

"Environmental Microbiology" Group, CIB

Final productivity in 1998

(Numbers in parenthesis near journal's name are the scientific impact, 1997)

Summary

Original publications in peer-reviewed, scientific <u>international</u> journals. Published and "in press"	8
Publication in national journals	7
Submitted papers	11
Publications in books	6
Publications of a manual	1
Abstracts in conferences	5
Total productivity (without abstracts)	33

- Average "Impact Factor" of all published and "in press" papers: 1.54

PUBLISHED AND "IN PRESS" PUBLICATIONS

Publications in scientific international reviewed journals

1. Bashan, Y. 1998. Inoculants of plant growth-promoting bacteria for use in agriculture. **Biotechnology Advances** 16: 729-770 (0.844)
2. Bashan, Y. 1998. *Azospirillum* plant growth-promoting strains are nonpathogenic on tomato, pepper, cotton, and wheat. **Canadian Journal of Microbiology** 44: 168-174. (1.184)
3. Castellanos, T., Ascencio, F. and Bashan, Y. 1998. Cell-surface lectins of *Azospirillum* spp. **Current Microbiology** 36: 241-244 (1.092).
4. Bashan, Y., Puente, M.E., Myrold, D. D. and Toledo, G. 1998. In vitro transfer of fixed nitrogen from diazotrophic filamentous cyanobacteria to black mangrove seedlings. **FEMS Microbiology Ecology** 26:165-170 (1.842).
5. Bashan, Y., and Holguin, G. 1998. Proposal for the division of Plant Growth-Promoting Rhizobacteria into two classifications: biocontrol-PGPB (Plant Growth-Promoting Bacteria) and PGPB. **Soil Biology and Biochemistry** (1.557) 30:1225-1228
6. Bashan, Y. and Gonzalez, L.E. 1998. Long-term survival of the plant- growth-promoting bacteria *Azospirillum brasilense* and *Pseudomonas fluorescens* in dry alginate inoculant. **Applied Microbiology and Biotechnology** (1.325)(in press)

7. Holguin, G., Patten, C., and Glick, B.R. 1998. Genetic manipulation of *Azospirillum*. **Biology and Fertility of Soils**.(1.228)(Accepted)
8. Bashan, Y. 1998. Interactions of *Azospirillum* spp. in bulk soil. **Biology and Fertility of Soils**. (1.228)(Accepted)

PUBLICATIONS IN NATIONAL JOURNALS

9. Bashan, Y., and Gonzalez, L.E.. 1998. The giant cardon of Baja California, Mexico. **Teva Hadvarim** No. 33 pp. 50-61 (In Hebrew)
10. Bashan, Y., and Holguin, G. 1998. Damiana, an aphrodisiac plant from the Mexican desert. **Sinorama** 23:(9) 44-47 (in Chinese and English)
11. Bashan, Y., Gonzalez, L.E. Toledo, G., Leon de la Luz, J.L. and Bethlenfalvay, G. 1998. Propuesta para la conservacion de areas excepcionales del cardon gigante (*Pachycereus pringlei*) en Baja California Sur. **Cactaceas y Suculentas Mexicanas** 43: 85-89
12. Holguin, G., Bashan, Y., Mendoza-Salgado, R.A., Amador E., Toledo, G., Vazquez, P. and Amador, A. 1998. La microbiologia de los manglares, bosques en la frontera entre el mar y la tierra. **Ciencia y Desarrollo** (in press)
13. Holguin, G., Alcaraz-Melendez, L. and Bashan, Y. 1998. La damiana:planta afrodisiaca del desierto mexicano, hechos y mitos. **Ciencia y Desarrollo (accepted)**
14. Bashan, Y. and Holguin, Y. 1998. Natural impotency remedies from the desert of Baja California, Mexico. **Teva Hadvarim** (Accepted) (In Hebrew)
15. Bashan, Y., Toledo, G., Gonzalez, L.E. and Holguin, G. 1998. La caida de los gigantes: un reconocimiento del decaimiento del cardon (*Pachycereus pringlei*) en Baja California Sur. **Ciencia y Desarrollo (accepted)**

PUBLICATIONS IN INTERNATIONAL BOOKS

16. Glick, B.R., and Holguin, G. 1998. The use of Plant growth-promoting rhizobacteria to improve plant productivity. In: **Biotechnology International**. Edited by: F. Fox and T.H. Connor, Universal Medical Press, Florida, USA.(in press)
17. Holguin, G. 1998. Nitrogen Fixation of plant growth promoting rhizobacteria. In: **Biochemical and genetic mechanisms used by plant growth promoting bacteria**. (Ed). J.M. Tan. World Scientific Publishing. River edge USA.

18. Holguin, G. 1998. Attachment of plant growth promoting rhizobacteria. In: **Biochemical and genetic mechanisms used by plant growth promoting bacteria.** (Ed). J.M. Tan. World Scientific Publishing. River edge USA.

PUBLICATIONS IN NATIONAL BOOKS

19. Gonzalez, L.E., Holguin, G., Glick, B.R., and Bashan, Y. 1999. Plant growth-promoting bacteria. In: **Agricultural Microbiology for the 21th century.** (Ed). R. Ferrera-Cerrato. Published by Colegio de Postgraduados, Montecillo, Mexico. (Commissioned)
20. Holguin, G., and Bashan, Y. 1999. Mangroves: microbiology and economical importance. In: **Agricultural Microbiology for the 21th century.** (Ed). R. Ferrera-Cerrato. Published by Colegio de Postgraduados, Montecillo, Mexico. (Commissioned)

PUBLICATIONS IN CONFERENCE BOOKS

19. Gonzalez, L.E., Vazquez-Juarez, R., and Bashan, Y. 1998. Inmovilizacion de bacterias y microalgas en alginato para remover nitrogeno inorganico de aguas residuales agroindustriales. In: **Il simposio Colombiano sobre biotecnologia ambiental.** (Ed.). Centro de Investigaciones para el Desarrollo "CIPADE", Fundacion Universitaria de Boyaca, Tunja, Colombia. 14 p.

MANUAL

20. Carrillo, A., Puente, M.E., Castellanos, T. and Bashan, Y. 1998. Biotecnologia Ambiental. **Manual de Laboratorio** . CIB press, La Paz, Mexico and Pontificia Universidad Javeriana, Bogota, Colombia press. 51 p.

SCIENTIFIC PUBLICATION IN THE INTERNET

21. Bashan, Y., and Holguin, G. 1998. Proposal for the division of Plant Growth-Promoting Rhizobacteria into two classifications: biocontrol-PGPB (Plant Growth-Promoting Bacteria) and PGPB. In: **PGPR Newsletter.** No. 19. Editor: J.W. Kloepper. At: www.ag.auburn.edu/pgpr/. (accepted).

SUBMITTED PUBLICATIONS

PUBLICATIONS IN SCIENTIFIC INTERNATIONAL REVIEWED JOURNALS

1. Alcaraz-Melendez, L., Real Cosio, S., and Bashan, Y. 1998. Prolonged incubation of *Azospirillum brasilense* and *A. halopraeferentis* with permanently

- nondifferentiated cowpea calli affects their protein, phenolic acids and oxidative enzymes. **Journal of Experimental Botany** (1.931)
2. Toledo, G., Rojas, A., and Bashan, Y. 1998. Monitoring of black mangrove restoration with nursery-reared seedlings on an arid coastal lagoon. **Hydrobiology**
 3. Bashan, Y. Rojas, A. and Puente, M.E. 1998. Improved establishment and development of three cacti species inoculated with *Azospirillum brasilense* transplanted into disturbed urban desert soil. **Canadian Journal of Microbiology** (1.098)
 4. Vazquez, P., Holguin, G., Puente, M.E., Lopez-Cortes, A. and Bashan, Y. 1998. Phosphate-solubilizing microorganisms from the rhizosphere of semiarid mangrove **Biology and Fertility of Soils** (1.842)
 5. Castellanos, T., Ascencio, F. and Bashan, Y. 1998. Starvation-induced changes in the cell-surface of *Azospirillum lipoferum*. **FEMS Microbiology Ecology**
 6. Puente, M.E., Holguin, G., Glick, B.R. and Bashan, Y. 1998. Root surface colonization of black mangrove seedlings by *Azospirillum halofraference* and *Azospirillum brasilense* in seawater. **FEMS Microbiology Ecology** (1.822)
 7. Carrillo, A., Leon de la Luz, J.L., Bashan, Y. and Bethlenfalvay, G.J. 1998. Nurse plants, mycorrhizae and the establishment of cacti in a disturbed area of the Sonoran desert. **Restoration Ecology**.
 8. Carrillo, A., Bashan, Y. and Bethlenfalvay, G.J. 1998. Fertilization and shading affects the survival of the giant cardon cactus in soils within and without resources islands formed by mesquite **Plant and Soil**
 9. Carrillo, A., Bashan, Y., Diaz-Rivera, E., and Bethlenfalvay, G.J. 1998. Effects of resource - island soils and inoculation with *Azospirillum* on survival, growth and competition of *Pachycereus pringlei*, the giant cactus of the Sonoran Desert. **Restoration Ecology**
 10. Bashan, Y. and Vazquez, P. 1998. Detrimental effects on five species of *Azospirillum* caused by CaCO₃ and sand levels in artificial soils. **Biology and Fertility of Soils**.
 11. Bashan, Y., Davis, E. A., Carrillo, A. and Linderman, R.G. 1998. Inoculum potential of mycorrhizal fungi and edaphic factors in relation to the preferential survival and growth of young cacti under the canopy of mesquite trees in a disturbed area of the Sonoran desert. **Applied Soil Ecology**

ABSTRACTS IN SCIENTIFIC MEETINGS

1. Alcaraz-Melendez, L., Real Cosio S., and Bashan, Y. 1998. Effect of carbohydrate stress and infection by the plant pathogenic bacteria *Pseudomonas syringae* pv. *syringae* on cowpea calli (*Vigna unguiculata*). 1998 Congress on In Vitro biology. 30.5-4.6.1998. Las Vegas Nevada. USA. **In Vitro** 34 (3) part II: 73-A.
2. Alcaraz-Melendez, L., Real Cosio S., and Bashan, Y. 1998. Inoculation of oregano (*Lippia palmeri*) calli with *Azospirillum* spp. does not trigger plant defense responses. In: 3rd Latin-American meeting on plant biotechnology, 1-5.6.1998. Habana, Cuba. p. 453.
3. Alcaraz-Melendez, L., Real Cosio S., and Rubluo, A. 1998. Induccion al enraizamiento de brotes de Damiana (*Turnera diffusa*) in vitro. In: 3rd Latin-American meeting on plant biotechnology, 1-5.6.1998. Habana, Cuba. p. 22
4. Vazquez, P., Rojas, A., Amador, A., Toledo, G., Puente, M.E., Lopez-Cortes, A., Holguin, G., and Bashan, Y. 1998. Nitrogen fixation and phosphate solubilization in an arid mangrove ecosystem in Baja California Sur, Mexico. 8th International Symposium on Microbial Ecology. 9-14.8.1998. Halifax, Canada. p. 337.
5. Lebsky, V. 1998. A new method for fixing samples for scanning electron microscopy. Annual Meeting of the American Geophysical Society. San Francisco, California, December 4-10, 1998.