

## DAFTAR PUSTAKA

- Adholeya, A. and Gaur, A. 2004. *Prospect of Arbuscular Mycorrhizal fungi in Phytoremediation of Heavy Metal Contaminated Soils*. Centre for Mycorrhizal Research, The Energy and Resources Institute, Darbari Seth Block, Habitat Place, Lodhi road, New Delhi 110 003, India.
- Ahsan, N., Lee D.G., Lee S.H., Kang K.Y., Lee J.J., Kim P.J., Yoon H.S., Kim J.S. and Lee, B.H. 2007. Excess copper induced physiological and proteomic changes in germinating rice seeds. *Chemosphere.*, 67: 1182–1193
- Allen, M. F. 1992. *Mycorrhizal Functioning an Integrative Plant Fungal Process*. Champman and Hall. New York.pp
- Alloway, B. J. 1995. *Heavy Metals in Soils*. 2<sup>nd</sup> ed. Published by Blackie Academic and Professional.
- Anas, I. and M. E. Premono. 1993. *Mikroorganisme Tanah Pelarut Fosfat dan Peranannya Dalam Pertanian. Dalam Kongres Nasional Himpunan Ilmu Tanah Indonesia*. Medan, 7-10 Desember 1993. 13 hlm.
- Arif, I. B., H. A. Khan, A. A. Homaidan, and A. Ahamed. 2010. Determination of Cu, Mn, Hg, Pb, and Zn in the Outer Tissue Washing, Outer Tissues, and Inner Tissues of Different Vegetables Using ICP-OES. *Polish J. of Environ. Stud.* Vol. 20, No. 4 (2011), 835-841.
- Arisusanti, R. J. and K. I. Purwani. 2013. Pengaruh Mikoriza *Glomus fasciculatum* terhadap Akumulasi Logam Timbal (Pb) pada Tanaman *Dahlia pinnata*. *J. Sains* 2: 2337-3520..
- Bano, S. A and D. Ashfaq. 2013. Role of Mycorrhiza to Reduce Heavy Metal Stress. *Natural Science*. vol.5,no.12a,16. 20(2013).
- Bagyaraj, D.J. 1992. Vesicular-arbuscular mycorrhiza: application in agriculture. *Methods Microbiol.* 24: 359–373.
- Bouazizi, H., Jouili, H., Geitmann, A. and Ferjani, E.E.I. 2010. Copper toxicity in expanding leaves of *Phaseolus vulgaris* L.: antioxidant enzyme response and nutrient element uptake. *Ecotox. Environ. Safe.*, 73: 1304–1308.
- Brundrett, M.C. and Kendrick B. 1990. The roots and mycorrhizas of herbaceous woodland plants. II. Structural aspects of morphology. *New Phytologist* 114 : 46-479
- Connel, D.W and G.J Miller. 1995. *Kimia Dan Ekotoksikologi Pencemaran*. UI Press. Jakarta

- Dodd, J.C. (2000). *The Role of Arbuscular Mycorrhizal Fungi in Agro and Natural Ecosystems*, Outlook. Agr., 29: 55-62.
- Donnelly, P.K. and Fletcher. 1994. *Potential Use of Mycorrhizal Fungi as Bioremediation Agents*. American Chemical Society. USA. 94-97.
- Gamalero, E. Lingua G, Berta G, and Glick B.R. 2009. *Beneficial role of plant growth promoting bacteria and arbuscular mycorrhizal fungi on plant responses to heavy metal stress*. Can J Microbiol 55 (5): 501-514.
- Gardner, F.P., R.B. Pearce and R. L. Mitchel. 1991. *Fisiologi Tanaman Budidaya*. Diterjemahkan oleh Susilo, H. dan Subiyanto. Penerbit Universitas Indonesia, Jakarta. 428 hlm
- Gohre, V. and Paszkowski, U. (2006) *Contribution of arbuscular mycorrhizal symbiosis to heavy metal phytoremediation*. Planta, 223, 1115-1122
- Gonzalez, C., D'Haen J., Vangronsveld J. J., and Dodd J.C., 2002. Copper Sorption and Accumulation by the Extraradical Mycelium of Different *Glomus* spp. (Arbuscular Mycorrhizal Fungi) Isolated from the Same Polluted Soil, *J. Plant and Soil*, 240(2), 287 (doi:10.1023/A:1015794622592)
- Gunawan, A.W. 1999. *Teknik Pembuatan Kultur Fungi Mikoriza Arbuskula*. Makalah Workshop Mikoriza "Aplikasi Fungi Mikoriza pada Tanaman Pertanian, Perkebunan dan Kehutanan". Asosiasi Mikoriza Indonesia.
- Hansch, R. and Mendel, R.R. 2009. Physiological functions of mineral micronutrients (Cu, Zn, Mn, Fe, Ni, Mo, B, Cl). *Curr. Opin. Plant. Biol.* 12: 259-266.
- Hardiani, H. 2009. *Potensi Tanaman Dalam Mengakumulasi Logam Cu Pada Media Tanah Terkontaminasi Limbah Padat Industri Kertas*. BS, vol. 44, 27 - 40
- Harley, J.L, and S. E Smith. 1983. *Mycorrhizal Symbiosis*. Academic Press. London.
- Joner, E.J, Briones R, and Leyval C. 2000. Metal Binding Capacity of Arbuscular-mycorrhizal mycelium. *J. Plant Soil* 226 (2): 227-234.
- Juniper S, and Abbott L.K. 1993. Vesicular-arbuscular Mycorrhizas and Soil Salinity. *Mycorrhiza* 4: 45-57.

- Kaldorf, M., Kuhn, A.J., Schroder, W.H., Hildebrandt, U., and Bothe, H. (1999) Selective element deposits in maize colonized by a heavy metal tolerance conferring arbuscular mycorrhizal fungus. *J. Plant Physiology*, 154, 718-728.
- Khan, A.G and C. Kuek; T.M. Chaundry; C.S. Khoo; W.J. Hayes. 2000. *Role of Plants, Mycorrhizae and Phytochelators in Heavy Metal Contaminated land Remediation*. Faculty of Informatics, Science and Technology, university of Western Sydney, Macarthur, Campbell Town NSW 2560. Australia.
- Khan A.G (2005). Role of soil microbes in the rhizospheres of plants growing on trace element contaminated soils in phytoremediation. *J. Trace Elem. Med. Biol.*, 18: 355-364.
- Kormanik, P. P. and A. C. Mc Graw. 1982. *Quantification of Vesicular Arbuscular Mycorrhizal Fungi in Plant Root*. In *Methods and Principles of Mycorrhizal Research*. Editor N. C. Schenk The American Phytopathological Society. Minnesota. Pp 37-47.
- Lasat, M.M. 2007. *The Use of Plants for the Removal of Toxic Metals from Contaminated Soil*. American Association for the Advancement of Science Environmental Science and Engineering Fellow.
- Leyval, C., Turnau, K. and Haselwandter, K. 1997. Effect of heavy metal pollution on mycorrhizal colonization and function. *Physiological ecological and applied aspects Mycorrhiza* 7, 139-153.
- Malcova, R., and Vosatka, M. Gryndler, M. 2003. Effects of inoculation with *Glomus intraradices* on lead uptake by *Zea mays* L. and *Agrostis capillaris* L. *J. Applied Soil Ecology*, 23, 255-267.
- Marschner, H. Kothari, S. K., and R Omheld, V. 1990. Direct and indirect effects of VA mycorrhizal fungi and rhizosphere microorganisms on acquisition of mineral nutrients by maize (*Zea mays* L.) in a calcareous soil. *New Phytol.* 116, 637-645.
- Munagapati, V. S. *et al.* 2009. Biosorption of Cu(II), Cd(II) and Pb(II) by *Acacia leucocephala* bark powder: Kinetics, equilibrium and thermodynamics. *Journal of Chemical Engineering* 157 (2010) 357-365.
- Munarso, J., Suismono, Murtiningsih, Misgyarta, R. Nurdjannah, Widaningrum, M. Hadipernata, L. Sukarno, Danuarsa, and Wahyudiono. 2005. *Identifikasi Kontaminan dan Perbaikan Mutu Sayuran*. Laporan Akhir Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian. Badan Penelitian dan Pengembangan Pertanian. Departemen Pertanian.

- Nusantara, A. D, Y. H. Bertham, and I. Mansur. 2011. Bekerja dengan Fungi Mikoriza Arbuskular. Seamo Biotrop. Bogor.
- Palar, H, 2004. Pencemaran dan Toksikologi Logam Berat, Penerbit PT. Rineka Cipta, Jakarta.
- Phillips, J. M. and D. S. Hayman. 1970. Improved Procedures for Clearing Roots and Staining Parasitic Vesicular–Arbuscular Mycorrhizal fungi for Rapid Assessment of infection. *Transact Brit Mycol Soc.* 55:158–161.
- Prafithriasari, M and A. Nurbaity. 2010. Infektivitas Inokulan *Glomus sp.* dan *Gigaspora sp.* Pada Berbagai Komposisi Media Zeolit-Arang Sekam dan Pengaruhnya Terhadap Pertumbuhan Sorgum (*Sorghum bicolor*). *J. Agrikultura* Vol. 21 No.1
- Rajapakse S, and Miller Jr J.C. 1992. Methods for studying vesicular–arbuscular mycorrhizal root colonization and related root physical properties. *Methods Microbiol.* 24:302–316.
- Reichman S.M.A. 2007. The potential use of the legume–Rhizobium symbiosis for the remediation of arsenic contaminated sites. *Soil Biol* 39: 2587–259.
- Rossiana, N. 2003. *Penurunan Kandungan Logam Berat Dan Pertumbuhan Tanaman Sengon (Paraserianthes falcataria (L.) Nielsen) Bermikoriza Dalam Medium Limbah Lumpur Minyak Hasil Ekstraksi.* Universitas Padjadjaran, Bandung
- Saba H., P. Jyoti and S. Neha. 2013. Mycorrhizae and Phytochelators as Remedy in Heavy Metal Contaminated Land Remediation. *Int. Res. J. Environment Sci, Vol. 2(1), 74-78.*
- Sancayaningsih. R.P. 1996. Viabilitas propagul mikoriza Arbuskular pada Komunitas Tanaman Bermikoriza di Lereng Selatan Merapi Pasca Bencana Awan Panas. Laporan penelitian dosen.
- Sancayaningsih, R.P. dan A. P. Nugroho. 2003. Pemanfaatan Fungi Mikoriza Arbuskula dalam Bioremediasi Tanah Tercemar Pb. Laporan penelitian dosen.
- Sancayaningsih. 2005. The effects of single and dual inoculations of arbuscular mycorrhizal fungi (amf) on plant growth, and the est and mdh isozyme profiles of maize roots *zea mays* grown on limited growth media. *Publikasi disertasi.*

- Schenk, N. C. 1982. *Methods and Principles of Mycorrhizal Research*. The American Phytopathological Society. Minnesota.
- Setiadi, Y. 1999. Pengembangan CMA Sebagai Pupuk Hayati dalam Bidang Kehutanan. Makalah Workshop Mikoriza, AMI, Bogor 27 September-2 Oktober 1999.
- Shalaby, A. M. 2003. Response of Arbuscular Mycorrhizal Fungal Spores Isolated from Heavy Metal-Polluted and Unpolluted Soil to Zn, Cd, Pb, and Their Interaction in vitro. *Pakistan Journal of Biological Sciences*, 6:1416-1422.
- Sieverding E. 1991. *Vesicular-arbuscular Mycorrhiza Management in Tropical Agrosystems*. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn.
- Sirappa, M.P. 2003. *Prospek Pengembangan Sorgum di Indonesia sebagai Komoditas Alternatif untuk Pangan, Pakan, dan Industri*. J. Litbang Pertanian, 22(4). Balai Pengkajian Teknologi Pertanian Sulawesi Selatan
- Smith, S. E. and Read, D. J. 1997. *Mycorrhizal Symbiosis* 2<sup>nd</sup> ed. Academic Press, New York, NY, 605 pp.
- \_\_\_\_\_. 2008. *Mycorrhizal Symbiosis* ed 3<sup>rd</sup> ed. Academic Press, New York, NY, 605 pp.
- Subiksa, I.G.M. 2002. *Pemanfaatan Mikoriza Untuk Penanggulangan Lahan Kritis*. Dalam [http://rudict.tripod.com/sem2\\_012/igm\\_subiksa.htm](http://rudict.tripod.com/sem2_012/igm_subiksa.htm) diakses 30 Desember 2014.
- Suharno and R.P Sancayaningsih. 2013. *Fungi Mikoriza Arbuskula: Potensi Teknologi Mikorizoremediasi Logam Berat dalam Rehabilitasi Lahan Tambang*. *Bioteknologi* 10 (1): 31-42.
- Thomson B.D, Robson A.D, and Abbott L.K, 1990. Mycorrhizas Formed by *Gigaspora caulospora* and *Glomus fasciculatum* on Subterranean Clover in Relation to Soluble Carbohydrate Concentration in Roots. *New Phytol.* 114: 217–25.
- Toler, H. D. J. B. Morton and J. R. Cumming. 2004. Growth and Metal Accumulation of Mycorrhizal Sorghum Exposed to Elevated Copper and Zinc. *J. Water, Air, and Soil Pollution* 164: 155–17.
- Varma, A and B. Hock. 1998. *Structure, Function, Molecular Biology, and Biotechnology* 2<sup>nd</sup> ed. Springer. Jerman

Widaningrum, Miskiyah, and Suismono. 2007. *Bahaya Kontaminasi Logam Berat dalam Sayuran dan Alternatif Pencegahan Cemarannya*. Buletin Teknologi Pascapanen Pertanian Vol. 3. Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian. Bogor

Yu X., W. Yu, Q. Ma, and H. Zhou. 2013. Accumulation of Copper and Zinc in Soil and Plant Within Ten-Year Application of Different Pig Manure Rates. *J. Plant Soil Environ.* (2013), 59. 11: 492–499