Study of in vitro growth and pathogenicity of some isolates of ***Fusarium spp***. Causal agent of **Fusarium Head Scab (FBH)** Of wheat in Algeria.

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The study of the effect of temperature on in vitro growth of ***Fusarium spp.*** Isolates obtained from wheat spike exhibiting typical symptoms of head scab (ear blight) showed that the optimum growth was at 25C ° for all isolates belonging to the four Species of the ***Fusarium*** genus.The species were ***F.avenaceum, F.culmorum, F.moniliforme*** and ***F.solani*** with a lack of growth of all isolates at 35C °.

Among the species studied, the ***F.culmorum*** isolates showed the highest rates of growth at all temperatures tested (15,20,25 and 30C °) it was also noticed that the growth rate of the four species studied increased between 20 and 25C °, and decreased between 25 and 30C °.

Pathogenicity tests of ***Fusarium spp***. Isolates were carried out in vitro and planta. The pathogenicity test in vitro was assessed by examining the coleoptiles growth rate of wheat seedlings. The results obtained showed that all ***Fusarium spp.*** Isolates were pathogenic. These induced retardation in coleoptiles growth compared to the control at 20, 25 and 30C °the most pathogenic of the four species was F.moniliforme isolates which conferred a complete reduction in coleoptiles growth (100%) at 25C °and 30C °, for the other isolates the highest rate of reduction in coleoptiles growth was 95.92% for ***F.culmorum*** and 95.26% for ***F.avenaceum*** at 25C °, while the highest rate of reduction 95.28% for ***F.solani*** was obtained at 30C °.

Pathogenicity carried out by soil inoculation and evaluated by the severity attack at the collar level estimated by a disease scale from 0 to 3 showed that the highest disease index (2.58) was conferred by F.avenaceum isolates followed by F.moniliforme (1.28), F.solani (1) and least by F.culmorum (0.53). Results obtained in this study showed that there is no correlation between in vitro growth and aggressiveness of ***Fusarium*** isolates use in this study and also between aggressiveness assessed by the reduction in coleoptiles growth and the attack at the collar level.

Furthermore it was shown that ***Fusarium*** isolates which induced head scab of wheat was also aggressive on root and collar of wheat.

Keywords: Wheat, ***Fusarium spp,*** Temperature, Pathogenicity.

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