

**CHAPTER- 6**

**SUMMARY**

**AND**

**CONCLUSION**

- 1) Satara region was undertaken for the cultural and fundamental studies of soil fungi.
- 2) Soil fungi of cultivated soil (grape and *Citrus* gardens) that is black cotton and red soil were investigated.
- 3) From both *Citrus* and Grape gardens, the soil of *Citrus* garden contains large number of fungi than the soil of grape garden.
- 4) From isolated 48 species, 8 species were common to all the four soils.
- 5) 48 species of fungi belonging to 20 genera of fungi were isolated from all the four soils. Of these 5 species belong to Phycomycotina; 1 species belongs to Ascomycotina and 42 species belong to Deuteromycotina.
- 6) There are some species, which were appeared only sporadically while some were predominant and were recorded more frequently in all the seasons. These species were *Aspergillus ustus*, *Aspergillus niger*, *Aspergillus clavatus*, *Fusarium poae*, *Fusarium chlamydosporum* and *Bipolaris spicifera*.
- 7) The present study confirms the generally accepted view, that the commonest fungi of soil are representative of *Trichoderma*, *Aspergillus*, *Fusarium*, *Bipolaris*, and *Memnoniella*.
- 8) The order of occurrence of chief genera was *Aspergillus*, *Fusarium*, *Trichoderma*, *Bipolaris* and *Memnoniella*.
- 9) There was variation in fungal flora because of variation in plant cover in different soils.
- 10) There was no effect of soil moisture on the abundance of fungi.
- 11) From all selected soils, seasonal variations in fungal numbers were studied. The lowest number of fungi was recorded in December, February, April, September, October, and the highest number of fungi was recorded in January, March, May, June, July, August, and November.
- 12) Of twenty genera 3 genera were of high seasonal occurrence which were *Aspergillus*, *Fusarium* and *Bipolaris*.
- 13) 10 genera showing moderate seasonal occurrence were *Rhizopus*, *Mucor*, *Penicillium*, *Cladosporium*, *Curvularia*, *Alternaria*, *Cunninghamella*, *Brachysporium*, *Memnoniella*, and *Stachybotrys*.

- 14) The present investigation indicates that the soil fungi are cosmopolitan geologically as well as ecologically and shows no variation with the reports of other investigators.
- 15) Physico-chemical properties of all the soils were studied throughout the year.
- 16) In the present investigation, P<sup>H</sup> of soils was measured which was between 7 and 8.5, which do not show any effect on fungal flora of soil.
- 17) There is direct correlation between exchangeable iron and Magnesium and fungal numbers in all soils.
- 18) The manganese, Copper, Zinc and fungal numbers in all soils showed negative correlations.