

เอกสารอ้างอิง

กรมวิชาการเกษตร. 2551. ระบบข้อมูลทางวิชาการ. [Online]. Available: <http://it.doa.go.th/> [2011, Jun. 19].

คณาจารย์ภาควิชาพืชไร่นา คณะเกษตร มหาวิทยาลัยเกษตรศาสตร์. 2542. พืชเศรษฐกิจ. สำนักพิมพ์ มหาวิทยาลัยเกษตรศาสตร์. กรุงเทพมหานคร.

เฉลิม เนาว์แก้ว. 2548. ประสิทธิภาพการตรึงไนโตรเจนของจุลินทรีย์ตรึงไนโตรเจนที่อาศัยอยู่ภายในเนื้อเยื่อกล้วยไม้สกุลหวายบางชนิด. วิทยานิพนธ์ วิทยาศาสตร์มหาบัณฑิต สาขาวิชาปฐพีศาสตร์ บัณฑิตวิทยาลัย มหาวิทยาลัยเชียงใหม่.

ประทีป เอี่ยมเจริญ, เสษฐา ศิริพันธุ์, อภิชัย ชีรธร และ อนันต์ ปันตารักษ์. 2542. อิทธิพลของการใส่เชื้อแบคทีเรียตรึงไนโตรเจนต่อการเจริญเติบโตของกล้วยไม้. การประชุมทางวิชาการของมหาวิทยาลัยเกษตรศาสตร์ ครั้งที่ 37, 3-7 กุมภาพันธ์ 2542. หน้า 45 – 50.

ปรีชา พรหมณี และคณะ. 2543. คู่มือวินิจฉัยอาการขาดธาตุอาหารของอ้อย. โรงพิมพ์ชุมนุมสหกรณ์การเกษตรแห่งประเทศไทย จำกัด. กรุงเทพมหานคร.

ขงยุทธ โอสดสภา. 2543. ธาตุอาหารพืช. สำนักพิมพ์มหาวิทยาลัยเกษตรศาสตร์. กรุงเทพมหานคร.

วรยุวัน ขวนไชยสิทธิ์. 2549. ลักษณะเฉพาะของเชื้อแบคทีเรียตรึงไนโตรเจนในเนื้อเยื่อกล้วยไม้สกุลหวายที่ปลูกโดยการเพาะเลี้ยงเนื้อเยื่อ. วิทยานิพนธ์ วิทยาศาสตร์มหาบัณฑิต สาขาวิชาปฐพีศาสตร์ บัณฑิตวิทยาลัย มหาวิทยาลัยเชียงใหม่.

สมศักดิ์ วังโน. 2541. ไรโซเบียม-พืชตระกูลถั่ว. สำนักพิมพ์มหาวิทยาลัยเกษตรศาสตร์. กรุงเทพมหานคร.

Alexander, M. 1977. Introduction to Soil Microbiology. John Wiley and Sons, Incorporation, New York.

Adachi, K., Nakatani, M., and Mochida, H. 2002. Isolation of an endophytic diazotroph, *Klebsiella oxytoca*, from sweet potato stems in Japan. Soil Science and Plant Nutrition, 48: 889 – 895.

- Addison, S.L., Foote, S.M., Reid, N.M. and Lloyd-Jones, G. 2007. *Novosphingobium nitrogenifigens* sp. nov., a polyhydroxyalkanoate-accumulating diazotroph isolated from a New Zealand pulp and paper wastewater. *International Journal of Systematic and Evolutionary Microbiology*, 57: 2467 – 2471.
- Asis Jr, C.A. and Adachi, K. 2003. Isolation of endophytic diazotroph *Pantoea agglomerans* and nondiazotroph *Enterobacter asburiae* from sweetpotato stem in Japan. *Letters in Applied Microbiology*, 38: 19 – 23.
- Baldani, J.I., Baldani, V.L.D., Seldin, L. and Döbereiner, J. 1986. Characterization of *Herbaspirillum seropedicae* gen. nov., sp. nov., a root-associated nitrogen-fixing bacterium. *International Journal of Systematic Bacteriology*, 36: 86 – 93.
- Baldani, J.I., Caruso, L., Baldani, V.L.D., Goi, S.R. and Döbereiner, J. 1997. Recent advances in BNF with non-legume plants. *Soil Biology and Biochemistry*, 29: 911–922.
- Baldani, J.I., Pot, B., Kirchhof, G., Falsen, E., Baldani, V.L., Olivares, F.L., Hoste, B., Kersters, K., Hartmann, A., Gillis, M., Döbereiner, J. 1996. Emended description of *Herbaspirillum*; inclusion of *Pseudomonas rubrisubalbicans*, a milk plant pathogen, as *Herbaspirillum rubrisubalbicans* comb. nov. and classification of a group of clinical isolates (EF group 1) as *Herbaspirillum* species 3. *International Journal of Systematic Bacteriology*, 46: 802 – 810.
- Baek, S.H., Lim, J.H., Jin, L., Lee, H.G. and Lee, S.T. 2010. *Novosphingobium sediminicola* sp. nov. isolated from freshwater sediment. *International journal of systematic and evolutionary microbiology*, DOI: 10.1099/ijs.0.024307-0.
- Becking, J.H. 1962. Species differences in molybdenum and vanadium requirements and combine nitrogen utilization by Azotobacteriaceae. *Plant and Soil*, 16: 171 – 201.
- Berg, G., Eberl, L. and Hartmann, A. 2005. The rhizosphere as a reservoir for opportunistic human pathogenic bacteria. *Environmental Microbiology*, 7: 1673 – 1685.
- Boddey, R.M., Urquiaga, S., Alves, B.J.R. and Reis, V. 2003. Endophytic nitrogen fixation in sugarcane : present knowledge and future applications. *Plant and Soil*, 252: 139 – 149.
- Brotonegoro, S. 1974. Nitrogen fixation and nitrogenase activity of *Azotobacter chroococcum*. Ph. D. Thesis, Wageningen University.

- Burd, G.I., Dixon, D.G. and Glick, B.R. 1998. A plant growth-promoting bacterium that decreases nickel toxicity in seedlings. *Applied and Environmental Microbiology*, 64: 3663 – 3668.
- Carrizo de Bellone, S. and Bellone, C.H. 2006. Presence of endophytic diazotrophs in sugarcane juice. *World Journal of Microbiology and Biotechnology*, 22: 1065 – 1068.
- Cavalcante, V.A. and Döbereiner, J. 1988. A new acid – tolerant nitrogen fixing bacterium associated with sugarcane. *Plant and Soil*, 108: 23 – 31.
- Costacurta, A., Vanderleyden, J. 1995. Synthesis of phytohormones by plant-associated bacteria. *Critical Reviews in Microbiology*, 21: 1 – 18.
- Cruz, L.M., De Sousa, E.M., Weber, O.B., Banaldi, J.I., Döbereiner, J. and Pedrosa, O. 2001. 16S ribosomal DNA characterization of nitrogen- fixing bacteria isolate from banana (*Musa spp.*) and pineapple (*Ananas Comosus* (L.)Merril). *Applies and Environmental Microbiology*, 67: 2375 - 2379.
- Day, J.M. 1975. Nitrogen fixation associations between bacteria and tropical grass roots. In: Ayanaba, A. and Dart, P.J. (eds.), *Biological Nitrogen Fixation in Framing Systems of the Tropics*. John Wiley and Sons, Incorporation, New York.
- Desnoues, N., Lin, M., Guo, X., Ma, L., Carreño - Lopez¹, R. and Elmerich, C. 2003. Nitrogen fixation genetics and regulation in a *Pseudomonas stutzeri* strain associated with rice. *Microbiology*, 149: 2251 – 2262.
- Dobbelaere, S., Croonenborghs, A., Amber, T., Ptacek, D., Vanderleyden, J., Dutto, P., Labandera - Gonzalez, C., Caballero - Mellado, J., Aguirre, J.F., Kapulnik, Y., Shimon, B., Burdman, S., Kadouri, D., Sarig, S. and Okon, Y. 2001. Responses of agronomically important crops to inoculation with *Azospirillum*. *Australian Journal of Plant Physiology*, 28: 871 – 879.
- Dobbelaere, S. and Okon, Y. 2007. The plant growth-promoting effect and plant responses. In: Elmerich, C., and Newton, W.E. (eds.), *Associative and endophytic nitrogen-fixing bacteria and cyanobacterial associations*. Springer, Dordrecht, Netherlands.
- Döbereiner, J., Day, J. M. and Dart, P. J. 1972. Nitrogenase activity in the rhizosphere of sugarcane and other tropical grasses. *Plant and soil*, 37: 191 – 196.

- Döbereiner, J., Day, J.M. and Dart, P.J. 1973. Effect of O₂ on nitrogenase activity in the rhizosphere of *Paspalum notatum*. Soil Biology and Biochemistry, 50: 1021 – 1026.
- Dong, Y., Iniguez, A.L. and Triplett, E.W. 2003. Quantitative assessments of the host range and strain specificity of endophytic colonization by *Klebsiella pneumoniae* 342. Plant and Soil, 257: 49 – 59.
- Dong, Z., Canny, M.J., McCully, M.E., Roboredo, M.R., Cabadilla, C.F., Ortega, E. and Rodes, R. 1994. A nitrogen-fixing endophyte of sugarcane stems (A new role for the apoplast). Plant Physiology, 105: 1139 – 1147.
- Dorothy, G. 1972. Method in clinic bacteriology. Charles G. Thomas Publisher, New York.
- Eckert, B., Weber, O.B., Kirchhof, G., Halbritter, A., Stoffels, M. and Hartmann, A. 2001. *Azospirillum doebereineriae* sp. nov., a nitrogen-fixing bacterium associated with the C4-grass *Miscanthus*. International Journal of Systematic and Evolutionary Microbiology, 51: 17 – 26.
- Elbeltagy, A., Nishioka, K., Sato, T., Suzuki, H., Ye, B., Hamada, T., Isawa, T., Mitsui, H. and Minamisawa, K. 2001. Endophytic colonization and In planta nitrogen fixation by a *Herbaspirillum* sp. Isolated from wild rice species. Applied and Environmental Microbiology, 67: 5285 – 5293.
- Estrada - De Los Santos, P., Bustillos-Cristales, R. and Caballero - Mellado, J. 2001. *Burkholderia*, a genus rich in plant-associated nitrogen fixers with wide environmental and geographic distribution. Applied and Environmental Microbiology, 67: 2790 – 2798.
- Feng, Y., Shen, D. and Song, W. 2006. Rice endophyte *Pantoea agglomerans* YS19 promotes host plant growth and affects allocations of host photosynthates. Journal of Applied Microbiology, 100: 938 – 945.
- Fuentes - Ramírez, L.E., Jiménez - Salgado, T., Abarca - Ocampo, I.R., and Caballero - Mellado, J. 1993. *Acetobacter diazotrophicus*, an indole acetic acid producing bacterium isolated from sugarcane cultivars of Mexico. Plant and Soil, 154: 145 – 150.

- Fuentes - Ramirez, L.E., Bustillos - Cristales, R., Tapia - Hernandez, A., Jimenez - Salgado, T., Wang, E.T., Martinez - Romero, E. and Caballero - Mellado, J. 2001a. Novel nitrogen - fixing acetic acid bacteria, *Gluconacetobacter johannae* sp. nov. and *Gluconacetobacter azotocaptans* sp. nov., associated with coffee plants. International Journal of Systematic and Evolutionary Microbiology, 51: 1305 – 1314.
- Govindarajan, M., Balandreau, J., Kwon, S.W., Weon, H.Y. and Lakshminarasimhan, C. 2008. Effects of the inoculation of *Burkholderia vietnamensis* and related endophytic diazotrophic bacteria on grain yield of rice. Microbial Ecology, 55: 21 – 37.
- Govindarajan, M., Kwon, S.W., Weon, H.Y. 2007. Isolation, molecular characterization and growth-promoting activities of endophytic sugarcane diazotroph *Klebsiella* sp. GR9. World Journal of Microbiology and Biotechnology, 23: 997 – 1006.
- Hale, C. N. and Wikie, J. P. 1972b. Bacterial leaf stripe of sorghum in New Zealand. New Zealand Journal of Agriculture, 15: 457 – 460.
- Hallmann, J., Mahaffee, W.F., Kloepper, J.W. and Quadthallmann, A. 1997. Bacterial endophytes in agricultural crops. Canadian Journal of Microbiology, 43: 895 – 914.
- Hardy, R.W.F., Burns, R.C. and Holsten, R.D. 1973. Application of the acetylene ethylene assay for measurement of nitrogen fixation. Soil Biology and Biochemistry, 5: 47 – 81.
- Hardy, R.W.F., Holsten, R.D., Jackson, E.K. and Burns, R.C. 1968. The acetylene ethylene assay for N_2 fixation. Plant Physiology, 43: 1185 – 1207.
- Hauser, E., Kämpfer, P. and Busse H.J. 2004. *Pseudomonas psychrotolerans* sp. nov. International Journal of Systematic and Evolutionary Microbiology, 54: 1633 – 1637.
- Hewitt, E.J. 1984. The essential and function mineral elements. In “Diagnosis of Mineral disorders in plants, volume 1 principles” (Robinson, J.B.D. ed.), Chemical publishing. New York.
- Hurek, T., Handley, L.L., Reinhold-Hurek, B. and Piche, Y. 2002. *Azoarcus* grass endophytes contribute fixed nitrogen to the plant in an unculturable state. Molecular Plant-Microbe Interactions, 15: 233 – 242.
- Hurek, T., Reinhold-Hurek, B., Van Montagu, M. and Kellenberger, E. 1994. Root colonization and systemic spreading of *Azoarcus* sp. strain BH72 in grasses. Applied and Environmental Microbiology, 176: 1913 – 1923.

- Holt, J.G., Krieg, N.R., Sneath, P.H.A., Staley, J.T. and Williams S.T. 1994. Bergey's Manual of Determinative Bacteriology. Ninth edition. The William & Wilkin's Company. Baltimore.
- Iniguez, A.L., Dong, Y. and Triplett, E.W. 2004. Nitrogen fixation in wheat provided by *Klebsiella pneumoniae* 342. Molecular Plant - Microbe Interactions, 17: 1078 – 1085.
- Islam, R., Trivedi, P., Madhaiyan, M., Seshadri, S., Lee, G., Yang, J., Kim, Y., Kim, M., Han, G., Chauhan, P.S. and Sa, T. 2010. Isolation, enumeration, and characterization of diazotrophic bacteria from paddy soil sample under long-term fertilizer management experiment. Biology and Fertility of Soils, 46: 261 – 269.
- Jakobsons, A., Zell, E.A. and Wilson, P.W. 1962. A re – investigation of the calcium requirement of *Azotobacter vinelandii* using purified media. Archives of Microbiology, 41: 1 – 10.
- James, E.K. 2000. Nitrogen fixation in endophytic and associative symbiosis. Field Crops Research, 65: 197 – 209.
- James, E.K. and Olivares, F.L. 1998. Infection and colonization of sugarcane and other Gramineous plants by endophytic diazotrophs. Critical Reviews in Plant Sciences, 17: 77 – 119.
- Janda, J.M. and Abbott, S.L. 2007. 16S rRNA gene sequencing for bacterial identification in the diagnostic laboratory: pluses, perils, and pitfalls. Journal of Clinical Microbiology, 45: 2761 – 2764.
- Jensen, H.L. and Spencer, D. 1947. The influence of molybdenum and vanadium on nitrogen fixation by *Clostridium butyricum* and related organisms. Proceedings of the Linnaean Society of New South Wales, 72: 73 – 86.
- Jha, P.N. and Kumar, A. 2007. Endophytic colonization of *Typha australis* by a plant growth-promoting bacterium *Klebsiella oxytoca* strain GR-3. Journal of Applied Microbiology, 103: 1311 – 1320.
- Jha, P. and Kumar, A. 2009. Characterization of novel plant growth promoting endophytic bacterium *Achromobacter xylosoxidans* from wheat plant. Microbial Ecology, 58: 179 – 188.

- Jiménez - Salgado, T., Fuentes - Ramirez, L.E., Tapia - Hernandez, A., Mascarua - Esparza, M.A., Martinez - Romero, E. and Caballero - Mellado, J. 1997. *Coffea arabica* L., a new host plant for *Acetobacter diazotrophicus*, and isolation of other nitrogen-fixing acetobacteria. *Applied and Environmental Microbiology*, 63: 3676 – 3683.
- Khammas, K.M., Ageron, E., Grimont, P.A. and Kaiser, P. 1989. *Azospirillum irakense* sp. nov., a nitrogen-fixing bacterium associated with rice roots and rhizosphere soil. *Research in Microbiology*, 140: 679 – 693.
- Khan, Z. and Doty, S.L. 2009. Characterization of bacterial endophytes of sweet potato plants. *Plant and Soil*, 322: 197 – 207.
- Kirchhof, G., Eckert, B., Stoffels, M., Baldani, J.I., Reis, V.M. and Hartmann, A. 2001. *Herbaspirillum frisingense* sp. nov., a new nitrogen-fixing bacterial species that occurs in C4-fibre plants. *International Journal of Systematic and Evolutionary Microbiology*, 51: 157 – 168.
- Kirchhof, G., Reis, V.M., Baldani, J.I., Eckert, B., Döbereiner, J. and Hartmann, A. 1997. Occurrence, physiology and molecular analysis of endophytic diazotrophic bacteria in gramineous energy plants. *Plant and Soil*, 194: 45 – 55.
- Klugkist, J. and Haaker, H. 1984. Inhibition of nitrogenase activity by ammonium chloride in *Azotobacter vinelandii*. *The Journal of Bacteriology*, 157: 148 – 151.
- Kodama, K., Kimura, N. and Komagata, K. 1985. Two new species of *Pseudomonas*: *P. oryzihabitans* isolated from rice paddy and clinical specimens and *P. luteola* isolated from clinical specimens. *International Journal of Systematic Bacteriology*, 35: 467 – 474.
- Koomnok, C., Teaumroong, N., Rerkasem, B. and Lumyong, S. 2007. Diazotroph endophytic bacteria in cultivated and wild rice in Thailand. *ScienceAsia*, 33: 429 – 435.
- Lane, D.J. 1991. 16S/23S rRNA sequencing in nucleic acid techniques in bacterial systematic, Edited by Stackebrandt, E. and Goodfellow, M., John Wiley & Son, Chichester.
- Loganathan, P., Sunita, R., Parida, A.K. and Nair, S. 1999. Isolation and characterization of two genetically distant groups of *Acetobacter diazotrophicus* from a new host plant *Eleusine coracana* L. *Applied and Environmental Microbiology*, 87: 167 – 172.

- Loiret, F.G., Ortega, E., Kleiner, D., Ortega – Rodes, P., Rodes, R. and Dong, Z. 2004. A putative new endophytic nitrogen – fixing bacterium *Pantoea* sp. from sugarcane. *Journal of Applied Microbiology*, 97: 504 – 511.
- Lowry, O.H., Rosenbrough, N.J., Farr, A.L. and Randall, R.J. 1951. Protein measurement with the Folin Phenol Reagent. *Journal of Biological Chemistry*, 193: 255 - 275.
- Liu, X., Zhao, H. and Chen, S. 2006. Colonization of maize and rice plants by strain *Bacillus megaterium* C4. *Current Microbiology*, 52: 186 – 190.
- Magalhaes, F.M., Baldani, J.I., Souto, S.M., Kuykendall, J.R. and Döbereiner, J. 1983. A new acid tolerant *Azospirillum* species. *Anais da Academia Brasileira de Ciências*, 55: 417 – 430.
- Magnani, G.S., Didonet, C.M., Cruz, L.M., Picheth, C.F., Pedrosa, F.O. and Souza, E.M. 2010. Diversity of endophytic bacteria in Brazilian sugarcane. *Genetics and Molecular Research*, 9: 250 – 258.
- Mano, H. and Morisaki, H. 2008. Endophytic bacteria in the rice plant. *Microbes and Environments*, 23: 109 – 117.
- Martínez, L., Caballero – Mellado, J., Orozco, J. and Martínez – Romero, E. 2003. Diazotrophic bacteria associated with Banana (*Musa* spp.). *Plant and Soil*, 257: 35 – 47.
- Mattos, K.A., Pádua, V.L., Romeiro, A., Hallack, L.F., Neves, B.C., Ulisses, T.M., Barros, C.F., Todeschini, A.R., Previato, J.O. and Mendonça-Previato, L. 2008. Endophytic colonization of rice (*Oryza sativa* L.) by the diazotrophic bacterium *Burkholderia kururiensis* and its ability to enhance plant growth. *Anais da Academia Brasileira de Ciências*, 80: 477 – 493.
- McInroy, J.A. and Kloepper, J.W. 1994. Studies on indigenous endophytic bacteria of sweet corn and cotton. In Gara F.O., Dowling, D.N. and Boesten, B. (ed.), *Molecular Ecological of Rhizosphere Microorganisms, Biotechnology and the Release of GMOs* VCH, New York.
- McInroy, J.A. and Kloepper, J.W. 1995. Survey of indigenous bacterial endophytes from cotton and sweet corn. *Plant and Soil*, 173: 337 – 342.
- Medeiros, A.F.A., Polidoro, J.C. and Reis, V.M. 2006. Nitrogen source effect on *Gluconacetobacter diazotrophicus* colonization of sugarcane (*Saccharum* spp.) *Plant and Soil*, 279: 141 – 152.

- Mendes, R., Pizzirani-Kleiner, A.A., Araujo, W.L. and Raaijmakers, J.M. 2007. Diversity of cultivated endophytic bacteria from sugarcane: genetic and biochemical characterization of *Burkholderia cepacia* complex isolates. *Applied and Environmental Microbiology*, 53: 7259 – 7267.
- Mengoni, A., Mocali, S., Surico, G., Tegli, S., *et al.* 2003. Fluctuation of endophytic bacteria and phytoplasmosis in elm trees. *Microbiological Research*, 158: 363 – 369.
- Mirza, M.S., Ahmad, W., Latif, F., Haurat, J., Bally, R. and Normand, P. 2001. Isolation, partial characterization, and the effect of plant growth – promoting bacteria (PGPB) on micro-propagated sugarcane *in vitro*. *Plant and Soil*, 237: 47 – 54.
- Mulder, E.G. 1975. Physiology and ecology of free living, nitrogen fixing bacteria. In W.D.P. Steward (ed.), *Nitrogen Fixation by Free Living Microorganism*. Cambridge University Press, London.
- Mulder, E.G. and Brotonegoro, S. 1974. Free living heterotrophic nitrogen fixation bacteria. North - Holland Publish Company, Oxford.
- Muthukumarasamy, R., Govindarajan, M., Vadivelu, M. and Revathi, G. 2006. N-fertilizer saving by the inoculation of *Gluconacetobacter diazotrophicus* and *Herbaspirillum* sp. in micropropagated sugarcane plants. *Microbiological Research*, 161: 238 – 245.
- Muthukumarasamy, R., Revathi, G. and Vadivelu, M. 2000. Antagonistic potential of N₂-fixing *Acetobacter diazotrophicus* against *Colletotrichum falcatum* Went., a causal organism of red-rot of sugar cane. *Current Science*, 78: 1063 – 1065.
- Muthukumarasamy, R., Revathi, G., Seshadri, S. and Lakshminarasimhan, C. 2002. *Gluconacetobacter diazotrophicus* (syn. *Acetobacter diazotrophicus*), a promising diazotrophic endophyte in the tropics. *Current Science*, 83: 137 – 145.
- Nelson, L.M. and Knowles, R. 1978. Effect of oxygen and nitrate on nitrogen fixation and denitrification by *Azospillum brasiliense* grown in continuous culture. *Canadian Journal of Microbiology*, 24: 1395 – 1403.
- Njoloma, J. P., Oota, M., Taroura, K., Saeki, Y. and Akao, S. 2005. Colonization ability of *Herbaspirillum* spp. B501gfp1 in sugarcane, a non-host plant in the presence of indigenous diazotrophic endophytes. *African Journal of Biotechnology*, 5: 836 – 841.

- Norris, J. R. and Jensen, H. L. 1958. Calcium requirements of *Azotobacter*. Archives of Microbiology, 31: 198 – 205.
- Okon, Y. 1994. *Azospirillum*-plant associations. CRC Press, Boca-Raton, Florida.
- Okon, Y., Albercht, S.L. and Burris, R.H. 1976. Carbon and ammonia metabolism of *Spirillum lipoferum*. The Journal of Bacteriology, 128: 592 – 597.
- Oliveira, A.L.M., Urquiaga, S., Döbereiner, J. and Baldani, J.I. 2002. The effect of inoculating endophytic N₂-fixing bacteria on micropropagated sugarcane plants. Plant and Soil, 242: 205 – 215.
- Patel, J.B. 2001. 16S rRNA gene sequencing for bacterial pathogen identification in the clinical laboratory. Molecular Diagnostics, 6: 313 – 321.
- Paula, M.A., Reis, V.M., Döbereiner, J. 1991. Interactions of *Glomus clarum* with *Acetobacter diazotrophicus* in infection of sweet potato (*Ipomoea batatas*), sugarcane (*Saccharum* spp.) and sweet sorghum (*Sorghum vulgare*). Biology and Fertility of Soils, 11: 111 – 115.
- Peng, G., Wang, H., Zhang, G., Hou, W., Liu, Y., Wang, E. T. and Tan, Z. 2006. *Azospirillum melinis* sp. nov., a group of diazotrophs isolated from tropical molasses grass. International Journal of Systematic and Evolutionary Microbiology, 56: 1263 – 1271.
- Perin, L. Martinez-Aguilar, L., Castro-Gonzalez, R., Estrada-de los Santos, P., Cabellos- Avelar, T. and Guedes, H.V. 2006. Diazotrophic *Burkholderia* species associated with field-grown maize and sugarcane. Applied and Environmental Microbiology, 72: 3103 – 3110.
- Petti, C.A. 2007. Detection and identification of microorganisms by gene amplification and sequencing. Clinical Infectious Diseases, 44: 1108 – 1114.
- Piñon, D., Casas, M., Blanch, M., Fontaniella, B., Blanco, Y., Vicente, C., Solas, M.T. and Legaz, M.E. 2002. *Gluconacetobacter diazotrophicus*, a sugar cane endosymbiont, produces a bacteriocin against *Xanthomonas albilineans*, a sugar cane pathogen. Research in Microbiology, 153: 345 – 351.
- Postgate, J. 1974. Prerequisites for biological nitrogen fixation in free living heterotrophic bacteria. In A. Quispel (ed.), The biology of nitrogen fixation. North - Holland Publish Company, Oxford.

- Prakamhang, J., Minamisawa, K., Teamtaisong, K., Boonkerd, N. and Teaumroong, N. 2009. The communities of endophytic diazotrophic bacteria in cultivated rice (*Oryza sativa* L.). *Applied Soil Ecology*, 42: 141 – 149.
- Reinhold, B., Hurek, T., Fendrik, I., Pot, B., Gillis, M., Kersters, K., Thielemans, S. and Deley, J. 1987. *Azospirillum halopraeferens* sp. nov., a nitrogen fixing organism associated with roots of kallar grass (*Leptochloa fusca* (L) Kunth). *International Journal of Systematic Bacteriology*, 37: 43 – 51.
- Reis, V. M., Estrada - de los Santos, P., Tenorio - Salgado, S., Vogel, J., Stoffels, M., Guyon, S., Mavingui P., Baldani, V. L. D., Schmid M., Baldani, J. I., Balandreau, J., Hartmann, A. and Caballero - Mellado, J. (2004) *Burkholderia tropica* sp. nov., a novel nitrogen-fixing, plant - associated bacterium. *International Journal of Systematic and Evolutionary Microbiology*, 54: 2155 – 2162.
- Reis, V.M., Olivares, F.L., Döbereiner, J. 1994. Improved methodology for isolation of *Acetobacter diazotrophicus* and confirmation of its endophytic habitat. *World Journal of Microbiology and Biotechnology*, 10: 101 – 104.
- Reiter, B., Pfeifer, U., Schwab, H. and Sessitsch, A. 2002. Response of endophytic bacterial communities in potato plants to infection with *Erwinia carotovora* subsp. *atroseptica*. *Applied and Environmental Microbiology*, 68: 2261 – 2268.
- Rosenblueth, M., Martinez, L., Silva, J., and Martinez – Romero, E. 2004. *Klebsiella variicola*, a novel species with clinical and plant-associated isolates. *Systematic and Applied Microbiology*, 27: 27 – 35.
- Rosenblueth, M., Martinez - Romero, E. 2006. Bacterial endophytes and their interactions with hosts. *Molecular Plant - Microbe Interactions*, 19: 827 – 837.
- Roesch, L.F.W., Camargo, F.A.O., Bento, F.M. and Triplett, E.W. 2008. Biodiversity of diazotrophic bacteria within the soil, root and stem of field-grown maize. *Plant and Soil*, 302: 91 – 104.
- Rothballer, M., Schmid, M., Klein, I., Gattinger, A., Grundmann, S. and Hartmann, A. 2006. *Herbaspirillum hiltneri* sp. nov., isolated from surface-sterilized wheat roots. *International Journal of Systematic and Evolutionary Microbiology*, 56: 1341 – 1348.

- Rothballer, M., Eckert, B., Schmid, M., Fekete, A., Scholter, M., Lehner, A., Pollmann, S. and Hartmann, A. 2008. Endophytic root colonization of gramineous plants by *Herbaspirillum frisingense*. FEMS Microbiology Ecology, 66: 85 – 95.
- Ruppel, S., Heck – Buchholz, C., Remus, R., Ortmann, U. and Schmelzer, R. 1992. Settlement of the diazotrophic, phytoeffective bacterial strain *Pantoea agglomerans* on and within winter wheat: an investigation using ELISA and transmission electron microscopy. Plant and Soil, 145: 261 – 273.
- Schlöter, M., Hartmann, A. 1998. Endophytic and surface colonization of wheat roots (*Triticum aestivum*) by different *Azospirillum brasilense* strains studies with strainspecific monoclonal antibodies. Symbiosis, 25: 159 – 179.
- Schlöter, M., Kirchhof, G., Heinzmann, U., Döbereiner, J., and Hartmann, A. 1994. Immunological studies of the wheat root colonisation by *Azospirillum brasilense* strains Sp7 and Sp245 using strainspecific monoclonal antibodies. In Hegazi, N. A., Fayez, M. and Monib, M. (Eds.), Nitrogen-Fixation with Non-Legumes. The American University in Cairo Press, Cairo, Egypt.
- Schmid, M., Baldani, J.I., Hartmann, A. 2005. The Genus *Herbaspirillum*, in: M. Dworkin *et al.* (Eds.) The Prokaryotes: An Evolving Electronic Resource for the Microbiological Community, Springer – Verlag, New York.
- Scholz – Seidel, C. and Ruppel, S. 1992. Nitrogenase and phytohormone activities of *Pantoea agglomerans* in culture and their reflection in combination with wheat plants. Zentralblatt für Mikrobiologie, 147: 319 – 328.
- Sevilla, M., Burris, R. H., Gunapala, N., and Kennedy, C. 2001. Comparison of benefit to sugarcane plant growth and $^{15}\text{N}_2$ incorporation following inoculation of sterile plants with *Acetobacter diazotrophicus* wild-type and Nif^- mutant strains. Molecular Plant – Microbe Interactions, 14: 358 – 366.
- Singh, M.K., Singh, D.P., Mesapogu, S., Babu, B.K. and Bontemps, C. 2011. Concomitant colonization of *nifH* positive endophytic *Burkholderia* sp. in rice (*Oryza sativa* L.) promotes plant growth. World Journal of Microbiology and Biotechnology, DOI: 10.1007/s11274-011-0664-z.

- Sly, L.I. and Stackebrandt, E. 1999. Description of *Skermanella parooensis* gen. nov., sp. nov. to accommodate *Conglomeromonas largomobilis* subsp. *parooensis* following the transfer of *Conglomeromonas largomobilis* subsp. *largomobilis* to the genus *Azospirillum*. International Journal of Systematic Bacteriology, 49: 541 – 544.
- Sprent, J. I. and Sprent, P. 1990. Nitrogen Fixing Organisms: Pure and Applied Aspects. 2nd. Great Britain at the University Press, Cambridge.
- Steenhoudt, O. and Vanderleyden, J. 2000. *Azospirillum*, a free – living nitrogen-fixing bacterium closely associated with grasses: genetic, biochemical and ecological aspects. FEMS Microbiology Reviews, 24: 487 – 506.
- Stephan, M.P., Oliveira, M., Teixeira, K.R.S., Martines - Drets, G., and Döbereiner, J. 1991. Physiology and dinitrogen fixation of *Acetobacter diazotrophicus*. FEMS Microbiology Letters, 77: 67 – 72.
- Stewart, W.D.P. 1975. Nitrogen fixation by free-living micro-organism. Cambridge University Press, London.
- Strobel, G. and Daisy, B. 2003. Bioprospecting for microbial endophytes and their natural products. Microbiology and Molecular Biology Reviews, 67: 491 – 502.
- Surette, M.A., Lada, R., Sturz, A.V. and Nowak, J. 2003. Bacterial endophytes in processing carrots: Their localization, population density, biodiversity and effects on plant growth. Plant and Soil, 253: 381 – 390.
- Takeuchi, M., Sakane, T., Yanagi, M., Yamasato, K., Hamana, K. and Yokota, A. 1995. Taxonomic study of bacteria isolated from plants: proposal of *Sphingomonas rosa* sp. nov., *Sphingomonas pruni* sp. nov., *Sphingomonas asaccharolytica* sp. nov., and *Sphingomonas mali* sp. nov. International Journal of Systematic Bacteriology, 45: 334 – 341.
- Takeuchi, M., Hamana, K. and Hiraishi, A. 2001. Proposal of the genus *Sphingomonas sensu stricto* and three new genera, *Sphingobium*, *Novosphingobium* and *Sphingopyxis*, on the basis of phylogenetic and chemotaxonomic analyses. International Journal of Systematic and Evolutionary Microbiology, 51: 1405 – 1417.

- Tang, S.Y., Hara, S., Melling, L., Goh, K.J. and Hashidoko, Y. 2010. *Burkholderia vietnamiensis* isolated from root tissues of Nipa palm (*Nypa fruticans*) in Sarawak, Malaysia, proved to be its major endophytic nitrogen fixing bacterium. *Bioscience Biotechnology and Biochemistry*, 74: 1972 – 1975.
- Tapia-Hernandez, A., Bustillos – Cristales, M.R., Jimenez – Salgado, T., Caballero – Mellado, J. Fuentes – Ramirez, L.E. 2000. Natural endophytic occurrence of *Acetobacter diazotrophicus* in pineapple plants. *Microbial Ecology*, 39: 49 – 55.
- Tarrand, J.J., Krieg, N.R. and Döbereiner, J. 1978. A taxonomic study of the *Spirillum lipoferum* group, with descriptions of a new genus, *Azospirillum* gen. nov. and two species, *Azospirillum lipoferum* (Beijerinck) comb. nov. and *Azospirillum brasilense* sp. nov. *Canadian Journal of Microbiology*, 24: 967 – 980.
- Tejera, N., Lluch, C., Martínez-Toledo, M.V. and González-López, J. 2005. Isolation and characterization of *Azotobacter* and *Azospirillum* strains from the sugarcane rhizosphere. *Plant and Soil*, 270: 223 – 232.
- Terkado -Tonooka, J., Ohwaki, Y., Yamikawa, H. and Tanaka, F. 2008. Expressed *nifH* genes of endophytic bacteria detected in field – grown sweet potatoes (*Ipomoea batatas* L.). *Microbes and Environments*, 23: 89 – 93.
- Tripathi, A.K., Verma, S.C., Chowdhury, S.P., Lebuhn, M., Gattinger, A. and Schloter, M. 2006. *Ochrobactrum oryzae* sp. nov., an endophytic bacterial species isolated from deepwater rice in India. *International Journal of Systematic and Evolutionary Microbiology*, 56: 1677 – 1680.
- Unkovich, M., Herridge, D., Peoples, M., Cadisch, G., Boddey, B., Giller, K., Alves, B. and Chalk, P. 2008. Measuring plant-associated nitrogen fixation in agricultural systems. Australian Centre for International Agricultural Research (ACIAR), Canberra.
- Vega, F.E., Ripoll, M.P., Posada, F. *et al.* 2005. Endophytic bacteria in *Coffea arabica* L. *Journal of Basic Microbiology*, 45: 371 – 380.
- Watanabe, I. and Barraquio, W.L. 1979. Low level of fixed nitrogen required for isolation of free living nitrogen fixing organism from rice roots. *Nature*, 277: 565 – 566.

- Weber, O.B., Baldani, V.L.D., Teixeira, K.R.S., Kirchhof, G., Baldani, J.I. and Döbereiner, J. 1999. Isolation and characterization of diazotrophic bacteria from banana and pineapple plants. *Plant and Soil*, 210: 103 – 113.
- Wikipedia. 2011. Chlorophyll. [Online]. Available: <http://en.wikipedia.org/wiki/Chlorophyll> [2011, Sep. 21].
- Xie, C.H. and Yokota, A. 2005. *Azospirillum oryzae* sp. nov., a nitrogen-fixing bacterium isolated from the roots of the rice plant *Oryza sativa*, *International Journal of Systematic and Evolutionary Microbiology*, 55: 1435 – 1438.
- Xin, G., Zhang, G., Kang, J.W., Staley, J.T. and Doty, S.L. 2009. A diazotrophic, indole-3-acetic acid-producing endophyte from wild cottonwood. *Biology and Fertility of Soils*, 45: 669 – 674.
- Xin, Y.H., Zhou, Y.G., Zhou, H.L. and Chen, W.X. 2004. *Ancylobacter rudongensis* sp. nov., isolated from roots of *Spartina anglica*. *International Journal of Systematic and Evolutionary Microbiology*, 54: 385 – 388.
- Xin, Y.H., Zhou, Y.G. and Chen, W.X. 2006. *Ancylobacter polymorphus* sp. nov. and *Ancylobacter vacuolatus* sp. nov. *International Journal of Systematic and Evolutionary Microbiology*, 56: 1185 – 1188.
- Young, J.P.W. 1992. Phylogenetic classification of nitrogen fixing organism. In *Biological Nitrogen Fixation*. Edited by Stacey, G., Burris, R.H. and Evans, H.J. Chapman and Hall, New York.
- Zhang, G.X., Peng, G.X., Wang, E.T., Yan, H., Yuan, Q.H., Zhang, W., Lou, X., Wu, H. and Tan, Z.Y. 2008. Diverse endophytic nitrogen-fixing bacteria isolated from wild rice *Oryza rufipogon* and description of *Phytobacter diazotrophicus* gen. nov. sp. nov. *Archives of Microbiology*, 189: 431 – 439.