

عنوان مقاله:

Comparative study of virulence of *Ophiognomonia leptostyla*

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نویسندگان:

Fatemeh Khelgatibana - *Department of Plant Protection, College of Agriculture and Natural Resources, University of Tehran, Karaj, Iran*

Mohammad Javan-Nikkhah - *1. Department of Plant Protection, College of Agriculture and Natural Resources, University of Tehran, Karaj, Iran*

.Naser Safaie - *Department of Plant Pathology, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran*

Khalil-Berdi Fotouhifar - *Department of Plant Protection, College of Agriculture and Natural Resources, University of Tehran, Karaj, Iran*

.Kourosh Vahdati - *Department of Horticulture, College of Aburaihan, University of Tehran, Tehran, Iran*

.Esmail Ebrahimie - *Institute of Biotechnology, School of Agriculture, Shiraz University, Shiraz, Iran*

خلاصه مقاله:

Anthraco disease caused by *Ophiognomonia leptostyla*, is the most important and widespread fungal disease on *Juglans regia*. Walnut disease symptomatic samples were collected from different provinces of Iran, during ۲۰۱۵-۲۰۱۶. Fungal isolates were identified based on ITS-rDNA sequence data. Variance analysis of colony growth rate (mm/day) and acervulus density on medium, was significant. Acervulus density on medium was strongly correlated with colony growth rate. The Max acervulus density was ۶۰% and > ۸۰% for Hamedan and Mazandaran isolates respectively. The virulence of six selected isolates was examined on cv. Chandler. Virulence indices including spot diameter, disease severity, spot area average and logistic infection rate except spot number index, could successfully detect significant differences among isolates. SA-SE۱ isolate from Mazandaran showed significantly the most virulence indices: disease severity (%), spot area and logistic infection rate. For the other five isolates, four significant levels in all virulence indices were observed. In summary after this isolate, other isolates including TA-ZY۱, LA-SY۱, U۹۴-SR۱, HA-GH۲ and MA-K۱ were placed in the next steps of virulence ranking. There was insignificant correlation between colony growth rate and disease severity. However, the acervulus density and disease severity were significantly correlated implying the importance of acervular conidial inoculum in secondary disease cycle progress. Disease severity was strongly correlated with number of spots, spot diameter and logistic infection rate. Disease severity was also negatively correlated with Mid-time (time to progress ۵۰%). Moreover, there was positive relationship between logistic infection rate and three traits: number of spots, spot diameter and spot area average. This study was the first of the disease virulence components on cv. Chandler in Iran.

کلمات کلیدی:

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