

عنوان مقاله:

In vitro antagonistic potential of endophytic fungi against strawberry anthracnose

محل انتشار:

اولین همایش بین المللی و دومین همایش ملی کشاورزی، محیط زیست و امنیت غذایی (سال: 1395)

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نویسندگان:

D Zargar - Former MSc student, Dept. of Plant Protection, Faculty of Agriculture, University of Kurdistan, Iran

J Amini - Associated Prof, Dept. of Plant Protection, Faculty of Agriculture, University of Kurdistan, Iran

خلاصه مقاله:

Strawberry (*Fragaria × ananassa* Duch) has been recognized as an important and major agricultural product, owing to its valuable nature and nutrient properties. Strawberry anthracnose is one of the most serious diseases which limit strawberry production in Iran and caused by *Colletotrichum* species. The objective of this research was to evaluate the endophytic fungi as biocontrol agents against *Colletotrichum acutatum* caused of strawberry anthracnose. Fifty isolates of endophytic fungi were collected from strawberry tissues and were tested for antifungal activity against *C. acutatum* through dual culture, volatile and non-volatile metabolites production mechanisms in in vitro. A total of 10 isolates were found to be highly inhibitory of pathogen growth ($p \leq 0.05$). Based on morphological characters and ITS-rDNA sequence data, these 10 isolates belong to four genera were identified namely: *Aspergillus*, *Penicillium*, *Embellisia* and *Stagonosporopsis*. All antagonistic caused significant reduction in growth of *C. acutatum* by production antibiotics and extracellular compound. The strongest antagonism was observed in isolates of *Aspergillus*. The results of this study indicated that endophytic fungal as biocontrol agents have positive effects against strawberry anthracnose, so in future maybe we can use them instead of chemical poisons for reduce this disease in strawberry s .field. Therefore, evaluating their efficiency under greenhouse and field conditions is needed

کلمات کلیدی:

Biocontrol, Endophytic fungi, Strawberry anthracnose

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