

DAFTAR PUSTAKA

- Agrawal, N. & Shahi, S.K., 2016. Ligninolytic Activity of White Rot Fungi from GGV campus as Bioremediation of Organic Pollutants. *Cryptogam Biodiversity and Assessment*, 20(2), 1-6.
- Alberto RT, Tiedeman AV, Wolf G & Danzinger HL. 2003 – Light microscopy study on the pathological histology of *Colletotrichum gloeosporioides* (Penzig) Penzig and Sacc. in onion. *Journal of Tropical Plant Pathology* 38, 47–51.
- Alberto, R.T., 2014. Pathological response and biochemical changes in *Allium cepa* L.(bulb onions) infected with anthracnose-twister disease. *Plant Pathology & Quarantine*, 4(1): 23-31.
- Amrullah, A., R., Wiyono, S., Maharijaya, A. & Purwito, A., 2023. Etiology of Anthracnose Disease on Shallots Caused by *Colletotrichum gloeosporioides*. *Jurnal Fitopatologi Indonesia*. 19(5): 206-214. DOI: 10.14692/jfi.19.5.206–214.
- Anggrahini, D.S., Wibowo, A. & Subandiyah, S., 2020. Morphological and molecular identification of *Colletotrichum* spp. associated with chili anthracnose disease in Yogyakarta Region. *Jurnal Perlindungan Tanaman Indonesia*. 24(2): 161-174. DOI: 10.22146/jpti.58955.
- Armesto, C., Maia, F.G.M., Monteiro, F.P. & Abreu, M.S.D., 2020. Exoenzymes as a pathogenicity factor for *Colletotrichum gloeosporioides* associated with coffee plants. *Summa Phytopathologica*, 45(4): 368-373. DOI: 10.1590/0100-5405/191071
- Atiweh, G., Parrish, C.C., Banoub, J. & Le, T.A.T. 2022. Lignin degradation by microorganisms: A review. *Biotechnology Progress*, 38(2), 1-8 DOI: 10.1002/btpr.3226
- Atkins, D.S. & Clark, I.M. 2004. Fungal molecular diagnostic: a mini review. *Journal Appl. Genet.* 45(1):3-15.
- Badan Pusat Statistika. 2023. Produksi Tanaman Sayuran Menurut Provinsi dan Jenis Tanaman 2022. Online. <https://www.bps.go.id/id/statistics-table/3/ZUhFd1JtZzJWVpQWTJsV05XTllhVmhhRSzFoNFFUMDkjMw==/produksi-tanaman-sayuran-menurut-provinsi-dan-jenis-tanaman--2022.html?year=2022>. Diakses pada 23 September 2023

- Badan Pusat Statistika. 2023. Statistik Hortikultura 2022. Online. <https://www.bps.go.id/id/publication/2023/06/09/03847c5743d8b6cd3f08ab76/statistik-hortikultura-2022.html>. Diakses pada 23 September 2023
- Baroncelli, R., Talhinhas, P., Pensec, F., Sukno, S.A., Le Floch, G. & Thon, M.R., 2017. The *Colletotrichum acutatum* species complex as a model system to study evolution and host specialization in plant pathogens. *Frontiers in Microbiology*. 8(2001):1-7. DOI: 10.3389/fmicb.2017.02001
- Baysal-Gurel, F., Subedi, N., Mamiro, D.P. and Miller, S.A., 2014. First report of Anthracnose of onion caused by *Colletotrichum coccodes* in Ohio. *Plant Disease*, 98(9): 1271-1271.
- Begerow, D., John, B., & Oberwinkler, F. 2004. Evolutionary relationships among β -tubulin gene sequences of basidiomycetous fungi. *Mycological Research*, 108(11), 1257–1263. DOI: 10.1017/s0953756204001066.
- Budiarti, S.W., Cahyaningrum, H. & Nugroho, M.A.S. 2022. Inventarisasi Penyakit Bawang Merah (*Allium ascalonicum* L.) Varietas Lokananta Asal Biji (*True Shallot Seed*). *AgriHealth: Journal of Agri-food, Nutrition and Public Health*. 3(2): 143-153. DOI: 10.20961/agrihealth.v3i2.64617
- Buhr, T.L. & Dickman, M.B., 1994. Isolation, characterization, and expression of a second beta-tubulin-encoding gene from *Colletotrichum gloeosporioides* f. sp. *aeschyromene*. *Applied and Environmental Microbiology*. 60(11): 4155-4159. DOI: 10.1128/aem.60.11.4155-4159.1994.
- CABI. 2023. Anthracnose on shallot (*Allium cepa* group *aggregatum*) in Java. <https://www.cabdirect.org/cabdirect/abstract/19942303386>.
- Cannon, P.F., Buddie, A.G. & Bridge, P.D., 2008. The typification of *Colletotrichum gloeosporioides*. *Mycotaxon*. 104: 189-204.
- Carbone, I. & Kohn, L.M., 1999. A method for designing primer sets for speciation studies in filamentous ascomycetes. *Mycologia*. 553-556.
- Chen, A., Najeeb, S., Wang, Y., Khan, R.A.A., Ping, X. & Ling, J., 2022. First report of *Colletotrichum circinans* causing anthracnose in *Allium fistulosum* var. *giganteum* in Gansu Province, China. *Plant Disease*. 106(7): 1985. DOI: 10.1094/PDIS-09-21-2011-PDN.
- Chowdappa, P., Chethana, C.S. & Pavani, K.V., 2015. *Colletotrichum siamense* and *C. truncatum* are responsible for severe outbreaks of anthracnose on onion in southwest India. *Journal of plant pathology*, 97(1): 77-86.

- Chudasama, K.S., Monpara, J.K. & Thaker, V.S., 2021. Identification and characterization of pectin lyase gene as a virulence factor in *Colletotrichum gloeosporioides*. *Physiological and Molecular Plant Pathology*, 116: 1-9.
- Chung, D., Yu, W.J., Lim, J.Y., Kang, N.S., Kwon, Y.M., Choi, G., Bae, S.S., Cho, K. & Lee, D.S., 2021. Characterization of the proteolytic activity of a halophilic *Aspergillus reticulatus* strain SK1-1 isolated from a solar saltern. *Microorganisms*, 10(1): 1-12. DOI: 10.3390/microorganisms10010029
- Crouch, J.A. & Beirn, L.A., 2009. Anthracnose of cereals and grasses. *Fungal Diversity*, 39(0): 19-44
- Da Silva, M.A.D., Santos, C., Perez-Nevado, F., Lima, N. & Bentes, J.L.D.S., 2021. Enzymatic activity and process of initial infection of guarana plant (*Paullinia Cupana*) by pathogenic and endophytic strains of *Colletotrichum guaranicola*. *Revista fitotecnia mexicana*. 44(1): 67-75.
- Damm, U., Cannon, P.F., Woudenberg, J.H.C., Johnston, P.R., Weir, B.S., Tan, Y.P., Shivas, R.G. & Crous, P.W., 2012. The *Colletotrichum boninense* species complex. *Studies in mycology*. 73(1): 1-36. DOI: 10.3114/sim0002.
- De Jong, S. N., Levesque, C. A., Verkley, G. J. M., Abeln, E. C. A., Rahe, J. E. & Braun, P. G. 2001. Phylogenetic relationships among *Neofabraea* species causing tree cankers and bull's-eye rot of apple based on DNA sequencing 58 of ITS nuclear rDNA, mitochondrial rDNA, and the beta-tubulin gene. *Mycological Research* 105: 658–669.
- de Silva DD, Ades PK, Crous PW, Taylor PWJ. 2017 – *Colletotrichum* species associated with chili anthracnose in Australia. *Plant Pathology* 66: 254–267.
- de Silva DD, Groenewald JZ, Crous PW & Ades PK .2019 – Identification, prevalence and pathogenicity of *Colletotrichum* species causing anthracnose of *Capsicum annuum* in Asia. *IMA Fungus* 10, 8.
- de Silva NI, Maharachchikumbura SSN, Thambugala KM & Bhat DJ. 2021. Morpho Molecular taxonomic studies reveal a high number of endophytic fungi from *Magnolia candolli* and *M. garrettii* in China and Thailand. *Mycosphere* 11, 163–237
- de Silva, D.D., Groenewald, J.Z., Crous, P.W., Ades, P.K., Nasruddin, A., Mongkolporn, O. & Taylor, P.W., 2019. Identification, prevalence and pathogenicity of *Colletotrichum* species causing anthracnose of *Capsicum annuum* in Asia. *IMA fungus*. 10(1): 1-32. DOI: 10.1186/s43008-019-0001-y

- Dilokpimol, A., Mäkelä, M.R., Aguilar-Pontes, M.V., Benoit-Gelber, I., Hildén, K.S. & de Vries, R.P., 2016. Diversity of fungal feruloyl esterases: updated phylogenetic classification, properties, and industrial applications. *Biotechnology for Biofuels*, 9, 1-18.
- Dutta, R., Nadig, S.M., Manjunathagowda, D.C., Gurav, V.S. and Singh, M., 2022. Anthracnose of onion (*Allium cepa* L.): A twister disease. *Pathogens*. 11(8): 1-21. Doi: 10.3390/pathogens11080884.
- Ebenebe, A.C., 1980. Onion twister disease caused by *Glomerella cingulata* in northern Nigeria. *Plant disease*.6(11):1030-1032
- Eisenberg, E., & Levanon, E. Y. 2013. Human housekeeping genes, revisited. *Trends in Genetics*, 29(10), 569–574. DOI: 10.1016/j.tig.2013.05.010
- Fajarningsih, N.D., 2016. Internal Transcribed Spacer (ITS) as DNA barcoding to identify fungal species: a review. *Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology*. 11(2): 37-44. DOI: 10.15578/squalen.v11i2.213
- Firmansyah, M.Y., Sastrahidayat, I.R. & Djauhari, S. 2016. Studi identifikasi dan cara inokulasi penyakit antraknosa pada tanaman *Sansevieria trifasciata*. *Jurnal HPT (Hama Penyakit Tumbuhan)*, 4(3), 125-133.
- Freeman KR, Martin AP, Karki D, Lynch RC, Mitter MS, Meyer AF, Longcore JE, Simmons DR, & Schmidt SK .2009. Evidence that chytrids dominate fungal communities in high-elevation soils. *PNAS* 106:18315–18320
- Freeman, S., Katan, T., & Shabi, E. 1998. Characterization of *Colletotrichum* species responsible for anthracnose diseases of various fruits. *Plant Dis*. 82, 596– 605
- Fritsch, R. M., & Friesen, N. 2002. Evolution, Domestication and Taxonomy. In H. D. Rabinowitch & L. Currah (Eds.), *Allium Crop Science: Recent Advances* (pp. 5– 27). CAB International. <https://www.researchgate.net/publication/237309729>
- Fukada, F., Kodama, S., Nishiuchi, T., Kajikawa, N. & Kubo, Y. 2019. Plant pathogenic fungi *Colletotrichum* and *Magnaporthe* share a common G1 phase monitoring strategy for proper appressorium development. *New Phytologist*, 222(4): 1909-1923. DOI: 10.1111/nph.15728
- Gabriel B.P. & Riyatno. 1989. *Metarhizium anisopliae* (Metch) Sor: Taksonomi, Patologi, Produksi dan Aplikasinya. Jakarta: Direktorat Perlindungan Tanaman Perkebunan, Departemen Pertanian.

- Gleason, F.H., Schmidt, S.K. & Marano, A.V., 2010. Can zoosporic true fungi grow or survive in extreme or stressful environments?. *Extremophiles*, 14: 417-425. DOI: 10.1007/s00792-010-0323-6
- Granada, D., Lopez-Lujan, L., Ramirez-Restrepo, S., Morales, J., Pelaez-Jaramillo, C., Andrade, G. & BEDOYA-PÉREZ, J.C., 2020. Bacterial extracts and bioformulates as a promising control of fruit body rot and root rot in avocado cv. Hass. *Journal of Integrative Agriculture*, 19(3): 748-758. DOI: 10.1016/S2095-3119(19)62720-6
- Guerber, J.C., Liu, B., Correll, J.C. & Johnston, P.R., 2003. Characterization of diversity in *Colletotrichum acutatum* sensu lato by sequence analysis of two gene introns, mtDNA and intron RFLPs, and mating compatibility. *Mycologia*, 95(5): 872-895.
- Hartoyo, H., 2020. Potensi Bawang Merah Sebagai Tanaman Herbal Untuk Kesehatan Masyarakat Desa Jemasih Kec. Ketanggungan Kab. Brebes. *Syntax Literate; Jurnal Ilmiah Indonesia*. 5(10): 1109-1120. DOI: 10.36418/syntax-literature.v5i10.1704
- Hassan, O., Kim, J.S., Romain, B.B.N.D. & Chang, T. 2022. An account of *Colletotrichum* species associated with anthracnose of *Atractylodes ovata* in South Korea based on morphology and molecular data. *Plos one*. 17(1): 1-24. DOI: 10.1371/journal.pone.0263084
- Herath, I.S., Udayanga, D., Miriyagalla, S., Castlebury, L.A. & Manamgoda, D.S. 2021. *Colletotrichum siamense* causing anthracnose-twister disease of onion (*Allium cepa*) in Sri Lanka. *Australasian Plant Disease Notes*. 16(30): 1-6. DOI: 10.1007/s13314-021-00444-w.
- Herlinda, S., Utama, M.D. & Pujiastuti, Y. 2006. Kerapatan dan viabilitas spora *Beauveria bassiana* (Bals.) akibat subkultur dan pengayaan media, serta virulensinya terhadap larva *Plutella xylostella* (Linn.). *Jurnal Hama dan Penyakit Tumbuhan Tropika*. 6(2): 70-78. ISSN: 1411-7525
- Huang, Y.X., Zhang, Y.Q., Hu, H.Q. & Feng, N.J., 2021. First report of anthracnose on *Hymenocallis littoralis* caused by *Colletotrichum siamense* in China. *Plant Disease*, 105(11): 3740.
- Jayawardena RS, Hyde KD, Damm U, Cai L *et al.* 2016. Notes on currently accepted species of *Colletotrichum*. *Mycosphere* 7, 1192–1260.
- Katoch, A., Sharma, P. & Sharma, P.N., 2017. Identification of *Colletotrichum* spp. associated with fruit rot of *Capsicum annuum* in North Western Himalayan

- region of India using fungal DNA barcode markers. *Journal of Plant Biochemistry and Biotechnology*, 26(2): 216-223. DOI: 10.1007/s13562-016-0384-4
- Kenny, M.K., Galea, V.J. & Price, T.V. 2012. Germination and growth of *Colletotrichum acutatum* and *Colletotrichum gloeosporioides* isolates from coffee in Papua New Guinea and their pathogenicity to coffee berries. *Australasian Plant Pathology*. 41(1): 519-528. DOI: 10.1007/s13313-012-0117-7
- Khan A, Hsiang T. 2003. The infection process of *Colletotrichum graminicola* and relative aggressiveness on four turfgrass species. *Canadian Journal of Microbiology* 49, 433–442.
- Komdoun, K., E., Numbo. T., & Kuate J.R. 2016. Cultural and morphological variations of *Colletotrichum* spp associated with anthracnose of various fruits in Cameroon. *International Journal of Environment, Agriculture and Biotechnology*. 1(4):968-974. DOI: 10.22161/ijeab/1.4.48
- Korlina, E., Sulastrini, I. & Waluyo, N. 2021. Response of *Trichoderma* sp and shallot varieties towards plant growth and disease incidence. In *IOP Conference Series: Earth and Environmental Science*. 752(1):1-8. DOI: 10.1088/1755-1315/752/1/012016
- Kumar, K., Bhagat, S., Madhuri, K., Amaresan, N. & Srivastava, R.C., 2010. Morphological and molecular characterization of *Colletotrichum* species causing anthracnose disease in Bay Islands, India. *Journal of Mycology and Plant Pathology*, 40(3), p.3
- Kuo, K.C., 1999. Germination and appressorium formation in *Colletotrichum gloeosporioides*. *Proc. Natl. Sci. Counc. ROC B*. 23(3): 126-132.
- Lazarev, V.F., Guzhova, I.V. & Margulis, B.A., 2020. Glyceraldehyde-3-phosphate dehydrogenase is a multifaceted therapeutic target. *Pharmaceutics*. 12(5): 1-16. DOI: 10.339D/pharmaceutics12050416
- Li, J., Jin, S., Hsiang, T. & Goodwin, P., 2001. A novel actin-related protein gene of *Colletotrichum gloeosporioides* f. sp. *malvae* shows altered expression corresponding with spore production. *FEMS microbiology letters*. 197(2): 209-214. DOI: 10.1111/j.1574-6968.2001.tb10605.x.
- Liang, C., Zhang, B., Zhou, Y., Yin, H., An, B., Lin, D., He, C. and Luo, H., 2021. CgNPG1 as a novel pathogenic gene of *Colletotrichum gloeosporioides* from

- Hevea brasiliensis* in mycelial growth, conidiation, and the invasive structures development. *Frontiers in microbiology*, 12, p.629387.
- Liao, C.Y., Chen, M.Y., Chen, Y.K., Wang, T.C., Sheu, Z.M., Kuo, K.C., Chang, P.F.L., Chung, K.R. & Lee, M.H., 2012. Characterization of three *Colletotrichum acutatum* isolates from *Capsicum* spp. *European Journal of Plant Pathology*. 133: 599-608. DOI: 10.1007/s10658-011-9935-7.
- Liu, F., Tang, G., Zheng, X., Li, Y., Sun, X., Qi, X., Zhou, Y., Xu, J., Chen, H., Chang, X. & Zhang, S. 2016. Molecular and phenotypic characterization of *Colletotrichum* species associated with anthracnose disease in peppers from Sichuan Province, China. *Scientific reports*, 6(1): 1-17. DOI: 10.1038/srep32761
- Liu, K., Du, H., Zheng, T., Liu, W., Zhang, M., Liu, H., Zhang, X. & Si, C., 2021. Lignin-containing cellulose nanomaterials: preparation and applications. *Green Chemistry*. 23(24): 9723-9746. DOI: 10.1039/D1GC02841C
- Liu, Q., Luo, L. & Zheng, L., 2018. Lignins: biosynthesis and biological functions in plants. *International journal of molecular sciences*. 19(2): 1-16. DOI: 10.3390/ijms19020335
- Lopes, L.H.R., Boiteux, L.S., Rossato, M., Aguiar, F.M., Fonseca, M.E., Oliveira, V.R. & Reis, A. 2021. Diversity of *Colletotrichum* species causing onion anthracnose in Brazil. *European Journal of Plant Pathology*. 159(1): 339-357. DOI: 10.1007/s10658-020-02166-8
- Manzar, N., Kashyap, A.S., Maurya, A., Rajawat, M.V.S., Sharma, P.K., Srivastava, A.K., Roy, M., Saxena, A.K., & Singh, H.V. 2022. Multi-Gene Phylogenetic Approach for Identification and Diversity Analysis of *Bipolaris maydis* and *Curvularia lunata* Isolates Causing Foliar Blight of *Zea mays*. *J. Fungi*, 8(802): 1-29. DOI: 10.3390/jof8080802
- Matos, K.S.; Santana, K.F.A.; Catarino, A.M.; Hanada, R.E. 2017. First report of anthracnose on welsh onion (*Allium fistulosum*) in Brazil caused by *Colletotrichum theobromicola* and *C. truncatum*. *Plant Dis*. 2017, 101, 1055–1056.
- McKean, P.G., Vaughan, S. & Gull, K., 2001. The extended tubulin superfamily. *Journal of cell science*. 114(15): 2723-2733. DOI: 10.1242/jcs.114.15.2723.
- Montri, P., Taylor, P.W.J. & Mongkolporn, O., 2009. Pathotypes of *Colletotrichum capsici*, the causal agent of chili anthracnose, in Thailand. *Plant Disease*, 93(1): 17-20.

- Nilsson, R.H., Tedersoo, L., Ryberg, M., Kristiansson, E., Hartmann, M., Unterseher, M., Porter, T.M., Bengtsson-Palme, J., Walker, D.M., De Sousa, F. & Gamper, H.A., 2015. A comprehensive, automatically updated fungal ITS sequence dataset for reference-based chimera control in environmental sequencing efforts. *Microbes and environments*. 30(2): 145-150. DOI: 10.1264/jsme2.ME14121.
- Nova, M.V., Borges, L.R., De Sousa, A.C.B., Brasileiro, B.T.R.V., Lima, E.A.L.A., da Costa, A.F. & de Oliveira, N.T., 2011. Pathogenicity for onion and genetic diversity of isolates of the pathogenic fungus *Colletotrichum gloeosporioides* (Phyllachoraceae) from the State of Pernambuco, Brazil. *Genetics and Molecular Research*, 10(1): 311-320.
- O'Connell, R.J., Thon, M.R., Hacquard, S., Amyotte, S.G., Kleemann, J., Torres, M.F., Damm, U., Buiaite, E.A., Epstein, L., Alkan, N. & Altmüller, J., 2012. Lifestyle transitions in plant pathogenic *Colletotrichum* fungi deciphered by genome and transcriptome analyses. *Nature genetics*, 44(9), 1060-1065. DOI: 10.1038/ng.2372
- Oda, T., Iwasa, M., Aihara, T., Maéda, Y., & Narita, A. 2009. The nature of the globular-to fibrous-actin transition. *Nature*, 457(7228), 441–445. DOI: 10.1038/nature07685
- Op De Beeck, M., Lievens, B., Busschaert, P., Declerck, S., Vangronsveld, J. and Colpaert, J.V., 2014. Comparison and validation of some ITS primer pairs useful for fungal metabarcoding studies. *PloS one*, 9(6): 1-11. DOI: 10.1371/journal.pone.0097629.
- Panday, S.S., Alberto, R.T. & Labe, M.S. 2012. Ultrastructural characterization of infection and colonization of *Colletotrichum gloeosporioides* in onion. *Plant Pathol. Quar*, 2(0): 168-177. DOI: 10.5943/ppq/2/2/10
- Pangilinan, D.C.J.C., Alberto, R.T., Padilla, C.O. & Fiegalan, F. 2022. Influence of rainfall, relative humidity, and temperature on the damage caused by the anthracnose-twister of onion.
- Patil, S., Nargund, V.B., Hariprasad, K., Hegde, G., Lingaraju, S. & Benagi, V.I., 2018. Etiology of twister disease complex in onion. *International Journal of Current Microbiology and Applied Sciences*. 7(12): 3644-3657. DOI: 10.20546/ijcmas.2018.712.413

- Perez, P.M. & Alberto, R.T., 2020. Chemical Management of anthracnose—Twister (*Colletotrichum gloeosporioides* and *Fusarium fujikuroi*) disease of onion (*Allium cepa*) Plant Pathol. Quar, 10: 198-216. ISSN: 2229-2217.
- Piechaczyk, M., Blanchard, J.M., Marty, L., Dani, C., Panabieres, F., El Sabouty, S., Fort, P. & Jeanteur, P., 1984. Post-transcriptional regulation of glyceraldehyde-3-phosphate-dehydrogenase gene expression in rat tissues. Nucleic Acids Research. 12(18): 6951-6963. DOI: 10.1093/nar/12.18.6951
- Pramunadipta, S., Widiastuti, A., Wibowo, A. & Priyatmojo, A., 2021, February. Genetic diversity of the pathogenic fungus *Sarocladium oryzae* causing sheath rot on rice using rep-PCR. In IOP Conference Series: Earth and Environmental Science. 667(1): 1-7. DOI: 10.1088/1755-1315/667/1/012057
- Prihastuti, H., Cai, L., Chen, H., McKenzie, E.H.C. & Hyde, K.D., 2009. Characterization of *Colletotrichum* species associated with Coffee berries in northern Thailand. Fungal Diversity. 39(1): 89-109.
- Rabinowitch, H.D., 2021. Shallot (*Allium cepa* L. Aggregatum group) breeding. Advances in Plant Breeding Strategies: Vegetable Crops: Volume 8: Bulbs, Roots and Tubers: 99-154.
- Rademaker, J.L., Hoste, B., Louws, F.J., Kersters, K., Swings, J., Vauterin, L., Vauterin, P. & de Bruijn, F.J., 2000. Comparison of AFLP and rep-PCR genomic fingerprinting with DNA-DNA homology studies: *Xanthomonas* as a model system. International Journal of Systematic and Evolutionary Microbiology, 50(2): 665-677. DOI: 10.1099/00207713-50-2-665
- Reecha, J., Thiruvudainambi, S., Mareeswari, P., Oviya, R. & Vellaikumar, S. 2022. Morphological characterization of *Colletotrichum gloeosporioides* causing leaf twister blight disease in *Allium cepa* (onion). The Pharma Innovation Journal. 11(7):26-30. ISSN (E): 2277-7695
- Rodriguez-Salamanca, L.M., Enzenbacher, T.B., Derie, M.L., du Toit, L.J., Feng, C., Correll, J.C. and Hausbeck, M.K., 2012. First report of *Colletotrichum coccodes* causing leaf and neck anthracnose on onions (*Allium cepa*) in Michigan and the United States. Plant Disease. 96(5): 769-769.
- Safitri YA, Hasanah U, Salamiah, Samharianto & Pramudi MI. 2019. Distribution of major diseases of shallot in South Kalimantan, Indonesia. Asian J Agric 3 (2): 33-40. DOI: 10.13057/asianjagric/g030201.
- Salunkhe, V.N., Gedam, P., Pradhan, A., Gaikwad, B., Kale, R. and Gawande, S., 2022. Concurrent Waterlogging and Anthracnose-Twister disease in Rainy

- Season Onion (*Allium cepa*): Impacts and Management. *Frontiers in Microbiology*, p.4866.
- Santana, K.F.A.; Garcia, C.B.; Matos, K.S.; Hanada, R.E. 2016. First Report of Anthracnose Caused by *Colletotrichum spaethianum* on *Allium fistulosum* in Brazil. *Plant Dis.* 2016, 100, 1–3
- Sarianti., S. & Subandar I. 2022. The incidence and severity of anthracnose disease in onion Plant in Kampong Tanah Bara, Gunung Meriah District, Aceh Singkil Regency. *J Pertanian Agros* 24 (1): 202-210
- Sikirou, R., Beed, F., Hotègni, J., Winter, S., Assogba-Komlan, F., Reeder, R. and Miller, S.A., 2011. First report of anthracnose caused by *Colletotrichum gloeosporioides* on onion (*Allium cepa*) in Benin. *New Dis Rep*, 23(7): 583-584.
- Stergiopoulos I, Gordon TR. 2014 – Cryptic fungal infections: the hidden agenda of plant pathogens. *Frontiers in Plant Science* 5, article 506.
- Sujeeta, K.M., Shikha, M. & Khushboo, S., 2017. Isolation and screening of amylase producing fungi. *International Journal of Current Microbiology and Applied Sciences*, 6(4): 783-788.DOI: 10.20546/ijcmas.2017.604.098
- Sumarni, N., & Hidayat, A. 2005. Budidaya Bawang Merah. Balai Penelitian Tanaman Sayuran.
- Suryadi, Y., Priyatno, T.P., Samudra, I., Susilowati, D.N., Sriharyani, T.S. & Syaefudin, S., 2017. Control of anthracnose disease (*Colletotrichum gloeosporioides*) using nano chitosan hydrolyzed by chitinase derived from *Burkholderia cepacia* Isolate E76. *Jurnal AgroBiogen*. 13(2): 111-122.
- Syafitri, L.M., Wibowo, A., Widiastuti, A., Subandiyah, S. & Harper, S., 2023. Molecular identification of *Colletotrichum gloeosporioides* causing anthracnose on shallot in Bantul, Yogyakarta, Indonesia. *Biodiversitas Journal of Biological Diversity*. 24(8): 4530-4534. DOI: 10.13057/biodiv/d240855
- Tarze, A., Deniaud, A., Le Bras, M., Maillier, E., Mollé, D., Larochette, N., Zamzami, N., Jan, G., Kroemer, G. & Brenner, C. 2007. GAPDH, a novel regulator of the pro-apoptotic mitochondrial membrane permeabilization. *Oncogene*. 26(18): 2606-2620.
- Than, P.P., Jeewon, R., Hyde, K.D., Pongsupasamit, S., Mongkolporn, O. & Taylor, P.W.J., 2008. Characterization and pathogenicity of *Colletotrichum* species associated with anthracnose on chili (*Capsicum* spp.) in Thailand. *Plant pathology*, 57(3): 562-572.

- Tristan, C., Shahani, N., Sedlak, T.W., & Sawa, A. 2011. The Diverse Functions of GAPDH: Views from Different Subcellular Compartments. *Cell Signal* 23(2):317-23. DOI: 10.1016/j.cellsig.2010.08.003
- Velho, A.C., Mondino, P. & Stadnik, M.J., 2018. Extracellular enzymes of *Colletotrichum fructicola* isolates associated to apple bitter rot and Glomerella leaf spot. *Mycology*, 9(2): 145-154. DOI: 10.1080/21501203.2018.1464525
- Versalovic, J., Koeuth, T. & Lupski, R., 1991. Distribution of repetitive DNA sequences in eubacteria and application to fingerprinting of bacterial genomes. *Nucleic acids research*, 19(24): 6823-6831. DOI: 10.1093/nar/19.24.6823
- Vu, D., Groenewald, M., De Vries, M., Gehrman, T., Stielow, B., Eberhardt, U., Al-Hatmi, A., Groenewald, J.Z., Cardinali, G., Houbraken, J. & Boekhout, T. 2019. Large-scale generation and analysis of filamentous fungal DNA barcodes boosts coverage for kingdom fungi and reveals thresholds for fungal species and higher taxon delimitation. *Studies in mycology*. 92(1): 135-154. DOI: 10.1016/j.simyco.2018.05.001
- Walker, G.M., White, N.A. 2005. *Fungi Biology and Applications*. Wiley, England, pp1.
- Wang, Q., An, B., Hou, X., Guo, Y., Luo, H. and He, C., 2018. Dicer-like proteins regulate the growth, conidiation, and pathogenicity of *Colletotrichum gloeosporioides* from *Hevea brasiliensis*. *Frontiers in microbiology*, 8, p.2621.
- Wang, W., de Silva, D. D., Moslemi, A., Edwards, J., Ades, P. K., Crous, P. W., & Taylor, P. W. J. 2021. *Colletotrichum* species causing anthracnose of citrus in australia. *Journal of Fungi*. 7(1): 1–24. DOI: 10.3390/jof7010047
- Wang, Y., Chen, J.Y., Xu, X., Cheng, J., Zheng, L., Huang, J. & Li, D.W., 2020. Identification and characterization of *Colletotrichum* species associated with anthracnose disease of *Camellia oleifera* in China. *Plant disease*. 104(2): 474-482. DOI: 10.1094/PDIS-11-18-1955-RE.
- Weir, B.S., Johnston, P.R. & Damm, U., 2012. The *Colletotrichum gloeosporioides* species complex. *Studies in mycology*. 73(1): 115-180. Doi: 10.3114/sim0011.
- White, T.J., Bruns, T., Lee, S.J.W.T. & Taylor, J., 1990. Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics. *PCR protocols: a guide to methods and applications*, 18(1): 315-322.
- Widyaningsih, S., Utami, S. N. H., Joko, T., & Subandiyah, S. 2019. Plant Response and Huanglongbing Disease Development Against Heat Treatments on 'Siam Purworejo' (*Citrus nobilis* (Lour)) and 'Nambangan' (*C. maxima* (Burm.) Merr.)

- Under Field Condition. Archives of Phytopathology and Plant Protection, 52(3– 4), 259–276. DOI: 10.1080/03235408.2018.1544193
- Wikke, S., Cai, L., Pairin, N., McKenzie, E.H., Su, Y.Y., Chukeatirote, E., Thi, H.N., Bahkali, A.H., Moslem, M.A., Abdelsalam, K. & Hyde, K.D., 2011. *Colletotrichum* species from Jasmine (*Jasminum sambac*). Fungal Diversity, 46(1): 171-182. DOI: 10.1007/s13225-010-0049-x.
- Woudenberg, J.H.C., Aveskamp, M.M., De Gruyter, J., Spiers, A.G. & Crous, P.W., 2009. Multiple *Didymella* teleomorphs are linked to the *Phoma clematidina* morphotype. Persoonia-Molecular Phylogeny and Evolution of Fungi, 22(1): 56-62.
- Yakoby, N., Freeman, S., Dinoor, A., Keen, N.T. and Prusky, D., 2000. Expression of pectate lyase from *Colletotrichum gloeosporioides* in *C. magna* promotes pathogenicity. Molecular plant-microbe interactions, 13(8): 887-891.
- Yuan, C.Y., Huang, C.W., Lin, C.P. and Huang, J.H., 2023. First Report of Anthracnose-twister disease of Welsh onion caused by *Colletotrichum siamense* in Taiwan. Journal of General Plant Pathology. 1-5. DOI: 10.1007/s10327-023-01132-6
- Zhang, Y., An, B., Wang, W., Zhang, B., He, C., Luo, H. & Wang, Q., 2022. Actin-bundling protein fimbrin regulates pathogenicity via organizing F-actin dynamics during appressorium development in *Colletotrichum gloeosporioides*. Molecular Plant Pathology. 23(10): 1472-1486. DOI: 10.1111/mpp.13242
- Zhao, Z., Liu, H., Luo, Y., Zhou, S., An, L., Wang, C., Jin, Q., Zhou, M. & Xu, J.R., 2014. Molecular evolution and functional divergence of tubulin superfamily in the fungal tree of life. Scientific Reports. 4(1): 1-13. DOI: 10.1038/srep06746.