

# "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
<b>Total productivity (without abstracts)</b>	<b>33</b>

- 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/](http://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. halopraeference* 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 CaCO<sub>3</sub> 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. 8<sup>th</sup> 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.