



- Apridamayanti, P., R. Pratiwi, Y. A. Purwestri, W. A. S. Tunjung, and Rumiyati. 2017. Anthocyanin Nutrient Content and Antioxidant Activity of Black Rice Bran of *Oryza sativa L.* 'Cempo Ireng' from Sleman, Yogyakarta, Indonesia. *Indonesian Journal of Biotechnology*. 22(1): 49-54.
- Arya, M., I. S. Shergill, M. Willianson, L. Gommersall, N. Arya, and H. R. H. Patel. 2014. Basic Principles of Real Time quantitative PCR. *Expert Review of Molecular Diagnostic*. 5(2). pp. 209-210.
- Bagnaresi, P., Biselli, C., Orru, L., Urso, S., Crispino, L. 2012. Comparative Transcriptome Profiling of the Early Response to *Magnaporthe oryzae* in Durable Resistant vs Susceptible Rice (*Oryza sativa L.*) Genotypes. *PLoS ONE*. 7(12). p. e51609.
- Balai Besar Penelitian Tanaman Padi, 2010, Mengenal Beras Hitam, <<http://pustaka.litbang.deptan.go.id/bppi/lengkap/bpp10031.pdf>>.
- Broeckling, C. D. Li, K., and Xie, D. 2012. Comparative Metabolomics of Transgenic Tobacco Plants (*Nicotiana tabacum* var. *Xanthi*) Reveals Differential Effects of Engineered Complete and Incomplete Flavonoid Pathways on the Metabolome. *Transgenic Plant*. 1(1). 379-383.
- De Caro, C. A. 2017. *UV/Vis Spectrophotometry – Fundamental and Application*. Mettler-Toledo. Ohio.
- Dong, X. 2004. NPR1, All Things Considered. *Current opinion in plant biology*. 7. pp. 547-552
- Elazegui, F., Islam, Z. 2009. Rice Blast [*Pyricularia grisea* (Cooke) Sacc.]. The International Rice Research Institute (IRRI).
- Erpen, L., H. S. Devi, J. W. Grosser, M. Dutt. 2018. Potential Use of the DREB/ERF, MYB, NAC, and WRKY Transcription Factors to Improve Abiotic and Biotic Stress in Transgenic Plants. *PCTOC*. 132(1). pp. 1-25.
- Ginanjar, E. F. 2016. Kajian Ketahanan Tanaman Padi Berpigmen (*Oryza sativa L.*) terhadap Penyakit Blas Melalui Pendekatan Transkriptomik dan Metabolomik. *Tesis*. Universitas Gadjah Mada. pp. 43-57.
- Gupta, S. K., Rai, A. K., Kanwar, S. S., Chand, D., Singh, N. K., and Sharma, T. R. 2012. "The Single Functional Blast Resistance Gene *Pi54* Activates a Complex Defence Mechanism in Rice". *Journal of Experimental Botany*. Vol. 63(2). pp. 757-772.



- Hayashi, N., Kobayashi, N., Cruz, C. M. V., and Fukuta Y. 2009. Protocols for the Sampling of Diseased Specimens and Evaluation of Blast Disease in Rice. In *Development and Characterization of Blast Resistance Using Differential Varieties in Rice*. Edited by Y. Fukuta, C. M. V. Cruz, and N. Kobayashi, Japan : JIRCAS Working Report No. 63. pp. 17-34.
- Handoyo, D., and A. Rudiretna. 2001. Prinsip Umum dan Pelaksanaan Polymerase Chain Reaction (PCR). *Unitas*. 9(1). p.19.
- Hong, Z., Shikai, L., Changyou, W., and Wanquan, J. 2018. The Role of Transcription Factor in Wheat Defense Against Pathogen and Its Prospect in Breeding. *Journal of Plant Biology and Crop Research*. 1. p. 1005.
- Holland, S. M. 2019. *Principal Component Analysis (PCA)*. Department of Geology, University of Georgia.
- Jacob, F., Vernaldi, S., and Maekawa, T. 2013. Evolution and Conservation of Plant NLR Functions. *Front Immunol*. 4(1). p. 297.
- Jones, J. D., and Dangl, J. L., 2006. Plant Immune System. *Nature*. 444(7117). pp. 323-329
- Kankanala, P., Czymbmek, K., and Valent, B. 2007. Roles for Rice Membrane Dynamics and Plasmodesmata during Biotrophic Invasion by the Blast Fungus. *Plant cell*. 19(1). pp. 707-724.
- Kim, S., Ahn, I. P., and Lee, Y. H. 2001. Analysis of Genes Expressed during Rice - *Magnaporthe grisea* interactions. *Molecular Plant-Microbe Interactions*. .14(11). pp. 1340-1346.
- Kristamtini, and Purwaningsih, H. 2009. "Potensi Pengembangan Beras Merah Sebagai Plasma Nutfah Yogyakarta". *Jurnal Litbang Pertanian*. Vol. 28(3). pp. 88-95.
- Lattanzio, V., Veronica, M., Lattanzio, T., and Cardinali, A. 2006. Role of Polyphenols in the Resistance Mechanisms of Plants against Fungal Pathogens and Insects. *Phytochemistry*. pp. 23-67.
- Livak, K. J., and Schmittgen, T. D. 2001. Analysis of Relative Gene Expression Data Using Real Time Quantitative PCR and the 2 CT Method. *Methods*. 25. pp. 402-408.
- Madaan, R., Bansal, G., and Sharma, A. 2011. "Estimation of Total Phenols and Flavonoids in Extracts of *Actaea spicata* Roots and Antioxidant Activity Studies. *Indian J. Parm Sci.* Vol. 73(6). pp. 666-669.
- Mantiri, P. K. 2019. Kajian Biokimiawi dan Anatomis Daun Padi (*Oryza sativa L.*) Berpigmen Tahan Blas (*Pyricularia grisea* Sacc.). *Tesis*. Universitas Gadjah Mada. pp. 45-67.



Mazid, M., Khan, T., Mohammad, F. 2011. Effect of Abiotic Stress on Synthesis of Secondary

Plant Products : A Critical Review. *Agricultural Research Review*. 32(1). pp. 172-182.

Park, S. W., Kaiyomo, E., Kumar, D., Mosher, S. L., and Klessig, D. F. 2007. Methyl Saicylate is a Critical Mobile Signal for Plant Systemic Acquired Resistance. *Science*. 318(1). pp. 113-116.

Pieterse, C. M. J., Leon-Reyes, A., Van der Ent, S., and van Wess, S. C. M. 2009. Networking by Small-Molecule Hormones in Plant Immunity. *Nature Chemical Biology*. 5(5). pp. 308-316.

Pumplin, N., and Voinnet, O. 2013. RNA Silencing Suppression by Plant Pathogens Defence, Counter-Defence, and Counter-Counter-Defence. *Nature Reviews Microbiology*. 11(1). pp. 745-760.

Rap-DB. 2016. Os01t0194300-01.

https://rapdb.dna.affrc.go.jp/viewer/gene_detail/irgsp1?name=Os01t0194300-01.

Roszman, A. Y., Howard, R. J., and Valent, B. 1990. *Pyricularia grisea*, the Correct Name for the Rice Blast Disease Fungus. *Mycologia*. 82(4). pp. 509-512.

Santos-Sanchez, N. F., Salas-Coronado, R., Hernandez-Carlos, B., and Villanueva-Canongo, C. 2018. *Shikimic Acid Pathway in Biosynthesis of Phenolic Acid*. Intechopen.

Schaller, A. 2008. *Induced Plant Resistance to Herbivory*. Springer.

Sitaresi, T., Wening, R. H., Rakhmi, A. T., Yunani, N., and Susanto, U. 2013. Pemanfaatan Plasma Nutfah Padi Varietas Lokal dalam Perakitan Varietas Unggul. *IPTEK Tanaman Pangan*. 8(1). 22-30.

Soemartono, B. S., Hardjono. 1984. *Bercocok Tanam Padi*. CV. Yasagua. Jakarta.

Spoel, S. H., and Dong, X. 2012. How do Plants Achieve Immunity? Defence Without Specialized Immune Cells. *Nature Reviews Immunology*. 12(1). pp. 89-100.

Susanto, H. 2014. "Kajian Komoditas Unggulan, Andalan, dan Potensial di Kabupaten Grobogan". *Journal of Rural and Development*. Vol. 5(1). p. 71.

Tan, J. W., Bednarek, P., Liu, H. K., Schneider, B., Svatos, A., and Hahlbrock, K. 2004. Universally Occurring Phenylpropanoid and Species-Specific Indolic Metabolites in Infected and Uninfected *Arabidopsis thaliana* Roots and Leaves. *Phytochemistry*. 65(1). pp. 691-699.

Taniguchi, M., and J. S. Lindley. 2017. Database of Absorption and Fluorescence Spectra of >300 Common Compounds for use in PhotochemCAD. *Photochemistry and Photobiology*. 94(1): 294-308.



- Profil Metabolit Sekunder dan Ekspresi Gen NPR1 Sebagai Gen Ketahanan Padi (*Oryza sativa L.* 'Cempo Iren')**
- DYON IDRYA PUTRA W P, Dr. Tri Rini Nuringtyas, M. Sc.
Universitas Gadjah Mada, 2021 | Diunduh dari <http://etd.repository.ugm.ac.id/>
- Tebeest, D. O., Guerber, C., and Ditmore, M. 2007. *Rice Blast*. The Plant Health Instructor
- Utami, D. W., Moeljopawiro, S., Aswidinnor, H., Setiawan, A., and Guhardja, E. 2005. Analisis Lokus Kuantitatif Sifat Ketahanan Penyakit Blas pada Populasi antar Spesies IR64 dan *Oryza rufipogon*. *Jurnal Bioteknologi Pertanian*. 10(1). pp. 7-14.
- USDA. 2017. *Classification for Kingdom Plantae Down to Species Oryza sativa L.*.
- Vergara, B. S. 1992. *A Farmer's Primer on Growing Rice*. International Rice Research Institute. Phillipines.
- Wicinski, M., J. Gebalski, E. Mazurek, M. Podhorecka, M. Sniegocki, P. Szchyta, E. Sawicka, and B. Malinowski. 2020. The Influence of Polyphenol Compounds on Human Gastrointestinal Tract Microbia. *Nutrients*. 12(1). pp. 1-15.
- Wang, D., Amornsiripanitch, N. and Dong, X. 2006. A genomic approach to identify regulatory nodes in the transcriptional network of systemic acquired resistance in plants. *PLoS Pathogens* 2(11): 1042-1050.
- Xiao, K., X. Mao, Y. Lin, H. Xu, Y. Zhu, Q. Cai, H. Xie, and J. Zhang. 2017. Trichome, a Functional Diversity Phenotype in Plant. *Mol Biol*. 6(1): 1-6
- Yang, S., Li, J., Zhang, X., Zhang, Q., Huang, J., Chen, J. Q. 2013. Rapidly Evolving R genes in Diverse Grass Species Confer Resistance to Rice Blast Disease. *Proc. Natl. Acad. Sci.* 110(1). pp. 18572-18577
- Zhu, R., Z. Fan, Y. Han, S. Li, G. Li, L. Wang, T. Ye, and W. Zhao. 2019. Acute Effects of Three Cooked Non-Cereal Starchy Foods on Posprandial Glycemic Responses and In Vitro Carbohydrate Digestion in Comparison with Whole Grains: A Randomized Trial. *Nutrient*. 11(3): 634.