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ALTERNARIA SPORE CONCENTRATION AT UDGIR (MS)

* S.D. Lohare

*Dept. of Botany Shri. Havagiswami College, Udgir , Latur

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ABSTRACT

The present investigation deals with the atmospheric concentration of air borne Alternaria over Tomato (Lycopersicon esculentus Mills) field during 1st November 1999 to 27th January 2000 with the help of continuous Tilak air sampler. In the investigation Alternaria spore concentration was 75348/m3 of air recorded during the season. It also shows that there is a close relation between cold weather and release of Alternaria. The meteorological data was maintained throughout the season.

Key words *– Air borne Alternaria, Tamato field, Talik air sampler.*

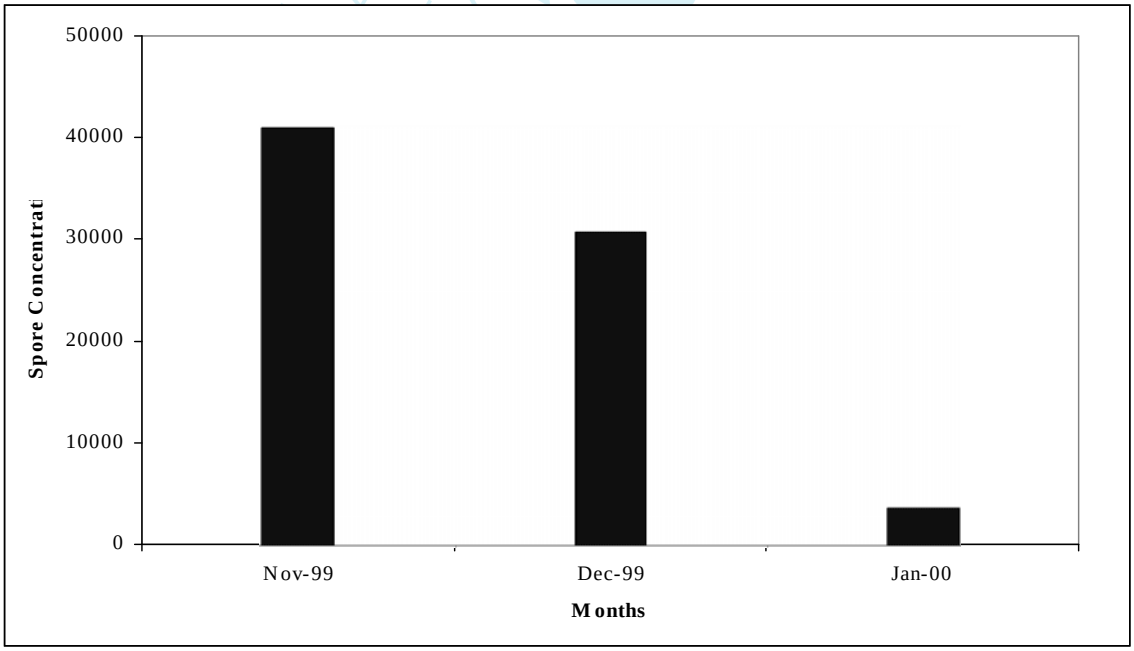
INTRODUCTION

Tamato (Lycopersicon esculentus mills) is one of the important vegetable crop in India. It is cultivated in Marathwada region of Maharashtra state. Economically most of the farmers are depends on this vegetable crop. It suffers from many fungal diseases causing heavy loss in the yield. Therefore air monitoring of Tomato field is carriedout to understand pathogenic Alteraria fungal spores and disease forecasting system.

MATERIALS AND METHODS

The air monitoring over Tomato field was investigated by using Tilak air sampler from 1st November 1999 to 27th January 2000 at Udgir, dist. Latur (MS). Other materials and methods used in the present study are same as described by Tilak and Srinivasulu[1]. The identification of fungal types was done with the help of literature[2-4] and by comparing with the reference permanent spore slides.

Graph Showing Monthly Concentration of Alternaria Spores over Tomato field.



RESULT AND DISCUSSION

In the present investigation the spores belonging to Deuteromycetes 74.83%, Basidiomycetes 4.50%, Ascomycetes 0.93% and Phycomycetes 0.09% contributed to the total air spora. The other group included hyphal fragments, pollen grains insect parts and protozoan cyst. The Deuteromycetes group contributed highest percentage to the total airspora over Tomato field during the season. The Alternaria spore concentration was found maximum 40950/m3 of air during Novmber 1999 and gradually reduces in December and January.

Monthly concentration of Alternaria over Tomato field is shown in graph I.In this investigation Alternaria spore concentration was recorded 75348/ m3 of air and the percentage contribution to the total air spora was 20.54%. The percentage contribution of Alternaria at Udgir is also reported by Dhaware[5], Lakhe[6], Meshram[7], Bagwan[8] and Muley[9].

This investigation clearly shows that the presence of Alternaria spores in the airspora were more and are parasitic and pathogenic to Tomato and different crop plants in and around the field.

RESEARCH ANALYSIS AND EVALUATION

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