

DAFTAR PUSTAKA

- Adesemoye, A. O., Torbert, H. A., and Kloepper, J. W. 2009. Plant growthpromoting rhizobacteria allow reduced application rates of chemical fertilizers. *Microbial Ecology*, 58(4), 921-929.
- Adhi, L. P. G. W. 1993. Pengapur tanah masam untuk kedelai. Hal. 171-188. Somaatmadja, M. Ismunadji, Sumarno, M. Syam, S. O. Manurung, dan Yuswadi (eds). *Kedelai*. Badan Penelitian dan Pengembangan Pertanian, Pusat Penelitian Pengembangan Tanaman Pangan. Bogor.
- Agustina, K. 2010. Tanggap fisiologi akar sorgum (*Sorghum bicolor* L. Moench) terhadap cekaman aluminium dan defisiensi fosfor didalam Rhizotron. *Jurnal Agronom Indonesia*, 38 (2) : 88-94
- Aini, Q., N. Jamarun., S. Sowmen dan R. Sriagtula. 2019. Pengaruh Cekaman Kekeringan Terhadap Pertumbuhan Berbagai Galur Sorgum Mutan *Brown Midrib* Sebagai Pakan Ternak. *Jurnal Pastura*. Vol. 8, 2 : 110-112.
- Ali, M. & M.M. Anjum. 2017. Effect of different nitrogen rates on growth, yield and quality of maize. *Middle East J. Agric. Res.* 6: 107-112.
- Artschwager, E. 1948. Anatomy and morphology of the vegetative organs of sorghum vulgare. United States Department of Agriculture. Thechnical Bulletin 975. Pp 55.
- Balai Penelitian Tanah. 2003. Petunjuk Teknis Evaluasi Lahan Untuk Komoditas Pertanian. Bogor.
- Buckle, K.A.,R.A. Edwards, G.R.Fleed and M. Wooton. 1987. Ilmu Pangan. Terjemahan Adiono dan Purnomo. UI Press. Jakarta.
- Bullard, R.W, and J.O.York 1985. Breeding for bird resistance in sorghum and maize. In russell, G.E (Eds). *Plant breeding progress reviews*. Butterworth. Surrey 1:193-222.
- Casler, MD. 2001. Breeding forage crops for increased nutritional value. *Advan. Agron.* 71, 51-107.
- Campbell, N. A., J. B. Reece dan L.G. Mitchell. 2002. Biologi, Edisi kelima Jilid1. Erlangga. Jakarta.

Cordeiro G M, Christopher M J, Henry R J, and Reinke RF. 2002. Identification Of Microsatellite Markers For Fragrance In Rice By Analysis Of The Rice Genome Sequence. *Mol. Breed* 9:245–250.

Dajue and Guangwei. 2000. Sweet sorghum - A fine forage crop for the Beijing region, China. In: Proceedings of the FAO Electronic Conference on Tropical Silage, Roma, Italy

Deptan. 1990. Teknologi budidaya sorgum. Departemen Pertanian. Balai Informasi Pertanian Provinsi Irian Jaya. www.pustaka.litbang.deptan.go.id

De Wet, J. M. J., J. R. Harlan, and E. G. Price. 1970. Origin of Variability in the Spontanea Complex of Sorghum Bicolor. *American Journal of Botany* 57(6): 704-707.

Doggett, H. 1988. Sorghum. 2nd ed. Longman Scientific & Technical, Burnt Mill, Harlow, Essex, England, John Wiley & Sons. New York.

Du Plessis, J. 2008. Sorghum production. Republic of South Africa Department of Agriculture. www.nda.agric.za/publications. Diakses 20 Oktober 2019.

FAO. 2002. Sweet sorgum in china. Spotlight 2000.

Fitriatin, B. N., A. Yuniarti., T. Turmuktini., dan F. K. Ruswandi. 2014. The Effect of Phosphate Solubilizing Microbe Producing Growth Regulators on Soil Phosphate, Growth and Yield of Maize and Fertilizer Efficiency on Ultisol. *Eurasian J. of Soil Sci. Indonesia*. Hal:101-107.

Fitriatin. B. N., M. Agustina., R. Hindersah. 2017. Populasi Bakteri Pelarut Fosfat, Potensial dan Hasil Jagung yang Dipengaruhi Oleh Aplikasi MPF Pada Ultisols Jatinangor. *Agrologia*. Vol. 6. No. 2. Hal. 75-83.

Gardner, B.R., B.L. Blad, R.E., Maurer, and D.G. Watt. 1981. Relationship between crop temperature and physiological and fenological development of differentially irrigated corn. *Agron. J.* 73: 743-747.

Gerik, T., B. Bean and R. L Vanderlip. 2003. Sorghum growth and development. Texas Cooperative Extension Service. Texas.

Hakim, N., Nyakpa, M.Y., Lubis, A.M., Nugroho, S.G., Diha, M.A., Hong, G.B., Bailey, H.H. 1986. Dasar-Dasar Ilmu Tanah. Universitas Lampung. 488 hal.

Harder R. D., 2002, Acid Soil of The Tropics. An Echo Technical Note.

- Hardjowigeno, S. 2007. Ilmu Tanah. Akademika Pressindo. Jakarta.
- Hardjowigeno, S. 1995. *Ilmu tanah*. Akademi Pressindo: Jakarta.
- Harris, R. S. dan E. Karmas. 1989. Evaluasi Gizi pada Pengolahan Bahan Pangan. Penerjemah: S. Achmadi. ITB – Press, Bandung
- Henry, D.F. 1998. Dasar-Dasar Ilmu Tanah. Gadjah Mada University press.
- House, L.R. 1985. A Guide to Sorghum Breeding. 2ndEd. International Crops Research Institute for Semi-Arid Tropics (ICRISAT). India. 206 p.
- Human, S. 2011. Riset dan pengembangan sorgum dan gandum untuk ketahanan pangan. Pusat Aplikasi Teknologi Isotop dan Radiasi, Badan Tenaga Nuklir Nasional (BATAN). Jakarta Selatan.
- ICRISAT. 2002. Annual Report of Sorghum Research and Dissemination. International Crops Research Institute for the Semi Arid Tropics.
- ICRISAT. 2010. Seed production procedures in sorghum and millet. International Crops Research Institute for the Semi-Arid Tropics.
- Irawan, B. dan N. Sutrisna. 2011. Prospek pengembangan sorghum di jawa barat mendukung diversifikasi pangan. Forum Penelitian Agro Ekonomi, Vol 29 (2), Hal. 99-113.
- Kladnik, A., P. S. Chourey, D. R. Pring and M. Dermastia. 2006. Development of the endosperm of *sorghum bicolor* during the endoreduplications associated growth phase. Journal of Cereal Science. Vol. 43, Hal. 209- 215.
- Kochian, L. V. 1995. Cellular mechanisms of aluminum toxicity and resistance in plants. Annu. Rev. Plant physiol. Plant mol. Biol. Vol. 46, Hal. 237-260.
- Koumoutsi, A., Chen, X.H., Henne, A., Liesegang, H., Hitzeroth, G., P., Vater, J., Franke., Borriiss, R. 2004. Structural and functional characterization of gene clusters directing nonribosomal synthetis of bioactive cyclic lipopeptides in *Bacillus amyloliquefaciens* Strain FZB42. J Bacteriol. 2004 feb;186(4):10, p.84-96.
- Kramer, P. J. 1969. Plant and Soil Water Relationship. Modern Synthesis Reprinter in India arrangement with Mc. Graw-Hill, Inc, Newyork Graw-Hill Inc. Newyork.

- Kurniawan. W. 2014. Potential values of numbu,cty-33 and bmr sorghum as feed grown in ultisol sedimentation soil with different levels of organic fertilizer. Tesis. Bogor. Institut Pertanian Bogor.
- Lingga, P. dan Marsono. 2004. Petunjuk penggunaan pupuk. Penebar Swadaya. Jakarta.
- Li Y., Mao P., Zhang W., Wang X., You Y., Zhao H., Zhai L., Liu G. 2015. Dynamic expression of the nutritive values in forage sorghum populations associated with white, green and brown midrib genotypes. *Field Crops Research*. 184 (2015) 112–122.
- Mallarino, A. 2000. Soil testing and available phosphorus. *Integrate Crop Management News*, Iowa State University.
- Mangoensoekarjo, S. 2007. Manajemen Tanah dan Pemupukan Budidaya Perkebunan. Gadjah Mada University Press. Yogyakarta. Hal. 407.
- Mamanto, R. 2005. Pengaruh penggunaan dosis pupuk majemuk NPK Phonska terhadap pertumbuhan dan hasil kacang nagara. *Agriscientiae* 10 (2). Fakultas Pertanian Universitas Lambung Mangkurat. Banjarbaru.
- Martin, J. H. 1970. History and classification of sorghum. In J.S. Wall and W.M. Ross (Eds.). *Sorghum production and utilization*. The Avi Publishing Co. Inc. Westport Connecticut. 702 p.
- Miller, F. R, dan JA Stroup. 2003. Brown midrib forage sorghum, sudangrass and corn: What is the potential? *Proc. 33rd California Alfalfa and Forage Symposium*, Hal. 143-151.
- Munir, M. 1996. Tanah-Tanah Utama Indonesia. Dunia Pustaka Jaya, Jakarta.
- Mustafa AF, F. Hassanat, dan P. Seguin. 2004. Chemical composition and in situ ruminal nutrient degradability of normal and brown midrib forage pearl millet grown in southwestern Quebec, *Can. J. Anim. Sci.* Vol. 84, Hal. 737-740.
- Nasution, W. R. S. 2006 ketersediaan hara-P dan respon tanaman jagung (*Zea mays* L.) pada tanah ultisol Tambunan-A akibat pemberian guano dan Mikroorganisme Pelarut Fosfat (MPF). Skripsi (Tidak dipublikasikan). Fakultas Pertanian Universitas Sumatera Utara, Medan.
- Noggle, G.R and Frits, G.J. 1983. *Introduction plant physiology*, Second Edition. New Jersey: Prentice Hall, Inc, Englewood Clifts.

- Nyanjang, R., A. A. Salim, dan Y. Rahmiati. 2003. Penggunaan pupuk majemuk NPK 25-7-7 terhadap peningkatan produksi mutu pada tanaman di tanahandisols. PT. Perkebunan Nusantara XII. Prosiding Teh Nasional, Gambung. Hal. 181-185.
- Oliver AL, J. P. Pedersen, R. J. Grant, T. J. Klopfenstein. 2004. Comparative effects of the sorghum bmr-6 and bmr-12 genes: I. Forage sorghum yield and quality. *Crop Sci.* Vol. 45, Hal. 2234-2239.
- Ouda, J. O., G. K. Njehia, A. R. Moss, H. M. Omed, I. V. Nsahlai. 2005. The nutritive value of forage sorghum genotypes developed for the dry tropical highlands of Kenya as feed source for ruminants. *South Afr. J. Anim. Sci.*, Vol. 35 (1), Hal. 55-60.
- Pedersen, J.F., H.F. Kaepller., D.J. Andrews, and R.D. Lee. 1998. Chapter 14. Sorghum In Banga S.S and S.K Banga (Eds.) Hybrid cultivar development. Springer-Verlag. India. p. 432-354.
- Prasetyo, B. H. dan D. A. Suriadikarta. 2006. Karakteristik, potensi, dan teknologi pengolahan tanah ultisol untuk pengembangan pertanian lahan kering di Indonesia. *Jurnal Litbang Pertanian*.Vol. 25(2), Hal. 39-46.
- Priest, F.G., M. Goodfellow., L.A. Shute., R.C.W. Berkeley. 1987. *Bacillus amyloliquefaciens* sp. Nov. Norn. Rev. International Journal of Systematic Bacteriology. Jan 1987. P. 69-71.
- Prijono, S., dan Kusuma, Z. 2012. Instruksi Kerja Laboratorium Kimia Tanah. F. Pertanian, Brawijaya.
- Putra, Aprizal. 2018. Pemanfaatan Bakteri *Bacillus amyloliquefaciens* untuk Meningkatkan Efisiensi Pemupukan Fosfat paa Tanaman Padi Metode SRI. Skripsi Fakultas Pertanian. Universitas Andalas. Padang.
- Rao PS, S. Deshpande, M. Blummel, B. V. S. Reddy, T. Hash. 2012. Characterization of Brown Midrib Mutants of Sorghum (*Sorghum bicolor* (L.) Moench). *The European Journal of Plant Science and Biotechnology*. Vol. 6, Hal. 71-75. Global Science Books.
- Rao, S. S., N. Seetharama, K. K. Kumar, and R. L. Vanderlip. 2004. Characterization of sorghum growth stages. National Research Center for Sorghum. Rajendragar Hyderabad India 9 Desribes Growth Stages and Management Guide at each Stages of Sorghum Development).

- Ritter KB, McIntyre CL, Godwin ID, Jordan DR, Chapman SC. 2007. An assessment of the genetic relationship between sweet and grain sorghums, within *Sorghum bicolor* ssp. *bicolor* (L.) Moench, using AFLP markers. *Euphytica*. 157:161 –176.
- Sarieff, S. E. 1985. Kesuburan dan Pemupukan Tanah Pertanian. Pustaka Buana. Bandung. xvi + 197p.
- Sirappa, M. P. 2003. Prospek Pengembangan Sorghum di Indonesia sebagai Komoditas Alternatif untuk Pangan, Pakan, dan Industri. Jurnal Litbang Pertanian. Vol. 22, Hal. 133-140
- Soekardi, M.M. W. Retno dan Hikmatullab. 1993. Inventarisasi daD karakterisasi lahan alangalang. Prosiding Seminar Laban Alang-alang, Bogor 1 Desember 1992. Pusat Penelitian Tanah dan Agroklimat. Bogor.
- Soil Survey Staff. 2003. Keys to Soil Taxonomy. USDA, Natural Research Conservation Service. Ninth Edition. Washington D.C.
- Sopandie, D. 2014. Fisiologi Adaptasi Tanaman Terhadap Cekaman Abiotik Pada Agroekosistem Tropika. IPB Press. Bogor.
- Sriagtula, R. 2016. Evaluasi produksi, nilai nutrisi dan karakteristik serat galur sorgum mutan brown midrib sebagai bahan pakan ruminansia. Disertasi Sekolah Pascasarjana IPB, Bogor.
- Sriagtula, R., Karti P. D. M. H., Abdullah, L., Supriyanto, & Astuti DA. 2016. Growth, biomass and nutrient production of brown midrib sorghum mutant lines at different harvest times. Pakistan journal of Nutrition 15 (6): 524-531,2016. ISSN 1680-5194.
- Sriagtula, R., S.Sowmen. 2018. Evaluasi Pertumbuhan dan Produktivitas Sorgum Mutan *Brown midrib* (*Shorgum bicolor* L. Moench) Fase Pertumbuhan Berbeda sebagai Pakan Hijauan pada Musim Kemarau di Tanah Ultisol. Jurnal Peternakan Indonesia. 20 (2):130-144. ISSN : 1907-1760.
- Sri Adiningsih, J. Dan Mulyadi. 1993. Alternatif Teknik Rehabilitasi dan Pemanfaatan Lahan Alang – Alang. hlm. 29-50. Dalam S. Sukmana, Suwardjo, Y. Prawirasumantri (Ed.). Pemanfaat Lahan Alang – alang, Bogor, Desember 1992. Pusat Penelitian Tanah dan Agroklimat. Badan Litbang Pertanian.

- Steel, R. G. D dan J. H. Torrie. 1995. Analisis dan Prosedur Statistika. Penterjemah Bambang Sumantri. Gramedia Pustaka. Jakarta.
- Subagyo, H., N. Suharta, dan A.B. Siswanto. 2004. Tanah-tanah pertanian di Indonesia. dalam A. Adimihardja, L.I. Amien, F. Agus, D. Djaenudin (Ed.). Sumberdaya Lahan Indonesia dan Pengelolaannya. Pusat Penelitian dan Pengembangan Tanah dan Agroklimat, Bogor.
- Subramanian, S.K. 2013. Agronomical, physiological and biochemical approaches to characterize sweet sorghum genotypes for biofuel production. A Dissertation Doctor of Phylosophy, Departement Agronomy College of Agriculture Kansas State University, Manhattan. Kansas.
- Suharta, N., dan B.H. Prasetyo, 1986. Karakteristik Tanah-tanah dari Batuan Granit di Kalimantan Barat, Pember. Panel. Tanah dan Pupuk, No. 6.
- Supriyanto. 2014. Development of promising sorghum mutant lines for improved fodder yield and quality under different soil types, water availability and agroecological zones. Integrated Utilization of Cereal Mutant Varieties in Crop/Livestock Systems for ClimateSmart agriculture (D2.30.30) andWorkshop on Application of NuclearTechniques forIncreased AgriculturalProduction, 18-21 Agustus 2014,SEAMEO-BIOTROP, Bogor.
- Supriyanto. 2010. Pengembangan Sorgum di Lahan Kering Untuk Memenuhi Kebutuhan Pangan, Pakan, Energi dan Industri. Makalah Simposium Nasional 2010 : Menuju Purworejo Dinamis dan Kreatif. <http://dppm.uji.ac.id>(Diakses 2019)
- Supriono. 2000. Pengaruh Dosis Urea Tablet dan Jarak Tanam Terhadap Pertumbuhan dan Hasil Kedelai Kultivar Sindoro. Agrosains 2(2) :45.
- Suprapto dan Mudjisihono. 1987. Budidaya dan Pengolahan Sorghum. Penebar Swadaya. Jakarta.
- Suriatna, S. 1977. Pupuk dan pemupukan. Cetakan Pertama. PT. Medyatama Sarana Perkasa, Jakarta.
- Suriadikarta, Didi Ardi., Simanungkalit, R.D.M. (2006). Pupuk Organik dan Pupuk Hayati. Jawa Barat: Balai Besar Penelitian dan Pengembangan Sumber Daya Lahan Pertanian. Hal 2. ISBN 978-979-9474-57-5.
- Supardi, G. 1983. Sifat dan Ciri Tanah. Institut Pertanian Bogor. Bogor. Hal. 586

- Sutedjo dan Kartasapoetra A. G. 2005. Pengantar Ilmu Tanah. Penerbit Rineka Cipta. Jakarta.
- Sutejo, M. M. 1994. *Pupuk dan Cara Pemupukan*. PT Rineka Cipta: Jakarta.
- Tabri, F., Zubachtirodin. 2013. Budidaya Tanaman Sorgum. Di dalam: Sumarno, Damardjati D S, Syam M dan Hermanto, editor. Sorgum Inovasi Teknologi dan Pengembangan. Jakarta (ID): IAAD Press. Hlm 175-187.
- Thakuria, D., N.C. Talukdar, C, Goswami, S. Hazarika, and R. C. Boro. 2004. Characterization and Screening of Bacteria from Rhizosphere of Rice Grown in Acidic Soils of Assam. *Current Sci.* 86:978-985
- Tjitrosoepomo, G. 2000. Taksonomi tumbuhan (spermatophyta). Universitas Gadjah Mada : Yogyakarta
- Vanderlip, R. L. 1993. How a grain sorghum plant develops. Kansas State University.
- Vanderlip, R. L. And H. E. Reeves. 1972. Growth stages of sorghum (*Sorghum bicolor* (L.) Moench). *Agr. J.* Vol. 64 (1), Hal. 13 - 16
- Vavilov, N. I. 1926. Studies on origin of cultivated plants. *Bull. Appl. Bot.* Vol 16(20), Hal. 248. Cited by D. Singh. 1993. NBPGR. Indian Cancel of Agricultural Research. New Delhi. India.
- Wahyono, T., I. Sugiono, A. Jayanegara, K. G. Wirawan dan D. A. Astuti. 2019. Nutrient Profile and In vitro Degradability of New Promising Mutant Lines Sorghum as Forage in Indonesia. *Advances in Animal and Veterinary Science.* Vol. 7. (9), Hal. 810.
- Wizna, H. Abbas, Y. Rizal, A. Dharma & I. P. Kompiang. 2007. Selection and identification of cellulase-producing bacteria isolated from the litter of mountain and swampy forest. *J. Microbiology Indonesia*, 1(3):135-139.
- Wibowo, A., Purwanti, Setyastuti dan R, Rabaniyah. 2012. Pertumbuhan dan Hasil Benih Kedelai Hitam (*Glycine max* (L.) Merr) Malika yang Ditanam Secara Tumpangsari dengan Jagung Manis (*Zea mays* Kelompok Saccharata). *Vegetalika*. Vol. 1(4), Hal. 1-10.
- Yusmin, H. D. 1998. *Budidaya Sorgum Cocok untuk Daerah Kering*. Kedaulatan Rakyat. Yogyakarta.
- Zhao, D., K. R. Reddy., V. G. Kakani, dan V. R. Reddy. 2005. Nitrogen deficiency effects on plant growth, leaf photosynthesis, and hyperspectral reflectance properties of shorgum. *Europ. J. Agronomy* 22 : 391-403.