

## Postharvest Biocontrol of Rot in Melon

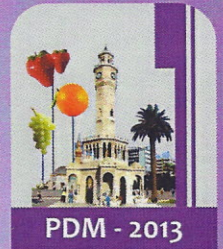
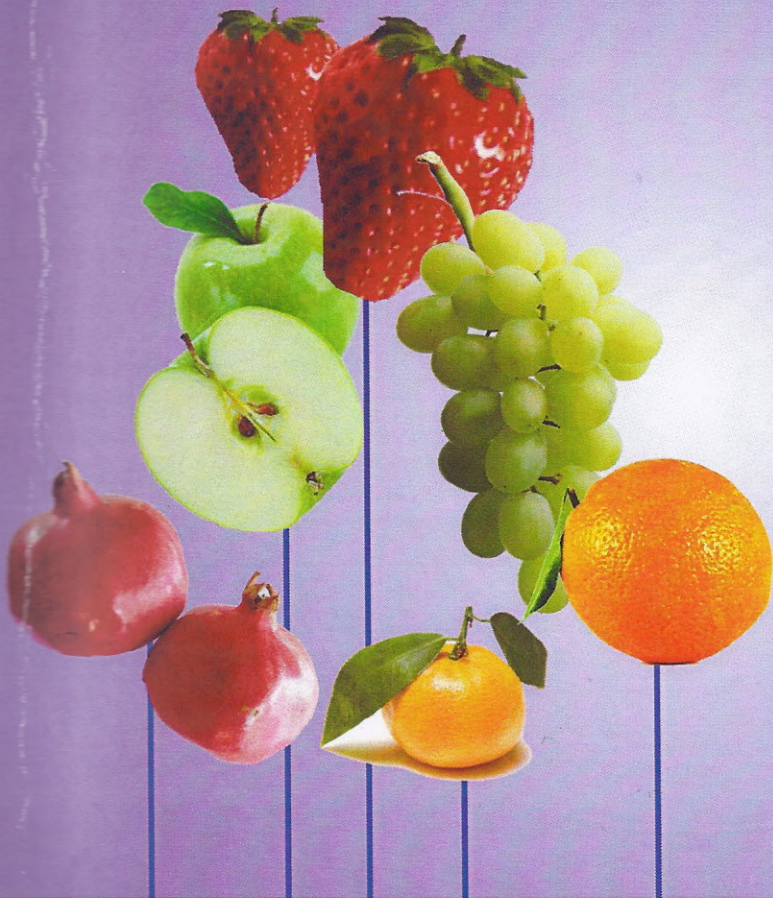
**Daniel TERAO<sup>1</sup>, Cassiano FORNER<sup>2</sup>, Aline DE HOLANDA NUNES MAIA<sup>2</sup>, WAGNER BETTIOL<sup>2</sup>**

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The rot from *Fusarium pallidoroseum* has caused significant losses to melons. There is a demand for safe technology for postharvest treatment of melon and the biological control is a potential option. This study focused on evaluating bioagents on *Fusarium* rot control in Galia melon. The bioagents were evaluated were: *Bacillus subtilis*, *Bacillus licheniformis* and *Sporodiobolus pararoseus*, *Pichia spp*, *Pichia membranifaciens*, *Pichia guilliermondii*, *Sporobolomyces roseus*, *Debaryomyces hansenii* and *Rhodotorula mucilagenosa*, imazalil and sterile distilled water for control. Two experiments were conducted in completely randomized design with 10 replicates per treatment. Analyzing the temporal evolution of rot incidence profiles caused by *F. pallidoroseum* it was possible to group the treatments applied, according to the similarity between the profiles organizing them in four groups. In the first experiment the yeasts: *P. membranifaciens* and *D. hansenii*, were more effective and did not differ from treatment with the fungicide imazalil and in the second experiment: *P. guilliermondii*, *R. mucilagenosa* and *P. membranifaciens* reduced the rot development. The electronic microscope observations confirmed the colonization of yeasts sprayed on fruit surface, besides the damage to the mycelium of the pathogen. The *Bacillus* did not have a significant effect on the control of the rot. The results showed that there is a good potential for the use of yeast in the control of *Fusarium* rot in melon.



# 2<sup>nd</sup> International Symposium on DISCOVERY AND DEVELOPMENT OF INNOVATIVE STRATEGIES FOR POSTHARVEST DISEASE MANAGEMENT

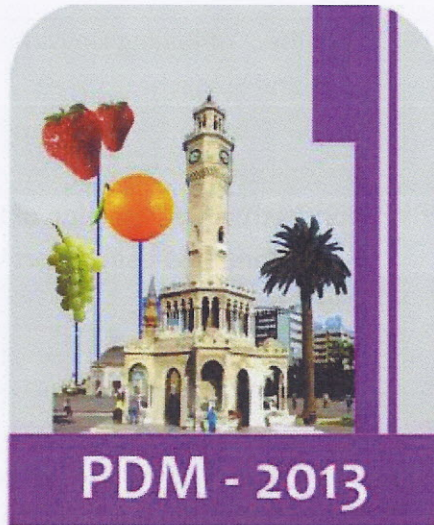


28 April - 2 May 2013  
Fantasia Hotel De Luxe  
Kusadasi, Turkey

## ABSTRACT BOOK

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# **POSTER PRESENTATIONS**

**Tuesday, April 30, 2013**

**15:45 – 17:00 – POSTER SESSION**

# List of Poster Presentations

<b>P 1</b>	Fatemeh Nejatzadeh	The Effect of Boiling On Nitrate And Nitrite Contents In Leek and Spinach
<b>P 2</b>	Fathollah GHOLAMI-BORUJENI	Role of Packaging And Temperature On Growth and Survival of Pathogens in Lettuce
<b>P 3</b>	Sontisuk TEERACHAICHAYUT	Nondestructive Detection of Internal Mold Infection in Sweet Tamarind Using Short Wavelength Near Infrared Spectroscopy
<b>P 4</b>	Sebastian LIEBE	Effect of Genotype And Environment on The Development of Root Rots During Long-Time Storage of Sugar Beets
<b>P 5</b>	Bakhytbek AMIROV	Carrot Breeding For <i>Alternaria</i> Leaf Blight Resistance
<b>P 6</b>	Daniel TERAO	Postharvest Biocontrol of Rot in Melon
<b>P 7</b>	Daniel Nieto Angel	Plant Extracts, Preparation Methods and In Vitro Control of <i>Colletotrichum gloeosporioides</i>
<b>P 8</b>	Davide SPADARO	Postharvest Treatments of Apples And Peaches With Essential Oils
<b>P 9</b>	Cheryl L. LENNOX	In Vitro Effects of Essential Oils and Their Combinations against <i>Botrytis Cinerea</i> , <i>Penicillium Expansum</i> and <i>Neofabraea Alba</i>
<b>P 10</b>	Cheryl LENNOX	In Vitro Antifungal Activity of Garlic Extracts Against Postharvest Decay Pathogens of Apples
<b>P 11</b>	Achbani El HASSAN	Strains Ach - And -5, Two <i>Aureobasidium pullulans</i> Potential Biocontrol Agents Against <i>Botrytis Cinerea</i> And <i>Penicillium expansum</i> , Two Major Postharvest Pathogens Of Apples In Morocco.
<b>P 12</b>	Nurdan GÜNGÖR SAVAŞ	Control of <i>Alternaria</i> Spp. on Sultanina Seedless Grape Vineyards In Aegean Region in Turkey
<b>P 13</b>	Yong-Ki KIM	Effect of Korean Fermented Food Extracts and Bacteria Isolated From That Extracts For The Control of Rice Seed Borne Diseases
<b>P 14</b>	Annamária TÓTH	Mycology, Plant Protection, Essential Oils
<b>P 15</b>	Neus TEIXIDO	Formulation Development of the Biocontrol Agent <i>Bacillus subtilis</i> strain CPA-8 by Spray-Drying
<b>P 16</b>	Neus TEIXIDO	Potential Use of Different Packages and Storage Conditions for the biocontrol Agent <i>Pantoea agglomerans</i> CPA-2
<b>P 17</b>	Selen AKAN	Postharvest Garlic Disorders And Possible Causes
<b>P 18</b>	Gianfranca LADU	In Vitro Control of <i>P. digitatum</i> by Fumigation with <i>Rosmarinus officinalis</i> Essential Oil

<b>P 19</b>	Rosario TORRES	Analysis of the time-dependent protein changes in wounded apples (Golden Delicious)
<b>P 20</b>	Cemile Ebru ONURSAL	Effect of Carvacrol on Microbial Activity and Storage Quality of Fresh-Cut Apple Cv. Braeburn
<b>P 21</b>	Chtaina NOUREDDINE	Effectiveness of Some Commercial Fungicides on Green and Blue Molds Postharvest Diseases (Caused By <i>Penicillium digitatum</i> and <i>P. italicum</i> ) of Citrus Fruits in Morocco
<b>P 22</b>	Renar Joao BENDER	Alternative Treatments to Control Postharvest Decay in Late Season Tangerines
<b>P 23</b>	Loredana CUBAIU	Control of <i>Penicillium expansum</i> Pathogenesis by Pears of Sardinian Germoplasm
<b>P 24</b>	Serkan ŞAHAN, Pervin KINAY TEKSUR	Studies on Effects of Ozone Applications against Green Mold ( <i>Penicillium digitatum</i> (Pers.) Sacc) on Satsuma Mandarin
<b>P 25</b>	Berrin OZGEN	Assesment of <i>Aspergillus</i> spp. Intense In Vineyards of The Aegean Region of Turkey
<b>P 26</b>	Yang Bi	Induced Resistance for Control of Dry Rot of Potato Tubers with Chemical Elicitors
<b>P 27</b>	Giovanni SPAGNA	Effect of UV treatment to Prevent Enzymatic Browning of Minimally Processed Apples ( <i>Malus communis</i> ) Packaged
<b>P 28</b>	William KIRK	Effects of In-Season Crop-Protection Combined With Postharvest Applied Fungicide on Suppression of Potato Storage Diseases Caused by <i>Fusarium</i> Pathogens
<b>P 29</b>	William KIRK	Effects of In-Season Crop-Protection Combined With Postharvest Applied Fungicide on Suppression of Potato Storage Diseases Caused By Oomycete Pathogens
<b>P 30</b>	Guy D'HALLEWIN	Integrated Postharvest Decay Control
<b>P 31</b>	Pervin KINAY TEKSÜR	The Postharvest Fungal Pathogens on Pomegranate Fruit ( <i>Punica granatum</i> L. var Hicaz) in Cold Storage Conditions