

DAFTAR PUSTAKA

- Arif, N. A. 2021. Karakterisasi morfologi dan genetik jeruk keprok selayar (*Citrus reticulata Blanco*) asal Kabupaten Selayar dan Kabupaten Bantaeng dengan marka molekuler *Simple Sequence Repeat (SSR)*. Disertasi. Universitas Hasanuddin, Makassar.
- Arifah, N., Hanum, L., & Muharni, M. 2024. DNA mutation of Rc gene and the phenotype of aleurone and pericarp of local red rice from South Sumatera. *Engineering Headway*, 3, 15-20.
- Aristya, V. E., & Taryono, T. 2019. Pemuliaan tanaman partisipatif untuk meningkatkan peran varietas padi unggul dalam mendukung swasembada pangan nasional. *Agrotechnology Innovation (Agrinova)*, 2(1): 26-35.
- Asif, S., Khan, M., Arshad, M. W., & Shabbir, M. I. 2021. PCR optimization for beginners: a step by step guide. *Research in Molecular Medicine*, 9(2): 81-102.
- Benchimol-Reis, L. L. 2009. *Molecular markers in plant breeding*. *Journal of Agricultural Science*, 15(3): 58–65 (On-line). <https://doi.org/10.5539/jas.v15n3p58> diakses pada 27 Oktober 2025.
- Buchori, A., Firmansah, H., Anika, M., Ratnawati, S., Ulfa, U. T., & Zendrato, Y. 2023. Komparasi metode ekstraksi DNA menggunakan daun padi. *Agriculture and Biological Technology*, 1(1): 40-50.
- Carsono, N., Prayoga, G. I., Rostini, N., & Dono, D. 2016. Seleksi berbasis marka molekuler pada padi generasi F2 guna merakit galur padi harapan tahan wereng coklat. *Agrikultura*, 27(1): 9-15.
- Carsono, N., Rakhmi, A. T., & Santoso, T. J. 2016. Analisis keragaman genetik plasma nutfah padi menggunakan marka SSR. *Jurnal AgroBiogen*, 12(1): 1–10.
- Carsono, N., Supiandi, M. I., & Junaedi, A. 2016. *Application of SSR markers in rice (Oryza sativa L.) breeding for character identification and diversity analysis*. *Indonesian Journal of Agricultural Science*, 21(1): 35–44.
- Collard, B.C.Y., & Mackill, D.J. 2008. Marker-assisted selection: an approach for precision plant breeding in the twenty-first century. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 363(1491): 557–572 (On-line). <https://doi.org/10.1098/rstb.2007.2170> diakses pada 27 Oktober 2025.

- Desjardins, P., & Conklin, D. 2010. NanoDrop microvolume quantitation of nucleic acids. *Journal of Visualized Experiments*, (45) :2565.
- Dwiatmini, K., & Afza, H. 2018. Karakterisasi kadar antosianin varietas lokal padi warna sebagai SDG pangan fungsional. *Buletin Plasma Nutfah*, 24(2): 125-134.
- Hasanah, N., Violita, V., & Achyar, A. 2023. Analysis of genetic variations in bHLH protein (Rc) gene sequences in rice (*Oryza*) NCBI PopSet 2496581476 using in-silico RFLP. *Tropical Genetics*, 3(2): 60-65.
- Imas, S., Ardiansyah, R., & Setyowati, A. 2013. Karakterisasi warna dan kandungan pigmen padi hitam lokal Indonesia. *Jurnal Pertanian Tropika*, 4(2): 123–130.
- Imas, Supriyanta, dan Subejo. 2013. Keragaman warna gabah dan warna beras varietas lokal padi beras hitam yang di budidayakan oleh petani Kabupaten Sleman, Bantul, dan Magelang. *J. Vegetalika*. 2(3):13-20
- Innis, M. A., & Gelfand, D. H. 1990. PCR protocols: A guide to methods and applications. Academic Press.
- Kanagawa, T. 2003. Bias and artifacts in multitemplate polymerase chain reactions (PCR). *Journal of Bioscience and Bioengineering*, 96(4): 317–323.
- Kementerian Pertanian Republik Indonesia. 2024. *Basis data statistik pertanian: produksi padi 2020-2023*. Pusat Data dan Sistem Informasi Pertanian (Online). <https://bdsp2.pertanian.go.id/bdsp/> diakses pada 9 Oktober 2025.
- Khoo, H. E., Azlan, A., Tang, S. T., & Lim, S. M. 2017. Anthocyanidins and anthocyanins: colored pigments as food, pharmaceutical ingredients, and the potential health benefits. *Food & Nutrition Research*, 61(1): 1361779 (Online). <https://pmc.ncbi.nlm.nih.gov/articles/PMC5613902> diakses pada 13 Oktober 2025.
- Li, J., Li, X.D., Zhang, Y., Zheng, Z.D., Qu, Z.Y., Liu, M., Zhu, S.H., Liu, S., Wang, M. & Qu, L. 2013. Identification and thermal stability of purple-fleshed sweet potato anthocyanins in aqueous solutions with various pH values and fruit juices. *Food Chemistry*, 136 (3-4): 1429-1434.
- Liu, B., Wu, H., Cao, Y., Ma, G., Zheng, X., Zhu, H., & Sui, S. 2025. Reducing costs and shortening the cetyltrimethylammonium bromide (CTAB) method to improve DNA extraction efficiency from wintersweet and some other plants. *Scientific Reports*, 15(1): 13441.

- Lobo, V., Patil, A., Phatak, A. & Chandra, N. 2010. Free radicals, antioxidants and functional foods: Impact on human health. *Pharmacognosy Reviews*, 4(8): 118-126.
- McCouch, S. R., Teytelman, L., Xu, Y., Lobos, K. B., Clare, K., Walton, M., & Zhang, Q. 2002. Development and mapping of 2240 new SSR markers for rice (*Oryza sativa* L.). *DNA Research*, 9(6): 199–207.
- Nair Jayakumar, R., & Pandey Kumar, M. 2024. Role of molecular markers in crop breeding: A review. *Agricultural Reviews*, 45(1): 52-59 (On-line). <https://doi.org/10.18805/ag.R-2322> diakses pada 27 Oktober 2025.
- Nugroho, K., Trikoesoemaningtyas, M. S., & Lestari, P. 2021. Variasi nukleotida pada genotipe mutan cabai hasil iradiasi sinar gama berdasarkan primer spesifik gen terkait karakter ukuran buah. *Jurnal AgroBiogen*, 17(2): 83-94.
- Pasaribu, S. F., Wiboworini, B., & Kartikasari, L. R. 2021. Analisis antosianin dan flavonoid ekstrak kecambah beras hitam. *Jurnal Dunia Gizi*, 4(1): 08-14.
- Pervaiz, Z. H., Rabbani, M. A., Pearce, S. R., & Malik, S. A. 2009. Determination of genetic variability of Asian rice (*Oryza sativa* L.) varieties using microsatellite markers. *African Journal of Biotechnology*, 8(21).
- Ponnappan, S., Thangavel, A., & Sahu, O. 2017. Anthocyanin, lutein, polyphenol contents and antioxidant activity of black, red and white pigmented rice varieties. *Food Science and Nutrition Studies*, 1(1): 43-48.
- Purnomo, D., & Utami, P. N. 2019. Analisis produksi padi di Indonesia. In *Prosiding University Research Colloquium*, 224-230.
- Rahayu, S., Suryadi, E., & Nugroho, S. 2019. Analisis kekerabatan genetik varietas padi menggunakan marka SSR. *Jurnal AgroBiogen*, 15(2): 83–92.
- Rasheed, A., Hao, Y., Xia, X., Khan, A., Xu, Y., Varshney, R. K., & He, Z. 2017. Crop breeding chips and genotyping platforms: Progress, challenges, and perspectives. *Molecular Plant*, 10(8): 1047-1064 (On-line). <https://doi.org/10.1016/j.molp.2017.06.008> diakses pada 27 Oktober 2025.
- Rohlf, F. J. 1988. NTSYS-pc: numerical taxonomy and multivariate analysis system. Exeter Publishing.
- Rosanti, D. 2016. Taksonomi gulma padi (*Oryza sativa*) di areal persawahan Jakabaring Palembang. Sainmatika: *Jurnal Ilmiah Matematika dan Ilmu Pengetahuan Alam*, 13(1): 46-51.
- Rusman, M. A. A., Darsono, D., & Antriyandarti, E. 2023. Analisis forecasting

produksi padi di Indonesia. Fakultas Pertanian, Universitas Jenderal Soedirman, Purwokerto.

Sabatini, S. D., Budihastuti, R., Suedy, S. W. A., & Subagio, A. 2021. Produksi dan kandungan antosianin pada padi beras merah setelah pemberian pupuk nanosilika. *Buletin Anatomi dan Fisiologi*, 6(1): 81-89. <https://ejournal2.undip.ac.id/index.php/baf/index>.

Sambrook, J., & Russell, D. W. 2001. *Molecular Cloning: A Laboratory Manual* (3rd ed.). Cold Spring Harbor Laboratory Press.

Shozib, H. B., Islam, M. M., Mahmud, S. A. S., Bari, M. N., Akter, N., Jahan, S., & Haque, M. M. 2021. Application of Cyanidin-3-Glucosides as a functional food ingredient in rice-based bakery products. *Saudi Journal of Biological Sciences*, 28(12): 7472-7480.

Sompong, R., Siebenhandl-Ehn, S., Linsberger-Martin, G., & Berghofer, E. 2011. Physicochemical and antioxidative properties of red and black rice varieties from Thailand, China, and Sri Lanka. *Food Chemistry*, 124(1): 132–140.

Sudarwati, S. 2020. Prospek pengembangan beras hitam di Kabupaten Brebes, Jawa Tengah. *Prosiding Seminar Nasional Kesiapan Sumber Daya Pertanian dan Inovasi Spesifik Lokasi Memasuki Era Industri*, 4 (1): 508-512.

Supratman, A. R., & Purwantoro, A. 2021. Karakterisasi tanaman keladi hias (*Caladium* spp.) berdasarkan penanda molekuler RAPD. *Vegetalika*, 10(4): 287-298.

Sweeney, M. T., Thomson, M. J., Cho, Y. G., Park, Y. J., Williamson, S. H., Bustamante, C. D., & McCouch, S. R. 2006. Global dissemination of a single mutation conferring white pericarp in rice. *PLoS Genetics*, 3(8): 133 (Online). <https://doi.org/10.1371/journal.pgen.0030133> diakses pada 9 Oktober 2025.

Sweeney, M. T., Thomson, M. J., Pfeil, B. E., & McCouch, S. 2006. Caught red-handed: Rc encodes a basic helix–loop–helix protein conditioning red pericarp in rice. *The Plant Cell*, 18(2): 283–294.

Syamsuddin, M. 2010. *Pemuliaan tanaman padi: Teori dan aplikasi*. Yogyakarta: Gadjah Mada University Press.

Temnykh, S., Park, W. D., Ayres, N., Cartinhour, S., Hauck, N., Lipovich, L., & McCouch, S. R. 2000. *Mapping and genome organization of microsatellite sequences in rice (Oryza sativa L.)*. Theoretical and Applied Genetics, 100, 697–712. <https://doi.org/10.1007/s001220051342> diakses pada 5 November 2025.

- Terryana, R. T., Ningrum, N. D. S. A., Nugroho, K., Saptadi, D., Kurniawan, H., & Lestari, P. 2020. Analisis keragaman genetik dan pengembangan profil sidik jari DNA 20 varietas cabai lokal Indonesia berdasarkan marka SSR. *Jurnal AgroBiogen*, 16(2): 45-58.
- Thermo Fisher Scientific. 2017. *PCR cycling parameters—six key considerations for success*. (Online). Diakses dari <https://www.thermofisher.com/> pada 28 Juli 2025.
- Utami, D. W., Ilhami, A., & Hanarida, I. 2010. Sidik jari DNA plasma nutfah padi lokal menggunakan marka molekuler spesifik untuk sifat padi beras merah [DNA fingerprinting of local rice germplasm using the specific markers for red rice]. *Berita Biologi*, 10(2): 60-65.
- Varma, A., Padh, H., & Shrivastava, N. 2007. Plant genomic DNA isolation: An art or a science. *Biotechnology Journal*, 2(3): 386–392.
- Varshney, R. K., Graner, A., & Sorrells, M. E. 2005. Genic microsatellite markers in plants: Features and applications. *Trends in Biotechnology*, 23(1): 48–55 (On-line). <https://doi.org/10.1016/j.tibtech.2004.11.005> diakses pada 27 Oktober 2025.
- Wahyuningsih, S., Astuti, M., & Wibowo, A. 2020. Potensi beras berpigmen sebagai pangan fungsional dan sumber antioksidan alami. *Jurnal Pangan dan Gizi*, 15(2): 105–114.
- Wanarsih, A. Respatijarti, Damanhuri. 2017. Karakterisasi beberapa genotipe padi (*Oryza stavia* L.) berkadar antosianin tinggi. *Jurnal Produksi Tanaman*, 5(17): 1070-1076.
- Wang, C., Shu, Q., & Zhang, R. 2014. Genetic basis of anthocyanin biosynthesis in rice (*Oryza sativa* L.): A review. *Agricultural Sciences*, 5, 122–128.
- Wibowo, A., & Nugraha, Y. 2020. Hubungan kekerabatan genetik varietas padi lokal dan unggul dengan marka SSR. *Jurnal Penelitian Pertanian Indonesia*, 8(3): 125–132.
- Wilson, I. G. 1997. Inhibition and facilitation of nucleic acid amplification. *Applied and Environmental Microbiology*, 63(10): 3741–3751.
- Zeng, S., Wu, M., Liu, Y., Pan, X., & Liang, D. 2020. Study on pH Sensitivity of Black Rice Anthocyanin and Its Antioxidant Activity. *Food Research and Development*, 41(5): 28–34 (On-line). <https://qikan.cmes.org/bzyspjx/EN/10.3969/j.issn.1005-1295.2020.05.004> diakses pada 13 Oktober 2025.

- Zhang, J., Yang, J., Lv, Y. 2023. Genetic diversity analysis and variety identification using SSR and SNP markers in melon. *BMC Plant Biology*, 23, 39 (On-line). <https://doi.org/10.1186/s12870-023-04056-7> diakses pada 27 Oktober 2025.
- Zhang, P., Li, J., Li, X., Liu, X., Zhao, X., & Lu, Y. 2011. Population structure and genetic diversity in a rice core collection (*Oryza sativa* L.) investigated with SSR markers. *PloS one*, 6(12), e27565.
- Zhao, Y., Li, J., Liu, S., Wang, Y., Zhang, X., & Lu, L. 2025. Composition and Biological Activity of Colored Rice. *Foods*, 14(8): 1394 (On-line). <https://www.mdpi.com/2304-8158/14/8/1394> diakses pada 13 Oktober 2025.
- Zheng, H. X., Qi, S. S., He, J., Hu, C. Y., Han, H., Jiang, H., & Li, X. S. 2020. Cyanidin-3-glucoside from black rice ameliorates diabetic nephropathy via reducing blood glucose, suppressing oxidative stress and inflammation, and regulating transforming growth factor β 1/Smad expression. *Journal of agricultural and food chemistry*, 68(15): 4399-4410.

