



ICAFOF

2018

2-5 April 2018
Çesme-Izmir / Turkey

Proceeding Book

Editors

Asst.Prof.Dr. M.Cüneyt BAĞDATLI

Assoc.Prof.Dr. Erkan KALIPCI

Assoc.Prof.Dr. Serkan ŞAHİNKAYA



INTERNATIONAL CONFERENCE ON AGRICULTURE, FOREST, FOOD SCIENCES AND TECHNOLOGIES 2-5 April 2018 Cesme-Izmir/Turkey

Invitation



Welcome to International Conference on Agriculture, Forest, Food Sciences and Technologies (ICAFOF-2018 Çeşme-İzmir/Turkey). This Three Nights, Four Days conference will be held in Sheraton Cesme Hotel Resort & Spa , Çeşme-İzmir/ Turkey during April 2 - 5, 2018. The official presentation and writing language of the ICAFOF is abstract and Full Papers as English and Turkish will be uploaded to the Conference System. Participants can submit a maximum of two papers for a conference fee for this conference. It will be published as the Conference Proceeding E-Book only at the end of web page. The ICAFOF,

Çeşme-İzmir/Turkey 2018 aims at presenting current researches being carried out in the areas of Agriculture, Forest, Food and Veterinary for scientists, scholars, engineers and students from the universities, technologists, entrepreneurs and policy makers all around the World. Thus, The ICAFOF - Çeşme provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration. We hope that you can join us in the ICAFOF - Çeşme 2018 with new insights. We look forward to welcoming you to Çeşme, where is a fascinating nature wonder in Turkey. It will be "KURTALAN EXPRES" Concert for Gala Dinner in ICAFOF. The conference will be organized by Nevşehir Hacı Bektaş Veli University and Galaksi Organizing Company

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Prof. Dr. Apostolos Paul Kristakis	Technological Institute of Thessaloniki, Greece
Asst. Prof. Dr. Prithwiraj Jha	Zoology Department, Raiganj Surendranath Mahavidyalaya, India

Invited Speakers

Important Dates

March 11, 2018	Submission Deadline of Abstracts
March 15, 2018	Submission Deadline of Full Text Paper
March 20, 2018	Payment Deadline of Conference Fee
April 2-5, 2018	Conference Date of ICAFOF

Conference Topics

Agriculture Sciences and Technologies

Land and Water resources, Climate Change, Hydrology, Irrigation, Agricultural Machinery, Agricultural Energy Systems, Agricultural Economy, Horticulture, Plant Protection, Animal Science, Field Crops, Soil Science and Plant Nutrition, Biology, Agricultural Structures, Agricultural Biotechnology, Remote Sensing and GIS, Agriculture Education, Biosystem, Chemistry, Organic Agriculture, Ecology, Fisheries Engineering and etc.

Forest Sciences and Technologies

Forest Industry Engineering, Forest Engineering, Landscape Architecture, Wildlife Ecology and Management, Wood Mechanics and Technology, Forest Industry and Business Machines, Wood Technology, Chemistry and Technology of Forest Products, Forest Botany, Ecology, Geodesy and Photogrammetry, Watershed Management, Forest Entomology and Protection Forestry, Forestry Construction, Forest Management, Forest Economics, Forestry Education, Remote Sensing and GIS, Plant Material and Culture, Landscape Planning and Design, Forest Conservation Biology Landscape Techniques and etc.

Food Sciences and Technologies

Food Chemistry, Food Microbiology, Food Quality Control, Nutrition, Food Engineering Basic Operation, Meat Technology, Grain Processing and Engineering, Milk Processing and Engineering, Biotechnology, Oil Processing and Engineering, Fruit-Vegetable Processing and Engineering, The Packaging of Food, Chemistry, Food Education Food Economics and Industrial Technology and etc.

Veterinary Sciences and Technologies

Basic Veterinary Sciences, Veterinary Pre-clinical Sciences, Veterinary Clinical Sciences, Veterinary Medicine Education, Veterinary Technology, Animals in Folklore, Stock Farming Entity & Economy, Veterinary Medicine History & Deontology, Aquatic Studies, Wildlife Medicine, Medical Biostatistics, Dairy Veterinary Sciences, Livestock Management & Production Technology, Tropical Veterinary Medicine, Experimental Animal Science and etc.



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Poster Presentation

Characterization of Halotolerant *Pseudomonas* spp. Strains with Phosphate Solubilizing Ability

Dragana Jošić^{1*}, Zoran Dinić¹, Radmila Pivić¹, Renata Iličić², Dragana Latković²

¹Institute of Soil Science, Belgrade, Republic of Serbia

²The University of Novi Sad, Faculty of Agriculture, Novi Sad, Republic of Serbia

*Corresponding Author: dragana.josic@yahoo.com

Abstract

Phosphorus is one of the essential macronutrient required for plant growth. Phosphorus (P) mainly exists in soil in insoluble or very poorly soluble organic and inorganic forms and, therefore, unavailable to plants. P-solubilization property is one of the most important plant growth promoting (PGP) traits of bacteria associated with plant nutrition. High salinity also affects plant growth through osmotic effects, the changes in the physical and chemical properties of soil and toxicity of salt ions. Halotolerant microorganisms are adapted to tolerate high salt concentration and grow in saline environments. PGP halotolerant bacteria are known to improve plant nutrition on saline soil. The aim of this study was to characterize rhizospheric and endophytic halotolerant *Pseudomonas* spp. strains able to convert insoluble P to an accessible form. Tolerance to salinity stress was tested in Nutrient agar medium supplemented with 1 - 5% NaCl and halotolerant *Pseudomonas* spp. strains were selected. Phosphate solubilization was analyzed in Pikovskaya's medium containing insoluble tricalcium phosphate (TCP) as sole source of P. Several strains showed clear zones around the colonies grown on solid Pikovskaya's medium. Their mineralizing phosphate ability was related to the levels of acid production and decreasing pH values. Biochemical properties of selected strains were observed using API 20NE and API Zym tests. Genetic characterization was performed using BOX-PCR and the nucleotide sequences of the nearly full-length 16S rRNA genes by using fD1/rD1 primer set. Multiple PGP traits of three *Pseudomonas* spp. strains, especially beneficial phosphate solubilizing ability and tolerance to 3.5% salt concentration, were found very important for offering an alternative of using those strains instead of phosphorus fertilizers.

Keywords: Halotolerant bacteria, *Pseudomonas* spp., Phosphate solubilization

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