

REFERENCES

- Alexander, A.G. (1985), *The energy cane alternative*. Amsterdam, Elsevier Science Publishers B.V. in FAO-Food and Agriculture Organization of the United Nations (2006), "FAO Animal Production and Health Paper", Available online: <http://www.fao.org/docrep/003/s8850e/S8850E04.htm> [Accessed November 2012].
- Andreae, O.M., Merlet, P. (2001). Emission of Trace Gases and Aerosols from Biomass Burning, *Global Biogeochemical Cycles*, **15**, pp. 995-966.
- Allen, D.E., Kingston, G., Rennenberg, H., Dalal, R.C., Schmidt, S. (2010). Effect of nitrogen fertilizer management and water logging on nitrous oxide emissions from subtropical sugarcane soils. *Agriculture, Ecosystems and Environment*, **136**, pp. 209-217.
- Blackburn, F. (1984). Sugarcane. Longmans, New York, USA.
- Ball-Coelho, B., Tiessen, H., Stewart, J.W.B., Salcedo, I.H., Sampaio, E.V.S.B. (1993), Residue management effects on sugarcane yield and soil properties in Northeastern Brazil, *Agronomy Journal*, **85**, pp. 1004-1008.
- Cerri, C. C., Galdos, M. V., Maia, S. M. F., Bernoux, M., Feigl, B. J., Powlson, D., Cerri C. E. P. (2011). Effect of Sugarcane Harvesting Systems on Soil Carbon Stocks in Brazil: An Examination of Existing Data, *European Journal of Soil Science*, **62**, 1, pp. 23-28.
- Cheavegatti-Gianotto A., Marília Couto de Abreu, H., Arruda P, Filho JCB, Burnquist WL, Creste S., di Ciero, L., Ferro J.A., Vargas de Oliveira Figueira, A., de Sousa Filgueiras, T., de Fátima Grossi-de-Sá, M., Guzzo E.C., Hoffmann H.P., Guimarães de Andrade Landell, M., Macedo N., Matsuoka S., de Castro Reinach, F., Romano E, da Silva, W.J., de Castro Silva Filho, M., Ulian E.C. (2011) Sugarcane (*Saccharum X officinarum*): A Reference Study for the Regulation of Genetically Modified Cultivars in Brazil, *Tropical Plant Biol.* **4**: 62-89
- Cheewaphongphan, P., and Garivait, S. (2013). Bottom up Approach to Estimate Air Pollution of Rice Residue Open Burning in Thailand. *Asia-Pacific Journal of Atmospheric Science*, **49**, pp. 139-149.
- Dunn, S. (2002). Reading the Wheathervane: Climate Policy from Rio to Johannesburg, World Watch Paper No. 160. World Watch Institute, Washington, DC.
- Denmead, O.T., MacDonald, B.C.T., White, I., Griffith, D.W.T., Bryant, G., Naylor, T., Wilson, S.R. (2009). Evaporation and Carbon Dioxide Exchange by Sugar Cane Crops, paper presented in the, *2009 Conference of the Australian Society of Sugar Cane Technologists*, pp. 116-124. Ballina, New South Wales, Australia

- Denmead, O.T., Macdonald, B.C.T., Bryant, G., Naylor, T., Wilson, S., Griffith, D.W.T., Wang, W.J., Salter, B., White, I., Moody, P.W. (2010). Emissions of Methane and Nitrous Oxide from Australia Sugarcane Soils, *Agricultural and Forest Meteorology*, **150**, 6, pp. 748-756.
- Demirbas, A., (2010). "Biorefineries for Biomass Upgrading Facilities". Available online: <http://www.springer.com/978-1-84882-720-2> [Accessed June 2012].
- Eichner M.J. (1990). Nitrous oxide emissions from fertilizer soils: summary and available data. *Journal of Environmental Quality*, **19**, pp. 272-280.
- Ellert, B.H., Bettany, J.R. (1995). Calculation of Organic Matter and Nutrients Stored in Soils under Contrasting Management Regimes, *Canadian Journal of Soil Science*, **75**, pp. 529-538.
- Evensen, C.I., Muchow, R.C., El-Swaify, A. Osgood, R.V. (1997). Yield accumulation in irrigated sugarcane. I. Effect of crop age and cultivar. *Agronomy Journal*, **89**, pp. 638-646.
- Estrellan, C. R., Iino, F. (2010). Toxic Emissions from Open Burning. *Chemosphere*, **80**, pp. 193-207.
- Follett, R. F. (2001). Soil management concepts and carbon sequestration in cropland soils. *Soil Till. Research*. **61**, pp. 77-92.
- Graham, M.H., Haynes, R.J., Meyer, J.H. (2002). Soil organic matter content and quality: effects of fertilizer applications, burning and trash retention on a long-term sugarcane experiment in South Africa, *Soil Biology and Biochemistry*, **34**, pp. 93-102.
- Garivait, S., Chaiyo, U., Patumsawad, S., Deakhuntod, J. (2006). Physical and Chemical Properties of Thai Biomass Fuels from Agricultural Residues, paper presented in the, 2nd Joint International Conference on "Sustainable Energy and Environment". Bangkok, Thailand.
- GTOS-Global Terrestrial Observing System (2009). "Biomass". Available online: <http://www.fao.org/gtos/ecv-t12.html> [Accessed June 2012].
- Galdos, M.V., Cerri, C.C., Cerri, C.E.F. (2009). Soil Carbon Stocks under Burned and Unburned Sugarcane in Brazil, *Geoderma*, **153**, 3-4, pp. 347-352.
- Herrera, M.C. (1999). Cane, Sugar and the Environment, paper presented in the, *FAO International Sugar Conference*. Cuba.

- Hanson, P.J., Edwards, N.T., Garten, C.T., and Andrews, J.A. (2000). Separating root and soil microbial contributions to soil respiration: A review of methods and observations, *Biogeochemistry*, **48**, 1, pp. 115-146.
- Hubbert, K.R., Preisler, H.K., Wohlgemuth, P.M., Graham, R.G., Narog, M.G. (2006), Prescribed burning effects on soil physical properties and water repellency in a steep chaparral watershed, Southern California, USA, *Geoderma*, **130**, pp. 284-298.
- Huang, K., Fu, J.S., Hsu, N.C., Gao, Y., Dong, X., Tsay, S._C., Lam, Y.F. (2013). Impact assessment of biomass burning on air quality in Southeast and East Asia during BASE_ASIA. *Atmospheric Environment*, **78**, 291-302.
- Inman-Bamber, N.G., Thompson, G.D. (1989). Models of dry matter accumulation by sugarcane. *Proceeding of the South African Sugar Technologists' Association*, **63**, pp. 212-216.
- Inman-Bamber, N.G., Muchow, R.C. Robertson, M.J. (2002). Dry matter partitioning of sugarcane in Australia and South Africa. *Field Crops Research*, **76**, pp. 71-84.
- IPCC-Intergovernmental Panel on Climate Change (2006). *2006 IPCC Guidelines for National Greenhouse Gas Inventories: Volume 4 Agriculture, Forestry and Other Land Use*, Institute for Global Environmental Strategies (IGES), Hayama, Japan on behalf of the IPCC.
- IPCC-Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis*. In Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Edited by: Solomon, S. et al. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Jorapur, R., Rajvanshi, A.K. (1997). Sugarcane Leaf-bagasse gasifiers for Industrial Heating Applications, *Biomass and Bionergy*, **13**, 3, p.141-146.
- Jia, B., Zhou, G., Wang, F., Wang, Y., Yuan, W., Zhou, L. (2006). Partitioning root and microbial contributions to soil respiration in *Leymus chinensis* population, *Soil Biology and Biochemistry*, **38**, pp. 653-660.
- Koopmans, A., Koppejan, J. (1997). Agricultural and Forest Residue-Generation, Utilization and Availability, paper presented in the, *Regional Consultation on Modern Applications of Biomass Energy*, pp. 1-14. Kuala Lumpur, Malaysia.
- Kennedy, C.W., Arceneaux, A.E. (2006). The Effect of Harvest Residue Management Inputs on Soil Respiration and Crop Productivity of Sugarcane, *Journal of the American Society of Sugar Cane Technologists*, **26**, pp. 125-136.

- Kishore, V.V.N. (2008). *Renewable Energy Engineering and Technology A Knowledge Compendium*, New Delhi: The Energy and Resources Institute, in Maithel, S. (2009). "Biomass Energy: Resource Assessment Handbook". Available online: <http://recap.apctt.org/Docs/Biomass.pdf> [Accessed November 2012].
- Kayode, S.A., Gabriel, A.O., Olateju, D.A., Adeyolanu, O.O. (2009), Slash and burn effect on soil quality of an Alfisol: soil physical properties, *Soil and Tillage Research*, **103**, pp. 4-10.
- Kanokanjana, K. (2010). *An Emission Assessment of Carbonaceous Aerosols from Agricultural Open Burning in Thailand: Integrating Experimental Data and Remote Sensing*. The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi, Thailand (Thesis report).
- Lemieux, P. M., Lutes, C. C., Santoianni, D. A. (2004). Emissions of organic air toxics from open burning: a comprehensive review. *Progress in Energy and Combustion Science*, **30**, pp. 1-32.
- LI-COR (2006). *LI-8100 Automated soil CO₂ flux system & LI-8150 multiplexer instruction manual*, LI-COR Inc., Lincoln, Nebraska, USA.
- Lee, M.S., Nakane, K., Nakatsubo, T., Koizumi, H. (2005). The importance of root respiration in annual soil carbon fluxes in a cool-temperature deciduous forest, *Agricultural and Forest Meteorology*, **134**, pp. 95-101.
- Leifeld, J., Bassin, S., Fuhrer, J. (2005), Carbon stocks in Swiss agricultural soils predicted by land-use, soil characteristics, and altitude, *Agriculture Ecosystems and Environment*, **105**, pp. 255-266.
- Lee, J., Hopmans, J.W., Rolston, D.E., Baer, S.G., Six, J. (2009). Determining Soil Carbon Stock Changes: Simple Bulk Density Corrections fail, *Agriculture, Ecosystems and Environment*, **134**, 3-4, pp. 251-256.
- Marland, G., West, T. O., Schlamadinger, B., Canella, L. (2003) Managing soil organic carbon in agriculture: The net effect on greenhouse gas emissions', *Tellus*, **55B**, pp. 613-621.
- Munoz, C., Paulino, L., Monreal, C., Zagal, E. (2010), Greenhouse gas (CO₂, and N₂O) emissions from soils: a review, *Chilean Journal of Agricultural Research*, **70**, 3, pp. 485-497.

- OAE-Office of Agricultural Economic (2012). *Agricultural Statistics in Thailand in Year 2012*, Office of Agricultural Economic, Ministry of Agriculture and Co-operative, Thailand.
- OCSB-Office of Cane and Sugar Board (2013) Report of sugarcane production and sugar. Available at: <http://www.ocsb.go.th/th/cms/detail.php?ID=142&SystemModuleKey=production> [Accessed on April 2013].
- PCD-Pollution Control Department (2006). *Monitoring and Estimation of Biomass Open Burning Activity in Agricultural Area in Thailand*, Pollution control department Ministry of Natural Resource and Environment, Thailand.
- Panosso, A. R., Marques, J., Pereira, G. T., Scala, N. La. (2009). Spatial and Temporal Variability of Soil CO₂ Emission in a Sugarcane Area under Green and Slash-and-burn Management, *Soil and Tillage Research*, **105**, 2, pp. 275-282.
- Panosso, A.R., Marques Jr., J., Milori, D.M.B.P., Ferraudo, A.S., Barbieri, D.M., Pereira, G.T., , La. Scala Jr., N. (2011) Soil CO₂ Emission and its Relation to Soil Properties in Sugarcane Areas under Slash-and-burn and Green harvest, *Soil Tillage Research*, **111**, pp. 190-196.
- Prasertsan, S., Sajjakulnukit, B. (2006). Biomass and Biogas Energy in Thailand: Potential, Opportunity and Barriers. *Renewable Energy*, **31**, pp. 559-610.
- Raison, R.J. (1979), Modification of the soil environment by vegetation fires with particular reference to nitrogen transformation: a review. *Plant Soil*, **51**,1, pp. 73-108.
- Raich, J.W., Tufekcioglu, A. (2000). Vegetation and respiration: correlation and controls, *Biogeochemistry*, **48**, pp. 71-90.
- Razafimbelo, T., Barthes, B., Larre-Larrouy, M.C., De Luca, E.F., Laurent, J.Y., Cerri, C.C., Feller, C. (2006). Effect of Sugarcane Residue Management (Mulching versus Burning) on Organic Matter in a Clayey Oxisol from Southern Brazil, *Agriculture Ecosystems and Environment*, **115**, 1-4, pp. 285-289.
- Ravindranatha, N.H., Somashekara, H.I., Nagarajaa, M.S., Sudhaa, P., Sangeethaa, G., Bhattacharyab, S.C., Abdul Salamb, P. (2005). Assessment of Sustainable Non-Plantation Biomass Resources Potential for Energy in India. *Biomass and Bioenergy*, **29**, pp. 178-190.
- Robertson, M.J., Muchow, R.C., Wood, A.W. (1996). Growth of sugarcane under high input conditions in tropical Australia. I. Radiation use, biomass accumulation and partitioning. *Field Crop Research*, **48** pp. 11-25.

- Roberson, F. (2009), Sugarcane trash management: consequences for soil carbon and nitrogen-Final report to the CRC for sustainable sugar production of the project nutrient cycling in relation to trash management, CRC for sustainable sugar production, Townville.
- Smith, D.M., Inman-Bamber, N.G., Thorburn, P.J. (2005), Growth and function of the sugarcane root system, *Field Crops Research*, **92**, 2-3, pp. 169-183.
- Snyder, C.S., Bruulsema, T.W., Jensen, T.L., Fixen, P.E. (2009), Review of greenhouse gas emissions from crop production systems and fertilizer management effects, *Agriculture, Ecosystems and Environment*, **133**, 3-4, pp. 247-266.
- Sayer, E.J., Tanner, E.V.J. (2010). A new approach to trenching experiments for measuring root-rhizosphere respiration in a lowland tropical forest. *Soil Biology and Biochemistry*, **42**, pp. 347-352.
- Sandhu et al. (2012), Relationships among Leaf Area Index, Visual Growth Rating, and Sugarcane Yield, *Journal American Society of Sugar Cane Technologists*, **32**, pp. 1-14.
- Sasaki, Y. (2013). "ASEAN Biomass R&D Strategy: A Research Project for Effective Utilization of Biomass in Asia". Available online: <http://www.biomass-asia-workshop.jp/biomassws/03workshop/material/sasaki.pdf> [Accessed October 2012].
- Toriyama, J., Kato, T., Siregar, C. A., Siringoringo, H.H., Ohta, S., Kiyono, Y. (2011). Comparison of Depth- and Mass-Base Approaches for Estimating Changes in Forest soil Carbon Stocks: A case study in young plantations and secondary forests in West Java, Indonesia, *Forest Ecology and Management*, **262**, 9, pp. 1659-1667.
- TMD-Thai Meteorological Department. (2013). "Monthly observation report," available on website: <http://www.met-sawan.tmd.go.th/data/data.htm> [Accessed March 2013].
- Vanichbuncha, K. (2011). Statistical analysis: *Statistics for Management and Research*. Edition: 13, Chulalongkorn University Printing House, Thailand. pp. 5-25.
- Wood, A.W. (1991), Management of crop residues following green harvesting of sugarcane in north Queensland, *Soil and Tillage Research*, **20**, pp. 69-85.
- Wiedenfeld, B. (2009). Effects of Green Harvesting vs Burning on Soil Properties, Growth and Yield of Sugarcane in South Texas, *Journal of the American Society of Sugar Cane Technologists*, **29**, pp. 102-109.
- Wang, W., Ohse, K., Liu, J., Mo, W., Oikawa, T. (2005). Contribution of Root Respiration to Soil Respiration in C3/C4 Mixed Grassland," *Journal Bioscience*, **30**, pp. 507-514.

- Wei, W., Jiang, F., Oikawa, T. (2009). Contribution of Root and Microbial Respiration to Soil CO₂ Efflux and Their Environmental Controls in Humid Temperate Grassland of Japan,” *Pedosphere*, **19**, pp. 31-39.
- Watcharapirak, W., Pattanakiat, S. (2009). The Estimation of Carbon Storages in Various Growth Stages of Sugarcane in Si Sat Chanalai district, Sukhothai province, Thailand. *Environment and Natural Resources Journal*, **7**, pp. 72-81.
- Wikipedia (2013). “Nakhon Sawan province,” available on website: http://en.wikipedia.org/wiki/Nakhon_Sawan_Province [Accessed March 2013].
- Yamane, T. (1967). *Statistics, An Introductory Analysis*, 2nd Ed., New York: Harper and Row.
- Yuttitham, M. (2009). Full carbon accounting in bioenergy production from sugarcane. The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi, Thailand. pp. 122 (Thesis report).
- Yan, X., Hosen, Y., Yagi, K. (2001). Nitrous oxide and nitric oxide emissions from maize field plots as affected by N fertilizer type and application method. *Biology and Fertility of Soils*, **34**, pp. 297-303.
- Zhao, C.Y., Zhao, Z.M., Yilihamu, Hong, Z., Jun, L. (2011). Contribution of Root and Rhizosphere Respiration of *Haloxylon ammodendron* to Seasonal Variation of Soil Respiration in The Central Asian desert, *Quaternary International*, **244**, pp. 304-309.
- Zhang. Y., Shao, M., Lin, Y., Luan, S., Mao, N., Chen, W., Wang, M. (2013). Emission Inventory of Carbonaceous Pollutants from Biomass Burning in the Pearl River Delta Region, China, *Atmospheric Environment*, **76**, pp. 189-199.