

## DAFTAR PUSTAKA

- Ahamadi, J., M.H. Fotokian, dan S. Fabriki-Orang. 2008. Detection of QTLs Influencing Panicle Length, Panicle Grain Number, and Panicle Grain Sterility in Rice (*Oryza sativa* L.). *Journal Crop Science Biotech* 11:163-170.
- Ali, M.L., P.L.Sanchez., Si-bin Yu., M. Lorieux., dan G. C. Eizenga. 2010. Chromosome Segment Substitution Lines : A Powerful Tool for the Introgression of Valuable Genes From *Oryza* Wild species into Cultivated Rice ( *O. sativa*). *Rice* 3:218-234.
- Azwir dan Ridwan.2009. Peningkatan Produktivitas Padi Sawah dengan Perbaikan Teknologi Budidaya. *Akta Agrosia* 12 : 212-218.
- Badan Litbang Pertanian. 2000. Deskripsi Varietas Ciherang. <<http://www.litbang.pertanian.go.id/varietas/one/130/>> . Kementerian Pertanian, Republik Indonesia diakses pada Jum'at, 25 Desember 2015.
- Badan Pusat Statistik. 2015. Produksi, Luas Panen, dan Produktivitas Padi dan Palawija di Indonesia Tahun 2014-2015. BPS, Indonesia.
- Bishwas, N., M. Sharma., A. Hasan., S. Akbar., dan N. Sharma. 2016. Improvement of rice crop by marker-assisted backcross method. *IRJET* 3: 1851-1858.
- Chaudari, P. R., B. Sharma., M. Parikh., dan D. Sharma. 2014. Designer Rice: New Concept for Climate Change. *RRST* 6:46-47.
- Christianto, E. 2013.Faktor yang Memengaruhi Volume Impor Beras di Indonesia. *Jurnal JIBEKA* 7 : 38-43.
- Dai, Z., Q. Lu., L. Quyang., J. Guo., J. Liang., H. Zhou *et al.* 2016. Development of a platform for breeding by design of CMS restorer lines based on an SSSL library in rice (*Oryza sativa* L.). *Breeding Science Preview* 1-8.
- Djamhari, S. 2009. Peningkatan Produksi Padi di Lahan Lebak sebagai Alternatif dalam Pengembangan Lahan Pertanian ke Luar Pulau Jawa. *Jurnal Sains dan Teknologi Indonesia* 11 ; 64-69.
- Dong, X., X.Wan., L. Zhang., Z. Yang, X. Yin *et al.*2013. Identification and characterization of OsEBS, a gene involved in enhanced plant biomass and spikelet number in rice. *Plant Biotechnology Journal* 11:1044-1057.
- Ebitani T, Takeuchi Y, Nonoue Y, Yamamoto T, Takeuchi K,Yano M. 2005. Construction and evaluation of chromosome segment substitution lines carrying overlapping chromosome segments of indica rice cultivar 'Kasalath' in a genetic background of japonica elite cultivar 'Koshihikari'.*BreedSci* 55:65-73.
- Furuta, T., K. Uehara., R. B. Angeles-Shim, J. Shim., M. Ashikari., dan T. Takashi. 2014. Development and evaluation of chromosome segment substitution lines (CSSLs) carrying chromosome segments derived from *Oryza rufipogon* in the genetic background of *Oryza sativa* L. *Breeding Science* 63:468-475.

- Goff, S.A., D.Ricke., T.H. Lan., G. Presting., R.Wang., M. Dunn, *et al.* 2002. A draft sequence of the Rice Genome (*Oryza sativa* L. ssp. Japonica). *Science* 296 : 92-100.
- Haley, C.S. and S.A. Knott. 1992. A simple regression method for mapping quantitative trait loci in line crosses using flanking markers. *Heredity* 69:315-324
- Hao, W., Jin, J., Sun, S.Y., Zhu, M.Z. & Lin, H.X. 2006. Construction of chromosome segment substitution lines carrying overlapping chromosome segments of the whole wild rice genome and identification of quantitative trait loci for rice quality. *J. Plant Physiol. Mol. Biol.* 32, 354–362
- Huang, X., T. Lu., dan B. Han. 2013. Resequencing rice genomes: an emerging new era of rice genomics. *Elsevier Inc.* 29:225-232.
- Jiang, G. L. 2013. Molecular markers and markers –assisted breeding in plants. *Intech.*
- Jin, J., W.Huang., J.P. Gao., J.Yang., M. Shi., M.Z. Zhu., D. Luo., dan H.X. Lin. 2008. Genetic Control of rice plant architecture under domestication. *Nature Genetics* 40 : 1365-1369.
- Kanawapee, N., J. Sanitchen., P. Srihaban., dan P. Theerakulpisut. 2011. Genetic diversity analysis of rice cultivars (*Oryza sativa* L.) differing in salinity tolerance based on RAPD and SSR Markers. *Electronic Journal of Biotechnology* 1-17.
- Kantety, R.V., M.L. Rota., D.E. Matthews., dan M.E. Sorrells. 2002. Data mining for simple sequence repeats in expressed sequences tags from barley, maize, rice., sorghum, and wheat. *Plant Molecular Biology* 48:501-510.
- Kaur, S., P. S. Panesar., M. B. Bera, dan V. Kaur. 2015. Simple sequence repeat marker in genetic divergence and marker-assisted selection of rice cultivars. *Food Science and Nutrition* 55: 41-49.
- Khan, M.H., Z.A. Dar., dan S. A. Dar. 2015. Breeding Strategies for Improving Rice Yield-A Review. *Agricultural Science* 6 : 467-478.
- Khush, G.S., dan D.S. Brar. 2001. Rice Genetics From Mendel to Functional Genomics. *Rice Genetics IV, IRRI.*
- Kurata, N., K.I. Nonomura., dan Y. Harushima. 2002. Rice Genome Organization: the Centromere and Genome Interactions. *Annals of Botany* 90:427-435.
- Latif, M.A., G. Miah., M.Y. Rafii., M.R. Ismail., A.B. Puteh., H.A. Rahim., dan K.N. Islam. 2013. A Review of Microsatellite Markers and Their Application in Rice Breeding Programs to Improve Blast Disease Resistance.
- Li, X., W.Wang., Z. Wang., K.Li., Y.P. Lim., dan Z. Piao. 2015. Construction of Chromosome segment substitution lines enables QTL mapping for Flowering and morphological trait in *Brassica rapa*. *Frontiers in Plant Science* 6 : 1-13.
- Makarim, A.K, dan E. Suhartatik. 2009. Morfologi dan Fisiologi Tanaman Padi. *BB Padi.*
- Marliah, A., T. Hidayat., dan N. Husna. 2012. Pengaruh varietas dan jarak tanam terhadap pertumbuhan kedelai. *Jurnal Agrista* 22-28.



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**SELEKSI BERBANTUAN PENANDA PADA GENERASI BC<sub>3</sub>F<sub>3</sub> HASIL PERSILANGAN CIHERANG DENGAN GALUR B11143D UNTUK PEMILIHAN GALUR CSSL YANG MEWAKILI KROMOSOM 5 SAMPAI 8**

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- McCouch, S.R., X.S. Chen Temnykh., Y. Xu., dan Y.G. Cho. 1997. Development of a Microsatellite framework map providing genome-wide coverage in rice (*Oryza sativa* L.). *Theory of Applied Genetics* 95 : 553-567.
- Rahmah, S. 2015. Aplikasi Penanda SSR Pada Populasi BC<sub>2</sub>F<sub>1</sub> Hasil Persilangan Antara 'Ciherang' dan Tetua Donor Galur B11143D dalam Pembentukan Panel CSSL. Fakultas Pertanian. Laporan Kerja Lapangan.
- Ramos, J.M, Furuta, T., Uehara, K., Chihiro N, Rosalyn, B. A., Shim, J *et al.* 2015. Development of chromosome segment substitution lines (CSSLs) of *Oryza longistaminata* A. Chev and Rohr in the background of the elite *japonica* rice cultivar, Taichung 65 and their evaluation for yield traits. *Euphytica*, 210: 151-163.
- Rani, P.J., P.V. Satyanarayana, N. Chamundeswari., dan M.G. Rani. 2014. A Review on Marker Assisted Selection in Crop Improvement. *International Journal of Applied Biology and Pharmaceutical Technology* 5 : 271-281.
- Septiningsih, E.M., N. Hidayatun., D.L. Sanchez, Y. Nugraha., J. Carandang., A. M. Pamplona *et al.* 2014. Accelerating the development of new submergence tolerant rice varieties: the caase of Ciherang-Sub1 and PSB Rc18-Sub1. *Euphytica*, Springer.
- Sharma, d. G.Z. Sanghera, P. Sahu., P. Sahu., M. Parikh., B. Sharma., S. Bhandarkar., P.R. Chaudhari., dan B. K. Jena. 2013. Tailoring Rice Plants for Sustainable Yield Through Ideotype Breeding And Physiological Interventions. *African Journal of Agricultural Research* 8 : 5004-5019.
- Singh, B.D, dan A.K. Singh. 2015. *Marker-Assisted Plant Breeding : Principles and Practices*. Springer, New Delhi.
- Subudhi, P.K., T.D. Leon., P.K. Singh., A. Parco., M.A. Cohn., dan T. Sasaki. 2015. A Chromosome Segment Substitution Library of Weedy Rice for Genetic Dissection of Complex Agronomic and Domestication Traits. *PlosOne* 1-22.
- Suprihatno, B. dan A.A. Daradjat. 2009. Kemajuan dan Ketersediaan Varietas Unggul Padi. <[http://www.litbang.pertanian.go.id/special/padi/bbpadi\\_2009\\_itkp\\_12.pdf](http://www.litbang.pertanian.go.id/special/padi/bbpadi_2009_itkp_12.pdf)>> diakses pada Jum'at, 25 Desember 2015.
- Susanto, U., Aswidinnoor, H. ,Koswara,J., Setiawan, A., Lopena, V., Torizo, L. and Parminder, V. S. 2008. QTL mapping of yield, yield components, and morphological traits in rice (*Oryza sativa* L.) using SSR marker. *Bull Agron* 36:188–195.
- Susanto, U., Sutrisno., dan H. Aswidinnoor. 2009. Pemanfaatan Teknik Markah Molekuler Untuk Perbaikan Varietas Padi. Balai Besar Penelitian Tanaman Padi dan BB Biogen, Bogor.
- Susilowati, M., P. Basunanda, W. Enggarini, Ma'sumah, dan K. R. Trijatmiko. 2014. *Jurnal AgroBiogen* 10 : 85-92.
- Syukur, M., Sriani S., dan Rahmi Y. 2012. *Teknik Pemuliaan Tanaman*. Penebar Swadaya, Jakarta.
- Takai, T., Y. Nonue., S. Yamamoto., U. Yamanouchi., K. Matsubara., Z. Liang., H. Lin., N. Ono., Y. Uga., dan M. Yano. 2007. Development of Chromosome Segment Substitution Lines Derived from Backcross between *indica* Donor Rice Cultivar

'Nona Bokra' and *japonica* Recipient Cultivar 'Koshihikari'. *Breeding Science* 57 : 257-261.

- Tipka, J. 2011. Proyeksi Penduduk Berlipat Ganda Di Kabupaten Maluku Tengah. *Jurnal Berekeng* 5 : 31-34.
- Tripathi, K.K., Govilla, O.P., Warriar, R. , dan Ahuja, V. 2011. *Biology of Oryza Sativa L. (Rice)*. Department of Biotechnology and Ministry of Environment and Forest, India.
- Upadhyana, N.M. 2007. *Rice Functional Genomics (Challenges, Progress, and Prospect)*. Springer, USA.
- Wan, X., J. Weng., H. Zhai., J. Wang., C. Lei., X. Liu., *et al.* 2008. Quantitative trait loci (QTL) analysis for rice grain width and fine mapping of an identified QTL allele *gw-5* in a recombination hotspot region on chromosome 5. *Genetics* 179 : 2239-2252.
- Widyawan, M.H., P. Basunanda, dan W. Enggarini. 2014. Analisis Genotipik Individu BC<sub>1</sub>F<sub>1</sub> Dalam Pembentukan Populasi Padi (*Oryza sativa* L.) CSSL (*Chromosome Segment Substitution Lines*) Berbasis 'Ciherang' Dengan Donor Galur Tipe Baru. Universitas Gadjah Mada, Yogyakarta.
- Wu, B., Z. M. Han., Z. X. Lin, dan Y.Z. Xing. 2012. Discovery of QTLs increasing yield related traits in common wild rice. *PubMed* 34:215.
- Xiao, J., J. Li., S. Grandillo, S. N. Ahn., L. Yuan., S. D. Tanksley., dan S. R. McCouch. 1998. Identification of trait improving quantitative trait loci alleles from a wild rice relative *Oryza rufipogon*. *Genetics* 150: 899-909.
- Xu, J., Q. Zhao., P. Du., C. Xu., B. Wang., Q. Feng., Q. Liu., S. Tang., M. Gu., B. Han., dan G. Liang. 2010. Developing high throughput genotyped chromosome segment substitution lines based on population whole –genome re-sequencing in rice (*Oryza sativa* L.). *BMC Genomics* 11 : 1-14.
- Ying, J.Z., Y.Y. Chen., dan H.W. Zhang. 2014. Functional Characterization of Genes/QTLs for Increasing Rice Yield Potential. *Intech* 177-194.
- Yoo, J. H., S. C. Yoo., H. Zhang., S.H. Cho., dan N.C. Paek. 2007. Identification of QTL for early heading date of H143 in Rice. *Journal Crop Science Bioetech* 10:243-248.
- Zhai, H., W. Gong., Y. Tan., A. Liu., W. Song., J. Li *et al.* 2016. Identification of Chromosome Segment Substitution Lines of *Gossypium barbadense* Introgressed in *G.hirsutum* and Quantitative Trait Locus Mapping for Fiber Quality and Yield Traits. *Plos One* 1-14.
- Zhan, X., B. Sun., Z. Lin., Z. Gao., P. Yu., Q. Liu., X. Shen., Y. Zhang., *et al.* 2015. *Elsevier* 571 : 263-270.
- Zhang, N., Y. Xu., M. Akash, S. McCouch., dan J. H. Oard. 2005. Identification of candidate markers associated with agronomic traits in rice using discriminant analysis.
- Zhang., Z., Deng, Y., Tan, J., Hu, S., Yu, J., dan Xue, Q. 2007. A genome-wide microsatellite polymorphism database for the indica and japonica rice. *DNA Res* 14:37-45.



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Zhang, Y.S., Jiang, Liu., S.Liu., L. Chen., H. Zhai., and J. Wan. 2011. Heading date QTL in rice derived from an analysis of Chromosome Segment Substitution Lines. Plant Breeding 130: 185-191.

Zibae, A. 2013. Rice : Importance and Future. Rice Research: Open Access, 1:2.