DAFTAR PUSTAKA

Abawi, G. S. (1972). Several Aspects of the Ecology and Pathology of *Fusarium oxysporum f.* sp. *cepae.*

Abdissa, Y., Tekalign, T., & Pant, L. M. (2011). Growth, bulb yield and quality of onion (Allium cepa L.) as influenced by nitrogen and phosphorus fertilization on vertisol I. growth attributes, biomass production and bulb yield. African Journal of Agricultural Research, *6*(14), 3252–3258. https://doi.org/10.5897/AJAR10.1024

Abriouel, H., Franz, C. M. A. P., Omar, N. Ben, & Galvez, A. (2011). Diversity and applications of *Bacillus* bacteriocins. FEMS Microbiology Reviews, *35*(1), 201–232. https://doi.org/10.1111/j.1574-6976.2010.00244.x.

Achlaq, T. (2008). Pengaruh Pemanfaatan Limbah Cair Pabrik Kelapa Sawit sebagai Unsur Hara Tanaman Kelapa Sawit. [IPB University]. http://repository.ipb.ac.id/handle/123456789/18046.

Adan, Md. J., Baque, Md. A., Rahman, Md. M., Islam, Md. R., & Jahan, A. (2015). Formulation of *Trichoderma* Based Biopesticide for Controlling Damping off Pathogen of Eggplant Seedling. Universal Journal of Agricultural Research, *3*(3), 106–113. https://doi.org/10.13189/ujar.2015.030305.

Adler, P. R., Cumming, J. R., & Arora, R. (2009). Nature of Mineral Nutrient Uptake by Plants (Vol. 1). Agricultural Sciences Encyclopedia of Life Support Systems (EOLSS). https://www.eolss.net/sample-chapters/c10/e5-24-04-03.pdf.

Agrios, G. N. (2005). *Plant Pathology* (4th ed.). Elsevier Inc. All rights reserved. https://doi.org/10.1016/C2009-0-02037-6

Agustina Nersi, A. P. E. T. P. (2021). Potensi Konsorsium *Bacilluss spp.* dan *Pseudomonas fluorescens* untuk Mengendalikan Penyakit Layu Fusarium pada Tanaman Cabai Rawit. Plumula Volume 10.

'Aini, N., Puspaningrum, Y., & Khiftiyah, A. M. (2023). Pengaruh Air Cucian Beras Terhadap Pertumbuhan Tanaman Cabai *(Capsicum frutescens).* Jurnal Ilmu-Ilmu Pertanian, *5*(2), 68–71. https://doi.org/https://doi.org/10.32764/agrosaintifika.v5i2.3664.

Ajilogba, C. F., Babalola, O. O., & Ahmad, F. (2013). Antagonistic effects of *Bacillus* species in biocontrol of tomato Fusarium wilt. Studies on Ethno-Medicine, *7*(3), 205–216. https://doi.org/10.1080/09735070.2013.11886462.

Akhtar, A., Abbasi, Hisamuddin, & Sharf, R. (2012). Antagonistic Effect of *Pseudomonas fluorescens* and *Bacillus subtilis* on *Meloidogyne incognita* Infecting *Vigna mungo L.* International Journal of Plant, Animal and Enviromental Sciences, *2*(1), 55–63. www.ijpaes.com.

Akhtar, M., & Malik, A. (2000). Roles of organic soil amendments and soil organisms in the biological control of plant-parasitic nematodes: *a review*. *74*(1), 35–47. https://doi.org/https://doi.org/10.1016/S0960-8524(99)00154-6.

Alemu, A. C. (2015). Diversity of Onion Basal Rot *(Fusarium Isolates)* and Their Management Isolates Under Laboratory and Glasshouse Conditions [Thesis magister]. Jesuit Historical Institute in Africa (JHIA).

Alfiah, A. M., & S. Hasjim. (2014). Efektivitas formulasi tepung biofungisida berbahan aktif *Trichoderma harzianum* terhadap serangan patogen tular tanah dan pengaruhnya terhadap pertumbuhan tanaman tembakau. Universitas Jember.

Alfizar, M. dan N. H. (2011). Efforts to Control Wilt Disease *Fusarium Oxysporum* Using Biological Agents Fungi FMA and *Trichoderma Harzianum*. J. Floratek, 6, 8–17.

Amalia, R., Nurhidayati, T., & Nurfadilah, S. (2013). Pengaruh Jenis dan Konsentrasi Vitamin terhadap Pertumbuhan dan Perkembangan Biji *Dendrobium laxiflorum J.J Smith* secara In Vitro. JURNAL SAINS DAN SENI POMITS, 1, 20–25. https://doi.org/10.12962/j23373520.v2i1.2581.

Andriopoulos, V., Gkioni, M. D., Koutra, E., Mastropetros, S. G., Lamari, F. N., Hatziantoniou, S., & Kornaros, M. (2022). Total Phenolic Content, Biomass Composition, and Antioxidant Activity of Selected Marine Microalgal Species with Potential as Aquaculture Feed. Antioxidants, 11(7). https://doi.org/10.3390/antiox11071320.

Angga, E. B. (2016). Pengaruh Pemberian Limbah Air Cucian Beras Terhadap Pertumbuhan Tanaman Kangkung Darat *(Ipomoea reptans Poir).* https://media.neliti.com/media/publications/108681-ID-none.pdf.

Anisa, K., & Sudiarso. (2019). The Effect of *Plant Growth Promoting Rhizobacteria* (PGPR) and Green Manure Fertilizer *(C. juncea)* on Growth and Yield of Sweet Corn *(Zea mays saccharata Sturt.)*. Jurnal Produksi Tanaman, *7*(10), 1893–1901. https://protan.studentjournal.ub.ac.id/index.php/protan/article/view/1252/1269.

Annisava, A. R., & Solfan, B. (2014). Agronomi Tanaman Hortikultura (N. Sunarlim, Ed.). Aswaja Pressindo.

Anwar, K. (2020). Pengendalian Penyakit Moler (Layu Fusarium) Pada Tanaman Bawang Merah. In http://cybex.pertanian.go.id/artikel/93350/pengendalian-penyakit-moler-layu-fusarium-pada-tanamanbawang-merah. Pertanian.

Apriyadi, A. R., Wahyuni, W. S., & Supartini, V. (2013). The Control of The Frogeyes Diseases *(Cercospora nicotianae)* on Tobacco Na Oogst in-vivo with Kipahit *(Tithonia diversifolia)* Leaf Extract. Berkala Ilmiah PERTANIAN, Vol 1 No 2 (2013), 30–32. https://jurnal.unej.ac.id/index.php/BIP/article/view/505.

Ardiansyah, M., Nugroho, B., & Sa'diyah, K. (2022). Estimasi Kadar Klorofil Dan Kadar N Daun Jagung Menggunakan *Chlorophyll Content Index*. Jurnal Ilmu Tanah dan Lingkungan, 24(2), 53–61. https://doi.org/10.29244/jitl.24.2.53-61.

Arie, T. (2019). Fusarium diseases of cultivated plants, control, diagnosis, and molecular and genetic studies. Journal of Pesticide Science, *44*(4). https://doi.org/10.1584/JPESTICS.J19-03.

Ariyanti, M. (2021). Air Cucian Beras sebagai Sumber Nutrisi Alternatif bagi Tanaman Perkebunan: *Review*. *5*(1), 223.

Ariyanti, M., Suherman, C., Anjasari, I. R. D., & Sartika, D. (2017). Respon pertumbuhan bibit nilam aceh *(Pogostemon cablin benth.)* Klon sidikalang pada media tanam subsoil dengan pemberian pati beras dan pupuk hayati. Jurnal Kultivas, 16(3), 394–

401. https://download.garuda.kemdikbud.go.id/article.php?article=1205688&val=10010&title=Respon%20pertumbuhan%20bibit%20nilam%20aceh%20Pogostemon%20cablin%20benth%20Klon%20sidikalang%20pada%20media%20tanam%20subsoil%20dengan%20pemberian%20pati%20beras%20dan%20pupuk%20hayati.

Aryanta, I. W. R. (2019). Bawang Merah Dan Manfaatnya Bagi Kesehatan. ResearchGate, 29–35. https://www.researchgate.net/publication/336382767_BAWANG_MERAH_DAN_MANFAATNYA_BAGI_KESEHATAN.

Asrul, A.-, Rosmini, R., Rista, A., Astuti, I. D., & Yulianto, A. (2021). Karakterisasi Jamur Penyebab Penyakit Busuk Pangkal Batang *(Basal Rot)* pada Bawang Wakegi *(Allium x wakegi Araki).* Agro Bali : Agricultural Journal, *4*(3), 341–350. https://doi.org/10.37637/ab.v4i3.835.

Ayu, N. G., Rauf, A., & Samudin, S. (2016). Growth and Yield of Two Varieties of Onion *(Allium ascalonicum L.)* at Various Distances Planting. J. Agrotekbis, *4*(5), 530–536. https://media.neliti.com/media/publications/243156-pertumbuhan-dan-hasil-dua-varietas-bawan-aa896f85.pdf.

Azmi, C., Hidayat, I. M., & Wiguna, G. (2011). Pengaruh Varietas dan Ukuran Umbi terhadap Produktivitas Bawang Merah. J. Hort, *21*(3), 206–213. https://media.neliti.com/media/publications/85709-ID-pengaruh-varietas-dan-ukuran-umbi-terhad.pdf.

Bahar, A. E. (2016). Pengaruh Pemberian Limbah Air Cucian Beras Terhadap Pertumbuhan Tanaman Kangkung Darat *(Ipomoeareptans Poir)* [Skripsi, Universitas Pasir Pengairan]. https://media.neliti.com/media/publications/108681-ID-none.pdf.

Basuki, R. S., Khaririyatun, N., & Luthfy. (2014). Evaluasi dan Preferensi Petani Brebes Terhadap Atribut Kualitas Varietas Unggul Bawang Merah Hasil Penelitian Balitsa. J. Hort, 24(3), 276–282. https://doi.org/DOI:http://dx.doi.org/10.21082/jhort.v27n2.2017.p261-268.

Behrani, G. C., Syed, R. N., Abro, M. A., Jiskani, M. M., & Khanzada, M. A. (2015). Pathogenetic and Chemical Control of Basal Rot of onion Caused by *Fusarium Oxysporum f.sp. Cepae.* Agril. Engg., Vet. Sci, 31(1), 31. https://pjaaevs.sau.edu.pk/index.php/ojs/article/view/134.

Belete, E., Ayalew, A., & Ahmed, S. (2015). Antagonistic Effect of Native *Bacillus* Isolates Against Balck Root Rot of Faba bBan. African Crop Science Journal, 23(3), 249–259.

Beneduzi, A., Ambrosini, A., & Passaglia, L. M. P. (2012). *Plant growth-promoting rhizobacteria* (PGPR): Their potential as antagonists and biocontrol agents. www.sbg.org.br.

Bennett, W. F. (1993). Plant Nutrient Utilization and Diagnostic Plant Symptoms. Nutrient Deficiencies and Toxicities in Crop Plants. The American Phytopathological Society Press.

Berić, T., Kojic, M., Stanković, S., Topisirovic, L., Degrassi, G., Myres, M., Venturi, V., & Fira, D. (2012). Antimicrobial Activity of Bacillus sp. Natural Isolates and Their Potential Use in the Biocontrol of *Phytopathogenic* Bacteria. Food Technology and Biotechnology, *50*, 25–31. https://www.researchgate.net/publication/258433474.

Bhattacharyya, P. N., Goswami, M. P., & Bhattacharyya, L. H. (2016). Perspective of beneficial microbes in agriculture under changing climatic scenario: a review. Journal of Phytology, 8, 26. https://doi.org/10.19071/jp.2016.v8.3022.

Bianco, C., & Defez, R. (2010). Improvement of phosphate solubilization and Medicago plant yield by an indole-3-acetic acid-overproducing strain of Sinorhizobium meliloti. Applied and Environmental Microbiology, 76(14), 4626–4632. https://doi.org/10.1128/AEM.02756-09.

Borriss, R. (2011). Use of Plant-Associated *Bacillus* Strains as Biofertilizers and Biocontrol Agents in Agriculture. European Journal of Plant Pathology, 2011, 41–76. https://doi.org/10.1007/978-3-642-20332-9_3.

Bouizgarne, B. (2013). Bacteria for plant growth promotion and disease management. In Bacteria in Agrobiology: Disease Management (Vol. 9783642336393, pp. 15–47). Springer-Verlag Berlin Heidelberg. https://doi.org/10.1007/978-3-642-33639-3_2.

Badan Pengawas Obat dan Makanan (BPOM. (2008). Pengujian Mikrobiologi Pangan. InfoPom Badan POM RI, 9(2), 1–12. https://www.academia.edu/29725065/BADAN_POM_RI_PENGUJIAN_MIKROBIOLOGI_PANGAN.

Buckman, H. O., & Brady, N. C. (1982). Ilmu tanah (Soegiman, Trans.). Bhratara Karya Aksara. http://kin.perpusnas.go.id/DisplayData.aspx?pId=10021&pRegionCode=TRUNOJOYO&pClientId=639.

Cahya, K. D., Kawuri, R., & Wijana, I. M. S. (2022). Potensi *Bacillus sp.* Sebagai Agen Antagonis Terhadap *Athelia rolfsii* Penyebab Busuk Pangkal Batang Kedelai *(Glycine max* L.). Metamorfosa: Journal of Biological Sciences, 9(2), 325. https://doi.org/10.24843/metamorfosa.2022.v09.i02.p12.

Cahyaningrum, H., Nurhayati, N., Nurmili, N., Suneth, R. F., Sirajuddin, S., Gazali, I., Hafid, A., Lenin, I., & Meilin, A. (2023). Penyakit Moler Pada Bawang Merah. Jurnal Media Pertanian, 8(2), 152. https://doi.org/10.33087/jagro.v8i2.213.

Cazzola, R., Camerotto, C., & Cestaro, B. (2011). Anti-oxidant, anti-glycant, and inhibitory activity against α-amylase and α-glucosidase of selected spices and culinary herbs. International Journal of Food Sciences and Nutrition, 62(2), 175–184. https://doi.org/10.3109/09637486.2010.529068.

Chen, H., Wang, L., Su, C. X., Gong, G. H., Wang, P., & Yu, Z. L. (2008). Isolation and characterization of lipopeptide antibiotics produced by *Bacillus subtilis.* Letters in Applied Microbiology, 47(3), 180–186. https://doi.org/10.1111/j.1472-765X.2008.02412.x.

Cholil, A., & Abadi, L. (1991). Penyakit-Penyakit Penting Tanaman Pangan Pendidikan Program Diploma Satu Pengendalian Hama Terpadu. Fakultas Pertanian, Universitas Brawijaya.

Chowdhury, M. H. (2020). Isolation and characterization of bacteria of Amjhupi and Ishurdi soil series of Bangladesh. International Journal Of Applied Chemical and Biological Sciences, 33–39. https://www.researchgate.net/publication/358570462.

Chowdhury, S. P., Hartmann, A., Gao, X. W., & Borriss, R. (2015). Biocontrol mechanism by root-associated *Bacillus amyloliquefaciens* FZB42 - A review. In Frontiers in

Microbiology (Vol. 6, Issue JUL). Frontiers Research Foundation. https://doi.org/10.3389/fmicb.2015.00780.

Clay, N. K., Adio, A. M., Denoux, C., Jander, G., & Ausubel, F. M. (2009). Glucosinolate metabolites required for an Arabidopsis innate immune response. Science, 323(5910), 95–101. https://doi.org/10.1126/science.1164627.

Clé, C., Hill, L. M., Niggeweg, R., Martin, C. R., Guisez, Y., Prinsen, E., & Jansen, M. A. K. (2008). Modulation of chlorogenic acid biosynthesis in *Solanum lycopersicum;* consequences for phenolic accumulation and UV-tolerance. Phytochemistry, 69(11), 2149–2156. https://doi.org/10.1016/j.phytochem.2008.04.024.

Cramer, C. S. (2000). Breeding and genetics of Fusarium basal rot resistance in onion. https://www.researchgate.net/publication/263187618.

Czaja, K., Góralczyk, K., Struciński, P., Hernik, A., Korcz, W., Minorczyk, M., Łyczewska, M., & Ludwicki, J. K. (2015). Biopesticides - Towards increased consumer safety in the European Union. Pest Management Science, 71(1), 3–6. https://doi.org/10.1002/ps.3829.

Dadrasnia, A., Usman, M. M., Omar, R., Ismail, S., & Abdullah, R. (2020). Potential use of Bacillus genus to control of bananas diseases: Approaches toward high yield production and sustainable management. In Journal of King Saud University - Science (Vol. 32, Issue 4, pp. 2336–2342). Elsevier B.V. https://doi.org/10.1016/j.jksus.2020.03.011.

Dakora, F. D., & Phillips, D. A. (2002). Root exudates as mediators of mineral acquisition in low-nutrient environments. Plant and Soil, 245, 35–47. https://doi.org/10.1023/a:102080940007.

Datnoff, L. E., Elmer, W. H., & Fabrício, A. R. (2007). Mineral Nutrition and Plant Disease. APS Press – The American Phytopathological Society.

DeDatta, J. G., & Mikkelson, D. S. (1985). Potassium Nutrition of Rice. American Society of Agronomy; Madison, USA.

Di, X., Takken, F. L. W., & Tintor, N. (2016). How phytohormones shape interactions between plants and the soil-borne fungus *Fusarium oxysporum*. In Frontiers in Plant Science (Vol. 7, Issue FEB2016). Frontiers Media S.A. https://doi.org/10.3389/fpls.2016.00170,

Dian, & Kuswardani, S. (2016). Sehat Tanpa Obat dengan Bawang Merah – Bawang Putih (1st ed.). ANDI.

Dierolf, T., Fairhurst, T., & Mutert, E. (2001). *Soil Fertility Kit. A Toolkit for Acid, Upland* Soil Fertility Management in Southeast Asia. Handbook Series. Potash & Phosphate Institute.

Dimkić, I., Janakiev, T., Petrović, M., Degrassi, G., & Fira, D. (2022). Plant-associated Bacillus and Pseudomonas antimicrobial activities in plant disease suppression via biological control mechanisms - A review. Physiological and Molecular Plant Pathology, 117, 101754. https://doi.org/10.1016/J.PMPP.2021.101754.

Dinata, G. F., Ariani, N., Purnomo, A., & Aini, L. Q. (2021). Pemanfaatan Biodiversitas Bakteri Serasah Kopi sebagai Solusi Pengendali Penyakit Moler pada Bawang Merah. Jurnal Hama dan Penyakit Tumbuhan, 9(1), 28–34. https://doi.org/10.21776/ub.jurnalhpt.2021.009.1.5.

Dinesh, R., Anandaraj, M., Kumar, A., Bini, Y. K., Subila, K. P., & Aravind, R. (2015). Isolation, characterization, and evaluation of multi-trait *plant growth promoting rhizobacteria* for their growth promoting and disease suppressing effects on ginger. Microbiological Research, 173, 34–43. https://doi.org/10.1016/j.micres.2015.01.014.

Dris, R., Abdelaziz, F. H., & Jain, S. M. (2002). Plant nutrition-growth and diagnosis. Science Publishers.

Dwidjoseputro, D. (2000). Pengantar Fisiologi Tumbuhan (Cetakan Ke-12). Gramedia Utama.

Edison, L. K., Shiburaj, S., & Pradeep, N. S. (2019). Advances in Microbial Biotechnology. In Advances in Microbial Biotechnology. Apple Academic Press. https://doi.org/10.1201/9781351248914-2

Efendi, A. M., Fahmi, I., Samanhudi, S., & Purwanto, E. (2020). Pengaruh Ukuran Siung dan Jarak Tanam terhadap Pertumbuhan dan Hasil Bawang Putih Varietas Lumbu Hijau. Agrotechnology Research Journal, 4(1), 6–10. https://doi.org/10.20961/agrotechresj.v4i1.39919.

Elfiati, D. (2007). Penggunaan Rhizobium dan bakteri pelarut fosfat pada tanah mineral masam untuk memperbaiki pertumbuhan bibit sengon *(Paraserianthes falcataria (L.) Nielsen)* [Tesis]. Institute Pertanian Bogor.

Elisa, S. (2019). Pengaruh Pemberian Jenis Dan Konsentrasi Air Cucian Beras Terhadap Pertumbuhan Tanaman Cabai Rawit *(Capsicum frutescens)* [Skripsi, Universitas Islam Negeri Mataram]. https://etheses.uinmataram.ac.id/1212/1/Sasa%20Elisa%201501040540.pdf.

El-Katatny, M. H., El-Katatny, M. S., Fadl-Allah, E. M., & Emam, A. S. (2011). Antagonistic effect of two isolates of *Trichoderma harzianum* against postharvest pathogens of tomato *(Lycopersicon esculentum)*. Archives of Phytopathology and Plant Protection, 44(7), 637–654. https://doi.org/10.1080/03235400903266438.

Emeliawati, Salamiah, & Fitriyanti, D. (2022). Pengendalian Penyakit Moler *(Fusarium oxysporum)* Pada Bawang Merah dengan Serbuk Kulit Jengkol *(Pithecellobium jiringa) di Lahan Gambut.* Proteksi Tanaman Tropika, 5. https://doi.org/https://doi.org/10.20527/jptt.v5i2.1255.

Fadhila, S., Wiyono, S., & Surahman, M. (2014). Pengembangan Teknik Deteksi Fusarium Patogen Pada Umbi Benih Bawang Merah *(Allium ascalonicum)* di Laboratorium [Development of Detection Technique for Fusarium Pathogen on Seedling Shallot *(Allium ascalonicum) Bulb at Laboratorium].* J. Hort, 24(2), 171–178. https://doi.org/DOI:http://dx.doi.org/10.21082/jhort.v24n2.2014.p171-178.

Fageria, N. K., Baligar, V. C., & Li, Y. C. (2008). The role of nutrient efficient plants in improving crop yields in the twenty first century. Journal of Plant Nutrition, 31(6), 1121–1157. https://doi.org/10.1080/01904160802116068.

Fakhruddin, D. K., & Nurcahyanti, S. D. (2020). Viabilitas *Bacillus sp.* Sebagai Agen Antagonis Patogen Tanaman Dalam Formulasi Berbahan Dasar Tepung. Jurnal Pengendalian Hayati, 3(1), 29. https://doi.org/10.19184/jph.v3i1.17151.

Fauzi, L., Prihatiningsih, N., & Suharti, W. S. (2024). Antibiosis Test of Four Isolates Bacillus sp. Against *Fusarium oxysporum f.sp. cepae In Vitro.* Agrin, 28(1), 37. https://doi.org/10.20884/1.agrin.2024.28.1.857.

Felani, M., & Hamzah, A. (2007). Fitoremediasi Limbah Cair Industri Tapioka dengan Tanaman Eceng Gondok. Buana Sains, 7(1), 11–20. https://download.garuda.kemdikbud.go.id/article.php?article=1275135&val=14764&title=FITOREMEDIASI%20LIMBAH%20CAIR%20INDUSTRI%20TAPIOKA%20DENGAN%20TANAMAN%20ENCENG%20GONDOK.

Felicia, N., Widarta, I. W. R., & Yusasrini, N. L. A. (2017). Pengaruh ketuaan daun dan metode pengolahan terhadap aktivitas antioksidan dan karakteristik sensoris teh herbal bubuk daun alpukat *(Persea americana Mill.)*. Jurnal Ilmu dan Teknologi Pangan (ITEPA), 5(2), 85–96. https://ojs.unud.ac.id/index.php/itepa/article/view/27503.

Flori, F., Mukarlina, & Rahmawati. (2020). Antagonistic Potential of Bacillus spp. Bacteria Isolate from Pepper Plant *(Piper nigrum L.)* Rhizosphere as Controlling Agent of *Fusarium sp.* JDF Fungus. Jurnal Biologi Makasar, 5 (1), 111–120. http://journal.unhas.ac.id/index.php/bioma.

Foth, D. H. (2014). Dasar-Dasar Ilmu Tanah. Edisi ke-enam (Soenartono Adisoemarto, Trans.; 6th ed.). Erlangga.

Fourie, G., Steenkamp, E. T., Gordon, T. R., & Viljoen, A. (2009). Evolutionary relationships among the *Fusarium oxysporum f. sp.* cubense vegetative compatibility groups. Applied and Environmental Microbiology, 75(14), 4770–4781. https://doi.org/10.1128/AEM.00370-09.

Gangwar, G. P. (2013). Effect of bioagent formulations on progress of bacterial leaf blight disease of rice under field conditions. Journal of Applied and Natural Science, 5(2), 388–393. https://doi.org/10.31018/jans.v5i2.338.

Gardner, F. P., Pearce, R. B., & Mitchell, R. L. (1985). Physiology of Crop Plants.

Gargita, I. W. D., & Khalimi, K. (2023). Uji Aktivitas Antijamur *Bacillus* spp. Terhadap *Colletrotrichum scovilei* Penyebab Antraknosa Cabai Rawit. AGRICA, 16(1), 65–75. https://doi.org/10.37478/agr.v16i1.2702.

Gingichashvili, S., Duanis-Assaf, D., Shemesh, M., Featherstone, J. D. B., Feuerstein, O., & Steinberg, D. (2020). The adaptive morphology of *Bacillus subtilis* biofilms: A defense mechanism against bacterial starvation. Microorganisms, 8(1). https://doi.org/10.3390/microorganisms8010062.

Ginting, C. (2013). *Ilmu Penyakit*. epository.lppm.unila.ac.id/869/1/Scan%20Ilmu%20Penyakit.pdf.

Hadiwiyono, Sari, K., & Poromarto, S. H. (2020). Yields Losses Caused by Basal Plate Rot *(Fusarium oxysporum* f.sp. *cepae*) in Some Shallot Varieties. Caraka Tani: Journal of Sustainable Agriculture, 35(2), 250–257. https://doi.org/10.20961/carakatani.v35i2.26916.

Haidar, R., Roudet, J., Bonnard, O., Dufour, M. C., Corio-Costet, M. F., Fert, M., Gautier, T., Deschamps, A., & Fermaud, M. (2016). Screening and modes of action of antagonistic bacteria to control the fungal pathogen *Phaeomoniella chlamydospora* involved in grapevine trunk diseases. Microbiological Research, 192, 172–184. https://doi.org/10.1016/j.micres.2016.07.003.

Hakiki, A. N. (2015). Kajian Aplikasi Sitokinin Terhadap Pertumbuhan dan Hasil Bawang Merah *(Allium ascalonicum* L.*)* pada Beberapa Komposisi Media Tanam Berbahan Organik. Universitas Jember.

Hamileni, Saragih, G., Hidayani, T. R., Mirnandaulia, M., Ginting, C. N., & Fachrial, E. (2023). Mikroba Endofit dalam Kesehatan: Manfaat dan Aplikasi (F. Piska, Ed.). UNPRI Press. . https://jurnal.unprimdn.ac.id/index.php/ISBN/article/view/4300.

Han, J. H., Shim, H., Shin, J. H., & Kim, K. S. (2015). Antagonistic activities of *Bacillus* spp. Strains isolated from tidal flat sediment towards anthracnose pathogens *Colletotrichum acutatum* and *C. gloeosporioides* in South Korea. Plant Pathology Journal, 31(2), 165–175. https://doi.org/10.5423/PPJ.OA.03.2015.0036.

Hanafiyanto, F., & Wahono. (2021). Perbandingan Akurasi Pengukuran Klorofil dan Nitrogen antara SPAD dengan NDVI pada Tanaman jagung *(Zea mays)*. Jurnal Agro Indragiri, 8(2), 11–21. https://doi.org/https://doi.org/10.32520/jai.v4i1.

Hanif, R. A. (2016). Pertumbuhan *Bacillus subtilis* pada Media Perbanyakan Cair dan Daya Antagonisnya terhadap *Fusarium oxysporum* f.sp. *cubense* [Universitas Negeri Jember]. https://repository.unej.ac.id/xmlui/handle/123456789/79001.

Hanudin, Nuryani, W., Silvia, E., Djatnika, I., & Marwoto, B. (2010). Formulasi Biopestisida Berbahan Aktif *Bacillus subtilis, Pseudomonas fluorescens,* dan *Corynebacterium* sp. Nonpatogenik untuk Mengendalikan Penyakit Karat pada Krisan. J. Hort, 20(3), 247–261. https://doi.org/DOI:10.21082/jhort.v20n3.2010.p%p.

Hardiana, R., Rudiyansyah, & Zaharah, T. A. (2012). Aktivitas Antioksidan Senyawa Golongan Fenol dari Beberapa Jenis Tumbuhan Famili Malvaceae. Jurnal Kimia Khatulistiwa, 1, 8–13. https://jurnal.untan.ac.id/index.php/jkkmipa/article/view/991/940.

Hardjowigeno, S. (2010). *Ilmu Tanah* (ke-7). Akademika Pressindo.

Haris, A., Ibrahim, B., Akbar, A., & Rismayanti. (2024). *Pertumbuhan dan Produksi Tanaman Terong pada Berbagai Media Tanam dan Pemberian PGPR (Plant Grownth Promoting Rhizobacteria)*. JURNAL GALUNG TROPIKA, 13(1), 59–69. https://doi.org/10.31850/jgt.v13i1.1215.

Hartono, H. P., Rokhim, S., & Faizah, H. (2024). Pengaruh Pemberian PGPR *Bacillus* sp. *dan Pseudomonas* sp. Asal Akar Bambu Apus terhadap Pertumbuhan Tanaman Jagung *(Zea mays* L.). Jurnal Ilmiah Membangun Desa dan Pertanian, 9(3), 294–303. https://doi.org/10.37149/jimdp.v9i3.1154.

Hasanah, U., & Wibowo, A. (2021). Respon pertumbuhan dan hasil tanaman terhadap aplikasi biochar dan pupuk organik. *Jurnal Agroekoteknologi Tropika*, 10(1), 22–29.

Hastuti, U. S. (2018). Petunjuk Praktikum Mikrobiologi (2nd ed.). UMM Press.

Hastuti, W., Prihastanti, E., Haryanti, S., & Subagio, A. (2016). Pemberian kombinasi pupuk daun gandasil D dengan pupuk nano-silika terhadap pertumbuhan bibit mangrove *(Bruguiera gymnorrhiza)*. Jurnal Biologi, 5(2), 38–48. https://ejournal3.undip.ac.id/index.php/biologi/article/view/19489.

Hendiriau. (2016). Pengaruh pemangkasan bunga dan dosis pemberian PGPR terhadap pertumbuhan tanaman dan jumlah tandan bunga Salvia [Skripsi]. Universitas Brawijaya.

Herlina, L., Istiaji, B., & Wiyono, S. (2021). The Causal Agent of Fusarium Disease Infested Shallots in Java Islands of Indonesia. E3S Web of Conferences, 232. https://doi.org/10.1051/e3sconf/202123203003.

Holzmueller, E. J., Jose, S., & Jenkins, M. A. (2007). Influence of calcium, potassium, and magnesium on *Cornus florida* L. density and resistance to dogwood anthracnose. Plant and Soil, 290(1–2), 189–199. https://doi.org/10.1007/s11104-006-9151-y.

Hopkins, D. W., & Dungait, J. A. J. (2010). Soil Microbiology and Nutrient Cycling. In Soil Microbiology and Sustainable Crop Production (pp. 59–80). Springer Netherlands. https://doi.org/10.1007/978-90-481-9479-7_3.

Humphries, E. C., & Whheeler, A. W. (1963). Annual Review of Plant Biology - Volume 14.

Hussain, I. Z., Khan, M. R., Khanb, R. A., & Bashir, F. (2022). Isolation, Characterization and Identification *of Bacillus* Species Toxic to Dengue Vector. Pakistan Journal of Scientific and Industrial Research Series B: Biological Sciences, 65, 246–259. https://v2.pjsir.org/index.php/biological-sciences/article/view/2983/1527.

Hutabarat, R., Puspita, F., Khoiri, M. A., Agroteknologi, J., Pertanian, F., & Riau, U. (2014). Uji Formulasi Pupuk Organik Cair Berbahan Aktif *Bacillus* sp. pada Pembibitan Utama Kelapa Sawit *(Elaeis Guineensis* Jacq*)*. In Jom Faperta (Vol. 1, Issue 2). https://media.neliti.com/media/publications/182970-ID-uji-formulasi-pupuk-organik-cair-berbaha.pdf.

Ibrahim, M. A., & Rahman, A. (2021). Identifikasi Penyakit Tanaman Bawang Merah Varietas Bima Menggunakan Metode Forward Chainning Dan Certainty Factor. JURNAL INTECH, 1, 7–12. https://doi.org/https://doi.org/10.54895/intech.v2i1.825.

Ichwan, B., Rinaldy, & Malin, H. (2021). Pengaruh Plant Growth Promoting Rhizobacteria Alami dan Pupuk Kandang Ayam terhadap Pertumbuhan dan Hasil Cabai Merah. J. Agroecotenia, 4(2), 1–10. https://doi.org/https://doi.org/10.22437/agroecotania.v4i2.20436.

Indrarosa, D. (2021). Aplikasi Pupuk Organik Berbahan Kotoran Sapi Dan Ayam Rumput Odot *(Pennisetum purpureum* cv. *Mott)*. Jurnal AgroSainTa: Widyaiswara Mandiri Membangun Bangsa, 5(2), 62–76. https://doi.org/10.51589/ags.v5i2.71.

Indrawan, T., Sudantha, I. M., & Astiko, W. (2023). Pengaruh Dosis Biofungisida Legundi *(Vitex trifolia)* Fermentasi Trichoderma Terhadap Insiden Penyakit Layu Fusarium Pada Beberapa Varietas Bawang Merah *(Allium ascalonicum* L.). Jurnal Ilmiah Mahasiswa Agrokomplek, 2(1), 26–36. https://doi.org/10.29303/jima.v2i1.2132.

Indriati, Jalung, F., & Wulandary Pane, H. (2021). Penetapan kadar kalsium dan kalium dalam brokoli *(Brassica oleracea.L)* segar dan direbus secara spektrofotometri serapan atom. Journal of Pharmaceutical and Sciences, 4(2), 122–128. https://www.journal-jps.com.

Irwan, A. W., & Wicaksono, F. Y. (2017). Perbandingan pengukuran luas daun kedelai dengan metode gravimetri, regresi dan scanner. Jurnal Kultivasi, 16(3), 425–429. https://jurnal.unpad.ac.id/kultivasi/article/view/14448/0.

Isniah, U. S., & Widodo. (2015). Eksplorasi Fusarium Nonpatogen untuk Pengendalian Penyakit Busuk Pangkal pada Bawang Merah. JURNAL FITOPATOLOGI INDONESIA, 11(1), 14–22. https://doi.org/10.14692/jfi.13.1.14.

Issazadeh, K., Rad, S. K., Zarrabi, S., & Rahimibashar, M. R. (2012). Antagonism of Bacillus species against Xanthomonas campestris pv. campestris and Pectobacterium carotovorum subsp. carotovorum. African Journal of Microbiology Research, 6(7), 1615–1620. https://doi.org/10.5897/ajmr12.075.

Janah, D. C., Guritno, B., & Heddy, Y. B. S. (2017). Aplikasi lama perendaman Plant Growth Promoting Rhizobacteria (PGPR) dan pemangkasan pucuk terhadap produksi Mentimun *(Cucumis sativus* L.). Jurnal Produksi Tanaman, 5(3), 368–376.

Jasim, B., Sreelakshmi, K. S., Mathew, J., & Radhakrishnan, E. K. (2016). Surfactin, Iturin, and Fengycin Biosynthesis by Endophytic *Bacillus* sp. from *Bacopa monnieri.* Microbial Ecology, 72(1), 106–119. https://doi.org/10.1007/s00248-016-0753-5.

John, B., Sulaiman, C. T., Satheesh, G., & Reddy, V. R. K. (2014). Total Phenolics And Flavonoids In Selected Medicinal Plants From Kerala. International Journal in Pharmachy and Pharmaceutical Sciencesend, 6(1), 0.

John, F., Leslie, B., & Summerell. (2006). The Fusarium Laboratory Manual. Wiley. https://doi.org/10.1002/9780470278376.

Jonnes, J. B., Wolf, B., & Mills, H. A. (1991). Plant Analysis Handbook: A Practical Sampling, Preparation, Analysis, and Interpretation Guide. Micro-Macro Publishing, Inc.

Joshi, R. (2018). A review of *Fusarium oxysporum* on its plant interaction and industrial use. Journal of Medicinal Plants Studies, 6(3b), 112–115. https://doi.org/10.22271/plants.2018.v6.i3b.07.

Juariah, S., & Sari, W. P. (2018). Pemanfaatan Limbah Cair Industri Tahu sebagai Media Alternatif Pertumbuhan *Bacillus* sp. Jurnal Kesehatan Klinikal Sains, 6(1), 24–29. https://doi.org/http://jurnal.univrab.ac.id/index.php/klinikal.

Kalangi, J. L. (2005). Growth analysis of radish crop *(Raphanus sativus L.)* planted in various *density.* Eugenia, 11(1), 18–24. https://ejournal.unsrat.ac.id/v3/index.php/eugenia/article/view/11883/11472.

Kalman, B., Abraham, D., Graph, S., Perl-Treves, R., Harel, Y. M., & Degani, O. (2020). Isolation and identification of *Fusarium* spp., the causal agents of onion *(Allium cepa) basal rot in northeastern israel*. Biology, 9(4). https://doi.org/10.3390/biology9040069.

Karou, D., Dicko, M. H., Simpore, J., & Traore, A. S. (2005*).* Antioxidant and antibacterial activities of polyphenols from ethnomedicinal plants of Burkina Faso. African Journal of Biotechnology, *4*(8), 823–828. http://www.academicjournals.org/AJB.

Kefeli, V. I. K., Maria, V. K., & Bruno, B. (2003). Phenolic cycle in plants and environment. Journal of Cell and Molecular Biology, 2, 13–18. https://sentry.rmu.edu/SentryHTML/research/17871.pdf.

Kementrian Pertanian Republik Indonesia. (2020). Produksi Bawang Merah Menurut Provinsi Tahun 2017-2018. . Sensus Pertanian. https://satudata.pertanian.go.id/assets/docs/publikasi/Outlook_Komoditas_Hortikultura_Bawang_Merah_Tahun_2020.pdf.

Khaeruni, A., & Rahman, A. (2013). Effectivity of Agricultural Waste as Media Propagation and Formulation of Bacillus subtilis As Biological Agents of Plant Pathogens.

JURNAL AGROTEKNOS, 3(3), 144–151. https://ojs.uho.ac.id/index.php/agroteknos/article/view/2323/1687.

Khan, H. U., Ahmad, R., Ahmed, W., Khan, S. M., & Khan, M. A. (2001). Evaluation of the Combined Effects of *Paecilomyces lilacinus* and *Trichoderma harzianum* Against Root-knot Disease of Tomato. Journal of Biological Sciences, 1(3), 139–142. https://doi.org/10.3923/jbs.2001.139.142.

Köhl, J., Kolnaar, R., & Ravensberg, W. J. (2019). Mode of action of microbial biological control agents against plant diseases: Relevance beyond efficacy. In Frontiers in Plant Science (Vol. 10). Frontiers Media S.A. https://doi.org/10.3389/fpls.2019.00845.

Koornneef, A., & Pieterse, C. M. J. (2008). Cross talk in defense signaling. Plant Physiology, 146(3), 839–844. https://doi.org/10.1104/pp.107.112029.

Kumar, A., & Rai, L. C. (2020). Soil organic carbon and phosphorus availability regulate abundance of culturable phosphate-solubilizing bacteria in paddy fields. Pedosphere, 30(3), 405–413. https://doi.org/10.1016/S1002-0160(17)60403-X.

Kumar, C., & Saraf, M. (2015). Plant growth promoting Rhizobacteria (PGPR): a review. Journal of Agricultural Research and Development, 2, 0108–0119. https://doi.org/10.13140/RG.2.1.5171.2164.

Kurnianingsih, A., Susilawati, & Sefrila, M. (2019). Growth Characteristics of Shallot on Various Planting Media Composition. Jurnal Hortikultura Indonesia, 9(3), 167–173. https://doi.org/10.29244/jhi.9.3.167-173.

Lamuela-Raventós, R. M. (2018). Measurement of Antioxidant Activity and Capacity: Recent Trends and Applications (R. Apak, E. Capanoglu, & F. Shahidi, Eds.). Department of Nutrition, Food Science, and Gastronomy, Faculty of Pharmacy and Food Sciences, University of Barcelona. https://doi.org/https://doi.org/10.1002/9781119135388.ch6.

Lana, W. (2010). Pengaruh Dosis Pupuk Kandang Sapi dan Berat Benih terhadap Pertumbuhan dan Hasil Tanaman Bawang Merah *(Allium ascalonicum* L.) (2nd ed., Vol. 4). J. Ganec Swara.

Langcake, P., Irvine, J. A., & Jeger, M. J. (1981). Alternative Chemical Agents for Controlling Plant Disease [and Discussion] Alternative chemical agents for controlling plant disease. Phil. Trans. R. Soc. Lond. B, 295(1076), 83–101.

Larcher, W. (1975). Physiological Plant Ecology: Ecophysiology and Stress Physiology of Functional Groups (4th ed.). Springer.

Latt, Z. K., Thant, S., Aung, N. N., Aye, O. M., Oo, N. N., Htun, T. M. M., Mon, A. A., Mar, K. T., Kyaing, K., Oo, K. K., Thywe, M., Phwe, P., Hnin, T. S. Y., & Thet, S. M. (2018). Phosphate solubilization of Bacillus megaterium isolated from non-saline soils under salt stressed conditions. Journal of Bacteriology & Mycology: Open Access, 6(6), 335–341. https://doi.org/10.15406/jbmoa.2018.06.00230.

Lattanzio, V., Cardinali, A., & Veronica, M. T. L. (2006). Role of phenolics in the resistance mechanisms of plants against fungal pathogens and insects. Research Signpost. https://www.researchgate.net/profile/Vincenzo-Lattanzio/publication/303270594_Role_of_phenolics_in_the_resistance_mechanisms_of_plants_against_fungal_pathogens_and_insects/links/59aeb584aca27203707342a7/Role-of-phenolics-in-the-resistance-mechanisms-of-plants-against-fungal-pathogens-and-insects.pdf.

Le, D., Ameye, M., De Boevre, M., De Saeger, S., Audenaert, K., & Haesaert, G. (2021). Population, virulence, and mycotoxin profile of *Fusarium* spp. associated with basal rot of *Allium* spp. In Vietnam. Plant Disease, 105(7), 1942–1950. https://doi.org/10.1094/PDIS-08-20-1850-RE.

Lee, H. B., & Magan, N. (2010). The influence of environmental factors on growth and interactions between *Embellisia allii* and *Fusarium oxysporum f. sp. cepae* isolated from garlic. International Journal of Food Microbiology, 138(3), 238–242. https://doi.org/10.1016/j.ijfoodmicro.2010.01.019.

Les, N., Henneberg, L., Nadal, V. G. R., Muller, M., Szemocoviaki, A. G., Carneiro, F. T., & Filho, D. de S. J. (2020). Control of Rhizoctonia solaniwith biological products in the seed treatment in soybean. Brazilian Journal of Development, 6(12), 99919–99935. https://doi.org/10.34117/bjdv6n12-470.

Li, B., Li, Q., Xu, Z., Zhang, N., Shen, Q., & Zhang, R. (2014). Responses of beneficial *Bacillus amyloliquefaciens* SQR9 to different soilborne fungal pathogens through the alteration of antifungal compounds production. Frontiers in Microbiology, 5(NOV). https://doi.org/10.3389/fmicb.2014.00636.

Liu, S., Qin, F., & Yu, S. (2018). Eucalyptus urophylla root-associated fungi can counteract the negative influence of phenolic acid allelochemicals. Applied Soil Ecology, 127, 1–7. https://doi.org/10.1016/J.APSOIL.2018.02.028.

Lu, H. (2009). Dissection of salicylic acid-mediated defense signaling networks. Plant Signaling and Behavior, 4(8), 713–717. https://doi.org/10.4161/psb.4.8.9173.

Lynn, D. G., & Chang, M. (1990). *Phenolic signals in cohabitation: Implications for plant development.* Annual Review of Plant Physiology and Plant Molecular Biology, 41(1), 497–526. https://doi.org/10.1146/annurev.pp.41.060190.002433.

Mahdiannoor, Murjani, & Isna. (2020). Pertumbuhan dan Hasil Tanaman Bawang Merah *(Allium ascalonicum* L.*)* pada Pemberian Berbagai Dosis Pupuk Kandang Kotoran Sapi dan PGPR Akar Bambu. RAWA SAINS : JURNAL SAINS STIPER AMUNTAI, 9(2), 763–771. https://doi.org/10.36589/rs.v9i2.103.

Mariani, Suprapta, D. N., Sudana, I. M., Temaja, I. G. R. M., & Sudantha, I. M. (2022). Short Communication: First report of Nectria haematococca causing a moler disease on shallots in West Nusa Tenggara, Indonesia. Biodiversitas, 23(5), 2768–2774. https://doi.org/10.13057/biodiv/d230559.

Masyitah, N., Chamzurni, T., & Oktarina, H. (2023). *Compatibility test of Bacillus thuringiensis and Pseudomonas aeruginosa combination to control Fusarium oxysporum in melon (Cucumis melo* L.*)* seedlings. Jurnal Ilmiah Mahasiswa Pertanian, 8(1), 466–482. www.jim.usk.ac.id/JFP.

Maulidha, A. R. (2023). Analysis of resistance to Fusarium wilt in some onion *(Allium cepa var. aggregatum) genotypes and their crosses*. Institut Pertanian Bogor.

McGovern, R. J. (2015). Management of tomato diseases caused by *Fusarium oxysporum*. Crop Protection, 73, 78–92. https://doi.org/10.1016/j.cropro.2015.02.021.

Meena, M., Swapnil, P., Zehra, A., Aamir, M., Dubey, M. K., Goutam, J., & Upadhyay, R. S. (2017). Beneficial microbes for disease suppression and plant growth promotion. In Plant-Microbe Interactions in Agro-Ecological Perspectives (Vol. 2, pp. 395–432). Springer Singapore. https://doi.org/10.1007/978-981-10-6593-4_16.

Melannisa, R., Trisharyanti, I. D. K., Suhendi, A., Da'i, M., & Atmaja, A. I. K. (2011). Antioxidant Activity Assay of N *Psidium guajava* L, *Melaleuca leucadendron* L, *Capsicum frutescens* L*, and Anethum graveolens* L. Fruit by DPPH Method with Determination of Total Phenolic Content. PHARMACON, 12(2), 60–64. https://doi.org/https://doi.org/10.23917/pharmacon.v12i2.33.

Mengel, K., & Kirkby, E. A. (2004). Principles of plant nutrition. Annals of Botany, 93(4), 479–480. https://doi.org/10.1093/aob/mch063.

Mert-Türk, F. (2002). Phytoalexins: Defence or just a response to stress? Journal of Cell and Molecular Biology, 1, 1–6. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=b2090abcbc7a39b11133acee1d2e7fa7712d4b7c.

Miljaković, D., Marinković, J., & Balešević-Tubić, S. (2020). The significance of *Bacillus* spp. In disease suppression and growth promotion of field and vegetable crops. In Microorganisms (Vol. 8, Issue 7, pp. 1–19). MDPI AG. https://doi.org/10.3390/microorganisms8071037.

Mishra, R. K., Jaiswal, R. K., Kumar, D., Saabale, P. R., & Singh, A. (2014). Management of major diseases and insect pests of onion and garlic: A comprehensive review. Journal of Plant Breeding and Crop Science, 6(11), 160–170. https://doi.org/10.5897/jpbcs2014.0467.

Mitra, G. N. (2015). Regulation of Nutrient Uptake by Plants. Springer India. https://doi.org/10.1007/978-81-322-2334-4.

Mnif, I., Hammami, I., Triki, M. A., Azabou, M. C., Ellouze-Chaabouni, S., & Ghribi, D. (2015). Antifungal efficiency of a lipopeptide biosurfactant derived from *Bacillus subtilis* SPB1 versus the phytopathogenic fungus, *Fusarium solani*. Environmental Science and Pollution Research, 22(22), 18137–18147. https://doi.org/10.1007/s11356-015-5005-6.

Mugiastuti, E., Soesanto, L., & Rahayuniati, R. F. (2010). Pemanfaatan *Pseudomonas fluorescens* P60 Dalam Formula Cair Organik Untuk Mengendalikan Penyakit Layu Bakteri Pada Tanaman Tomat. https://www.researchgate.net/publication/210380010.

Muis, A., Djaenuddin, N., & Nonci, N. (2015). Evaluasi lima jenis inner carrier dan formulasi Bacillus subtilis untuk pengendalian hawar pelepah jagung *(Rhizoctonia solani Kuhn).* J. HPT Tropika, *15*(2), 164–169. https://doi.org/10.23960/j.hptt.215164-169.

Murtius, W. S. (2018). Praktek Dasar Mikrobiologi (Modul Mikrobiologi). Universitas Andalas.

Naeem, M., Ansari, A. A., & Gill, S. S. (2017). *Essential plant nutrients: Uptake, use efficiency, and management. In Essential Plant Nutrients: Uptake, Use Efficiency, and Management*. Springer International Publishing. https://doi.org/10.1007/978-3-319-58841-4.

Nawangsari. (2008). Pemanfaatan Bawang Merah *(Allium cepa* L.*)* sebagai Agen Ko-Kemoterapi. Karya Tulis Mahasiswa: Fakultas Farmasi. Universitas Gadjah Mada .

Nazaruddin. (1999). Budidaya dan pengaturan panen sayuran dataran rendah. Penebar Swadaya.

Ndereyimana, A. (2013). Earliness and yield parameters of eggplant *(Solanum melongena* L.*)* grafts under different spacing and fertigation levels. African Journal of Plant Science, 7(11), 543–547. https://doi.org/10.5897/ajps2013.1074.

Netzker, T., Shepherdson, E. M. F., Zambri, M. P., & Elliot, M. A. (2020). Bacterial Volatile Compounds: Functions in Communication, Cooperation, and Competition. Annual Review of Microbiology, 74, 545–566. https://doi.org/10.1146/annurev-micro-011320.

Noggle, G. R., & Fritz, G. J. (1983). Introductory Plant Physiology.

Oktrisna, D., Puspita, F., & Zuhry, E. (2017). Uji Bakteri Bacillus sp. Endofit diformulasikan dengan Beberapa Bahan Organik terhadap Tanaman Padi Sawah *(Oryza sativa L.)*. Universitas Riau JOM FAPERTA, 4, 1–12. https://media.neliti.com/media/publications/203240-none.pdf.

Olanrewaju, O. S., Glick, B. R., & Babalola, O. O. (2017). Mechanisms of action of plant growth promoting bacteria. World Journal of Microbiology and Biotechnology, 33(11), 197. https://doi.org/10.1007/s11274-017-2364-9.

Olson, S. (2015). An Analysis of the Biopesticide Market Now and Where it is Going. Outlooks on Pest Management Ingenta Connect, 26(5), 203–206. https://doi.org/https://doi.org/10.1564/v26_oct_04.

Ongena, M., Jacques, P., Touré, Y., Destain, J., Jabrane, A., & Thonart, P. (2005). Involvement of fengycin-type lipopeptides in the multifaceted biocontrol potential of *Bacillus subtilis*. Applied Microbiology and Biotechnology, 69(1), 29–38. https://doi.org/10.1007/s00253-005-1940-3.

Ozyigit, I. I., Kahraman, V., & Ercan, O. (2007). Relation between explant age, total phenols and regeneration response in tissue cultured cotton *(Gossypium hirsutum* L.). African Journal of Biotechnology, 6(1), 003–008. http://www.academicjournals.org/AJB.

Pal, K. K., & McSpadden Gardener, B. (2006). *Biological Control of Plant Pathogens. The Plant Health Instructor.* https://doi.org/10.1094/PHI-A-2006-1117-02.

Pamungkas, S. S. T., & Nopiyanto, R. (2020). *Pengaruh Zat Pengatur Tumbuh Alami Dari Ekstrak Tauge Terhadap Pertumbuhan Pembibitan Budchip Tebu (Saccharum officinarum L.) Varietas Bululawang (BL).* Mediagro, 16(1), 68–80. https://publikasiilmiah.unwahas.ac.id/Mediagro/article/view/3391/3149.

Pangstuty, A. (2016). Uji Aktivitas Antioksidan dan Penetapan Kadar Fenolik Total Fraksi Etil Asetat Ekstrak Etanol Buah Buni *[Antidesma bunius* L. *(*Spreng)] dengan Metode *2,2-Difenil-1-Pikrilhidrazil* (DPPH) *dan* Metode *Folin-Ciocalteu.* [Skripsi, Universitas Sanata Dharma]. https://repository.usd.ac.id/6531/.

Panth, M., Hassler, S. C., & Baysal-Gurel, F. (2020). Methods for management of soilborne diseases in crop production. Agriculture (Switzerland), 10(1). https://doi.org/10.3390/agriculture10010016.

Parisot, J., Carey, S., Breukink, E., Chan, W. C., Narbad, A., & Bonev, B. (2008). Molecular mechanism of target recognition by subtilin, a class I lanthionine antibiotic. Antimicrobial Agents and Chemotherapy, *52*(2), 612–618. https://doi.org/10.1128/AAC.00836-07.

Park, J. H., Gyung, J. C., Kyoung, S. J., He, K. L., Heung, T. K., Kwang, Y. C., & Kim, J. C. (2005). Antifungal activity against plant pathogenic fungi of chaetoviridins isolated

from *Chaetomium globosum*. FEMS Microbiology Letters, 252(2), 309–313. https://doi.org/10.1016/j.femsle.2005.09.013.

Pérez-Hernández, Y., Díaz-Solares, M., Rondón-Castillo, A. J., Fuentes-Alfonso, L., Sierra, L. G., & Guzmán-Cedeño, Á. M. (2020). Isolation of *Bacillus* spp. strains with potentialities for agricultural and industrial development, from the bioproduct IHPLUS. Estación Experimental de Pastos y Forrajes, 43, 56–65.

Pervez, H., Ashraf, M., Makhdum, M. I., & Mahmood, T. (2007). Potassium Nutrition of Cotton *(Gossypium hirsutum L.)* In Relation to Cotton Leaf Curl Virus Disease In Aridisols. Pak. J. Bot, 39(2), 529–539. https://www.pakbs.org/pjbot/PDFs/39(2)/PJB39(2)529.pdf.

Prakoso, E. B., Wiyatingsih, S., & Nirwanto, H. (2016). Endurance Test on Different Cultivars Shallots *(Allium ascalonicum*) Against Infectious Diseases Moler *(Fusarium oxysporum* f.sp. *cepae).* E-Jurnal UPN Veteran Jawa Timur, 5. http://ejournal.upnjatim.ac.id/index.php/plumula/article/view/773.

Prihasty, W. (2018). Penentuan Kadar Klorofil Daun Tanaman Sayuran Menggunakan Teknik Diffuse Reflectance Spectroscopy [Tugas Akhir, Institut Teknologi Sepuluh Nopember]. https://repository.its.ac.id/55650/1/02311440000048-Undergraduate_Theses.pdf.

Prihatiningsih, N., Arwiyanto, T., Hadisutrisno, B., & Widada, J. (2015). Mekanisme Antibiosis *Bacillus subtilis* B315 untuk Pengendalian Penyakit Layu Bakteri Kentang. J. HPT Tropika, 15(1), 64–71. https://doi.org/https://doi.org/10.23960/j.hptt.11564-71.

Prihatiningsih, N., Asnani, A., & Djatmiko, H. A. (2021). Extracellular protease from *Bacillus subtilis B315* with antagonistic activity against bacterial wilt pathogen *(Ralstonia solanacearum)* of chili. Biodiversitas, 22(3), 1291–1295. https://doi.org/10.13057/biodiv/d220327.

Prihatiningsih, N., & Djatmiko, H. A. (2016). Enzim Amilase sebagai Komponen Antagonis *Bacillus subtilis* B315 terhadap *Ralstonia solanacearum* Kentang. J. HPT Tropika, 16(1), 10–16.

Prihatiningsih, N., Djatmiko, H. A., Erminawati, E., & Lestari, P. (2019). *Bacillus* subtilis from Potato Rhizosphere as Biological Control Agent and Chili Growth Promoter. Jurnal Perlindungan Tanaman Indonesia, 23(2), 179. https://doi.org/10.22146/jpti.40606.

Prihatiningsih, N., Djatmiko, H. A., & Lestari, P. (2017). Aktivitas Siderofor *Bacillus subtilis* sebagai Pemacu Pertumbuhan dan Pengendali Patogen Tanaman. J. HPT Tropika, 17(2), 170–178.

Prihatiningsih, N., Djatmiko, H. A., & Lestari, P. (2020). Screening of Competent Rice Root Endophytic Bacteria to Promote Rice Growth and Bacterial Leaf Blight Disease Control. Journal of Tropical Plant Pests and Diseases, 20(1), 78–84. https://doi.org/10.23960/j.hptt.12078-84.

Prihatiningsih, N., Djatmiko, H. A., & Lestari, P. (2022). Antagonistic feature displayed by endophytic bacteria consortium for control rice pathogens. JURNAL HAMA DAN PENYAKIT TUMBUHAN TROPIKA, 22, 154–161. https://doi.org/10.23960/j.hptt.222154-161.

Pukhrambam, N. (2019). Comparison of original Gram stain and its modification in the gingival plaque samples. Journal of Bacteriology & Mycology: Open Access, 7(1), 1–3. https://doi.org/10.15406/jbmoa.2019.07.00231.

Pusat Data Ilmu Pertanian (Pusdatin). (2013). Workshop hasil pengembangan metode konversi bawang merah.

Putri, R. E., Yahya, A., Adam, N. M., & Abd Aziz, S. (2019). Rice yield prediction model with respect to crop healthiness and soil fertility. Food Research, 3(2), 171–176. https://doi.org/10.26656/fr.2017.3(2).117.

Putri, R. A., Suryanto, E., & Widodo, W. (2020). Pengaruh pemberian pupuk hayati terhadap pertumbuhan dan hasil tanaman bawang merah (*Allium ascalonicum* L.). *Jurnal Produksi Tanaman*, 8(3), 512–519.

Quyen, T. V., Tin, C. H. T., & Khoa, N. D. (2017). Disease-reducing effects of antagonistic soil bacteria on Fusarium basal rot of shallot caused by *Fusarium oxysporum* in Vĩnh Châu, Sóc Trăng. Can Tho University Journal of Science, 06, 31. https://doi.org/10.22144/ctu.jen.2017.024.

Raaijmakers, J. M., & Mazzola, M. (2012). Diversity and natural functions of antibiotics produced by beneficial and plant pathogenic bacteria. In Annual Review of Phytopathology (Vol. 50, pp. 403–424). *https://doi.org/10.1146*/annurev-phyto-081211-172908.

Radhakrishnan, R., Hashem, A., & Abd Allah, E. F. (2017). *Bacillus*: A biological tool for crop improvement through bio-molecular changes in adverse environments. Frontiers in Physiology, 8(SEP). https://doi.org/10.3389/fphys.2017.00667.

Rahma, A. A., Suryanti, Somowiyarjo, S., & Joko, T. (2020*). Induced disease resistance and promotion of shallot growth by Bacillus velezensis B-27.* Pakistan Journal of Biological Sciences, 23(9), 1113–1121. https://doi.org/10.3923/pjbs.2020.1113.1121.

Rahmawati, N. D., & Suhartatik, N. (2015). Aktivitas Antioksidan Dan Total Fenol Teh Herbal Daun Pacar Air *(Impatiens balsamina)* Dengan Variasi Lama Fermentasi Dan Metode Pengeringan. [Skripsi-Tesis]. Universitas Muhammadiyah Surakarta.

Rahmawati, N., & Suryanto, E. (2021). Respon pertumbuhan dan hasil bawang merah terhadap aplikasi PGPR dan dosis pupuk organik. *Jurnal Ilmiah Pertanian*, 18(1), 34–41.

Rai, M. K. (2006). *Handbook of Microbial Biofertilizers* (13th ed.). Food Products Press® An Imprint of The Haworth Press, Inc. https://www.k-state.edu/fungi/Greeting/Publications_files/2006%20Handbook.pdf.

Rascio, N., & La Rocca, N. (2013). *Biological Nitrogen Fixation*. In Reference Module in Earth Systems and Environmental Sciences. Elsevier. https://doi.org/10.1016/B978-0-12-409548-9.00685-0

Ratih, S., Yusnaini, S., & L. W. (2017). Identifikasi hama dan penyakit pada tanaman bawang putih sebagai upaya pendukung ketahanan pangan nasional. *J.*

Ravn, H., Andary, C., Kovacst, G., & M®lgaard, P. (1989). Caffeic Acid Esters as In Vitro Inhibitors of Plant Pathogenic Bacteria and Fungi. Biochemical Systematica and Ecology, 17(3), 175–184. https://doi.org/https://doi.org/10.1016/0305-1978(89)90076-8.

Raza, W., Ling, N., Zhang, R., Huang, Q., Xu, Y., & Shen, Q. (2017). Success evaluation of the biological control of Fusarium wilts of cucumber, banana, and tomato since 2000 and future research strategies. In Critical Reviews in Biotechnology (Vol. 37, Issue 2, pp. 202–212). Taylor and Francis Ltd. https://doi.org/10.3109/07388551.2015.1130683.

Renita, F., Basundari, A., & Krisdianto, A. Y. (2020). Pengaruh Dosis Pupuk dan Jarak Tanam pada Budidaya Bawang Merah di Luar Musim Tanam di Desa Klaigit Kabupaten Sorong. JURNAL PANGAN, 13–24. https://doi.org/DOI:10.33964/jp.v29i1.467.

Rosmania, & Yanti, F. (2020). Perhitungan jumlah bakteri di Laboratorium Mikrobiologi menggunakan pengembangan metode Spektrofotometri. Jurnal Penelitian Sains, 22(2), 76–86. https://doi.org/https://doi.org/10.56064/jps.v22i2.564.

Rosmarkam, A., & Yuwono, N. W. (2002). *Ilmu kesuburan tanah*. Kanisius.

Rosyida, & Nugroho, A. S. (2017). Pengaruh Dosis Pupuk majemuk NPK dan Plant Growth Promoting Rhizobacteria (PGPR) terhadap Bobot Basah dan Kadar Klorofil Daun Tanaman Pakcoy *(Brassica rapa L.)*. Jurnal Ilmiah Biologi, 6(2), 42–56. https://journal.upgris.ac.id/index.php/bioma/article/view/1716/1486.

Ruhyaman, R. R. (2017). Viabilitas Bakteri Bacillus subtilis PGPR dalam Formulasi Serat Karbon 80 Mesh dan Nano Silika serta Kemampuannya Menekan Pertumbuhan Ralstonia solanacearum secara In Vitro. Universitas Padjadjaran.

Saeed, N., Khan, M. R., & Shabbir, M. (2012). Antioxidant activity, total phenolic and total flavonoid contents of whole plant extracts *Torilis leptophylla* L. BMC Complementary and Alternative Medicine, 12(221), 1–12. https://doi.org/10.1186/1472-6882-12-221.

Safitri, F. (2020). Efektivitas Formula Cair *Bacillus cereus Galur SLBE3.1AP* Untuk Pengendalian Penyakit Antraknosa *(Colletotrichum gloeosporioides)* Dan Meningkatkan Pertumbuhan Tanaman *Cabai (Capsicum annum L.)*. http://scholar.unand.ac.id/66639/1/abstract.pdf.

Safitri, Y. A., Hasanah, U., Salamiah, Samharimto, & Pramudi, M. I. (2019). Distribution of major diseases of shallot in South Kalimantan, Indonesia. Asian Journal of Agriculture, 3(02), 33–40. https://doi.org/10.13057/asianjagric/g030201.

Salam, A. K., Arisanti, V., & Yusna~ni, D. S. (1999). Decrease in Activity of Acid Phosphatase in Root-Zones of Several Plants Driven by Lime and Lead-Containing Industrial Waste Treatments. Journal of Soil Sciences and Environment, 1–6.

Salazar Bruno, A. O. C. K. T. M. S. M. S. P. S. B. R. R. B. A. J. H. B. S. & E. S. (2023). *Bacillus* spp. as Bio-factories for Antifungal Secondary Metabolites: Innovation Beyond Whole Organism Formulations. Springer Nature , Volume 86(July 2023), 1–24.

Salimi, Yuszda. K. (2012). Peranan ekstrak dan tepung sorgum *(Sorghum bicolor L.) dalam penghambatan kanker secara in vitro dan in vivo pada mencit balb/c.* [Tesis]. Institut Pertanian Bogor.

Salisbury, F. B., & Ross, C. W. (1995). *Fisiologi tumbuhan jilid 2* (D. R. Lukman & Sumaryono, Trans.). Institute Teknologi Bandung.

Samadi, B., & Cahyono, B. (2005). *Intensifikasi Budidaya Bawang Merah* (4th ed.). Kanisius.

Santoso, T., & Rahayu, E. S. (2021). Pertumbuhan dan hasil bawang merah pada berbagai sistem budidaya organik. *Jurnal Hortikultura Indonesia*, 12(1), 45–52.

Saputra, A., Prihatiningsih, N., Djatmiko, H. A., & Kurniawan, D. W. (2024). Isolation, Characterization, and Selection of *Bacillus* sp. from Shallot Rhizosphere that Inhibits *Fusarium oxysporum* Growth. Jurnal Perlindungan Tanaman Indonesia, 28(1), 27. https://doi.org/10.22146/jpti.89634.

Saputra, E. P. (2016). Respon Tanaman Bawang Merah Akibat Aplikasi Pupuk Hayati dan Pupuk Majemuk NPK dengan Berbagai Dosis. Universitas Lampung.

Sari, W., Wiyono, S., Nurmansyah, A., Munif, A., & Poerwanto, R. (2018). Keanekaragaman dan Patogenisitas *Fusarium* spp. Asal Beberapa Kultivar Pisang. Jurnal Fitopatologi Indonesia, 13(6), 216. https://doi.org/10.14692/jfi.13.6.216.

Saridewi, L. P., Prihatiningsih, N., & Djatmiko, H. A. (2020). Karakterisasi biokimia bakteri endofit akar terung sebagai pemacu pertumbuhan tanaman dan pengendali penyakit layu bakteri in planta. Jurnal Proteksi Tanaman Tropis, 1(1), 1. https://doi.org/10.19184/jptt.v1i1.15579.

Saxena, A. K., Kumar, M., Chakdar, H., Anuroopa, N., & Bagyaraj, D. J. (2020). *Bacillus species in soil as a natural resource for plant health and nutrition. Journal of Applied* Microbiology, 128(6), 1583–1594. https://doi.org/10.1111/jam.14506.

Schaad, N. W., Jones, J. B., & Chun, W. (2001). Laboratory Guide for Identification of Plant Patho-genic Bacteria, Third Edition. (3rd ed.). American Phytopathological Society Press. [http://www.scisoc.org].

Schmitz-Hoerner, R., & Weissenböck, G. (2003). Contribution of phenolic compounds to the UV-B screening capacity of developing barley primary leaves in relation to DNA damage and repair under elevated UV-B levels. Phytochemistry, 64(1), 243–255. https://doi.org/10.1016/S0031-9422(03)00203-6.

Scholz, R., Vater, J., Budiharjo, A., Wang, Z., He, Y., Dietel, K., Schwecke, T., Herfort, S., Lasch, P., & Borriss, R. (2014). Amylocyclicin, a novel circular bacteriocin produced by *Bacillus amyloliquefaciens* FZB42. Journal of Bacteriology, 196(10), 1842–1852. https://doi.org/10.1128/JB.01474-14.

Semangun, H. (1996). *Pengantar Ilmu Penyakit Tanaman.: Vol. ISBN: 979-420-383-1*. Gadjah Mada University Press. .

Semangun, H. (2000). *Penyakit-penyakit tanaman perkebunan di Indonesia* . Gadjah Mada University Press.

Setiadi, D., Wibowo, R. A., & Handayani, S. (2019). Pertumbuhan dan hasil tanaman cabai merah (Capsicum annuum L.) pada berbagai perlakuan pupuk organik. *Jurnal Agronomi Indonesia*, 47(2), 123–130.

Setiaji, A., Annisa, R. R. R., & Rahmandhias, D. T. (2023). Bakteri *Bacillus* Sebagai Agen Kontrol Hayati dan Biostimulan Tanaman. Rekayasa, 16(1), 96–106. https://doi.org/10.21107/rekayasa.v16i1.17207.

Setiawari, M. R., Suryatmana, P., Hindersah, R., Fitriatin, B. N., & Herdiyantoro, D. (2014). Karakterisasi Isolat Bakteri Pelarut Fosfat untuk Meningkatkan Ketersedian P Pada Media Kultur Cair tanaman Jagung *(Zea mays l.).* Bionatura-Jurnal Ilmu-ilmu Hayati dan Fisik, 16(1), 30–34.

Setiawati, T. C., Erwin, D., Mandala, M., & Hidayatulah, A. (2022). Use of *Bacillus* as a Plant Growth-Promoting Rhizobacteria to Improve Phosphate and Potassium Availability in Acidic and Saline Soils. KnE Life Sciences, The First Asian PGPR Indonesian Chapter International e-Conference 2021, 541–558. https://doi.org/10.18502/kls.v7i3.11160.

Setiawati, T. C., & Mutmainnah, L. (2016). Solubilization of Potassium Containing Mineral by Microorganisms From Sugarcane Rhizosphere. Agriculture and Agricultural Science Procedia, 9, 108–117. https://doi.org/10.1016/j.aaspro.2016.02.134.

Sevugapperumal, N., Nakkeeran, S., Senthilraja, S., & Renukadevi, C. (2019). Antimicrobial peptides of Bacillus species: Biosynthesis, mode of action and their role in plant disease management (B. N. C. D. S. and P. S. : R.N. Pandey, Ed.). Today & Tomorrow's Printers and Publishers. https://www.researchgate.net/publication/335169272.

Shafi, J., Tian, H., & Ji, M. (2017). Bacillus species as versatile weapons for plant pathogens: a review. In Biotechnology and Biotechnological Equipment (Vol. 31, Issue 3, pp. 446–459). Taylor and Francis Ltd. https://doi.org/10.1080/13102818.2017.1286950.

Shamyuktha, J., Sheela, J., Rajinimala, N., Jeberlinprabina, B. M., & Ravindran, C. (2020). Survey on Onion Basal Rot Disease Incidence and Evaluation of Aggregatum Onion *(Allium cepa L. Var. Aggregatum Don.)* Genotypes Against *Fusarium oxysporum* f. sp. *Cepae.* International Journal of Current Microbiology and Applied Sciences, 9(7), 529–536. https://doi.org/10.20546/ijcmas.2020.907.058.

Sheng, X. F., & He, L. Y. (2006). *Solubilization of potassium-bearing minerals by a wild-type strain of Bacillus edaphicus and its mutants and increased potassium uptake by wheat.* Canadian Journal of Microbiology, 52(1), 66–72. https://doi.org/10.1139/w05-117.

Shon, T. K., Haryanto, T. A. D., & Yoshida, T. (1997). Dry matter production and utilization of solar energy in one year old *Bupleurum falcatum.* Journal of the Faculty of Agriculture, Kyushu University, 41(3–4), 133–139. https://doi.org/10.5109/24138.

Shrivastav, P., Prasad, M., Singh, T. B., Yadav, A., Goyal, D., Ali, A., & Dantu, P. K. (2020). Role of Nutrients in Plant Growth and Development. In Contaminants in Agriculture (pp. 43–59*)*. Springer International Publishing. https://doi.org/10.1007/978-3-030-41552-5_2.

Sianipar, J. F., Mariati, & Rahmawati, N. (2015). Characterization and evaluation of local samosir shallot *(Allium ascalonicum* L.) morphology at some accessions in Bakti Raja Districts. Jurnal Agroteknologi, 4(1), 1962–1972. https://media.neliti.com/media/publications/107394-ID-none.pdf.

Simkin, A. J., Faralli, M., Ramamoorthy, S., & Lawson, T. (2020). Photosynthesis in non-foliar tissues: implications for yield. In Plant Journal (Vol. 101, Issue 4, pp. 1001–1015). Blackwell Publishing Ltd. https://doi.org/10.1111/tpj.14633.

Sintayehu, A., Sakhuja, P. K., Fininsa, C., & Ahmed, S. (2011). Management of fusarium basal rot *(Fusarium oxysporum* f. sp. *cepae) on shallot through fungicidal bulb treatment.* Crop Protection, 30(5), 560–565. https://doi.org/10.1016/j.cropro.2010.12.027.

Sitawati, Sintawati, M. B., & Fajriani, S. (2022). Efektivitas Plant Growth Promotion Rhizobacteria (PGPR) dan Pupuk NPK terhadap Pertumbuhan dan Pembungaan Tanaman Aster Ericoides *(Symphyotrichum ericoides)*. Jurnal Hortikultura Indonesia, 13(2), 64–71. https://doi.org/10.29244/jhi.13.2.64-71.

Sitompul, S. M. (2016). Analisis Pertumbuhan Tanaman (A. A. Denny, Ed.). UB Press. Universitas Brawijaya.

Sitompul, S. M., & Guritno, B. (1995). Analisis Pertumbuhan Tanaman. Gajah Mada University Pers.

Soepardi, G. (1983). *Sifat dan Ciri Tanah*. IPB Press.

Solikhah, R., Purwantoyo, E., & Rudyatmi, E. (2019). Aktivitas Antioksidan dan Kadar Klorofil Kultivar Singkong di Daerah Wonosobo. Life Science Jurnal of Biology, 8(1), 86–95. http://journal.unnes.ac.id/sju/index.php/LifeSci.

Sopialena. (2017). Segitiga Penyakit Tanaman (Desember 2017). Mulawarman University Press. https://faperta.unmul.ac.id/web/wp-content/uploads/2019/01/SEGITIGA-PENYAKIT-TANAMAN-SIAP-CETAK.pdf.

Subakti, B., Rosyady, M. G., & Setiyono. (2021). Pengaruh Aplikasi Bacillus sp. terhadap Pertumbuhan TBM 1 beberapa Klon Kopi Robusta *(Coffea canephora Pierre)*. Seminar Nasional dalam Rangka Dies Natalis ke-45 UNS Tahun 2021, 5(1), 58–64. https://media.neliti.com/media/publications/373083-none-82ad43dc.pdf.

Sugiharto. (2008). Dasar-dasar pengelolaan air limbah. Penerbit Universitas Indonesia-UI Press.

Sukamto, S. (2013). Pengendalian Secara Hayati Penyakit Busuk Buah Kakao dengan Jamur Antagonis *Trichoderma harzianum*. Dalam Prosiding Kongres Nasional XVII dan Seminar Ilmiah PFI, Bandung 6-9 Agustus 2003. (S. Sukamto, Ed.). 2013.

Sukmadewi, D. K. T., Singapurwa, N. M. A. S., & Candra, I. P. (2022). Isolasi dan Uji Kemampuan Bakteri Pelarut Kalium dari Tanah Sawah dengan Sistem Irigasi Subuk. Jurnal Agrotek Tropika, 10(3), 413. https://doi.org/10.23960/jat.v10i3.5450.

Suleria, H. A. R., Butt, M. S., Anjum, F. M., Saeed, F., & Khalid, N. (2015). *Onion: Nature* Protection Against Physiological Threats. Critical Reviews in Food Science and Nutrition, 55(1), 50–66. https://doi.org/10.1080/10408398.2011.646364.

Sulfianti, Risman, & Saputri, I. (2021). Analisis Npk Pupuk Organik Cair Dari Berbagai Jenis Air Cucian Beras Dengan Metode Fermentasi Yang Berbeda. Jurnal Agrotech, 11(1), 36–42. https://doi.org/10.31970/agrotech.v11i1.62.

Sumarni, T., & Ardiansyah, M. (2020). Respon pertumbuhan tanaman padi terhadap pemberian biofertilizer dan waktu tanam. *Jurnal Ilmu Pertanian Tropika*, 5(1), 45–52.

Sumarni, N., & Hidayat, A. (2005). Budidaya Bawang Merah (T. K. Moekasan, Ed.; 1st ed., Vol. 3). BALAI PENELITIAN TANAMAN SAYURAN. https://agroswamp.com/wp-content/uploads/2014/09/M-33-Panduan-Teknis-Budidaya-Bawang-Merah.pdf.

Sumi, C. D., Yang, B. W., Yeo, I. C., & Hahm, Y. T. (2015). Antimicrobial peptides of the genus Bacillus: A new era for antibiotics. Canadian Journal of Microbiology, 61(2), 93–103. https://doi.org/10.1139/cjm-2014-0613.

Sumiati. (2004). Pengaruh Pemberian Pupuk Daun "Florodagreen" terhadap Hasil dan Kualitas Cabai Paprika Kultivar California Wonder yang ditanam Pada Media Tumbuh Pasir. Buletin Penelitian Holtikultura, 26(2).

Sumiati, G., & Gunawan, O. S. (2007). Aplikasi Pupuk Hayati Mikoriza Untuk Meningkatkan Efisiensi Serapan Unsur Hara NPK Serta Pengaruhnya Terhadap Hasil Dan Kualitas Umbi Bawang Merah. Jurnal Hortikultura, 17(1), 34–42. https://doi.org/10.21082/jhort.v17n1.2007.p%p.

Sundari, D., Wibowo, A., Joko, T., Widiastuti, A., & Pustika, A. B. (2023). The Diversity of Shallot Rhizomicrobiome and Twisted Disease Suppression with The Applicationof *Bacillus* spp. and Trichoderma asperellum. Jurnal Fitopatologi Indonesia, 19(4), 156–165. https://doi.org/10.14692/jfi.19.4.156-165.

Supriadi, Yetti, H., & Yoseva, S. (2017). Pengaruh pemberian pupuk kandang dan pupuk N, P, dan K Terhadap Pertumbuhan dan Produksi Tanaman Bawang Merah *(Allium ascolanicum* L.*)*. JOM Faperta, 4(1). https://media.neliti.com/media/publications/202805-none.pdf.

Suriyani, N. H., Salamiah, & Rosa, H. O. (2021). Pengendalian Penyakit Moler Pada Tanaman Bawang Merah Menggunakan Larutan Kulit Buah Durian. Proteksi Tanaman Tropika, 4(03), 391–396. https://doi.org/https://doi.org/10.20527/jptt.v4i3.905.

Susanti, H. I., & Setiari, N. (2009). Kandungan Klorofil dan Pertumbuhan Kacang Panjang (Vigna sinensis) pada Tingkat Penyedia Air yang Berbeda. J.Sains & Mat., 13(3), 145–150. http://eprints.undip.ac.id/2335/1/artikel_jsm_nintya.pdf.

Sutarya, R., & Grubben, G. (1995). Pedoman bertanam sayuran dataran rendah. Gadjah Mada University Press. Prosea Indonesia – Balai Penel. Hortikultura Lembang. .

Syafruddin, S., Saenong, & Subandi. (2008). Penggunaan bagan warna daun untuk efisiensi pemupukan N pada tanaman jagung. Penelitian Pertanian Tanaman Pangan, 27(1), 24–31.

Taylor, A., Vagany, V., Barbara, D. J., Thomas, B., Pink, D. A. C., Jones, J. E., & Clarkson, J. P. (2013). Identification of differential resistance to six Fusarium oxysporum f. sp. cepae isolates in commercial onion cultivars through the development of a rapid seedling assay. Plant Pathology, 62(1), 103–111. https://doi.org/10.1111/j.1365-3059.2012.02624.x.

Terashima, I., & Inoue, Y. (1985). Palisade tissue chloroplasts and spongy tissue chloroplasts in spinach: Biochemical and ultrastructural differences. Plant and Cell Physiology, 26(1), 63–75. https://doi.org/10.1093/oxfordjournals.pcp.a076896.

Thomas, P., & Ravindra, M. B. (1997). *Shoot tip culture in mango: Influence of medium, genotype, explant factors, season and decontamination treatments on phenolic exudation, explant survival and axenic culture establishment.* Journal of Horticultural Science, 72(5), 713–722. https://doi.org/10.1080/14620316.1997.11515563.

Tijjani, A., Kutawa, A. B., Muhammad, A., & Abdullahi, G. (2017). Biopesticides for Pest Control: A Review. *Jurnal of Biopesticides and Agriculture*, *3*, 6–13. https://www.researchgate.net/publication/321075197.

Tille, P. M. (2017). *Bailey & Scott's Diagnostic Microbiology* (14th ed.). EL SEVIER.

Tirado-Ramirez, M. A., López-Urquídez, G. A., Amarillas-Bueno, L. A., Retes-Manjarrez, J. E., Vega-Gutiérrez, T. A., López Avendaño, J. E., & López-Orona, C. A. (2021). Identification and virulence of Fusarium falciforme and Fusarium brachygibbosum as causal agents of basal rot on onion in Mexico. Canadian Journal of Plant Pathology, 43(5), 722–733. https://doi.org/10.1080/07060661.2021.1894241.

Tjitrosoepomo, G. (2010). Taksonomi Tumbuhan *(Spermatophyta)*. Gajah Mada University Press.

Trisilvi, F. O., Kamaluddin, N. N., Fitriatin, B. N., Herdiyantoro, D., & Suryatmana, P. (2021). Peningkatan Produktivitas Padi Gogo *(Oryza Sativa Linnaeus) Akibat* Aplikasi Pupuk Urea Dan Bakteri Pemfiksasi Nitrogen Dalam Bahan Pembawa Pada Inceptisols Asal Jatinangor. Soil Rens Jurnal Ilmiah Lingkungan Tanah Pertanian, *19*(2), 17–22. https://doi.org/10.24198/soilrens.v19i2.38360.

Tsuda, K., Glazebrook, J., & Katagiri, F. (2008). The interplay between MAMP and SA signaling. Plant Signaling and Behavior, *3*(6), 359–361. https://doi.org/10.4161/psb.3.6.5702.

Van der Plank. (1963). Plant Diseases Epidemics and Control (Copyright © 1963 Elsevier Inc. All rights reserved., Ed.; Vols. 978-0-12-711450–7). 1963. https://doi.org/https://doi.org/10.1016/C2013-0-11642-X.

Wardhana, I. G. N., Sutariati, G. A. K., & Yasa, I. W. P. (2018). Pengaruh pemberian pupuk organik cair terhadap pertumbuhan dan hasil bawang merah (*Allium ascalonicum* L.). *Agrotrop: Journal on Agriculture Science*, 8(2), 97–104.

Wardiah, Linda, & Rahmatan, H. (2014). Potensi Limbah Air Cucian Beras SebagaiPupuk Organik Cair pada Pertumbuhan Pakchoy *(Brassica rapa* L.). Jurnal Biologi Edukasi, 6, 34–38. https://jurnal.usk.ac.id/JBE/article/view/2274.

Wenke, K., Kai, M., & Piechulla, B. (2010). Belowground volatiles facilitate interactions between plant roots and soil organisms. Planta, 231(3), 499–506. https://doi.org/10.1007/s00425-009-1076-2.

White, P. J. (2012). Long-distance Transport in the Xylem and Phloem. In Marschner's Mineral Nutrition of Higher Plants: Third Edition (pp. 49–70). Elsevier Inc. https://doi.org/10.1016/B978-0-12-384905-2.00003-0.

Wiguna, G., Hidayat, I. M., & Azmi, C. (2013). Perbaikan Teknologi Produksi Benih Bawang Merah Melalui Pengaturan Pemupukan, Densitas, dan Varietas. J. Hort, 23(2), 137–142. https://media.neliti.com/media/publications/83107-ID-perbaikan-teknologi-produksi-benih-bawan.pdf.

Wijaya, R. C., Utari, E. L., & Yudianingsih. (2015*)*. Perancangan Alat Penghitung Bakteri. Jurnal Teknologi Informasi, 10(29). https://doi.org/https://doi.org/10.35842/jtir.v10i29.138.

Wijiyanti, P., Hastuti, D. E., & Haryanti, S. (2019). Buletin Anatomi dan Fisiologi Pengaruh Masa Inkubasi Pupuk dari Air Cucian Beras Terhadap Pertumbuhan Tanaman Sawi Hijau *(Brassica juncea* L.*)*. Buletin Anatomi dan Fisiologi, *4*(1), 21–28. https://ejournal2.undip.ac.id/index.php/baf/article/view/5349/2869.

Wiyantoko, B., Kurniawati, P., & Purbaningtias, T. E. (2017). Pengujian NitrogenTotal, Kandungan Air dan CemaranLogam Timbal pada Pupuk Anorganik Nitrogen Phospor Kalium (NPK) Padat. Jurnal Sains dan Teknologi, *6*(1), 51–60.

Wiyatiningsih, S. (2003). Kajian Asosiasi *Phytophthora* sp. dan *Fusarium oxysporum* f. sp. *cepae.* Penyebab Penyakit Moler pada Bawanng Merah. MAPETA, *5*, 1–6.

Wu, F., An, Y. Q., An, Y., Wang, X. J., Cheng, Z. Y., Zhang, Y., Hou, X., Chen, C. X., Wang, L., & Bai, J. G. (2018). Acinetobacter calcoaceticus CSY-P13 mitigates stress of ferulic and p-hydroxybenzoic acids in cucumber by affecting antioxidant enzyme activity and soil bacterial community. Frontiers in Microbiology, 9(JUN). https://doi.org/10.3389/fmicb.2018.01262.

Wu, L., Wu, H. J., Qiao, J., Gao, X., & Borriss, R. (2015*). Novel routes for improving biocontrol activity of Bacillus* based bioinoculants. Frontiers in Microbiology, 6(DEC). https://doi.org/10.3389/fmicb.2015.01395.

Wulandari, C., Muhartini, S., & Trisnowati, S. (2013). Pengaruh air cucian beras merah dan beras putih terhadap pertumbuhan dan hasil selada *(Lactuca sativa L.)*. Vegetalika, *1*(2). https://doi.org/10.22146/VEG.1516.

Xu, Z., Shao, J., Li, B., Yan, X., Shen, Q., & Zhang, R. (2013). Contribution of *Bacillomycin* D in *Bacillus amyloliquefaciens* SQR9 to antifungal activity and biofilm formation. Applied and Environmental Microbiology, *79*(3), 808–815. https://doi.org/10.1128/AEM.02645-12.

Yanti, Y., Habazar, T., Reflinaldon, Nasution, C. R., & Felia, S. (2017). Indigenous *Bacillus* spp. Ability to growth promoting activities and control bacterial wilt disease *(Ralstonia solanacearum)*. Biodiversitas, 18(4), 1562–1567. https://doi.org/10.13057/biodiv/d180435.

Yanti, Y., Hamid, H., Reflin, & Chrismont, Y. F. Y. (2022). Formula padat *Bacillus cereus* STRAIN TLE1.1 untuk pengendalian penyakit busuk pangkal batang (Sclerotium rolfsii) pada tanaman tomat. Jurnal AGRO, 8(2), 226–236. https://doi.org/10.15575/14679.

Yanto, A. R., Mahmudati, N., & Susetyorini, R. E. (2016). Steeping of Ginger *(Zingiber officinale Rosce)* Lowers Blood Glucose in Rat Model Type-*2 Diabetes (NIDDM) as* a Learning Resource Biology. JURNAL PENDIDIKAN BIOLOGI INDONESIA, 2(3), 258–264. https://media.neliti.com/media/publications/138609-ID-none.pdf.

Yeom, J. R., Yoon, S. U., & Kim, C. G. (2017). Quantification of residual antibiotics in cow manure being spread over agricultural land and assessment of their behavioral effects on antibiotic-resistant bacteria. Chemosphere, *182*, 771–780. https://doi.org/10.1016/j.chemosphere.2017.05.084.

Yolanda, H., & Mulyana, Y. (2011). Uji Coba Penggunaan Limbah Air Kelapa Tua sebagai Bahan Dasar Media Isolasi (Vol. 43, Issue 3). https://doi.org/10.15395/mkb.v43n3.56.

Yolanda, W., Fatchullah, D., Purbajanti, E. D., & Sumarsono. (2020). Pertumbuhan dan produksi selada merah *(Lettuce lolorosa)* akibat kombinasi pupuk kotoran kambing dan FeSO4. J. Agro Complex, 4(2), 125–131. https://doi.org/10.14710/joac.4.2.125-131.

Yu, X., Ai, C., Xin, L., & Zhou, G. (2011). The siderophore-producing bacterium, Bacillus subtilis CAS15, has a biocontrol effect on Fusarium wilt and promotes the growth of pepper. European Journal of Soil Biology, *47*(2), 138–145. https://doi.org/10.1016/j.ejsobi.2010.11.001.

Yuan, Z., Cao, Q., Zhang, K., Ata-Ul-Karim, S. T., Tan, Y., Zhu, Y., Cao, W., & Liu, X. (2016*). Optimal leaf positions for SPAD meter measurement in rice. Frontiers* in Plant Science, 7(MAY2016). https://doi.org/10.3389/fpls.2016.00719.

Yulianti, L., Wicaksono, R., & Prasetyo, B. (2019). Pengaruh pemupukan terhadap bobot kering dan hasil tanaman bawang merah. *Jurnal Agronomi Tanaman Hortikultura*, *7*(2), 78–85.

Yusup, I. R., Kurniawan, D., Julianti, D. R., Fakhriah, L., & Awalliyah, L. N. (2020). Biopesticides from Leaf Extracts to Eradicate Plant Pests in West Java. Jurnal Agrotek, 5(2), 24–29. https://doi.org/prefix10.33096.

Zalila-Kolsi, I., Ben Mahmoud, A., Ali, H., Sellami, S., Nasfi, Z., Tounsi, S., & Jamoussi, K. (2016). Antagonist effects of *Bacillus* spp. strains against *Fusarium graminearum* for protection of durum wheat *(Triticum turgidum* L. subsp. durum*)*. Microbiological Research, 192, 148–158. https://doi.org/10.1016/j.micres.2016.06.012.

Zaprometov, M. N. (1989). The Formation of Phenolic Compounds in Plant Cell and Tissue Cultures and the Possibility of its Regulation. ADVANCES IN CELL CULTURE, 7, 201–260. https://doi.org/https://doi.org/10.1016/B978-0-12-007907-0.50014-1.

Zerin, T. (2020). Isolation of *Bacillus spp.* from the rhizosphere of garden soil: their potential role in amylase production and nitrogen cycle. Stamford Journal of Microbiology, 10(1), 12–15. https://doi.org/10.3329/sjm.v10i1.50726.

Zhao, Y., Selvaraj, J. N., Xing, F., Zhou, L., Wang, Y., Song, H., Tan, X., Sun, L., Sangare, L., Folly, Y. M. E., & Liu, Y. (2014). Antagonistic action of *Bacillus subtilis* strain SG6 on *Fusarium graminearum.* PLoS ONE, 9(3), 1–11. https://doi.org/10.1371/journal.pone.0092486.

Zulkarnain. (2013). Budidaya Sayuran Tropis (Suryani, Ed.; 1st ed.). Bumi Aksara.