysporum* f. sp. *lycopersici* on growth (leaf area, plant height, shoot dry matter) and shoot nitrogen content of tomatoes under greenhouse conditions. *Iran Agricultural Research*, 28(2):52.  
<https://doi.org/10.22099/iar.2011.136>
- Global Biodiversity Information Facility. (2024). GBIF Backbone Taxonomy: *Fusarium acutatum* Nirenberg & O'Donnell in GBIF Secretariat (2023).  
<https://www.gbif.org/species/5251957>
- Global Biodiversity Information Facility. (2024). GBIF Backbone Taxonomy: *Rhizophagus intraradices* (N.C.Schenck & G.S.Sm.) C.Walker & A.Schüßler, 2010 in UNITE Community, Abarenkov K (2022).  
<https://www.gbif.org/species/142454316>
- GTAC. (2016). *Measuring Stomatal Density (Leaf Impression Method)*. Gene Technology Access Centre. Victoria, pp.1-4. [https://gtac.edu.au/wp-content/uploads/2016/01/StomatalDensity\\_LabPreparation.pdf](https://gtac.edu.au/wp-content/uploads/2016/01/StomatalDensity_LabPreparation.pdf)
- Hannoufa, A., & Hossain, Z. (2012). Regulation of carotenoid accumulation in plants. *Biocatalysis and Agricultural Biotechnology*, 1(3), 198-202.  
<https://doi.org/10.1016/j.bcab.2012.03.004>
- Harborne, J.B. (1998). *Phytochemical Methods: A Guide to Modern Techniques of Plant Analysis*. Chapman & Hall. London, pp. 33-34, 119, 204-208.  
<https://doi.org/10.1007/978-94-009-5921-7>

- Hose, E., Clarkson, D. T., Steudle, E., Schreiber, L., & Hartung, W. (2001). The exodermis: a variable apoplastic barrier. *Journal of Experimental Botany*, 52(365), 2245-2264. <https://doi.org/10.1093/jexbot/52.365.2245>
- Jaleel, C. A., Manivannan, P., Wahid, A., Farooq, M., Al-Juburi, H. J., Somasundaram, R., & Panneerselvam, R. (2009). Drought stress in plants: a review on morphological characteristics and pigments composition. *International Journal of Agriculture and Biology*, 11, 100-105. <https://www.cabidigitallibrary.org/doi/pdf/10.5555/20093063805>
- JICA. (2018). Final Report: Market Study on Food Sector in Indonesia. *International Center for Applied Finance and Economics – Japan International Cooperation Agency (JICA)*. [https://kppu.go.id/wp-content/uploads/2019/09/Market\\_Study\\_Report\\_JICA.pdf](https://kppu.go.id/wp-content/uploads/2019/09/Market_Study_Report_JICA.pdf)
- Kaur, S. and Suseela, V., (2020). Unraveling arbuscular mycorrhiza-induced changes in plant primary and secondary metabolome. *Metabolites*, 10(8), p.335. <https://doi.org/10.3390/metabo10080335>
- Keputusan Menteri Pertanian Republik Indonesia No. 484/KPTS/RC.020/M/8/2021 tentang Perubahan Kedua Atas Keputusan Menteri Pertanian No. 259/KPTS/RC.020/M/05/2020 tentang *Rencana Strategis Kementerian Pertanian 2020-2024*, hal. 67.
- Keyvan, S. (2010). The effects of drought stress on yield, relative water content, proline, soluble carbohydrates and chlorophyll of bread wheat cultivars. *J. Anim. Plant Sci*, 8(3), 1051-1060. <https://www.m.elewa.org/JAPS/2010/8.3/4.pdf>
- Khan, F., Siddique, A.B., Shabala, S., Zhou, M. and Zhao, C. (2023). Phosphorus plays key roles in regulating plants' physiological responses to abiotic stresses. *Plants*, 12(15), p.2861. <https://doi.org/10.3390%2Fplants12152861>
- Kheiri, A., Moosawi Jorf, S. A., & Malhipour, A. (2019). Infection process and wheat response to Fusarium head blight caused by *Fusarium graminearum*. *European Journal of Plant Pathology*, 153, 489-502. <https://doi.org/10.1007/s10658-018-1576-7>
- Kristantyo, Y., Winarsih, S., Tyasmoro, S. Y., & Sugito, Y. (2018). Pengaruh aplikasi polimer superabsorben pada beberapa kadar lengas tanah terhadap pertumbuhan bibit tanaman tebu (*Saccharum officinarum* L.). *PLANTROPICA: Journal of Agricultural Science*, 1(2), 81-86.

- Kumar, S., Abedin, M.M., Singh, A.K., Das, S. (2020). *Role of Phenolic Compounds in Plant-Defensive Mechanisms*. In: (eds) Plant Phenolics in Sustainable Agriculture. Springer, Singapore. [https://doi.org/10.1007/978-981-15-4890-1\\_22](https://doi.org/10.1007/978-981-15-4890-1_22)
- Kumari, N., Nahakpam, S., & Rani, R. (2018). Changing pattern of chlorophyll content and carotenoid in different flushes of five litchi varieties. *Journal of Pharmacognosy and Phytochemistry*, 7(1S), 719-722.
- Kurniawati, H.D., Tri J., Suryanti. (2022). *Aplikasi **Bacillus cereus** dan Jamur Mikoriza Arbuskular (**R. intraradices**) sebagai Upaya Peningkatan Kesehatan dan Pertumbuhan Bibit Cengkih*. Skripsi. Universitas Gadjah Mada.
- Lao, R., Guo, Y., Hao, W., Fang, W., Li, H., Zhao, Z., & Li, T. (2023). The role of lignin in the compartmentalization of cadmium in maize roots is enhanced by mycorrhiza. *Journal of Fungi*, 9(8), 852. <https://doi.org/10.3390/jof9080852>
- Lestari, E.G. (2006). Hubungan antara kerapatan stomata dengan ketahanan kekeringan pada somaklon padi Gajah Mungkur, Towuti dan IR 64. *Biodiversitas*, 7(2):44-48. <https://doi.org/10.13057/biodiv/d070112>
- Lestiyani, A., Wibowo, A., Subandiyah, S., Gambley, C., Ito, S., & Harper, S. (2014). Identification of *Fusarium* spp., the causal agent of twisted disease of shallot. In *XXIX International Horticultural Congress on Horticulture: Sustaining Lives, Livelihoods and Landscapes (IHC2014)*: 1128 (pp. 155-160). <https://doi.org/10.17660/ActaHortic.2016.1128.22>
- Li, C., Yang, J., Li, W., Sun, J., & Peng, M. (2017). Direct root penetration and rhizome vascular colonization by *Fusarium oxysporum* f. sp. *cubense* are the key steps in the successful infection of Brazil Cavendish. *Plant Disease*, 101(12), 2073-2078. <https://doi.org/10.1094/PDIS-04-17-0467-RE>
- Li, T., Lin, G., Zhang, X., Chen, Y., Zhang, S. and Chen, B. (2014). Relative importance of an arbuscular mycorrhizal fungus (*Rhizophagus intraradices*) and root hairs in plant drought tolerance. *Mycorrhiza*, 24, pp.595-602. <https://doi.org/10.1007/s00572-014-0578-3>
- Li, T., Sun, Y., Ruan, Y., Xu, L., Hu, Y., Hao, Z., Zhang, X., Li, H., Wang, Y., Yang, L. and Chen, B. (2016). Potential role of D-myo-inositol-3-phosphate synthase and 14-3-3 genes in the crosstalk between *Zea mays* and *Rhizophagus intraradices* under drought stress. *Mycorrhiza*, 26, pp.879-893. <https://doi.org/10.1007/s00572-016-0723-2>

- Lisar, S.Y.S., Hossain, M.M., Motafakkerazad, R., Rahman, I.M.M. (2012). *Water Stress in Plants: Causes, Effects and Responses*. InTech, pp. 1-14. <https://doi.org/10.5772/39363>
- Liu, W., Jiang, Y., Jin, Y., Wang, C., Yang, J., & Qi, H. (2021). Drought-induced ABA, H<sub>2</sub>O<sub>2</sub> and JA positively regulate CmCAD genes and lignin synthesis in melon stems. *BMC Plant Biology*, 21, 1-12. <https://doi.org/10.1186/s12870-021-02869-y>
- Loou, A. & Titahena, M.L.J. (2014). *Budidaya Bawang Merah*. Balai Pengkajian Teknologi Pertanian Maluku, hal. 8-16. <https://repository.pertanian.go.id/handle/123456789/11880>
- Maestri, D. M., Nepote, V., Lamarque, A. L., & Zygadlo, J. A. (2006). Natural products as antioxidants. *Phytochemistry: advances in research*, 37(661), 105-135. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=1ceab9e1be59dcd60fb5180e4106ee70b2407cbe>
- Maithani, D., Singh, H., Sharma, A. (2021). Stress Alleviation in Plants Using SAR and ISR: Current Views on Stress Signaling Network. In: Sharma, A. (eds) *Microbes and Signaling Biomolecules Against Plant Stress. Rhizosphere Biology*. Springer, Singapore. [https://doi.org/10.1007/978-981-15-7094-0\\_2](https://doi.org/10.1007/978-981-15-7094-0_2)
- Markell, S. & Friskop, A. (2020). *Disease in Drought Years*. North Dakota State University. Diakses tanggal 31 Mei 2024. <https://www.ndsu.edu/agriculture/ag-hub/ag-topics/crop-production/diseases-pests-and-weeds/plant-diseases/diseases-drought-years-07>
- Marques, J. P. R., Soares, M. K. M., & Appezzato-Da-Gloria, B. (2013). New staining technique for fungal-infected plant tissues. *Turkish Journal of Botany*, 37(4), 784-787. <https://doi.org/10.3906/bot-1204-9>
- Mauch-Mani, B., & Mauch, F. (2005). The role of abscisic acid in plant-pathogen interactions. *Current opinion in plant biology*, 8(4), 409-414. <https://doi.org/10.1016/j.pbi.2005.05.015>
- McCary, M. A., Zellner, M., & Wise, D. H. (2019). The role of plant-mycorrhizal mutualisms in deterring plant invasions: Insights from an individual-based model. *Ecology and Evolution*, 9(4), 2018-2030. <https://doi.org/10.1002/ece3.4892>
- Misna, M., & Diana, K. (2016). Aktivitas antibakteri ekstrak kulit bawang merah (*Allium cepa* L.) terhadap bakteri *Staphylococcus aureus*. *Jurnal Farmasi Galenika*

- (*Galenika Journal of Pharmacy*) (e-Journal), 2(2), 138-144.  
<https://doi.org/10.22487/j24428744.2016.v2.i2.5990>
- Mitra, P. P., & Loqué, D. (2014). Histochemical staining of *Arabidopsis thaliana* secondary cell wall elements. *JoVE (Journal of Visualized Experiments)*, (87), e51381. <https://doi.org/10.3791%2F51381>
- Moekasan, T.K., Prabaningrum, L., Gunadi, N., & Adiyoga, W. (2010). *Rakitan Komponen Teknologi PTT Cabai Merah - Bawang Merah (Pengelolaan Tanaman Terpadu Cabai Merah Tumpanggilir dengan Bawang Merah)*. Pusat Penelitian dan Pengembangan Hortikultura - Badan Penelitian dan Pengembangan Pertanian bekerjasama dengan Wageningen University, hal. 35. <https://repository.pertanian.go.id/handle/123456789/21006>
- Munif, A. (2008). *Hubungan perubahan iklim dan perkembangan hama dan penyakit tanaman serta dampaknya bagi ketahanan pangan nasional*. IPB University. <https://repository.ipb.ac.id/handle/123456789/76539>
- Nisar, N., Li, L., Lu, S., Khin, N. C., & Pogson, B. J. (2015). Carotenoid metabolism in plants. *Molecular plant*, 8(1), 68-82. <http://dx.doi.org/10.1016/j.molp.2014.12.007>
- Nourbakhsh, S.S. and Cramer, C.S., 2022. Onion plant size measurements as predictors for onion bulb size. *Horticulturae*, 8(8), p.682. <https://doi.org/10.3390/horticulturae8080682>
- Nurjanani, Manwan, S. W., Mayanasari, D., & Dahlan, S.S. (2019). *Teknologi perbanyak bawang merah melalui True Seed of Shallot (TSS)*. BPTP Sulawesi Selatan, hal. 3-5. <https://repository.pertanian.go.id/handle/123456789/10148>
- Oguz, M.C., Aycan, M., Oguz, E., Poyraz, I., Yildiz, M. (2022). Drought stress tolerance in plants: interplay of molecular, biochemical and physiological responses in important development stages. *Physiologia*, 2:180–197. <https://doi.org/10.3390/physiologia2040015>
- Okungbowa, F.I. & Shittu, H.O. (2014). Fusarium wilts: an overview. *Environmental Research Journal* 6(2), 84-97. <https://www.researchgate.net/publication/292243135>
- Ortiz, E., Cruz, M., Melgarejo, L. M., Marquínez, X., & Hoyos-Carvajal, L. (2014). Histopathological features of infections caused by *Fusarium oxysporum* and *F. solani* in purple passionfruit plants (*Passiflora edulis* Sims). *Summa Phytopathologica*, 40, 134-140. <https://doi.org/10.1590/0100-5405/1910>

- Parkash, V. & Singh, S. (2020). A review on potential plant-based water stress indicators for vegetable crops. *Sustainability*, 12: 3945. <http://doi.org/10.3390/su12103945>
- Patanè, C., Cosentino, S. L., Romano, D., & Toscano, S. (2022). Relative water content, proline, and antioxidant enzymes in leaves of long shelf-life tomatoes under drought stress and rewatering. *Plants*, 11(22), 3045. <https://doi.org/10.3390/plants11223045>
- Peraturan Menteri Pertanian Republik Indonesia Nomor 46 Tahun 2019 tentang *Pengembangan Komoditas Hortikultura Strategis*, Pasal 2: Ayat 2 & 3.
- Pierre, E., Fabiola, Y.N., Vanessa, N.D., Tobias, E.B., Marie-Claire, T., Diane, Y.Y., Gilbert, G.T., Louise, N.W., & Fabrice, F.B. (2023). The co-occurrence of drought and *Fusarium solani* f. sp. Phaseoli Fs4 infection exacerbates the Fusarium root rot symptoms in common bean (*Phaseolus vulgaris* L.). *Physiological and Molecular Plant Pathology*, 127, 102108. <https://doi.org/10.1016/j.pmpp.2023.102108>
- Prasetyo, A., Firmansyah, E., & Sutiarso, L. (2016). Perancangan dan pengujian unjuk kerja sistem monitoring kadar lengas berbasis gypsum block untuk memantau dinamika tanah polietilen, polistiren dan *other*. *Jurnal Teknologi Technoscientia*, 100-106. <https://doi.org/10.34151/technoscientia.v8i2.158>
- Prihanti, G.S. (2016). *Pengantar Biostatistik*. UMM Press, Malang, hal. 12-13. [https://www.google.co.id/books/edition/Pengantar\\_Biostatistik/PcRiDwAAQBAJ](https://www.google.co.id/books/edition/Pengantar_Biostatistik/PcRiDwAAQBAJ)
- Purnamasari, I. (2021). *Tanggapan Pertumbuhan dan Hasil Bawang Merah terhadap Pemberian Kalsium pada Kondisi Cekaman Kekeringan*. Tesis, Fakultas Pertanian, Universitas Gadjah Mada, hal. 35-51.
- Püschel, D., Bitterlich, M., Rydlová, J., & Jansa, J. (2021). Drought accentuates the role of mycorrhiza in phosphorus uptake. *Soil Biology and Biochemistry*, 157, 108243. <https://doi.org/10.1016/j.soilbio.2021.108243>
- Putri, A.O.T., Hadisutrisno, B. and Wibowo, A., (2016). Pengaruh inokulasi mikoriza arbuskular terhadap pertumbuhan bibit dan intensitas penyakit bercak daun cengkeh. *Jurnal Pemuliaan Tanaman Hutan*, 10(2), pp.145-154. <https://doi.org/10.20886/jpth.2016.10.2.145-154>
- Quiroz-Figueroa, F.R., Cruz-Mendivil, A., Ibarra-Laclette, E., García-Pérez, L.M., Gómez-Peraza, R.L., Hanako-Rosas, G., Ruíz-May, E., Santamaría-Miranda, A., Singh, R.K., Campos-Rivero, G. & García-Ramírez, E. (2023).

- Cell wall-related genes and lignin accumulation contribute to the root resistance in different maize (*Zea mays* L.) genotypes to *Fusarium verticillioides* (Sacc.) Nirenberg infection. *Frontiers in Plant Science*, 14, p.1195794. <https://doi.org/10.3389/fpls.2023.1195794>
- Roslani, R., Waluyo, N., Yufdy, M. P., Harmanto, Sulastrini, I., Handayani, T., Sembiring, A., Gunaeni, N., Gaswanto, R., Rahayu, A., Efendi, A.M. (2022). *Benih Biji Bawang Merah (True Seed of Shallot) di Indonesia*. IAARD Press. Badan Penelitian dan Pengembangan Pertanian, hal. 5-12. <http://repository.pertanian.go.id/handle/123456789/16142>
- Ruiz-García, Y., & Gómez-Plaza, E. (2013). Elicitors: A tool for improving fruit phenolic content. *Agriculture*, 3(1), 33-52. <https://doi.org/10.3390/agriculture3010033>
- Safin, R., Karimoba, L., Nizhegorodtseva L., Stepankova, D., Shaimullina, G., Nazarov, R. (2020). Effect of various biological control agents (BCAs) on drought resistance and spring barley productivity. *BIO Web Conf.* 17:2-5. <https://doi.org/10.1051/bioconf/20201700063>
- Sahara, Utari, M.H., Azijah, Z. (2019). Volatilitas harga bawang merah di Indonesia. *Buletin Ilmiah Litbang Perdagangan*, 13(2):310-333. <http://jurnal.kemendag.go.id/bilp/article/view/419>
- Seleiman, M.F., Al-Suhaibani, N., Ali, N., Akmal, M., Alotaibi, M., Refay, Y., Dindaroglu, T., Abdul-Wajid, H.H., Battaglia, M.L. (2021). Drought stress impacts on plants and different approaches to alleviate its adverse effects. *Plants*, 10: 259. <https://doi.org/10.3390/plants10020259>
- Setiawan, Tohari, Shiddieq D. (2012). Pengaruh cekaman kekeringan terhadap akumulasi prolin tanaman nilam (*Pogostemon cablin* Benth.). *Ilmu Pertanian (Agricultural Science)*, 15(2), pp.85-99. <https://doi.org/10.22146/ipas.2518>
- Setiawati, W., Murtiningsih, R., Sopha, G. A., & Handayani, T. (2007). *Petunjuk Teknis Budidaya Tanaman Sayuran*. Balai Penelitian Tanaman Sayuran, hal. 6-11. <https://repository.pertanian.go.id/bitstream/123456789/9310/1/M-46%20Petunjuk%20Teknis%20Budidaya%20Tanaman%20Sayuran.pdf>
- Shakeri, E., Mozafari, A. A., Sohrabi, F., & Saed-Moucheshi, A. (2019). *Role of proline and other osmoregulatory compounds in plant responses to abiotic stresses*. In Handbook of Plant and Crop Stress, 4<sup>th</sup> Edition. CRC Press, pp. 165-173. <https://doi.org/10.1201/9781351104609-9>

- Silvana, V.M., Carlos, F.J., Lucía, A.C., Natalia, A. and Marta, C., 2020. Colonization dynamics of arbuscular mycorrhizal fungi (AMF) in *Ilex paraguariensis* crops: Seasonality and influence of management practices. *Journal of King Saud University-Science*, 32(1), pp.183-188. <https://doi.org/10.1016/j.jksus.2018.03.017>
- Sinay, H. (2015). Pengaruh perlakuan cekaman kekeringan terhadap pertumbuhan dan kandungan prolin pada fase vegetatif beberapa kultivar jagung lokal dari pulau Kisar, Maluku di rumah kaca. *Malang: Prosiding Seminar Nasional Pendidikan Biologi*. pp.228-234. <https://biology.umm.ac.id/files/file/228-237%20Hermalina%20Sinay.pdf>
- Sinha, R., Irulappan, V., Mohan-Raju, B., Suganthi, A. and Senthil-Kumar, M. (2019). Impact of drought stress on simultaneously occurring pathogen infection in field-grown chickpea. *Scientific Reports*, 9(1), p.5577. <https://doi.org/10.1038/s41598-019-41463-z>
- Soenartiningih, S., 2013. Potensi cendawan mikoriza arbuskular sebagai media pengendalian penyakit busuk pelepah pada jagung. *Iptek Tanaman Pangan*, 8(1):48-53. <https://www.journal.bio.unsoed.ac.id/index.php/biosfera/article/view/232>
- Soltys-Kalina, D., Plich, J., Strzelczyk-Żyta, D., Śliwka, J., & Marczewski, W. (2016). The effect of drought stress on the leaf relative water content and tuber yield of a half-sib family of 'Katahdin'-derived potato cultivars. *Breeding science*, 66(2), 328-331. <https://doi.org/10.1270%2Fjsbbs.66.328>
- Statistics Kingdom. (2017). *Principal Component Analysis Calculator*. (May 19, 2024)[web application]. <https://www.statskingdom.com/pca-calculator.html>
- Sugiartini, E., Mayasari, K., & Ikrarwati. (2018). *Petunjuk Teknis Budidaya Bawang Merah di Lahan dan di dalam Pot/Polybag*. BPTP Jakarta, hal. 4-5, 16. <http://repository.pertanian.go.id/handle/123456789/8736>
- Sun, S., Yang, Z., Song, Z., Wang, N., Guo, N., Niu, J., Liu, A., Bai, B., Ahammed, G.J. & Chen, S. (2022). Silicon enhances plant resistance to *Fusarium* wilt by promoting antioxidant potential and photosynthetic capacity in cucumber (*Cucumis sativus* L.). *Frontiers in Plant Science*, 13, p.1011859. <https://doi.org/10.3389/fpls.2022.1011859>
- Sun, T., Yuan, H., Cao, H., Yazdani, M., Tadmor, Y., & Li, L. (2018). Carotenoid metabolism in plants: the role of plastids. *Molecular plant*, 11(1), 58-74. <https://doi.org/10.1016/j.molp.2017.09.010>

- Sunanjaya, I. W., Sukadana, I., Widjanarko, M. A., Sugianyar, I., Sudarmini, N. K., Puspa, D. M. R., & Elizabeth, P. S. (2016). *Petunjuk Teknis Budidaya Bawang Merah (Allium ascalonicum L)*. BPTP Bali, hal. 1-2. <http://repository.pertanian.go.id/handle/123456789/13751>
- Sutejo, A. M., Priyatmojo, A., & Wibowo, A. (2008). Identifikasi morfologi beberapa spesies jamur Fusarium. *Jurnal Perlindungan Tanaman Indonesia*, 14(1), 7-13. <https://doi.org/10.22146/jpti.11870>
- Sutikno, (2014). *Mikrotenik Tumbuhan*. Laboratorium Struktur dan Perkembangan Tumbuhan, Fakultas Biologi, Universitas Gadjah Mada, Yogyakarta, hal. 30-32, 37-38.
- Timmusk, S., Nevo, E., Ayele, F., Noe, S., Niinemets, Y. (2020). Fighting Fusarium pathogens in the era of climate change: a conceptual approach. *Pathogens* 9(6), 419. <https://doi.org/10.3390/pathogens9060419>
- Tolk, J. A. (2003). *Soils, Permanent Wilting Points*. Encyclopedia of Water Science, 120010337, 92.
- Tripathi, R., Tewari, R., Singh, K.P., Keswani, C., Minkina, T., Srivastava, A.K., De Corato, U. and Sansinenea, E. (2022). Plant mineral nutrition and disease resistance: A significant linkage for sustainable crop protection. *Frontiers in Plant Science*, p.3116. <https://doi.org/10.3389/fpls.2022.883970>
- Vrabka, J., Niehaus, E.M., Münsterkötter, M., Proctor, R.H., Brown, D.W., Novák, O., Pěňčík, A., Tarkowská, D., Hromadová, K., Hradilová, M. & Okleštková, J. (2019). Production and role of hormones during interaction of *Fusarium* species with maize (*Zea mays* L.) seedlings. *Frontiers in plant science*, 9, p.1936. <https://doi.org/10.3389/fpls.2018.01936>
- Wegulo, S., Giesler, L., Harveson, R., Jackson-Ziems, T.A., Liu, B. and Korus, K., 2013. *Impacts of Drought on Disease Development and Management*. Chapter in 2013 Crop Production Clinic Proceedings, University of Nebraska-Lincoln Extension, Institute of Agriculture and Natural Resources, pp. 125-127. <https://digitalcommons.unl.edu/plantpathpapers/537/>
- Whetten, R., & Sederoff, R. (1995). *Lignin biosynthesis*. *The plant cell*, 7(7), 1001. <https://doi.org/10.1105/tpc.7.7.1001>
- Wibowo, A., Santika, I. A., Syafitri, L. M., Widiastuti, A., Subandiyah, S., Harper, S. (2023). Incidence of twisted disease and cultivation practice of shallot farmers in Bantul coastal area, Yogyakarta, Indonesia. *J. Trop. Plant Pests Dis.* 1(23), 23-30. <https://doi.org/10.23960/jhptt.12323-30>

- Wirawan, I. W. E. A., Suada, I. K., & Susrama, I. G. K. (2015). Identifikasi mikoriza vesikular arbuskular (MVA) dari rhizosfer tanaman cabai (*Capsicum annum* L.) dan tomat (*Solanum lycopersicum* L.) serta perbanyakannya menggunakan media zeolit. *E-Jurnal Agroekoteknologi Tropika*, 4(4), 304-313. <https://ojs.unud.ac.id/index.php/jat/article/view/18017>
- Wu, Q.S. & Zou, Y.N. 2017. *Arbuscular Mycorrhizal Fungi and Tolerance of Drought Stress in Plants*. In: Wu, QS. (eds) *Arbuscular Mycorrhizas and Stress Tolerance of Plants*. Springer, Singapore. [https://doi.org/10.1007/978-981-10-4115-0\\_2](https://doi.org/10.1007/978-981-10-4115-0_2)
- Wulan, E.I.R., Wibowo, A., Joko, T., Widiastuti, A. (2022). Induced resistance mechanism of twisted disease suppression of shallot by *Bacillus* spp. *Jurnal Perlindungan Tanaman Indonesia*, 26(1):40-50. <http://doi.org/10.22146/jpti.73198>
- Yuttavanichakul, W., Teamtisong, K., Teaumroong, N., Boonkerd, N., & Tittabutr, P. (2018). *Brevibacillus* sp. promotes maize root colonization by *Acaulospora tuberculata* and the alteration of associated plant protein responses. *Journal of plant interactions*, 13(1), 543-554. <https://doi.org/10.1080/17429145.2018.1547844>