First International Meeting on Microbial Phosphate Solubilization

Developments in Plant and Soil Sciences

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First International Meeting on Microbial Phosphate Solubilization

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Contents

First International Meeting on Microbial Phosphate Solubilization, Salamanca, Spain, July 16–19, 2002

Official logo of the First International Meeting on Microbial Phosphate Solubilization, Salamanca, Spain, July 16–19, 2002

Cover Photo: The compilation (clockwise) shows a strawberry flower, a *Prosopis* nodule, a bacterial plate culture showing phosphate solubilization zones, and a photomicrography showing sporulated *Bacillus*. Images courtesy of Encarna.

Preface

University of Salamanca and Consejo Superior de Investigaciones Científicas (CSIC), two famous and traditional scientific organizations have sponsored the First International Meeting on Microbial Phosphate Solubilization (MPS) held in Salamanca, Spain, on 16–19 July 2002.

The so called green revolution has provided us with grains to feed millions of humans and progress in medicine has increased longevity. Other moves of science have seen major advances of knowledge into cell biology and genetics and a threshold to success on what biosciences can make regarding a sustainable agricultural production can be envisaged at both short and long term. Besides Carbon and Nitrogen biogeochemical cycles, that of Phosphorus adds extra interest at increasing soil biological fertility. Second to none, phosphorus is involved in many essential metabolic processes of the living cell and free access of living beings to Phosphorus is a must not only due to P important role in itself but because of the enhancement effect on the role of other nutrients and processes, e.g. Biological Nitrogen Fixation, in the nutrition of the cultivated plants. Updating knowledge on the role of soil microorganisms in the solubilization of Phosphorus was the aim of the meeting. To the purpose sixty specialists from thirteen countries met in Salamanca to discuss the problems on the high P-unavailability as a soil nutrient for crops and the hazards of an increasing phosphate input to aquatic habitats from industrial and mining activities, sewage disposal, detergents, and other sources. Recommendations to enhance P-uptake by plants and crops, bioremediation potential in the rehabilitation of ecosystems, taxonomic characterization, interactions with mycorrhizae, the physiological and molecular basis of phosphate solubilizing microorganisms, possibilities of genetic modifications *ad hoc* of rhizospheric microorganisms, and trials on prospective inoculants were among the highlighted topics covered.

Emphasis was made on the fact that studies on phosphate solubilization shall always be on the line of contributing with extra available Phosphorus to plants, with no competition whatsoever with the important role of mycorrhizal associations with plants already widely recognized as self sufficient, and complementary under certain conditions to the use of P industrial fertilizers.

Let be this First Meeting on MPS also a first effort in the coordination of scientific internationally reputed groups, and let be the beginning of a continuing relation along the years to come, a wish that is extended to all those groups that were not given the opportunity to participate, such was the short notice under which the meeting was announced for which the Organizers apologize. Thank you to all sponsors and to attendants who made the meeting possible.

The Editors

E. Velázquez and C. Rodríguez-Barrueco (eds.),
First International Meeting on Microbial Phosphate Solubilization, 1