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DAFTAR PUSTAKA

Behuku, W. M., Kastanya, A., & Pattimahu, D. V. 2016. Analisis Nilai Tambah Ekonomi (Economy Value Added) untuk Mengukur Kinerja Keuangan Petani Minyak Kayu Putih Desa Pela dan Batu Jungku di Wilayah Kerja Kesatuan Pengelolaan Hutan Produksi (KPHP) Model Unit III Wae Tina. *Jurnal Hutan Pulau-Pulau Kecil*, 1(1), 66-71.

Boland, D.J., 2006. *Forest Trees Of Australia*. CSIRO publishing.

Brophy, J.J. and Doran, J.C. 1996. *Essential Oils of Tropical Asteromyrtus,Callistemon and Melaleuca Species: In Search of Interesting Oils with Commercial Potential*. ACIAR Monograph No. 40. Canberra: ACIAR

Brophy, J.J., Craven, L.A. and Doran, J.C. 2013. *Melaleucas: Their Botany, Essential Oils And Uses*. ACIAR Monograph No. 156. Australian Centre for International Agricultural Research, Canberra.

Cornelius, J., 1994. Heritabilities and Additive Genetic Coefficients of Variation in Forest Trees. *Canadian journal of forest research*, *24*(2), pp.372-379.

Cotterill, P.P., and Dean, C. A. 1990. *Succesfull Tree Breeding with Index Selection*. CSIRO Division of Forestry and Forest Product. Australia.

Craven, L.A. and Barlow, B.A., 1997. New Taxa and New Combinations in Melaleuca (Myrtaceae). *Novon*, pp.113-119.

Dewanto, P. K., Supriyadi, S., Nufus, M., & Yuliastuti, D. S. (2025). Genetic Variation of F2 Progeny Test Acacia auriculiformis A. Cunn. Ex Benth. at KHDTK Blok Playen, Gunungkidul. *Jurnal Riset Biologi dan Aplikasinya*, *7*(1), 99-109.

Doran, J.C, Rimbawanto A, Gunn, B.V dan Nirsatmanto, A. 1998. *Breeding Plan for Melaleuca cajuputi subsp. cajuputi in Indonesia*. CSIRO Forestry and Forest Products, Australian Tree Seed Centre and Forest Tree Improvement Research and Development Institute, Indonesia.

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Dwiarsa, R., Purwanto, T. H., & Santosa, L. W. (2021). Evaluasi Kesesuaian Lahan Kayu Putih (Melaleuca cajuputi) Berbasis SIG di Bagian Daerah Hutan Playen. *Wana Lestari*, *3*(2), 208-215.

Eko, F., Syah, T. Y. R., Hamdi, E., & Sunaryanto, K. (2025). Perencanaan Operasional Industri Minyak Kayu Putih dengan Memanfaatkan Iot pada PT. FDF. *Jurnal Maneksi (Management Ekonomi Dan Akuntansi)*, *14*(3), 1614-1626.

Eldridge, K., Davidson, J., Harwood, C. and Wyk, G.V., 1994. *Eucalypt Domestication and Breeding*. Oxford University Press, Oxford.

Falconer, D. S. 1960. *Introduction to Quantitatie Genetics*. New York: The Ronald Press Co.

Falconer, D.S. and Mackay, T.F.C., 1996. *Introduction to Quantitative Genetics*. Pearson Education India.

Faridah, E., Widiyatno, & Primananda, E. (2017). Pertumbuhan tanaman uji klon jati pada berbagai solum di Wanagama I, Gunung Kidul, Yogyakarta. *Seminar Nasional Silvikultur IV*, 437–445.

Finkeldey, R. and Hattemer, H.H. 2007. *Tropical Forest Genetics*. Springer-Verlag, Berlin, Heidelberg, 315 pp.

Gaspar, M.J., Louzada, J.L., Aguiar, A. and Almeida, M.H., 2008. Genetic Correlations Between Wood Quality Traits of Pinus pinaster Ait. *Annals of Forest Science*, *65*(7), p.1.

Griffin, A.R. and Cotterill, P.P., 1988. Genetic Variation in Growth of Outcrossed, Selfed and Open-Pollinated Progenies of Eucalyptus Regnans and Some Implications for Breeding Strategy. *Silvae Genetica*, *37*(3-4), pp.124-131.

Hai, H.N.T., Rimbawanto, A., Kartikawati, N.K. and Wu, H., 2019. Genetic Improvement for Essential Oil Yield and Quality in Melaleuca cajuputi. *Industrial Crops and Products*, *137*, pp.681-686.

Hazel, L. N. (1943). The Genetic Basis for Constructing Selection Indexes. *Genetics*, 28, 476–490.

UNIVERSITAS
GADJAH MADA
**Evaluasi Pertumbuhan dan Produksi Biomassa Daun-Ranting Uji Keturunan Generasi Campuran Kayuputih
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Juergens, U.R., 2014. Anti-Inflammatory Properties of The Monoterpene 1.8-Sineol: Current Evidence for Co-Medication in Inflammatory Airway Diseases. *Drug research*, *64*(12), pp.638-646.

Junaidi, E., Winara, A., Siarudin, M., Indrajaya, Y. and Widiyanto, A. 2015. Spatial Distribution of Crop of Producing Cajuput Oil in Wasur National Park. *Jurnal Penelitian Kehutanan Wallacea*, 4(2), pp.101-113.

Kartikawati, N. K., Prastyono, P., & Rimbawanto, A. 2016. Peningkatan Genetik Aktual dan Interaksi Sumber Benih X Lokasi Terhadap Kadar 1, 8 Cineole dan Rendemen Minyak Pada Kayuputih. *Jurnal Pemuliaan Tanaman Hutan*, *10*(2), 123-134.

Kartikawati, N. K., Rimbawanto, A., Susanto, M., Baskorowati, L., & Prastyono. 2014. *Budidaya dan Prospek Pengembangan Kayuputih (Melaleuca cajuputi)*. (M. Na'iem, Mahfudz, & S. B. Prabawa, Eds.). Bogor: PT Penerbit IPB Press.

Kartikawati, N.K. 2017. Crossing Potential of Open Pollination in *Cajuputi* Seedling Seed Orchard at Paliyan, Gunungkidul. *Jurnal Penelitian Kehutanan Wallacea*, 6(1), pp.41-51.

Kartikawati, N.K., Naiem, M. and Hardiyanto, E.B., 2013. Estimasi Parameter Genetik dan Peran Gen pada Uji Keturunan Full Sib Kayu Putih di Gunung Kidul. *Jurnal Pemuliaan Tanaman Hutan*, *7*(1), pp.1-13.

Kartikawati, N.K., Nirsatmanto, A. and Rimbawanto, A. 2021. Optimizing Breeding Strategy of Melaleuca cajuputi Subsp. Cajuputi for A Multiple-Trait Selection: Considering The Economic Weight of Traits for Oil Yield Productivity. *In IOP Conference Series: Earth and Environmental Science* (Vol. 914, No. 1, p. 012004). IOP Publishing.

Kartikawati, N.K., Nirsatmanto, A., Rimbawanto, A., Sumardi, Prastyono, Sunarti, S., Putri, A.I., Haryjanto, L., Herawan, T., Lestari, F. and Doran, J. 2023. Genetic Gain in Oil Productivity from Breeding Program of Cajuput (Melaleuca Cajuputi Subsp. Cajuputi) in Indonesia. *Forest Science and Technology*, 19(4), pp.309-314.

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Kasmudjo. 1992. *Dasar-Dasar Pengelolaan Minyak Kayu Putih*. Yayasan Pembina Fakultas Kehutanan UGM. Yogyakarta.

Kurniawan, A., & Sumardi. 2010. Uji Keturunan Kayuputih F2 di Kefamenanu Menggunakan 54 Famili. *Jurnal Pemuliaan Tanaman Hutan*, *4*(2), 75–85.

Li, Y., Suontama, M., Burdon, R.D. and Dungey, H.S., 2017. Genotype by Environment Interactions in Forest Tree Breeding: Review of Methodology and Perspectives on Research and Application. *Tree Genetics & Genomes*, *13*(3), p.60.

Miwa, M., Tanaka, R., Yamanoshita, T., Norisada, M., Kojima, K. and Hogetsu, T. 2001. Analysis of Clonal Structure of Melaleuca Cajuputi (Myrtaceae) at A Barren Sandy Site in Thailand Using Microsatellite Polymorphism. *Trees*, 15(4), pp.242-248.

Na'iem, M. 2022. *Pemuliaan Pohon: Konsep Dasar, Penggunaan Materi Genetik Unggul dan Pengembangan Hutan Prospektif*. PT Karima Jaya Media. Yogyakarta.

Namkoong, G., Kang, H.C. and Brouard, J.S. 2012. *Tree Breeding: Principles and Strategies (Vol. 11)*. Springer Science & Business Media: Berlin, Germany.

Prabhakaran, V.T. and Sharma, B.S., 1994. On Probability of Heritability Estimates from Full-Sib Analysis Exceeding Unity Based on Underlying Theoretical Distribution. *Biometrical journal*, *36*(3), pp.341-352.

Pudjiono, S. 2005. *Daya Gabung dan Variasi Genetik Beberapa Jenis Murbei Hibrid*. Tesis S2. Program Pasca Sarjana Universitas Gadjah Mada. Yogyakarta.

Pudjiono, S., Baskorowati, L., Susanto, M., Setiadi, D., Hendrati, R.L., Nurtjahjaningsih, I.L.G., Sulistiadi, H.B.S., Hartati, R.A. and Puspitasari, D. 2024. Growth Diversity, Heritability, and Genetic Correlation of 2-Year-Old of Manglid (Manglietia Glauca Bl.) Progeny Test in Candiroto, Temanggung, Central Java. *In IOP Conference Series: Earth and Environmental Science* (Vol. 1315, No. 1, p. 012023). IOP Publishing.

Rimbawanto, A. 2000. *Pemuliaan Tanaman Kayu Putih (Melaleuca cajuputi) di Jawa*. Duta Rimba. 243/XXVI/September, pp. 19-21. Yogyakarta.

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Rimbawanto, A. 2017. *Minyak Kayuputih: Dari Tanaman Asli Indonesia untuk Masyarakat Indonesia*. Penerbit Kaliwangi, Yogyakarta, pp.21-38.

Roff, D.A., 1996. The Evolution of Genetic Correlations: an Analysis of Patterns. *Evolution*, *50*(4), pp.1392-1403.

Santos, F.A. and Rao, V.S.N., 2000. Antiinflammatory and Antinociceptive Effects Of 1, 8-Sineol a Terpenoid Oxide Present in Many Plant Essential Oils. *Phytotherapy Research: An International Journal Devoted to Pharmacological and Toxicological Evaluation of Natural Product Derivatives*, *14*(4), pp.240-244.

Steel, R. D. G., & Torrie, J. H. 1981. *Principles and Procedures of Statistics, A Biometrical Approach.* 2nd Edition, Mc Graw Hill International Book Co., Singapore City.

Sudradjat, S. E. 2020. Minyak Kayu Putih, Obat Alami dengan Banyak Khasiat: Tinjauan Sistematik. *Jurnal Kedokteran Meditek*, 26(2), 51-59.

Suginingsih, I. Edris, Wibisono, M.G., Suryanto, P. dan Faridah, E. 2005. *Buku Ajar Mata Kuliah Silvika*. Fakultas Kehutanan UGM. Yogyakarta.

Sumardi, S., Kartikawati, N.K., Prastyono, P. and Rimbawanto, A., 2018. Seleksi dan Perolehan Genetik pada Uji Keturunan Generasi Kedua Kayuputih (Melaleuca cajuputi subsp. cajuputi) di Gunungkidul. *Jurnal Penelitian Sosial dan Ekonomi Kehutanan*, *12*(1), pp.65-73.

Susanto, M., Doran, J., Arnold, R., & Rimbawanto, A. 2003. Genetic Variation in Growth and Oil characteristics of Melaleuca cajuputi subsp. cajuputi and Potential for Genetic Improvement. *Journal of Tropical Forest Science*, 469-482.

Susanto, M., Rimbawanto, A., Prastyono, P., & Kartikawati, N. K. (2008). Peningkatan Genetik pada Pemuliaan Melaleuca cajuputi Subsp. cajuputi. *Jurnal Pemuliaan Tanaman Hutan*, *2*(2), 231-241.

Tanaka, K., Masumori, M., Yamanoshita, T. and Tange, T. 2011. Morphological and Anatomical Changes of Melaleuca cajuputi Under Submergence. *Trees*, 25(4), pp.695-704.

UNIVERSITAS
GADJAH MADA
Evaluasi Pertumbuhan dan Produksi Biomassa Daun-Ranting Uji Keturunan Generasi Campuran Kayuputih (Melaleuca cajuputi subsp. cajuputi Powell) di Playen, Gunungkidul
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Turnbull, J.W. ed. 1986. *Multipurpose Australian Trees and Shrubs. Lesser-Known Species for Fuelwood and Agroforestry*. ACIAR Publishing. Canberra, Australia.

Utami, W. S., Purwanto, R. H., & Sunarta, S. (2024). Strategi Pengelolaan Bahan Baku Minyak Kayu Putih Di Bkph Subang Untuk PMKP Jatimunggul. *Wahana Forestra: Jurnal Kehutanan*, *19*(1), 74-85.

White, T.L., W.T. Adams dan D.B. Neale. 2007. *Forest Genetics*. CABI Publishing. London.

Widiyanto, A., & Siarudin, M. (2014). Sifat Fisikokimia Minyak Kayu Putih Jenis Asteromyrtus brasii. *Jurnal Penelitian Hasil Hutan*, *32*(4), 243-252.

Widiyanto, A., Siarudin, M., Winara, A., Junaidi, E., Indrajaya, Y. and Damayanti, R. 2025. The potencies of Melaleuca acacioides: A Cajuput Tree Species from Papua, Indonesia. *In AIP Conference Proceedings* (Vol. 3172, No. 1, p. 020035). AIP Publishing LLC.

Wright, J.W. 1976. *Introduction to Forest Genetics*. Academic Press. New York.

Wright, S. 1984. *Evolution and The Genetics of Populations, Volume 3: Experimental Results and Evolutionary Deductions*. University of Chicago press. USA.

Zobel, B., & Talbert, J. 1984. *Applied Forest Tree Improvement*. New York: John Willey.