



Publications List

Increasing Crop Production through Biological Control of Soil-borne Root Diseases



Program LWR2
Project PN9680
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CSIRO Land and Water
China Agricultural University
Chinese Academy of Agricultural Sciences
Zhejiang University
Australian Cotton Research Institute

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APPENDIX 1

ACIAR PROJECT PN LWR2/9680

PUBLICATIONS LIST

Published Scientific Papers and Conference Papers:

- Chen Xiaobin and Zhang Bingxin (1999) Studies on biocontrol of seedling damping-off using plant growth-promoting rhizobacteria in cucumber. *Journal of Shandong Agricultural University* **30**(suppl.): 142-149.
- Chen Xiao-bin, Zhang Bing-xin, Lou Bing-gan and Li Jun-ying. (1999) Effect of plant growth-promoting rhizobacteria on disease control of cucumber seedlings. *Journal of Zhejiang University (Agricultural and Life Sciences)* **25**: 578-582.
- Chen Xiao-bin, Zhang Bing-xin. (2000) Advanced Mechanisms of PGPR in the plant rhizosphere. *Journal of Microbiology* **20**: 38-41.
- Chen Xiao-bin, Zhang Bing-xin, Lou Bing-gan, Ryder M.H. and Xu Zhi-gang. (2000) Studies on identification of plant promoting rhizobacteria of cucumber using biological analysis. *Microbiology* **27**: 403-407.
- Chen Xiao-bin, Zhang Bing-xin, Lou Bing-gan and Ryder M.H. (2001) Introduction of the chromogenic gene to plant growth-promoting rhizobacteria of cucumber. *Acta Microbiologica Sinica* **41**: 287-292.
- Harvey P.R., Lou B-G., Warren R.A., Zhang B-X. and Ryder M.H. (2001) Genetic and pathogenic diversity in a population of *Pythium ultimum* from vegetables: implications for disease control. In "Proceedings of the Second Australasian Symposium on Soilborne Diseases" Eds I.J. Porter et al., Second Soilborne Diseases Symposium, Victoria, Australia, pp.31-32.
- Hongqing, X., Tang, W., Mei, R., Ryder, M. and Rovira, A (1996) Biocontrol of cucumber seedling diseases by beneficial microorganisms from China and Australia. In "Advances in Biological Control of Plant Diseases" Eds W. Tang, R.J. Cook and A.D. Rovira, China Agricultural University Press, Beijing, pp. 128-130.
- Huang Yujie, Yang Hetong and Ding Aiyun (2002) Biological characterization, cloning and transformation of chitinase and glucanase, *Shandong Science* **15**: 28-34 (in Chinese)
- Lou, B.G., and B.X. Zhang (2000) A media selective for the isolation of *Pythium* species from diseased plant tissues. *Journal of Hangzhou Institute of Electronic Engineering*. **20**: 72-74.
- Lou, B.G., Harvey, P.R., Warren, R.A., Zhang, B.X. and Ryder, M.H. (2000) Biological control of damping-off caused by ridomil-resistant *Pythium*. *Proceedings of the 5th International Workshop on Plant Growth-Promoting Rhizobacteria*. Auburn University Web Site, Available: <http://www.ag.auburn.edu/argentina/pdfmanuscripts/lou.pdf> [Accessed 28/02/2003]

- Lou Bing-gan, Zhang Bing-xin and Maarten Ryder (2001) Population dynamics of *Pseudomonas aeruginosa* CR56 in the rhizosphere of cucumber and tomato. *Journal of Zhejiang University (Agricultural and Life Sciences)* **27**: 183-186.
- Lou Bing-gan, Zhang Bing-xin, Hu Liqiang and Maarten Ryder (2001) Resistance to metalaxyl and biological control of *Pythium* spp. *Journal of Plant Protection* **28**: 55-60.
- Lou Bing-gan, Zhang Bing-xin, Maarten Ryder and Stephen Barnett. (2002) Identification of bacteria antagonistic to cucumber seedling damping-off. *Journal of Zhejiang University (Agricultural & Life Sciences)* **28**: 54-58.
- Lou Bing-gan, Zhang Bing-xin, Maarten Ryder, Rosemary Warren and Paul Harvey (2002) Study on biological control of cucumber seedling damping-off. *Acta Phytophylactica Sinica* **29**: 109-113.
- Ryder, M., Yan, Z., Terrace, T., Rovira, A and Tang, W. (1996) Control of take-all and *Rhizoctonia* root rot of wheat, and seedling growth promotion by *Bacillus* and other root-associated bacteria. In "Advances in Biological Control of Plant Diseases" Eds W. Tang, R.J. Cook and A.D. Rovira, China Agricultural University Press, Beijing, pp. 94-98.
- Ryder, M.H., Simon, A., Terrace, T.E., Rovira, A.D., Harch, B.D., Yang, H., Zhang X. and Tang, W.H. (1999) Biological control of take-all and sharp eyespot of wheat in the field using *Trichoderma koningii*. In "Proceedings of the First Australasian Symposium on Soilborne Diseases" Ed. R.C. Magarey, Bureau of Sugar Experiment Stations, Brisbane Australia, pp 97-98.
- Ryder, M.H., Yan, Z., Terrace, T.E., Rovira, A.D., Tang, W.H. and Correll, R.L. (1999). Use of strains of *Bacillus* isolated in China to suppress take-all and *Rhizoctonia* root rot, and promote seedling growth of glasshouse-grown wheat in Australian soils. *Soil Biology & Biochemistry* **31**: 19-29.
- Tang, W., Gao, J., Yang, H., Luo, D., Yan, Z., Mei, R., Ryder, M. and Rovira, A. (1996) Seed treatment by microorganisms for control of take-all and sharp eyespot of wheat. In "Advances in Biological Control of Plant Diseases" Eds W. Tang, R.J. Cook and A.D. Rovira, China Agricultural University Press, Beijing, pp. 38-43.
- Tang, W. and Yang, H. (1997) Research and application of biocontrol of plant diseases and PGPR in China. In "Plant Growth Promoting Rhizobacteria: Present Status and Future Prospects" Eds A. Ogoshi, K. Kobayashi, Y. Homma, F. Kodama, N. Kondo and S. Akino. Hokkaido University, Sapporo, pp 2-9.
- Tang, W., Yang, H. and Ryder, M. (2001) Research and application of *Trichoderma* spp. in biological control of plant pathogens. Invited review chapter In "Bio-Exploitation of Filamentous Fungi", Eds S.B. Pointing and K.D. Hyde, Fungal Diversity Press, University of Hong Kong, pp 403-435.
- Tu, H.D. and Peng, Y.F., (1998). Biological control of *Verticillium* wilt and seedling diseases of cotton. In "Research on Plant Pathology". Eds Y.F. Peng, H.M. Wang and Y.L. Peng. China Agricultural Science and Technology Press. (in Chinese), Beijing, pp. 50-54.
- Tu, H., Tian, D., Peng, Y. and Ryder, M.H. (1999). Biocontrol of cotton *Verticillium* wilt with an endophytic bacterial strain. In "Proceedings of the First Australasian Symposium on Soilborne Diseases" Ed. R.C. Magarey, Bureau of Sugar Experiment Stations, Brisbane Australia, pp 116-117.

- Wang Ye, Zhou Hongyou and Tang Wenhua (2001) Effect of 2,4-diacetylphloroglucinol (Phl)-producing fluorescent *Pseudomonas* on biocontrol of plant diseases in Chinese TAD soils. In "Plant diseases and their control". Eds S.M. Zeng, G.H. Zhou and H.F. Li, China Agri. Sciencetech. Press, Beijing, pp.119-122.
- Warren R.A., Yang H. and Ryder M.H. (2001) Survival of formulations of *Trichoderma koningii* isolate 7a and other new biological control agents when stored at different temperatures. In "Proceedings of the Second Australasian Symposium on Soilborne Diseases" Ed. I.J. Porter et al., Second Soilborne Diseases Symposium, Victoria, Australia, pp.156-156b.
- Xiao Xing-long, Yang He-tong, Xia Xian-zhi, Xu Yan-ke and Wang Yu-ping (2002) Identification and classification of *Trichoderma* spp. by morphology and soluble protein gel electrophoresis analysis Shandong Science **15**: 5-12 (in Chinese).
- Yan, Z., Harris, A., Adkins, P., Ryder, M., Rovira, A. and Tang, W. (1996) Growth promotion of Chinese cabbage, *Capsicum*, and rape by Yield-Increasing Bacteria under Australian conditions. In "Advances in Biological Control of Plant Diseases" Eds W. Tang, R.J. Cook and A.D. Rovira, China Agricultural University Press, Beijing, pp 136-138.
- Yang Hetong and Tang Wenhua (1998). Interactions between *Trichoderma viride* and *Glomus mosseae* and their ability to control wheat root rot caused by *Rhizoctonia cerealis*. In "Study and Control of Plant Diseases", Eds. Y. Liu, Q.J. Li, M.Y. Li, D.F. Huang and Y.H. Zhang. China Agricultural Science and Technology Press, pp 508-511.
- Yang Hetong, Tang Wenhua, Song Jiahua, Niu Shanguang and Zhou Hongyou, (1998). Mechanisms of *Trichoderma viride* LTR-2 in controlling wheat root rot pathogen *Rhizoctonia cerealis*. In "Study and Control of Plant Diseases", Eds. Y Liu, QJ Li, MY Li, DF Huang and YH Zhang. China Agricultural Science and Technology Press, pp 504-507.
- Yang, H. and Tang, W.H. (1999) Mass production of conidia of *Trichoderma viride*. In "Proceedings of the First Australasian Symposium on Soilborne Diseases" Ed. R.C. Magarey, Bureau of Sugar Experiment Stations, Brisbane, Australia, pp 120-121.
- Yang H., Tang, W.H. and Ryder, M.H. (1999) Formulation of *Trichoderma viride* LTR-2. In "Proceedings of the First Australasian Symposium on Soilborne Diseases" Ed. R.C. Magarey, Bureau of Sugar Experiment Stations, Brisbane Australia, pp 122-123.
- Yang H., Tang, W.H. and Ryder, M.H. (1999) Influence of chitin on the efficacy of *Trichoderma* spp. against cotton diseases. In "Proceedings of the First Australasian Symposium on Soilborne Diseases" Ed. R.C. Magarey, Bureau of Sugar Experiment Stations, Brisbane Australia, pp 124-125.
- Yang H., Tang, W.H. and Ryder, M. (1999) *Trichoderma* and biological control of plant diseases. Shandong Science **12**: 7-15.
- Yang Hetong, Tang Wenhua and Ryder, M. (2001) Cotton lectin and the rhizosphere competence of *Trichoderma* spp. in "Plant Diseases and Their Control", Eds S.M. Zeng, G.H. Zhou and H.F. Li China Agricultural Sciencetech Press, Beijing, pp 115-118.
- Yang Hetong, Tang Wenhua, Chijianguo, Xu Yanke and Wang Jianing (2002) Identification, modes of action and efficacy in controlling ginger bacterial wilt of a biocontrol agent B1031 Chinese Journal of Biological Control **18**: 21-24 (in Chinese).

- Yang Hetong, Tang Wenhua, Xu Yanke, Wang Jianing and Yao Wansheng (2002) Delineation of the genus *Trichoderma* and its sub-generic division. *Shandong Science* **36**: 15-22.
- Yang, H., Ryder M.H. and Tang W. (2003) Characterization and identification of *Trichoderma* isolates from a South Australian soil suppressive to *Rhizoctonia solani* on wheat. *Accepted* for publication in *Mycological Research*.
- Zhang Bing-xin and Zhang Ping (2000) Detection of introduced microorganisms in the rhizosphere. *Journal of Zhejiang University (Agricultural & Life Sciences)* **26**: 624-628.
- Zhang Bing-xin, Zhang Ping and Chen Xiao-bin (2000) Factors affecting colonization of introduced microorganisms on plant roots. *Chinese Journal of Applied Ecology* **11**: 951-953.
- Zhou Hongyou, Liu Haiyan, Tang Wenhua et al. (1998). Analysis of population density of pathogen in soil and biological control of *Fusarium* root rot on milk vetch. *Chinese Journal of Microecology* **10**:68-70 (supplement).