



# ATTESTATION DE PARTICIPATION

Le comité d'organisation atteste par la présente que :

**Prof. Bouzid NASRAOUI** a présenté **une conférence plénière** intitulée:

**Principaux organismes de quarantaine menaçant les cultures stratégiques  
des pays du Maghreb**

*au Premier Symposium Maghrébin sur la Protection Intégrée des Plantes (SYMPIP-2017)*

*du 30 Octobre-01 Novembre 2017 - Hôtel Marhaba Palace, Sousse- TUNISIE*

**Dr. Ikbal Chaieb**  
Président de l'ATAD



**Pr. Messaoud MARS**  
Directeur du CRRHAB





## Certificate of Appreciation

This certificate is awarded to

**Mr BOUZID NASRAOUI**

In recognition for his/her contribution as one of the  
Guest Speaker in the

**1<sup>st</sup> Annual Biorisk Management Symposium**

*MENA Regional Network*



which took place at

*Arena Congress Center - Tunis, Tunisia*

From

*April 6<sup>th</sup> - 8<sup>th</sup>, 2017*



الجمهورية الجزائرية الديمقراطية الشعبية

وزارة التعليم العالي والبحث العلمي

جامعة الجيلالي بونعامة بخميس مليانة

كلية علوم الطبيعة والحياة وعلوم الأرض



شهادة شرفية

تمنح هذه الشهادة الشرفية للأستاذ بوزيد نصراوي من معهد الوطني للعلوم الفلاحية بتونس تقديرا على الجهود المبذولة خلال إلقاءه محاضرات علمية لفائدة طلبة كلية علوم الطبيعة والحياة وعلوم الأرض بجامعة الجيلالي بونعامة بخميس مليانة (الجزائر) وهذا يومي 26-27 أفريل 2016



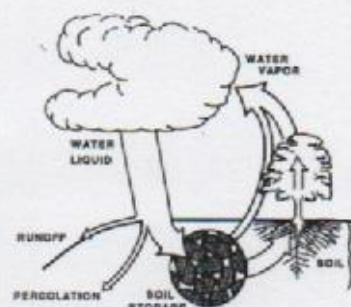


*University of Missouri-Columbia*



**SPECIAL SOIL SCIENCE  
SEMINAR SERIES**

**ATMOSPHERIC SCIENCE  
SEMINAR SERIES**



**Soil Science 410**

**123 Anheuser-Busch Natural Resources Building**  
**4:00 p.m., Monday, March 25, 2002**

**Dr. Bouzid Nasraoui**

Visiting Fulbright Scholar & Plant Pathologist  
Ecole Supérieure d'Agriculture du Kef, Tunisia

**BIOLOGICAL CONTROL USING BACTERIA AGAINST THE WHEAT  
FUNGAL DISEASE "TAKE-ALL"**

In many regions of the world, the wheat crop is damaged by a root fungal disease called "Take-all". This disease is caused by the soil-borne fungus *Gaeumannomyces graminis* var. *tritici* (Ggt). No effective chemical control methods or varieties with sufficient genetic resistance are available. Cultural control methods based on crop rotation are not very efficient since the disease declines only after several successive wheat crops. This decline has shown to be due to an increase of the soil bacterial populations antagonistic to Ggt. Many years of research have resulted in isolation and characterization of some bacterial species for use in biological control as seed treatment. Their effectiveness is closely related to soil environmental conditions. We collected soils from different cropping systems, that included wheat, from Tunisia and Missouri (Sanborn Field and Tucker Prairie) and surveyed for bacterial antagonists. The aim of our work was to isolate bacteria from those soils and to screen, in the laboratory and in the greenhouse, for activity against wheat "take-all" in different soils. Effective isolates will eventually be checked in field studies. Results from this research would be important in developing biological management of wheat "take all" for specific soil and cropping conditions.

**PLEASE POST**

Sponsored by: Soil Science, Atmospheric Science, and The School of Natural Resources  
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