S U M M A R Y

1- The most common fungi isolated from Zagazig area (cultivated land) were identified as follow:- Aspergillus niger, Aspergillus flavus, Aspergillus fumigatus and Fusarium sp.. Rhizoctonia solani was isolated from infected roots of cotton seedlings from the same area.

2- The optimum temperature for growth, of all tested fungi, was 30 °C. Change of nitrogen source, in nutritive medium, had no effects on the optimal temperature for growth.

3- The lowest growth, obtained at the highest incubation temperature (35 °C,) in the case of Rhizoctonia solani, Aspergillus fumigatus and Fusarium sp., and at the lowest incubation temperatue (20 °C) in the case of Aspergillus niger and Aspergillus flavus.

4- The presence of cyolane in the nutrient media revealed a suppersive effects on the growth of all tested fungi, especially at higher concentrations (300,400 and 500 p.p.m).

5- The highest toxicity of cyolane obtained against Rhizoctonia solani in presence of any nitrogen source in culture medium.

6- Inclusion of cyolane in growth medium was more toxic against Aspergillus niger, Aspergillus flavus and Aspergillus fumigatus in presence of sodium nitrate as nitrogen source rather than in presence of ammonium sulphate, however the high toxicity obtained in presence of Ammonium sulphate in case of Fusarium sp. especially in the presence of the concentration 100, 200 and 300 p.p.m.

7- The presence of any concentration of cyolane did not occur complete inhibition of growth of any tested fungi. On the contrary the presence of lowest concentration of cyolane 100 p.p.m, stimulated the growth of Aspergillus niger in presence of ammonium sulphate at incubation temperatures 20 and 35 °C,. On the other hand the stimulation effect obtained in case of Aspergillus flavus at incubation temperature 20 °C, in presence of ammonium sulphate, at all concentrations of cyolane except the highest one (500 p.p.m).

8- The optimum pH for growth in absence of cyolane (control), at the optimum incubation temperature 30 °C, ranged from 5 for Aspergillus flavus to 6 for Rhizoctonia solani in presence of any type of nitrogen. On the other hand the optimum pH for growth of Aspergillus niger, Aspergillus fumigatus and Fusarium sp. was 6 in presence of sodium nitrate in culture medium and 5 in presence of ammonium sulphate.

9- The higher concentration of cyolane (300,400,500 p.p.m) in presence of sodium nitrate as nitrogen source shifted the optimal growth of Rhizoctonia solani to the alkaline side from 6 to 7, however the same concentrations of cyolane shifted the optimal pH for the growth of Aspergillus niger to the acidic side from 6 to 5.

10- The presence of cyolane in culture medium in presence of any nitrogen source had no significant change in protein - N content of mat for all tested fungi.

11- The polysaccharide content of mats (in mg/gram dry weight) for all tested fungi, gradually decreased by increasing the concentration of cyolane in untritive medium from 200 up to 500 p.p.m, in presence of any type of nitrogen.

12- The addition of cyolane to the culture medium revealed significant reduction on total lipids of mats for all tested fungi.