**Summary**

After isolating maize plant, seed and soil which have been already infected by different fungal species, 59fungal isolates belonging to 21 genres:

*Absidia, Acremonium, Alternaria, Aspergillus, Botrytis, Cladosporium, Emericella, Epicoccum, Eurotium, Fusarium, Geotrichum, Melanconium, Monileilla, Paecillomyce, Penicillium, Phoma, Pythium, Scytalidium, Trichoderma, Ulocladium, Verticillium.*

The percentage of infection differed from one sample to another. It dependant out that the plant sample is more susceptible to fungal infection with 28 isolates, followed by the soil with 23 and seeds with 8 isolates. As far as the development of *T.viride* planted on various solid media with different temperature and pH is concerned, it has been found that the best growth rate was on PDA at 25c° and pH 5. For the development of *T.viride* on liquid media adducing glucose and yeast extract with varying measure (0g/l-1g/l- 2g/l). Indeed, the results suggested that the best growth rate was on PDA and yeast extract is considered to be the best source of energy which contributes to an important cellular biomass, followed by the glucose as a carbon source. The results of the direct confrontation of different fungus and *T.viride* revealed that the latter has a great capacity to compete, either by occupying the entire surface of the petri dish, or by inhibiting the remote growth pathogenic fungus. Concerning corn plants inoculated with *F.roseum* spores (105spores/ml) at soil level and spray. After 14 days of infection, there were developed symptoms on the majority of corn plants. It has been noticed that there is a reduction in both roots length and aerial parts compared to control plants. We have tested *T.viride* against *F.roseum*, where the infected corn plants were treated with spores with 106 spores/ml. After 22 days of the treatment, the disease symptoms have disappeared. Moreover, the root length and aerial parts measures were found to keep the same size as the control plants. Finally, the re-isolating step confirmed the presence of *F.roseum* in the initially infected maize plant and soil.

**Key words**: corn, fungus, antagonism, *T.viride*, biological control, *F.roseum*.