ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 10, Issue, 11, pp.74938-74939, November, 2018

DOI: https://doi.org/10.24941/ijcr.32805.11.2018

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

CURVULARIA FUNGAL SPORE CONCENTRATION OVER VEGETABLE FIELD

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ARTICLE INFO

Article History:
Received 19th August, 2018
Received in revised form
28th September, 2018
Accepted 06th October, 2018
Published online 29th November, 2018

Key Words:
Curvularia,
Tilak Airsampler Rabbi Season.

ABSTRACT

Air sampling over vegetable field was carried out by using continuous Tilak air sampler from 1st November 2016 to 30th January 2017 for Rabbi season. The main aim of this experiment is to find out the concentration of air borne Curvularia spores and their relation with the disease incidence. In the investigation Curvularia spore concentration was16578 spores/m^3 of air recorded during the season from Aerobiological sampling the fluctuation in the concentration of Curvularia spores wear observed in different growth stages of the crop. Maximum concentration of Curvularia spores wear recorded 8242 spores/m^3 of air in the month of December 2016.

***Citation*: *Lohare Sunita Dhundiraj.* 2018**. "Curvularia fungal spore concentration over vegetable field", *International Journal of Current Research*, 10, (11), 74938-74939.

INTRODUCTION

Air borne fungi are the causative agents concern with vegetable plant diseases is Tomato (*Lycopersicon esculentum*), Brinjal (*Solanum melongena*), Onion (*Allium cepa*) etc are important vegetable crop of the world and suffers from many fungal diseases causing heavy loss to the economy of farmer. Curvularia is the pathogen of many crop diseases. Therefore the present investigation is useful to understand the concentration of Curvularia spores and disease forecasting system of many vegetable crop plants.

MATERIALS AND METHODS

The air sampling over vegetable field was carried out by using volumetric continuous Tilak air sampler (Tilak, 1967). The sampler was kept at constant height of 4 feet from ground level in vegetable field near Nideban village Tq. Udgir Dist. Latur from 1st November 2016 to 30th January 2017. The cellotape was fixed over rotating drum of Tilak air sampler after operating for one week cello tape was cut in to 8 divisions of equal size and mountain in glycerine jelly on a glass slide. The slides were scannad under microscope.

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The identification of fungal spore types were done with the help of literature (Gregory, 1961; Tilak, 1989) and also by comparing with the reference permanent spore slide.

RESULT AND DISCUSSION

The composition of air spora over vegetable field comprises Deuteromycetes 72.54% Ascomycetes 2.49%, Phycomycetes 0.06% and Basidiomycetes 4.91% to the total air spora. The other group included hyphal fragments, pollen grains, insect part and protozoan cyst. The spores belonging to Deuteromycetes contributed highest percentage to the total air spora. In this investigation Curvularia was found 6.49% and it was the fifth dominant spore type to the total air spora. The Curvularia spore concentration was found maximum 8242 spores/m3 of air in the month of December 2016 and minimum in the month of January 2017. The concentration of Curvularia at Udgir is also reported by Bagwan and Muley. Curvularia is pathogenic fungus and cause diseases on many different vegetable crop plant around the field. The meteorological factors had a pronounced effect on spore libration and ultimately affected air spora concentration.

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