

## DAFTAR PUSTAKA

- Albert, B., Bray, D., Lewis, J., Raff, M., Roberts, K., dan Watson, D.J., 1991. *Molecular Biology of the Cell*. 2<sup>nd</sup> ed. Longmann, London cit Anggraito, Y. Ulung, 2004, Identifikasi berat, diameter, dan tebal daging buah melon (*Cucumis Melo*, L.) kultivar action 434 tetraploid akibat perlakuan kolkisin, *Berk, Penel, Hayati* 10 : 37–42.
- Anonim, 1986, *Sediaan Galenik*, Departemen Kesehatan RI, Jakarta.
- Anonim, 2008, *Farmakope Herbal Indonesia*, Edisi I, Departemen Kesehatan RI, Jakarta.
- Anonim, 2010, *Acuan Sediaan Herbal*, Obat Asli Indonesia, BPOM RI, Jakarta.
- Anonim, 2010, *Booklet Pegagan*, BPOM RI, Jakarta.
- Ansel, H.C., 1989, *Pengantar Bentuk Sediaan Farmasi*, Edisi ke-4, UI Press, Jakarta.
- Ashley, K., Andrew, R.N., Canazona, L., dan Demange M., 2001, Ultrasonic extraction as a sample preparation technique for elemental analysis by atomic spectrometry, *Journal of Analytical Atomic Spectrometry* 16: 1147-1153.
- Aziz, Z.A., Davey, M.R., Power, J.B., Anthony, P., Smith, R.M., dan Lowe, K.C., 2007, Production of asiaticoside and madecassoside in *Centella asiatica* in vitro and in vivo, *BIOLOGIA PLANTARUM*, **51**(1), 34–42.
- Campbell, Neil A., dan Reece, Jane B., 2000, *Biologi*, Erlangga, Jakarta.
- Caparta, A.D., Delgado M., Ressurreicao F., Meister A., Jones R.N, Viegas W., dan Houben A., 2006, Colchicine-induced polyploidization depends on tubulin polymerization in c-metaphase cells, *Protoplasma* 227 : 147–153
- Catala, C., Rose J.K.C., dan Bennett, A.B., 2000, Auxin-Regulated Genes Encoding Cell Wall-Modifying Proteins Are Expressed during Early Tomato Fruit Growth, *Plant Physiolog* 122 : 527–534
- Chulalaksananukul, W., & Chimnoi, W., 1999, Polyploid Induction in *Centella asiatica* (L.) Urban by Colchicine Treatment, *J. Sci. Res*, **24**(2), 55–65.
- Cintas, P., dan Cravotto, G., 2005, Power Ultrasound in Organic Synthesis: Moving Cavitation Chemistry from Academia to Innovative and Large-Scale Applications, *The Royal Society Journal of Chemistry* 35: 180196.

- Dixon, R.A., 1985, *Plant Cell Culture : A practical approach*, IRL Press, Oxford, Washington DC.
- Eigisti, O.J., 1938, A cytological study of colchicine effects in the induction of polyploidy in plants. *Pr'oc. Nat. Acad. Sci* 24 :56-63.
- Eigsti, O.J., dan Dustin, P., 1957, *Colchisine in Agriculture, Medicine, Biology, and Chemistry*, The Iowa State College Press, Ames, Iowa.
- Ernawati, 1992, Produksi Senyawa Metabolit Sekunder dengan Kultur Jaringan Tanaman, IPB, Bogor cit Santoso, U., dan Nursandi, F., 2002, *Kultur Jaringan Tanaman*, UMM Press, Malang.
- Ernawati, D., 2014, Pengoptimuman Ekstraksi dan Pemurnian Asiatikosida dari Pegagan (*Centella asiatica*), *Skripsi*, IPB, Bogor.
- Gandjar, I.G., dan Rohman, Abdul, 2007, *Kimia Farmasi Analisis*, Pustaka Belajar, Yogyakarta.
- Galaz, A.R.M., Aguilar, D.S., Xool, G.P.A., Huchin, M.S.M., dan Loyola, V.M., 2012, Callus, Suspension culture, and Hairy Roots, Induction, Maintenance and Characterzation, cit Loyola-Vargas, V.M., dan Ochoa-Alejo, N., *Plant Cell Culture Protocols*,(Eds), Humana Press (Springer), London.
- George, 2006, *Biologi*, Edisi Kedua, Erlangga, Jakarta.
- Gritter, R.J.,Bobbit, J.M., dan Schwarting, A.E., 1991, *Pengantar Kromatografi*, Terjemahan dari Introduction to Chromatography, oleh K. Padmarwinata, ITB Press, Bandung.
- Gunawan, L.W., 1987, *Teknik Kultur Jaringan*, PAU-Bioteknologi IPB, Bogor.
- Gunawan, L.W., 1995, *Teknik Kultur in vitro dalam Hortikultura*, Penebar Swadaya, Jakarta.
- Haralampidis K, Bryan G, Qi X, Papadopoulou K, Bakht S, Melton R, Osbourn A., 2001, A new class of oxidosqualene cyclases directs synthesis of antimicrobial phytoprotectants in monocots. *Proc Natl Acad Sci USA* 98: 13431–13436.
- Harahap , R. A., 2005, Studi Kultur Kalus Tanaman Pegagan (*Centella Asiatico* L) untuk Menghasilkan Senyawa Asiatikosida, *Tesis*, Sekolah Pascasarjana Institut Pertanian Bogor, Bogor.

- Harborne, J.B., 1996. *Metode Fitokimia, Penuntun Modern Cara Menganalisis Tumbuhan*, diterjemahkan oleh Kosasih Padmawinata dan Iwang Soediro, ITB, Bandung.
- Harwoko, Pramono, S., dan Nugroho, A.E., 2014, Triterpenoid-rich fraction of *Centella asiatica* leaves and *in vivo* antihypertensive activity, *International Food Research Journal*, **21**(1): 149-154.
- Hernani, Christina, dan Sudiarto, 1998, Kajian Aspek Pengeringan Pegagan Terhadap Mutu dan Kadar Bahan aktif Asiatikosida, Prosiding Seminar Nasional Teknologi Pangan dan Gizi : 53 – 57, PAU Pangan dan Gizi, Fakultas Teknologi Pertanian, Universitas Gajah Mada Yogyakarta.
- Hugo, W.B., 1998, Mode of action of non-antibiotic antibacterial agents cit Hugo W.B. dan Russel A.D., *Pharmaceutical Microbiolo*, 6 th Ed., Blackwell science Ltd, London.
- Husni, A., D. Sukmadjaja, dan I. Mariska, 1995, Variasi Somaklonal Tunas Panili dengan Mutagen Kimia Kolkisin secara *In vitro*, Pusat Penelitian dan Pengembangan Tunas Industri 10, 24-34.
- Isda, Mayta Novaliza dan Sulianyah, 2009, Induksi Kalus *Centella asiatica* melalui aplikasi auksin dan sitokinin, *Jerami*, Volume 2, Nomor 3.
- James, J.T., R. Meyer, I.A. Dubery, 2008, Characterisation of two phenotypes of *Centella asiatica* in Southern Africa through the composition of four triterpenoids in callus, cell suspensions and leaves, *Plant Cell Tissue Organ Cult.* 94 : 91–99.
- Kaensaksiri, T., & Soontornchainaksaeng, P., 2011, In vitro induction of polyploidy in *Centella asiatica* (L.) Urban, *Plant Cell Tiss Organ Cult.*, 187–194.
- Kwon, H.J., Jae, H.P., Gyu, T.K., dan Yong, D.P., 2011, Determination of madecassoside and asiaticoside content of *Centella asiatica* leaf and *Centella asiatica* containing ointment and dentifrice by HPLC-coupled pulsed amperometric detection. *Microchemical Journal* 98:115-120.
- Levin, D., 2002, *The Role of Chromosomal Change in Plant Evolution*, Oxford University Press, Inc, New York.
- Moore, T.C., 1979, *Biochemistry and Physiology of Plant Hormon*, Springer-Verlag, Berlin.
- Pardal, J.S., 2014, *Teknik Mutasi untuk Pemuliaan Tanaman*, Biogen.litbang.pertanian.go.id/2014/05/teknik-mutasi-untuk-pemuliaan-tanaman/, diakses pada 23 November 2017.

- Plohman, B., Bader, G., Hiller, K., Franz, G., 1997, Immunomodulatory and antitumoral effects of triterpenoid saponins, *Die Pharm.*, **52**(12), 953-957.
- Pramono, S., 1992, Profil Kromatogram Ekstrak Pegagan yang Berefek Antihipertensi, *Warta Tumbuhan Obat Indonesia, The Journal on Indonesian Medicinal Plants*, **1**(2), 37-39.
- Pramono, S., dan Ajiastuti, D., 2004, Standardisasi ekstrak herba pegagan (*Centella asiatica* (L.) Urban) berdasarkan kadar asiatikosida secara KLT-densitometri, *Majalah Farmasi Indonesia*, **15**(3), 118 – 123.
- Pratiwi, S., 2008, *Mikrobiologi Farmasi*, Erlangga, Jakarta.
- Prihastanti, E., Soegihardjo, C.J., dan Purbaningsih, S., 2001, Kultur Suspensi Sel Mesofil Daun Pegagan (*Centella asiatica* (L.) Urban) dan Analisis Kualitatif Senyawa Asiatikosida, *Majalah Farmasi Indonesia*, **12**(1), 10–19.
- Purnomo, Agus, 2003, *Mikrobiologi*, Universitas Muhammadiyah, Malang.
- Rathi, Anamika, 2014, Improvement of a medicinally important herb Mandookaparni (*Centella asiatica* (L.) Urban) through *in vitro* culture, *Tesis*, University of Pune, Pune.
- Reich, E., Schibli, A., 2006. *High-Performance Thin-Layer Chromatography for the Analysis of Medicinal Plants*. Thieme, New York cit Fatahillah, Aditya Utama, 2016, Analisis Sidik Jari Kromatografi Lapis Tipis Tanaman Pegagan (*Centella asiatica*), *Skripsi*, IPB, Bogor.
- Sastrohamidjojo, H., 1985, *Kromatografi*, Edisi I, Liberty, Yogyakarta.
- Santoso, U., dan Nursandi, F., 2002. *Kultur Jaringan Tanaman*, UMM Press, Malang.
- Soegihardjo, C.J. dan Koensoemardiyah, 1995, Produksi Asiatikosida dan Senyawa Sekerabat dengan Kultur Suspensi Sel *Centella asiatica* (L.) Urban, *Majalah Obat Tradisional*, **12** (39): 1-11.
- Sismindari, 2012, *Replikasi DNA dan Mutasi*, Pustaka Pelajar, Yogyakarta.
- Sugano H, Hayashi K., 196, Dynamic interrelation of cellular ingredients relevant to the biosynthesis of anthocyanin during tissue culture of carrot aggregen. *Studies on anthocyanins LVII - Bot Mag* 80: 440-449.
- Suryo, 1995, *Sitogenetika*, Gadjah Mada University Press, Yogyakarta

- Sutardi, 2016, Kandungan Bahan Aktif Tanaman Pegagan dan Khasiatnya untuk Meningkatkan Sistem Imun Tubuh, *Jurnal Litbang Pertanian*, 35: 121-130.
- Staba, E.J., 1982, *Plant Tissue Culture as a Source of Biochemicals*, CRC Press Ink, Philadelphia, USA.
- Stafford, A., Morris, P., Fowler M.W., 1986, Plant Cell Biotechnology: A perspective. *Enzyme Microbial Tech* 8: 578-97 cit Rathi, Anamika, 2014, Improvement of a medicinally important herb Mandookaparni (*Centella asiatica* (L.) Urban) through *in vitro* culture, *Tesis*, University of Pune, Pune.
- Stahl, E., 1969, *Thin-Layer Chromatography: A Laboratory Handbook*, Edisi II, Springer-Verlag, Berlin.
- Stebbins, G.L., 1971, *Chromosomal Evolution in Higher Plants.*, Addison-Wesley, London.
- Subandi, 2008, *Sel-sel pada Organisme Multiseluler*, ITB, Bandung.
- Sudrajad, H., dan Suharto, D., 2015, Pengaruh Penambahan NAA dan BAP terhadap Eksplan Pegagan (*Centella asiatica* (L.) Urb. ), *AGROVIGOR*, 8(1), 26-31.
- Sulistiyanti, Ratih Sri, 1997, Kandungan asiatikosida pada kultur kalus tangkai daun pegagan (*Centella asiatica* (L.) Urban), *Tesis*, Universitas Gadjah Mada, Yogyakarta.
- Thao, N.T.P., Ozaki Y., dan Okubo H., 2004. Colchicine and Oryzalin Induced Tetraploids in Ornamental *Alocasia X Amazonica* Hort., *Soc. Hort. Sci.* 73 (1), 63-65.
- Thong-on, W., Arimatsu, P., Pitiporn, S., Soonthornchareonnon, N., Prathanturarug, S., 2014, Field evaluation of *in vitro*-induced tetraploid and diploid *Centella asiatica* (L.) Urban, *J Nat Med* 68:267-273.
- Wagner, H., dan Blatt, S., 1996, *Plant Drug Analysis, A Thin Layer Chromatography Atlas*, Second Edt, Springer, Berlin.
- Wareing, P.F., dan Phillips, I.D.J., 1976, *The Control of Growth and Differentiation in Plants*, Pergamon Press, New York.
- Winarto, W.R., dan Surbakti, M., 2003, Khasiat dan Manfaat Pegagan. Agromedia Pustaka, Jakarta cit Sutardi, 2016, Kandungan Bahan Aktif Tanaman Pegagan dan Khasiatnya untuk Meningkatkan Sistem Imun Tubuh, *Jurnal Litbang Pertanian* 35: 121-130.

Van Steenis, C.G.G.J., 2003, *Flora untuk Sekolah di Indonesia*, Edisi ke-9, Pradnya Paramita, Jakarta.

Vinolina, N.S., 2012, Produksi Biomassa secara *In Vitro* pada Pegagan (*Centella asiatica*), Prosiding *Seminar Nasional Farmasi Nasionional 2012: Peran Farmasi dalam Pembangunan Kesehatan*, Fakultas Farmasi USU, Medan.

Zahara, K., Bibi, Y., dan Tabassum, S., 2014, Clinical and therapeutic benefits of *Centella asiatica*, *Pure Appl. Bio.* **3**(4), 152–159.