International Journal of Botany Studies
ISSN: 2455-541X, Impact Factor: RJIF 5.12
www.botanyjournals.com
Volume 1; Issue 7; November 2016; Page No. 23-24

Seed mycoflora of sesame (*Sesamum indicum* L.) Varieties CV. N-85 & CV. Phule-1

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Abstract
Different varieties of *Sesamum* including CV.N-85 and CV. Phule-1 were screened for seed mycoflora. Twenty seven fungi were isolated from these varieties. Varietal variation was found during the investigation. Among these fungi the present of Alternaria Carthami, A. Flavus, C. globosum, Fusarium oxysporum, R. Stolonifer, A, Nigar, Rhizoctonia Leguminicola. A. Flavus, A. Carthami were maximum in all methods.

Keywords: sesamum, seed mycoflora

Introduction
Sesame (*Sesamum indicum* L.) are the important crops grown in Marathwada region of Maharashtra both Kharif & Rabi season.

Vaidehi and Laltha (1985) [14] in an extensive survey have been isolated about twenty seven fungi from pre and post harvested seeds.

Li. Lili (1988) [15] observed macrophomina phaseolina, Fusarium sp., Alternaria Sessamicola, cercospore sesame and Helminthosporium sesame seed born pathogens of sesame in china. Chiang and Hyun (1997) [17] reported defense protein following infection Fusarium oxysporum in sesame. Changes in chlorophyll content and sesame seeding due to storage has also been reported. (Dayal and Singh 1997).

Ojiabo *et al*. (2000, 2000a) [18] studied the tolerance level of Alternaria sesame on yield of sesame and subsequent effect on the infection in later stage and growth.

By considering this in view the seed Mycoflora of different varieties has been detected by using different methods.

The results are present in the from of present seed Mycoflora with and without surface sterilization.

Material and Methods
The seed samples of sesame (*Sesamum indicum* L.) of varieties CV. N-85 and CV. Phule-1 were from "Oil Seed Research Station, Latur". (Marathwada Agriculture University) Parbhani. Different methods used for detection of seed-born fungi were direct inspection of the seeds. Oil mills local market places, isolation of seed moulds was done by using advanced techniques (ISTA, 1996 and Neerg Arad 1977). Several species belonging to eighteen general moulds was relievered form seed of different cultivars. It was observe that the seeds of different varieties with variety of abnormalities yield a huge number of fungi having different physiological behavior leading to seed losses. The seeds collected from different storage showed a remarkable relation with their variable Mycoflora.

i) Blotter Paper Method
White blotter papers of 8.5cm diameter were soaked in sterile distilled water, placed in pre-sterilized borosil glass, petri-plates of the 10cm diameter. Ten seeds per plate were placed at equidistance aseptically on moist blotters. Four Hundred seeds were used in each expt. The conditions and other detail remains the same.

ii) Agar Plate Method
In this method pre-sterilized were paired with 25ml of autoclaved PPA medium having PH 5.6. The incubation process and other details were same as described in the blotter paper method. From the seed sample on solidification placed aseptically. Four Hundred seed were used in every expt. The plates were incubated at room temp. (27 $\pm$ 2°C) for seven days on 7th day the were examined.

Seed were pre-treated with 0.1% solution of $HgCl_2$ for two minutes were used isolate only internal seed Mycoflora. Subsequently the seeds were washed thoroughly with distilled water and placed agar plates. Seeds without such pre-treatment were employed for the study of total (Internal + External) seed Mycoflora.

iii) Rolled Towel Method
For this method from the seed sample of fifty seeds were placed on towel paper and covered with polythene paper and rolled carefully by avoiding disturbance to the seed.

For the external and internal seed borne fungi the method of isolation was similar as described earlier in the blotter paper method. After eight days seeds were observed. The percentage of individual seed Mycoflora was recorded.

iv) Moist Sand Method
From the seed sample five seeds were placed in petri dish containing sterilized moist and at equal distance. Isolation method was similar as described earlier in Blotter paper method. After seven days the seed were observed and seed Mycoflora observed.

Results and Discussion
In order to detect the seed Mycoflora of different varieties of same blotter paper, agar plate, rolled towel and sand method has been used. Among the methods blotter paper methods was found to be more suitable as it shows higher percent seed Mycoflora in least incubation period. Different varieties

of sesame i.e. CV.N-85 & CV. Phule-1 were screened for seed Mycoflora S.

Sesame variety CV.N-85 was associates with fungi. i.e. A. Charthmi, A. Flavus, C. Globosum, Fusarium oxysporum, Rhizopus Stolonifer, A. Niger, Rhizoctonia Leguminicola.

The percent Mycoflora of A. Carthmi was found to be maximum in Blotter paper, Agar plate, Rolled towel and sand method in sterilized and unsterilized seed. A. Nigar, R. Leguminicola were less in percentage.

Sesame variety CV. Phule-1 was associated with fungi i.e. Absidia corymbifera. Mucor Mucedo, Aspergillus Niger, Aspergillus Flavus, Fusarium oxysporum, Aspergillus terreus, A. Versicolor. Absidia corymbifera and Mucor mucedo both in sterilized and unsterilized condition of seeds. Aspergillus terreus show maximum infection followed by Aspergillus Versicolor and Aspergillus Flavus in less percentage.

Sesame variety CV.N-85 was also screened for association of fungi shows fungi i.e. A. Niger, R. Leguminicola were less in percentage.

The percentage of the A. Carthmi was maximum in all methods. The percentage of A. Carthmi found to be intermediate.

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