

# Identification of vegetative compatibility groups within races of *Fusarium oxysporum* f.sp. *melonis* and management

## Fusarium wilt of melon in Iran

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### Abstract

In this research in order to understand structure of the Fom population, Vegetative Compatibility Groups as well as races of pathogen that isolates 48 regions, which had been collected from different regions of Iran, were set. Then to combine performance review-management of disease (Triatum-p) In the biological control as well as the possibility of linking the figures sentient pathogen honeydew on the foundations of a non-host were examined. Compatibility groups on isolates using mutation Survivor intentions [Nitrate non-utilizing (nit) mutants] The area contains Chlorate produced were set. Group the mutation Chlorate, On the basis of how to grow a variety of resources on the forklift pargana nitrogen, sodium nitrate, sodium Nitrite, included Hypvzantyn, uric acid and ammonium Tartrate. Of 91 jumps 49/45 %-owned by faith to the class nit 1, 24/17 percent to class the nit and 20/88 % in class the Nit M. 5/5 % Of the Survivor mutation in the intentions of any class of the. In order to determine the groups of life forms compatibility, Each mutation Survivor standard with the mutation Survivor isolates (0130-0136). On the environment at least (Minimal Medium = MM) Confluence were given. Isolates in three groups of life forms compatibility 0134, 0131 and 0130 Were. The maximum frequency characteristics are related to the 0134 and on compatibility group 0131 The minimum number of characteristics to themselves. Communication between the race and geographic distribution of the hosting type and it was isolated from the fungus with VCG isolates viruses. Effects antagonistic of biological control of or Triatum-p article on the following three characteristics Fom be evaluated. So the purpose of coping mechanisms, such as maycoparasitism, antagonistic various competing nutrition influence, power, a fitted Colonization metabolite care Secretary Triatum escape outside the cell and escapes on the characteristics of that care Foundation-fungal pathogen tested in PDA. Studies of Macroscopic and asserted that any of the above three isolates of Maykvparazytysm behaviors cause disorder Fom growth and bad form Hypha. In the mutual cultivation techniques of non-volatile and volatile compounds, as well as the growth rate of the disease agent in order to 66/55 . 34/61 and 32/85 % Be reduced. In assessing the impact of biological matter-Fom races on the foundation of Triatum-p three Triatum-p Foundation to the territory added suspension (Soil drenching), to a certain degree in the form of seed coating of Timar. (Oil dressing) and root Starch (Root dip). In order to assess the impact of Triatum-p that is a biological substance on Fom races three methods were used:1-adding suspension Triatum-p to soild( Soild drenching )2-Seed dressing 3- Root dip. This test is One Way Anova in basic plan completely random (CRD) and with three repeats for each were carried out in the greenhouse. Timar. he lowest index of the severity of the

infection was 2/77 % was calculated. In the add test to discover Trianum-p vase in the infected with races 1 and 1, 2, the percentage of healthy plants, in order of 66/67 and 61/12 % in comparison with control of the infected had zero percent ( $P < 0/05$ ). In the test sequence with seed suspension of Timar 69/45 and 63/89 percent of the plants used to be a woman with races 1 and 1, 2 showed signs of pollution. . In the test with the root Starch root deep suspension Trianum-p foundation were 72/23 and Timar 66/67 percent of the plants in the presence of the pathogen races 1 and 1, 2 remain without pollution. Another method of effective applications and for controlling the use of the link plant disease resistant plant on sensitive or non-host. Another effective and applicable method to control this disease is to graft sensitive plant to disease resistant or non-host plant. In this study, the effects of a link on a local melon cultivars of the species commercially canned pumpkin (T-101), was examined in a greenhouse. In this study the effects of graft of local honeydew melon specie on a commercial pumpkin in greenhouse was studied. After culturing and scions of the pot, infected soil content in the form of a cavity Vertical. After cultivation of stock and scion in pots which contain polluted soil, cavity shape and top graft was founded. Fresh and dry air organs in plants and the roots and the height and the sixth measure using SAS software to analyze the data. In sixth week weight of wet and dry air organs and roots as well as height of plant was measured and SAS software was used to analyze the data. The results of this review indicated that the base of the canned pumpkin (*Cucurbita on.*)The disease resistance. This study showed that link local melon cultivars on the base of the care for canned pumpkin fitted control *Fusarium* wilt be used. The result of study showed that graft of honeydew melon on pumpkin's stocks could be used to control the withered *Fusarium*.

**Keywords:** compatibility groups of life forms, Trianum-p, *Fusarium* wilt, melon



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