

REFERENCES

- Akbar, M., A. Mehray, A. Rehaeh and M. Maryam . 2009. Influence of the co - inoculation *Azospirillum brasilense* and *rhizobium meliloti* plus 2, 4-D on grain yield and N, P, K content of *Triticum aestivum* (Cv. *Baccros* and *Mahdavi*). American-Eurasian J. Agric. and Environ. Sci. 5(3): 296-307.
- Akbari, A., S.M. Arab, H.A. Alikhani, I. Allahdadi and M.H. Arzanesh. 2007. Isolation and selection of indigenous *Azospirillum* spp. and the IAA of superior strains effects on wheat roots. World J. Agric. Sci. 3(4): 523-529.
- Baca, B.E., Soto-Urzua, L., Y.G. Xochihua-Corona and A. Cuervo- Garcia. 1994. Characterization of two aromatic amino acid aminotransferases and production of indoleacetic acid in *Azospirillum* strains. Soil Biol. Biochem. 26: 57-63.
- Bandara, W., G. Seneviratne and S.A. Kulasooriya. 2006. Interactions of among endophytic bacteria and fungi: effects and potentials. J. Biosci. 31: 645-650.
- Bar, T. and Y. Okon. 1995. Conversion of tryptophan, indole-3- pyruvic acid, indole-3-lactic acid and indole to indole-3-acetic acid by *Azospirillum brasilense* Sp 7. NATO ASI Set. Set. G. 37: 347-359.
- Barbieri, P. and E. Galli. 1993. Effect on wheat root development of inoculation with an *Azospirillum brasilense* mutant with altered indole-3-acetic acid production. Res. Microbiol. 144: 69-75.
- Barbieri, P., T. Zanelli and E. Galli. 1986. Wheat inoculation with *Azospirillum brasilense* Sp6 and some mutants altered in nitrogen fixation and indole-3-acetic acid. FEMS Microbiol. Lett. 36: 87-90.

Barbosa, H.R., D.S. Thuler, E.I.S. Floh and W. Handro. 2003. *Beijerinckia derxii* releases plant growth regulators and amino acids in synthetic media independent of nitrogenase activity. J.Appl. Micro-biol. 95: 799–806.

Barea, J.M., F.C. Marcela, Q. Angelica, C. Duquea., C. Suarez and M.X. Rodriguez. 2010. Evaluation of actinomycete strains for key traits related with plant growth promotion and mycorrhiza helping activities. Appl. Soil Ecol. 45: 209–217.

Bashan, Y. and H. Levanony. 1990. Current status of *brasilense* Cd. Following temporary depression of *Azospirillum* inoculation technology: *Azospirillum* rhizosphere microflora. Applied and Environmental as a challenge for agriculture. Can. J. Microbiol . 51: 1067-1071.

Brand-Williams, W., M.E. Cuvelier and C. Berset. 1995. Use of a free radical method to evaluate antioxidant activity. Food Science and Technology. 28: 25–30.

Bimova, P. and R. Pokluda. 2008. Influence of alternative organic fertilizers on the antioxidant capacity in Head Cabbage and Cucumber. Not. Bot. Hort. Agrobot. Cluj.

Bremner, J.M. 1965. Total nitrogen. In: C.A. Black (Ed.), Methods of soil analysis. American Society of Agronomy. 9: 1149-1178.

Caris-Veyrat, C., M.J. Amiot, V. Tyssandier, D. Grasselly, M. Buret, M. Mikolajczak, J.C. Guillard, C. Bouteloup-Demange and P. Borel. 2004. Influence of organic versus conventional agricultural practice on the antioxidant microconstituent content of tomatoes and derived purees; consequences on antioxidant plasma status in humans. *J Agr. Food Chem.* 52:6503– 6509.

Carr, A. C. and B. Frei. 2002. Vitamin C and cardiovascular diseases. In E. Cadenas and L.Packer (Eds.), *Handbook of antioxidants*. New York: Marcel Dekker, Inc.

Cassa, F., D.Perrig, V. Sgroy, O. Masciarelli, C. Penna and V. Luna. 2009. *Azospirillum brasilense* Az39 and *Bradyrhizobium japonicum* E109, inoculated singly or in combination, promote seed germination and early seedling growth in corn (*Zea mays* L.) and soybean (*Glycine max* L.). *Eur. J. Soil Biol.* 45: 28-35.

Chen, Y. and T. Avid. 1990. Effects of humic substances on plant growth. *American Society of Agronomy.* 161-186.

Chen, Y. P., P. D. Rekha, A. B. Arunshen, W. A. Lai and C. C. Young. 2006. Phosphate solubilizing bacteria from subtropical soil and their tricalcium phosphate solubilizing abilities. *Appl. Soil Ecol.* 34: 33-41.

Chilembwe, E., D. Butao, F. Munthali and L.Ngirazie. 2004. Evaluation of local substrates as growth media for raising tobacco seedlings in Malawi[online] <http://mbao.org/2005/05Proceedings/125ChilembweE%20Evaluation%20of%20local%20substrates%20as%20growth%20media.pdf>

Cooper, R.J., C. Liu and D.S. Fisher. 1998. Influence of humic substances on rooting and nutrient content of Creeping Bentgrass. *Crop Science*. 38: 1639-1644.

Costacurta, A. and J. Vanderleyden. 1995. Synthesis of phytohormones by plant-associated bacteria. *Crit. Rev. Microbiol.* 21: 1-18.

Deborah, P. D. and P. Burbab. 1999. Extraction kinetics and molecular size fractionation of humic substances from two Brazilian soils. *J. Braz. Chem. Soc.* 10(2): 146-152.

Diaz-Zorita, M. and M. V. Fernandez-Canigia. 2009. Field performance of a liquid formulation of *Azospirillum brasilense* on dryland wheat productivity. *Eur. J. Soil Biol.* 45: 3-11.

Dixit, V.K. and N. Kishore. 1967. Effect of humic substances and fulvic acid fraction of soil organic matter on seed germination. *Indian J. Sci. Ind.* 1: 202-206.

Dormaar, J.F. 1975. Effects of humic substances from Chernozemic Ah horizons on nutrient uptake by *Phaseolus vulgaris* and *Festuca scabrella*. *Can. J. Soil Sci.* 55: 111-118.

Dubrovsky, J.G., Puente, M.E and Y. Bashan. 1994. *Arabidopsis thaliana* as a model system for the study of the effect of inoculation by *Azospirillum brasilense* Sp-245 on root hairs growth. *Soil Biol. Biochem.* 26: 1657-1664.

Egamberdiyeva, D. and G. Hoflich. 2004. Effect of plant growth-promoting bacteria on growth and nutrient uptake of cotton and pea in a semiarid region of Uzbekistan. *J. Arid Environ.* 56(2):293-301.

Elazar, F., O.Yaacov, E. Ephraim, G. Alexander and F. Meir. 1989. Identification and quantification of IAA and IBA in *Azospirillum brasilense*-inoculated Maize roots. *Soil Biol. Biochem.* 21(1) :147-153

El-Khawas, H. and K. Adachi. 1999. Identification and quantification of auxins in culture media of *Azospirillum* and *Klebsiella* and their effect on rice roots. *Biol. Fertil. Soils.* 28: 377–381.

El-Tarabily, K.A., A.H. Nassar, G.E. Hardy and K. Sivasithamparam. 2009. Plant growth promotion and biological control of *Pythium aphanidermatum*, a pathogen of cucumber, by endophytic actinomycetes. *J.Appl. Micro-biol.* 106(1): 13-26.

Emine, O., E. Ahmet, E. Sezai, T. Metin and F.Sahin. 2006. Effects of plant growth promoting rhizobacteria (PGPR) on yield, growth and nutrient contents in organically growing raspberry. *Sci. Hort.* 111(1): 38-43.

Fallik, E., Y. Okon, E. Epstein, A. Goldman and M. Fischer. 1989. Identification and quantification of IAA and IBA in *Azospirillum brasilense*-inoculated Maize roots. *Soil Biol. Biochem.* 21(1):147-153.

Fernández-escobar, R., M. Benlloch, D. Barranco and A.J. DueñasGutérrez Gañán. 1996. Response of olive trees to foliar application of humic substances extracted from Leonardite. *Sci. Hort.* 66(3-4): 191-200.

Finnie, J.F. and J. Van Staden. 1985. Effect of seed leed concentrate and applied hormones on in vitro cultured tomato roots. *J. Plant Physiol.* 120: 215-222.

Fischer, A. and C. Richter. 1986. Influence of organic and mineral fertilizers on yield and quality of potatoes, in: Vogtmann H., Boehnke E., Fricke I. (Eds.), The importance of biological agriculture in a world of diminishing resources (Proceedings of the 5th IFOAM Conference), Verlagsgruppe, witzenhausen, Germany. 236–248.

Gadagi, R.S., P.U. Krishnaraj, J.H. Kulkarni and S. Tongmin. 2004. The effect of combined *Azospirillum* inoculation and nitrogen fertilizer on plant growth promotion and yield response of the blanket flower *Gaillardia pulchella*. *Sci. Hort.* 100: 323–332.

Gholami, A. and S. Nezarat. 2009. Screening plant growth promoting rhizobacteria for improving seed germination, seedling growth and yield of Maize. *Pakistan J. Biol. Sci.* 12(1): 26-32.

Gayosso-García Sancho, L. E., Yahia, E. M. and G. A. González-Aguilar. 2011. Identification and quantification of phenols, carotenoids, and vitamin C from papaya (*Carica papaya* L., cv. *Maradol*) fruit determined by HPLC-DAD-MS/MS-ESI. *Food Research International.* 44: 1284–1291.

Giannouli, A., S. Kalaitzidis, G. Siavalas, A. Chatziapostolou, K. Christanis, S. Papazisimou, C. Papanicolaou and A. Foscolos. 2009. Evaluation of Greek low-rank coals as potential raw material for the production of soil amendments and organic fertilizers. *International Journal of Coal Geology.* 77(3-4): 383-393.

Gordon, S.A. and R.A. Weber. 1951 Colorimeter estimate of indole acetic acid. *Plant Physiol.* 26: 192-195

Grego, A.K., B. Klubek and E.C. Varsa. 2003. Identification and use of actinomycetes for enhanced nodulation of soybean co-inoculated with *Bradyrhizobium japonicum*. *Can. J. Microbiol.* 49(8): 483-491.

Guar, A.C. 1964. Influence of humic acid on growth and mineral nutrition in plants. *Bull. Assoc. Fr. Etude Sol.* 35: 207-219.

Guohua, C., S. Emin and L.P. Ronald. 1996. Antioxidant capacity of tea and common vegetables. *J. Agric. Food Chem.* 44 (11): 3426–3431.

Gupta, N. J. S., P. Reena and Dipikakerkatta. 2007. Solubilization of tricalcium phosphate and rock phosphate by microbes isolated from chromite, iron and manganese mines.

Halsall, D. M. 1993. Inoculation of wheat straw to enhance lignocellulose breakdown and associated nitrogenase activity. *Soil Biol. Biochem.* 25: 419-429.

Hanan, A. T., A.R. Zeinab and R. Samir. 2010. Potential Activity of Basil Plants as a Source of Antioxidants and Anticancer Agents as Affected by Organic and Bio-organic Fertilization. *Not. Bot. Hort. Agrobot. Cluj.* 38(1): 119-127.

Hanane, H., B. Brahim, H. Mohamed, L. Ahmed, J. Marie, Virolle and O. Yedir. 2008. Growth promotion and protection against damping-off of wheat by two rock phosphate solubilizing actinomycetes in a P-deficient soil under greenhouse conditions. *Appl. Soil Eco.* 38 (1): 12-19.

He, H. J., H. Chen and W. H. Schnitzler. 2002. Glucosinolate composition and contents in Brassica vegetables. *Scientia Agricultura Sinica*. 35(2): 192–197.

Hemant, J. P., K. S Alok, S. P. Dhananjaya, C. L. Bhushan, Dilip and K. Arora. 2011. Actinomycetes mediated biochemical responses in tomato (*Solanum lycopersicum*) enhances bioprotection against *Rhizoctonia solani* Crop Protection. doi:10.1016/j.cropro.2011.04.008.

Hernandez, Y, M. G. Lobo and M. Gonzalez. 2006. Determination of vitamin C in tropical fruits: a comparative evaluation of methods. *Food Chem*. 96(4) : 654-664.

Jacoud, C., D. Job, P. Wadoux and R. Bally. 1999. Initiation for root growth stimulation by *Azospirillum Lipoferum* CRT1 during maize seed germination. *Can. J. Microbiol. / Rev. Can. Microbial*. 45(4): 339 -342.

Kalra, Y.P. 1998. Handbook of reference methods for plant analysis. London: CRC Press. 300 p.

Kapulnik, Y., S. Sarig, I. Nur and Y. Okon. 1983. Effect of *Azospirillum* inoculation on yield of field-grown wheat. *Can. J. Microbiol*. 29(8): 895-899.

Kequan, Z. and Y. Liangli. 2006. Total phenolic contents and antioxidant properties of commonly consumed vegetables grown in Colorado. *LWT - Food \Science and Technology*. 39(10): 1155-1162.

Khalid, A., M.Arshad and Z. Zahir. 2004. Screening plant growth-promoting rhizobacteria for improving growth and yield of wheat. *J. Appl. Microbiol*. 96: 473–480.

- Kim, K.Y., H.P. D.Boruah, C.W.Kim, C. C. Shagol and S.Tong-Min. 2010. Isolation and evaluation of inoculation effect of *Azospirillum* sp. on growth, colonization and nutrient uptake of crops under green house condition. 19th World Congress of Soil Science, Soil Solutions for a Changing World. 1 – 6 August 2010, Brisbane, Australia.
- Kolbe, H., S. Meineke and W.L. Zhang. 1995. Institute for Plant Nutrition, Germany: Differences in organic and mineral fertilisation on potato tuber yield and chemical composition compared to model calculations. *Agribiol. Res.* 48: 63–73.
- Kononova, M.M. and N.A. Pankova. 1950. The action of humic substances on the growth and development of plants. *SSSR.* 73: 1069-1071.
- La, GX., P. Fang, Y.B. Teng, Y.J. Li and X.Y. Lin. 2009. Effect of CO₂ Enrichment on the glucosinolate contents under different nitrogen levels in bolting stem of Chinese kale (*Brassica alboglabra* L.). *J. Zhejiang Univ. Sci. B.* 10: 454-64.
- Lako, J., V. C. Trenerry, M. Wahlqvist, N. Wattanapenpaiboon, S. Sotheeswaran and R. Premier. 2007. Phytochemical flavonols, carotenoids and the antioxidant properties of a wide selection of Fijian fruit, vegetables and other readily available foods. *Food Chemistry.* 101(4): 1727–1741.
- Leclerc, J., M.L. Miller, E. Joliet and G. Rocquelin. 1991. Vitamin and mineral contents of carrot and celeriac grown under mineral or organic fertilization, *Biol. Agric. Hortic.* 7:339–348.

Levinsky, B. 1996. Everything about Humates. [Online] Available: [://www.humate.net/EVERYTHING_HUMATES.html](http://www.humate.net/EVERYTHING_HUMATES.html).

Madhaiyan, M., S. Poonguzhali., Y.J. Lee., J.B. Chung and T.M. Sa. 2009. Effect of co-inoculation of plantmethylo-trophic *Methylobacterium oryzae*, *Azospirillum brasilense* and *Burkholderia pyrocinia* on the growth and nutrient uptake of tomato, red pepper and rice. *Plant Soil*.

Milner, A. 1999. Functional Foods and Health Promotion. *J. Nutri.* 129: 1395-1397.

Nancy, K.B., C.S. Vavrina., M.S. Reddy and J.W. Kloepper. 2003. Amendment of Muskmelon and Watermelon transplant media with plant growth-promoting rhizobacteria: effects on seedling quality, disease, and nematode resistance. *Hort. Technology.* 13(3): 476-482

Nassare, A.H., K.A. EL-Tarabily and K. Sivasithamparam. 2003. Growth promotion of bean (*Phaseolus vulgaris* L.) by a polyamine-producing isolate of *Streptomyces griseoluteus*. *J. Plant Growth Regul.* 40(2): 97-106.

Nemec, S. 1994. Application of commercial biocontrol agents in Florid's vegetable transplant industry. [online] <http://mbao.org/1994airc/010.pdf>.

Nuttakaan, L. 2006. Study of phenol compound and antioxidant activity in fermented juices from tomato, guava and carrot. Research information Repository.

Nuti, M., C. Felici, L. Vettori, E. Giraldi, L. Forino, A. Toffanin and A.M.

Tagliasacchi. 2008. Single and co-inoculation of *Bacillus subtilis* and *Azospirillum brasilense* on *Lycopersicon esculentum*: Effects on plant growth and rhizosphere microbial community. *Appl. Soil Eco.* 40(2): 260-270.

- Okon, Y. and R. Itzigsohn. 1995. The development of *Azospirillum* as a commercial inoculant for improving crop yields. *Biot. Advances*. 13(3) 3: 415-424.
- Ordookhani, K., K. Khavazi, A. Moezzi and F. Rejali. 2010. Influence of PGPR and AMF on antioxidant activity, lycopene and potassium contents in tomato. *African J. Agri. Research*. 5(10) : 1108-1116.
- Ota, H., Y. Kurihara, S. Satoh and Y. Esashi. 1991. Development of acetylene reduction (nitrogen-fixation) activity on and around imbibed plant seeds. *Soil boil. biochem*. 27: 9-14.
- Pandiarajan, G., N. Tenzing Balaiah and B. Makesh Kumar. 2012. Research article exploration of different *Azospirillum* Strains from various crop soils of Srivilliputtur Taluk. *J. Biofertil Biopestici*.
- Patten, C.L. and B.R. Glick. 1996. Bacterial biosynthesis of indole-3-acetic acid. *Can. J. Microbiol*. 42: 207-220.
- Pither, R. and M.N. Hall. 1990. Analytical survey of the nutritional composition of organically grown fruit and vegetables, Campden.
- Pizzeghello, D., G. Nicolini and S. Nardi. 2001. Hormone-like activity of humic substances in *Fagus sylvaticae* forests. 151(3): 647-657.
- Rademacher, W. 1994. Gibberellin formation in microorganisms. *Plant Growth Regul.* 15. 303-314.

Ravi, S.G., P.U. Krishnaraj, J.H. Kulkarni and S.Tongmin. 2004. The effect of combined *Azospirillum* inoculation and nitrogen fertilizer on plant growth promotion and yield response of the Blanket Flower *Gaillardia pulchella*. *Sci. Hort.* 100(1-4): 323-332.

Reganold, J.P., P.K. Andrews, J.R. Reeve, L. Carpenter-Boggs and C.W. Schadt. 2010. Fruit and soil quality of organic and conventional strawberry agroecosystems. *PloS ONE* 5(9): e12346.doi:10.1371/journal.pone.0012346.

Savitri Weerasatera. 2002. Effect of coconut seedlings media on growth of Crystal White. *Horticulture*. Kasetsart University.

Scalbert, A., I.T. John and M. Saltmarsh. 2005. Polyphenols: antioxidants and beyond. *Am. J. Clin. Nutr.* 81: 215-217.

Sharma, K., G. Dak., A. Agrawal., M. Bhatnagar, and A.R. Sharma. 2007. Effect of phosphate solubilizing bacteria on the germination of *Cicer arietinum* seeds and seedling growth. *J. Herbal Med. Toxic.* 1:61-63.

Shutsrirung, A. 2005. Pesticide reduction technology: isolation and identification of endophytic actinomycetes. Report on JICA training program. Under JICA-CMU Project: Appropriate Technology for Reduction of Agrochemical in Northern Thailand (ATRACT), Chiang Mai.

Shutsrirung, A. 2010. Research and development of bio-seedling media organic-substrate and pelleted bio-organic fertilizer. Final report. Highland Research and Development Institute (public organization): 65 p.

Shutsrirung, A., S. Choonluchanon and S. Jeerat. 2009. Research and development of biological media for high quality seedlings production. Highland Research and Development Institute (public organization). Faculty of Agriculture Chiang Mai University.66p.

Solans, M., Vobis, G. and Wall, L.G. 2009. Saprophytic Actinomycetes promote nodulation in *Medicago sativa*-*Sinorhizobium meliloti* symbiosis. *Journal of Plant Growth Regul.* 28(2): 106-114.

Soltoft, M., J. Nielsen, L. K. Holst, S. Husted, U. Halekoh and P. Knuthsen. 2010. Effects of organic and conventional growth systems on the content of flavonoids in onions and phenolic acids in carrots and potatoes. *J. Agric. Food. Chem.* 58(19): 10323-10329.

Stevenson, F.J. 1982. *Humus Chemistry*. Wiley-Interscience, New York.

Strzelczyk, E and A. Pokojaska-Burdziej. 1984. Producing of auxins and gibberellin like substances by mycorrhizal fungi, bacteria and actinomycetes isolated from soil and mycorrhizosphere of pine. *Plant and Soil.* 81: 185-194.

Sudhakar, P., G.N. Chattopadhyay, S.K. Gangwar and J.K. Ghosh. 2000. Effect of foliar application of *Azotobacter*, *Azospirillum* and *Beijerinckia* on leaf yield and quality of mulberry (*Morus alba*). *J. Agric. Sci.* 134: 227-234.

Sundara, B., V. Natarajan and K. Hari. 2002. Influence of phosphorus solubilizing bacteria on the changes in soil available phosphorus and sugarcane yields. *Field Crops Res.* 77: 43-49.

Swaminathan, C. and V.M. Srinivasan. 2006. Influence of microbial inoculants on seedling production in Teak (*Tectona grandis* L.f.). *Sustainable Forestry*. 22(3): 63-76.

Szeto, Y.T., W.Y.Chung and I. F. F. Benzie. 2001. The ferric reducing B(antioxidant) power (FRAP) assay, and antioxidants in the Chinese diet and population. *Micronutrients and health: molecular biological mechanisms* .12-16.

Talalay, P and J.W. Fahey. 2001. Phytochemicals from Cruciferous plants protect against cancer by modulating carcinogen metabolism. *J. Nutr.* 131: 3027-3033.

Teixeira, K. R., R. Pedraza, C. H. Bellone, S. C. Bellone and P. M. Sorte. 2009. *Azospirillum* inoculation and nitrogen fertilization effect on grain yield and on the diversity of endophytic bacteria in the phyllosphere of rice rainfed crop. *Eur. J. Soil Biol.* 45: 36-43.

Van Poppel, G., D. T Verhoeven, H. Verhagen, and R. A.Goldbohm. 1999. Brassica Vegetables and Cancer Prevention. *Epidemiology and mechanisms. Adv. Exp. Med. Biol.* 472 :159-68.

Vestberg, M., Kukkonen, S., Saari, K., Prikka, P., Huttunen, J., Tainio, L., Devos, N., Weekers, F., Kevers, C., Thonart, P., Lemoine, M.C., Cordier, C., Alabouvette, C., and S. Gianinazzi. 2004. Microbial inoculation for improving the growth and health of micropropagated strawberry. *Appl. Soil Ecol.* 27: 243–258.

Walinga, I., W.V. Vark, V.J.G. Houba and J.J. Vander Lee. 1989. Soil and Plant analysis a series of syllabi: part 7 plant analysis procedures. Department of Soil Science and Plant Nutrition. Wageningen Agricultural University, Netherland. 263p.

Wolfson, J.L. and G. Shearer. 1981. Amino acid composition of grain of maize grown with and without pesticides and standard commercial fertilizers. *Agron. J.* 73: 611–613.

Wolucka, B.A., A.Goossens and D. Inzé. 2005. Methyl jasmonate stimulates the de novo biosynthesis of vitamin C in plant cell suspensions. *J. Exp. Bot.* 56(419):2527-2538.

Worthington, V. 2001. Nutritional quality of organic versus conventional fruits, vegetables, and grains. *J.Alternative and Complementary Med.* 7(2): 161-173.

Yazdani, M., M.A. Bahmanyar, H. Pirdashti and M.A. Esmaili. 2009. Effect of phosphate solubilization microorganisms (PSM) and plant growth promoting rhizobacteria (PGPR) on yield and yield components of Corn (*Zea mays* L.). *Proc. World Acad. Sci. Eng. Technol.* 37:90-92.

Yuan, G. F., Sun, B., Yuan, J., and Q.M. Wang, 2010. Effect of 1- methylcyclopropene on shelf life, visual quality, antioxidant enzymes and health - promoting compounds in broccoli florets. *Food Chem.* 118: 774–781.

Yuttana, S. 2009. Plant-derived phenolic antioxidants and cancer prevention. *Thai cancer J.* 29(3): 126-134.

Zakharova, E.A., A.A. Shcherbakov, V.V. Brudnik, N.G. Skripko, N.S. Bulkin and V.V. Ignatov. 1999. Biosynthesis of indole-3-acetic acid in *Azospirillum brasilense* insights from quantum chemistry. Eur. J. Biochem. 259(3): 572-576.

Zimmer, W., C. Aparicio and C. Elmerich. 1991. Relationship between tryptophan biosynthesis and indole-3-acetic acid production in *Azospirillum*: identification and sequencing of trpGDC cluster. Mol. Gen. Genet. 229: 41-51.