STUDY OF AEROMYCOFLORA BY POUR PLATE METHOD

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Abstract: In poultry shed the petriplates were exposed weekly for 5 minutes in the air for the period of October, November December 2016 to January 2017. The dominant aeromycoflora like *Cladosporium*, *Curvularia*, *Lacellinopsis*, *Paecilomyces*, *Aspergillus* *Alternaria* were recorded.

Keywords: Aeromycoflora, *Cladosporium*, *Curvularia*, *Lacellinopsis*, *Paecilomyces*, *Aspergillus*, *Alternaria*

Introduction:

Cunningham (1873) initiated aerobiological studies. Aerobiology deals with the identification, mode of release, dispersal, deposition and impaction on all living organisms. The fungal propagules remain dormant and under favourable conditions germinate.

Monitoring of aeromycoflora studies in indoor environment include library, poultry shed, cow shed, hospitals, institutions, godowns, vegetable market. Several workers worked on aerobiology of indoor environment. (Santra and Chanda (1989), Singh and Singh (2000), Sahaney and Purwar, (2001), Singh (2007).

The workers studied aeromycoflora of Poultry shed (Rati et. al. 1980) Tilak and Saibaba (1986) have studied the aeromycoflora of poultry shed and its relation to poultry diseases.

Material and Methods:

The air of poultry shed was sampled at weekly intervals by expose petriplate method as suggested by Reddy and Reddy (1986), Sonia.A, Kabir, Singh, A (2010). Petriplates containing PDA medium were exposed for 5 minutes by opening lid at 5 feet height. At the end of exposure the lid was closed. The exposed petriplates were brought to the laboratory and incubated at room temperature for seven days. Attempt has been made to identify with the help of available literature. (Barnett 1969; Nigmani et.al.(2006). The substrates of Poultry shed were changed monthly.

Table-

Sr. No	Spore types	Oct	Nov	Dec	Jan
1	<i>Aspergillus</i>	3	2	4	3
2	<i>Alternaria</i>	4	3	1	2
3	<i>Cladosporium</i>	5	4	4	1
4	<i>Curvularia</i>	5	3	2	1
5	<i>Fusarium</i>	6	3	4	1
6	<i>Helminthosporium</i>	4	2	1	-
7	<i>Nigrospora</i>	5	2	1	-
8	<i>Penicillium</i>	1	1	3	1
9	<i>Rhizopus</i>	1	3	4	1
10	<i>Cercospora</i>	1	-	-	-

Results:

The range of temperature was recorded during this period was 32 to 33° C. Overall city received 571.3mm rainfall. In October 80.4mm of post monsoon rainfall is received in Pune which was against a normal of 59mm. In January the climate was dry. In the month of October on account of high percentage of humidity and moderate range of temperature the spore concentration was more. The maximum number of colonies appeared in the month of October, November and December due to favorable conditions. The colonies were less in the month of January due to dry season. Replacement of lid litter with fresh litter leads to fluctuation in the number of colonies in poultry shed.

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