RESULTS
RESULTS

Quantitative studies on externally and internally borne mycoflora of different oil seeds by Standard Blotter Method & Agar Plate Method.

The present investigation deals with the isolation of fungal flora from six different types of oil seeds collected from agriculture produce marketing committee, Dharwad from 2001-2003. The nature and distribution of the seed mycoflora incidence (%) of different fungi on these seed samples were determined by two different methods. Studies on effects of cultural filtrate of seven different fungi on seed germination and seedling vigour were made. Experiments were conducted on the control of seed mycoflora using botanicals separately and the results are presented here.

Standard Blotter Method:

Internal Seed Mycoflora.

Among the surface sterilized seeds plated over Blotter the percent incidence of seed found carrying the fungus internally varied from seed to seed.

In Soybean overall varied twenty-eight fungal organisms were isolated. Nine fungal species were isolated from Zygomycotina; six species from Ascomycotina and rest thirteen species were isolated from the Mitosporic fungi. In Zygomycotina, Rhizopus oryzae (6.72%) showed maximum appearance while Mucor rouxinos (0.53%) showed minimum appearance. In Ascomycotina Chaetomium aurangabadense (4.03%) and Chaetomium indicum (4.03%) both showed maximum incidence, where as Chaetomium apiculatum (1.25%) occurred with minimum incidence (Fig. No.
In Mitosporic fungi, *Cercospora kikuchii* (23.42%) showed maximum incidence followed by *Aspergillus ustus* (17.47%) where as *Fusarium lactis* (1.08%) occurred with minimum incidence. (Table I a, b & c) (Fig. No. Ib).

Sunflower seeds exhibited the association of thirty-eight fungal species on sterilized seeds by Blotter method. Six fungal species were recorded in Zygomycotina, seven species from Ascomycotina and rest twenty-five species from Mitosporic fungi. In Zygomycotina, *Rhizopus nigricans* (3.51%) occurred in maximum incidence while *Mucor javanicus* (2.08%) with minimum incidence, *Chaetomium indicum* (3%) appeared with maximum incidence in the Ascomycotina group, where as *Chaetomium globosum* (1.04%) occurred in minimum incidence (Fig. No. IIa). In Mitosporic fungal group, *Alternaria alternata* (15.32%) occurred with highest incidence followed by *Aspergillus niger* (12.5%) and *Aspergillus flavus* (9.71%) where as *Cladosporium cucumerinum* (0.58%) occurred with lowest incidence (Table II a, b & c) (Fig. No. IIIb).

In case of Saflower seeds thirty-six fungal species were isolated. Eight species belongs to Zygomycotina, four species belongs to Ascomycotina and twenty-four belonged to Mitosporic fungi.

Among the members of Zygomycotina, *Rhizopus oryzae* (3.93%) occurred with highest percentage of incidence where as *Mucor rouxinous* (0.82%) showed its least incidence on sterilized seeds. In Ascomycotina group, *Chaetomium indicum* (1.43%) showed maximum incidence where as *Emericella nidulans* (0.6%) with least incidence (Fig. No. IIIa). In case of Mitosporic fungi, *Aspergillus niger* (153.83%) and *Alternaria alternata* (9.53%) occurred with maximum incidence while *Fusarium sporotrichoids* (0.90%) and *Paecilomyces fusicoloras* (0.75%) occurred with minimum incidence (Table III a, b & c) (Fig. No. IIIb).
Twenty-three fungal species associated with Groundnut seeds. Out of twenty-three species seven belong to Zygomycotina, three belong to Ascomycotina and the rest belonged to Mitosporic fungi. In Zygomycotina group, *Rhizopus arrhizus* (1.82%) showed maximum incidence while *Mucor praini* (0.67%) and *Mucor racemosus* (0.67%) showed minimum incidence. In the members of Ascomycotina group, *Chaetomium aurangabadense* (2.99%) showed maximum incidence while *Chaetomium globosum* (1.86%) occurred with minimum incidence (Fig. No. IVa). In case of Mitosporic members, *Aspergillus niger* (28.93%) occurred with maximum incidence followed by *Aspergillus flavus* (19.63%) while *Fusarium moniliforme* (0.97%) showed minimum incidence (Table IV a, b & c) (Fig. No. IVb).

Surface sterilized Linseeds were tested; twenty-two different species were isolated. Three belong to Zygomycotina, four species belong to Ascomycotina and the remaining fifteen species belonged to Mitosporic fungi. *Rhizopus arrhizus* (1.90%) showed maximum incidence, *Absidia spinosa* (0.42%) occurred in minimum incidence in Zygomycotina group. In Ascomycotina, *Chaetomium funicola* (1.38%) has shown maximum incidence while *Chaetomium aurangabadense* (0.99%) appeared minimum incidence (Fig. No. Va). In the members of Mitosporic fungi, *Aspergillus niger* (7.01%) showed highest incidence while *Drechslera hawaiensis* (0.47%) showed least incidence compared to other organisms (Table V a, b & c) (Fig. No. Vb).

In case of Niger seeds, the association of fungi varied from group to group. Totally twenty-seven species were isolated. From Zygomycotina group, *Rhaizopus arrhizus* (1.74%) showed maximum percentage of incidence and the species to occur with minimum incidence was *Syncephalastrum recemosum* (0.88%) similarly in Ascomycotina *Chaetomium globosum* (1.21%)
showed maximum incidence while *Chaetomium succinum* (0.88%) showed minimum percentage of incidence (Fig. No. VIa). *Aspergillus niger* (5.96%) and *Aspergillus flavus* (4.29%) occurred with maximum percentage of incidence while *Alternaria porri* (0.64%) and *Volutina concentrica* (0.76%) occurred with minimum percentage of incidence compared to other members of the Mitosporic fungi group (Table VI a, b & c) (Fig. No. VIb).

**Standard Blotter Method:**

**External Seed mycoflora.**

From Soybean in all seeds tested total of 39 different fungal species were isolated from unsterilized seeds by Blotter method. Of these 10 species belongs to Zygomycotina, six species belonging to Ascomycotina and twenty-three belonged to Mitosporic fungi. The percentage of incidence of all the species isolated on Soybean is shown in table I (a, b &c). *Rhizopus nigricans* (9.60%) showed highest incidence followed by *Syncephalastrum racemosum* (9.39%) and *Mucor rouxinous* showed minimum percent of incidence (1.47%) among the Zygomycotina group, while among the members of Ascomycotina *Chaetomium indicum* shows maximum incidence (5.97%) followed by *Chaetomium aurganbadaense* (4.69%) where as *Thielavia terricola* (1.51%) shows minimum incidence. The members of Mitosporic fungi shows varying incidence. *Aspergillus niger* is the fungi in this group with maximum incidence of 38.49% followed by *Cercospora kikuchii* 29.36% of incidence where as *Fusarium dianthi* (2.36%) and *Paceliomyces fusispora* (2.75%) shows ever lowest in their appearance.

In Sunflower seeds, total of 36 fungal species were isolated from unsterilized seeds by blotter method. Six species are members of
Zygomycotina, seven species belonged to Ascomycotina and twenty-three species belonged to Mitosporic fungi. Among the members of Zygomycotina *Rhizopus nigricans* (14.69%) showed the maximum incidence while *Absidia lichtheimii* showed the minimum incidence 4.64%, remaining species showed moderate in their appearance (Table IIa). In Ascomycotina species of *Chaetomium* were highest among which *Chaetomium indicum* (4.35%) showed maximum incidence while rest all species showed moderate in their appearance. While *Chaetomium trilaterale* (1.40%) showed minimum incidence (Table II b). Among the members of Mitosporic fungi *Aspergillus niger* (17.99%) showed the highest incidence followed by *Alternaria alternata* (17.65%) while *Cladosporium cucumerinum* (0.94%) and *Curvularia lunata* (1.15%) showed least appearance (Table IIc).

From Safflower seeds tested for external mycoflora from unsterilized seeds 25 species were isolated by Blotter method. Six species were isolated from Zygomycotina, four species from Ascomycotina and fifteen from Mitosporic fungi. In case of Zygomycotina group *Rhizopus oryzae* (9.10%) appeared with maximum incidence while *Cunninghamella elegans* (1.14%) showed minimum incidence (Table IIIa).

Among the members of Ascomycotina, *Emericella nidulans* (1.04%) showed maximum number incidence as external fungi while *Chaetomium globosum* (0.49%) showed minimum incidence. In case of Mitosporic fungi among fifteen species isolated *Aspergillus niger* (27.76%) showed maximum incidence as external fungi followed *Aspergillus flavus* (8.10%), while *Alternaria burnsii* (0.81%) and *Penicillium islandicum* (0.88%) showed minimum incidence as external mycoflora (Table IIIb & c).
From Groundnut seeds, twenty fungi were isolated of these six belonged to Zygomycotina, three belong to Ascomycotina and eleven belongs to Mitosporic fungi. Among the members of Zygomycotina *Mucor rouxinous* (2.92%) showed maximum incidence followed by *Rhizopus oryzae* (1.88%) while *Rhizopus arrhizus* (0.99%) showed minimum incidence. In Ascomycotina *Chaetomium aurangabadense* (3.21%) was predominant in its incidence, whereas *Chaetomium globosum* (1.54%) showed lowest incidence. In Mitosporic fungi *Aspergillus niger* (38.90%) showed highest incidence followed by *Aspergillus flavus* (28.38%) while *Alternaria porri* (0.78%) and *Aspergillus candidus* (0.81%) showed lowest incidence as external flora (Table IVa, b & c).

Linseed exhibited the association of nineteen fungal species from unsterilized seeds by Blotter method. Three species belong to Zygomycotina, four species belonging to Ascomycotina while twelve species are members of Mitosporic fungi. In Zygomycotina, *Rhizopus arrhizus* (6.18%) showed maximum incidence while *Absidia spinosa* (0.92%) showed minimum incidence. Among Ascomycotina members, *Chaetomium auragabadense* (3.60%) showed maximum incidence followed by *Chaetomium funicola* (3.10%) whereas *Chaetomium indicum* (2.54%) showed minimum incidence. From Mitosporic fungi *Aspergillus flavus* (12.93%) was predominant in its incidence compared to other dominant fungi while *Monilia sitophila* (0.92%) appeared with minimum incidence from unsterilized seeds of Linseed (Table Va, b & c).

From Niger seeds, in all twenty-six fungal organisms were recorded of which two belonged to Zygomycotina, four belonged to Ascomycotina and the remaining twenty belongs to Mitosporic fungi. From Zygomycotina
group *Rhizopus arrhizus* (3.23%) showed maximum incidence while in Ascomycotina *Chaetomium globosum* (1.99%) showed maximum incidence and *Chaetomium spirale* (1.36%) showed minimum incidence. Among the Mitosporic fungi *Aspergillus niger* (14.60%) showed maximum incidence followed by *Aspergillus flavus* (14.49%) while *Memnoniella echinata* (1.08%) appeared in lowest incidence (Table VIa, b &c).

**Agar Plate Method:**

**Internal Seed Mycoflora.**

Surface sterilized oil seeds plated over nutrient media, the percent incidence of seed found carrying the fungus internally varied from one group to another.

Soybean seeds, exhibited the association of thirty-two fungal species internally. Among these species, nine belongs to Zygomycotina, six belongs to Ascomycotina and fifteen species belonged to Mitosporic fungi. It is observed that of the total incidence 2.51% of incidence occurred by Zygomycotina species, 1.51% by Ascomycotina and 1.53% by Mitosporic fungi (Table Ia, b & c). *Aspergillus niger* (23.10%), *Alternaria alternata* (11.74%), *Aspergillus sydowi* (10.11%), *Fusarium moniliforme* (6.71%) *Aspergillus ustus* (6.64%) and *Rhizopus nigricans* (6.72%) showed maximum incidence on sterilized seeds by Agar plate method where as *Cladosporium herbarum* (2.03%) *Fusarium lactis* (2.17%) *Mucor rouxinous* (0.36%) *Cunninghamella elegans* (1.26%) and *Thielavia terricola* (1.81%) occurred with minimum incidence (Table Ia, b & c).

All seeds of Sunflower were tested, thirty-nine fungal species were isolated of which six species belongs to Zygomycotina, five belongs to
Ascomycotina and twenty-eight belongs to Mitosporic fungi. The over all incidence of isolated species in each group is Zygomycotina 0.92%, Ascomycotina 0.57% and Mitosporic fungi 1.63%. (Table IIa, b & c). Aspergillus niger (16.15%), Alternaria alternata (10.46%), Aspergillus flavus (10.60%), Alternaria longipes (6.65%), followed by Alternaria pluriseptata (5.29%), were showed maximum incidence, where as Cladosporium cladosporiodes (0.82%), Curvularia lunata (1.43%), Fusarium dianthi (1.57%), Memnoniella echinata (0.72%) Penicillium islandicum (1.28%), Rhizopus nigricans (1.11%) and Thielavia terricola (0.58%) showed minimum percentage of incidence (Table II a, b & c).

There are thirty seven fungal species which were isolated from Safflower seeds, out of these seven species were from Zygomycotina, three belongs to Ascomycotina and rest twenty eight species were belongs to the Mitosporic group. The over all incidences of these species varied in each group, in Zygomycotina 1.57%, Ascomycotina 0.08% and Mitosporic fungi 1.04%. The percent incidence of seed carrying individual species also varied. It was seen that Aspergillus niger (12.71%), Aspergillus flavus (4.99%) and Alternaria alternata (9.99%) showed maximum incidence followed by Cunninghamella elegans (3.16%), Rhizopus oryzae (4.15%) where as Acremonium vitis (1.25%), Aspergillus terreus (0.71%) Mucor rouxinosus (0.33%) and Pestalotia palmarum (0.44%) had exposed minimum incidence (Table III a, b & c).

Groundnut seeds were associated with twenty-two species of fungi on sterilized seeds. Among these, seven species belonged to Zygomycotina, three species belonged to Ascomycotina and the remaining twelve belonged to Mitosporic fungi. The overall incidence of each group in sterilized seeds of groundnut comprised Zygomycotina (0.58%), Ascomycotina (0.51%) and
Mitosporic fungi (1.08%). The species of *Aspergillus niger* (23.40%) and *Aspergillus flavus* (24.04%), have shown maximum incidence whereas *Absidia spinosa* (1.17%), *Chaetomium aurangabadense* (1.49%), *Aspergillus terreus* (0.96%), *Curvularia lunata* (0.69%), *Fusarium monoliforme* (0.92%), *Penicillium herquei* (0.92%) have shown minimum incidence (Table IV a, b & c).

In case of Linseed, totally twenty-three species were isolated, two species belong to Zygomycotina, two species belong to Ascomycotina and nineteen species belong to Mitosporic fungi. Percent incidence of species isolated in each group is, Zygomycotina (0.19%), Ascomycotina (0.11%) and Mitosporic fungi (0.54%). When compared with the incidence of species, *Aspergillus niger* (7.13%), *Aspergillus flavus* (3.82%), *Aspergillus glaucus* (1.79%), *Papulospora immersa* (1.99%), *Penicillium herquei* (1.10%) and *Torula herberum f quaternella* (2.28%) showed maximum occurrence whereas *Absidia spinosa* (0.75%), *Chaetomium aurangabadense* (1.24%), *Chaetomium succinum* (0.65%), *Alternaria citri* (0.64%), *Alternaria dianthi* (0.64%), *Aspergillus funiculosus* (0.58%) occurred with minimum incidence (Table Va, b & c).

Totally twenty-three species were isolated that were associated with sterilized seeds of Niger. Three species were isolated from Ascomycotina and twenty from Mitosporic fungi. About 0.57% of fungal incidence was in Mitosporic fungi, and 0.26% in Ascomycotina. Among these species isolated *Aspergillus flavus* (5.82%), *Aspergillus niger* (4.13%) and *Alternaria alternata* (3.43%) and *Papulospora immersa* (2.26%) occurred with maximum percentage of incidence. While *Acremonium vitis* (1.08%), *Alternaria porri* (1.25%), *Memnoniella echinata* (0.69%), *Pestalotia palmarum* (0.72%) and *Penicillium variable* (0.86%) occurred with lowest incidence (Table VIa, b & c).
Agar Plate Method:

External Seed Mycoflora.

To study the external seed mycoflora unsterilized seeds were also used for Agar Plate method.

In Soybean, totally thirty-two species were isolated by agar plate method. From total isolated species ten belonged to Zygomycotina six belongs to Ascomycotina and sixteen belonged to Mitosporic fungi. The percent incidence of each group is Zygomycotina (3.15%), Ascomycotina (1.54%) and Mitosporic fungi (2.50%) of all the species recorded here. The maximum incidence of species occurring on soybean seeds were Alternaria alternata (11.86%), Aspergillus niger (39.13%), Aspergillus sydowii (12.58%), Aspergillus terreus (10.36%), Aspergillus ustus (8.08%), Cercospora kikuchii (8.75%), Cladosporium oxysporum (9.25%), Fusarium moniliforme (7.99%), Papulospora immersa (8.75%), and Rhizopus nigricans (12.97%) (Table I a, b & c).

In Sunflower total of thirty-seven species were isolated, among which six species belongs to Zygomycotina, four belongs to Ascomycotina and twenty-seven belongs to Mitosporic fungi. From the overall incidence in each group the frequency of species varied in Zygomycotina 2.91%, in Ascomycotina 0.49% and Mitosporic fungi 2.16% was seen. The maximum incidence of species occurring on sunflower seeds were Aspergillus niger (14.16%), Alternaria alternata (14.07%) followed by Alternaria longipes (13.43%), Acremonium vitis (10.18%), Alternaria pluriseptata (6.71%), Mucor praini (8%), Rhizopus arrhizus (6.31%) and Rhizopus nigricans (6.43%) where as Alternaria tenuis (2.04%) Aspergillus fumigatus (1.15%), Curvularia lunata (1.60%), Nigrospora oryzae (0.72%) and Thielavia terricola (1.14%) occurred in minimum incidence (Table IIa, b & c).
Safflower exhibited the association of thirty-one species, out of which six belongs to Zygomycotina; two from Ascomycotina and twenty-three belongs to Mitosporic fungi. The incidence of each group bearing the species is Zygomycotina 1.85%, Ascomycotina 0.12% and Mitosporic fungi 1.08%. Among the species isolated, the maximum incidence of seed is by Aspergillus niger (23.93%), Aspergillus flavus (8.43%), Alternaria alternata (5.26%), Mucor praini (3.21%), Rhizopus oryzae (7.85%), Absidia spinosa (4.25%) and Mucor rouxinosus (3.32%) while minimum incidence is by Chaetomium indicum (0.59%), Aspergillus sydowi (0.85%), Aspergillus terreus (1.24%), Cladosporium herbarum (1.19%), Fusarium sporotrichoids (0.94%), Nigrospora spherica (0.65%), Pestalotia palmarum (0.24%) and Trichoderma viride (0.51%) (Table 11a, b & c).

Seeds of Groundnut were tested for the external mycoflora, twenty different species were found. Six species belongs to Zygomycotina taking into account of 0.82% of the total incidence, three species belong to Ascomycotina of 0.37% of the total incidence and eleven species belongs to Mitosporic fungi comprised of 1.09% of the total incidence. Aspergillus niger (30.40%), Aspergillus flavus (15.21%), Alternaria alternata (6.36%) and Emericella nidulans (2.46%) occurred with maximum incidence, while Aspergillus candidus (0.60%), and Curvularia lunata (0.86%) occurred by means of minimum percent of incidence (Table IVa, b & c).

Total seventeen species were isolated from Linseed. Only one species each was isolated from Zygomycotina and Ascomycotina group respectively, and the rest fifteen species belong to Mitosporic fungi. The total incidence of each group is Zygomycotina consist of 0.45%, Ascomycotina 0.16% and Mitosporic fungi 1.12%. Alternaria alternata (7.04%), Aspergillus flavus (14.63%), Aspergillus niger (15.26%), Cladosporium oxysporium (5.26%), Papulospora immersa. (5.49%), Penicillium herquei (4.10%) and Rhizopus arrhizus...
(5.38%) occurred in highest percent of incidence, while *Aspergillus funiculosus* (0.92%), *Aspergillus glaucus* (0.69%), *Fusarium semitectum* (1.99%), *Monilia sitophila* (1.69%) and *Spicaria elegans* (2.21%) occurred with lowest percent of incidence (Table V a, b & c).

Niger seed exhibited the association of totally twenty-three species. Out of these two belongs to Zygomycotina, three belongs to Ascomycotina and eighteen belongs to Mitosporic fungi. The total incidence exhibited by each group is Zygomycotina 0.42%, Ascomycotina 0.52% and Mitosporic fungi 1.17%. The species showing maximum incidence are *Alternaria alternata* (8.43%), *Aspergillus flavus* (10.60%), *Aspergillus glaucus* (4.21%), *Aspergillus niger* (14.93), *Cladosporium oxysporum* (2.35%), *Drechslera hawaiiensis* (2.69%), *Drechslera State of Cochliobolus bicolor* (2.75%), *Papulospora immersa* (7.03%), *Emericella nidulans* (3.21%) and *Rhizopus arrhizus* (3.49%); while the species of *Aspergillus terreus* (2.21%), *Penicillum variable* (1.47%) and *Syncephalastrum recemosum* (1.54%) occurred in minimum incidence (Table VI a, b & c).
Table I (a): Incidence (%) of Seed mycoflora of Soybean by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
</tr>
<tr>
<td>1</td>
<td><em>Absidia butleri</em> Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td><em>Absidia lichtheimii</em> Lendner</td>
<td>1.50</td>
<td>2.25</td>
<td>2.67</td>
<td>2.14</td>
<td>3.33</td>
<td>1.00</td>
<td>3.83</td>
<td>2.72</td>
<td>2.43</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td><em>Absidia spinosa</em> Sakseya</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>6.75</td>
<td>2.13</td>
</tr>
<tr>
<td>4</td>
<td><em>Cunninghamella elegens</em> Lendner</td>
<td>5.17</td>
<td>3.21</td>
<td>3.96</td>
<td>3.65</td>
<td>2.67</td>
<td>2.25</td>
<td>2.50</td>
<td>2.47</td>
<td>3.22</td>
<td>3.79</td>
</tr>
<tr>
<td>5</td>
<td><em>Mucor javanicus</em> Wehmer</td>
<td>0.00</td>
<td>5.67</td>
<td>7.04</td>
<td>4.24</td>
<td>5.92</td>
<td>7.96</td>
<td>11.50</td>
<td>8.46</td>
<td>6.35</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td><em>Mucor praini</em> Chodate et Nechitch</td>
<td>9.83</td>
<td>12.13</td>
<td>7.32</td>
<td>6.29</td>
<td>8.13</td>
<td>0.00</td>
<td>4.81</td>
<td>6.06</td>
<td>1.33</td>
<td>2.67</td>
</tr>
<tr>
<td>7</td>
<td><em>Mucor racemosus</em> Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>4.04</td>
<td>3.04</td>
<td>2.36</td>
<td>1.18</td>
</tr>
<tr>
<td>8</td>
<td><em>Mucor rouxinius</em> Wehmeyer</td>
<td>0.54</td>
<td>1.04</td>
<td>0.00</td>
<td>0.53</td>
<td>0.00</td>
<td>1.71</td>
<td>2.71</td>
<td>1.47</td>
<td>1.00</td>
<td>0.38</td>
</tr>
<tr>
<td>9</td>
<td><em>Rhizopus arrhizus</em> Fischer</td>
<td>2.33</td>
<td>6.83</td>
<td>0.00</td>
<td>3.06</td>
<td>7.75</td>
<td>11.29</td>
<td>0.00</td>
<td>6.35</td>
<td>4.70</td>
<td>1.50</td>
</tr>
<tr>
<td>11</td>
<td><em>Rhizopus oryzae</em> Went et Gerlings.</td>
<td>3.79</td>
<td>7.04</td>
<td>9.33</td>
<td>6.72</td>
<td>6.17</td>
<td>8.00</td>
<td>12.08</td>
<td>8.75</td>
<td>7.74</td>
<td>4.67</td>
</tr>
<tr>
<td>12</td>
<td><em>Saprosyphalastrum racemosum</em> Schroeter</td>
<td>8.06</td>
<td>6.42</td>
<td>3.33</td>
<td>5.94</td>
<td>9.71</td>
<td>7.92</td>
<td>10.54</td>
<td>9.39</td>
<td>7.61</td>
<td>3.67</td>
</tr>
</tbody>
</table>

**Grand Mean**

**SEM for comparison of Means:**
- Season: 0.2204, Method: 0.1800, Sterilization: 0.3117, Mycoflora: 0.1800,
- S-1 = Rainy Season, S-2 = Winter Season, S-3 = Summer Season.
Table I (b): Incidence (%) of Seed mycoflora of Soybean by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
</tr>
<tr>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
</tr>
<tr>
<td>ASCOMYCOTINA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>2.71 1.04 0.00 1.25</td>
<td>4.38 2.04 0.00 2.14</td>
<td>4.38 0.00 6.54 3.64</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>3.88 8.21 0.00 4.03</td>
<td>5.88 8.21 0.00 4.69</td>
<td>0.00 3.21 0.00 1.07</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochloides Paller</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>5.21 6.04 0.00 3.75</td>
<td>4.54 3.38 0.00 2.64</td>
<td>6.88 2.54 0.00 3.14</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp;Schmidt</td>
<td>2.38 6.88 0.00 3.08</td>
<td>6.04 5.21 0.00 3.75</td>
<td>3.42 3.96 6.54 3.50</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>5.71 6.38 0.00 4.03</td>
<td>7.54 10.38 0.00 5.97</td>
<td>0.00 6.71 3.54 3.42</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>11</td>
<td>Thielavia terricola Emmons</td>
<td>0.00 2.71 1.88 1.53</td>
<td>1.29 2.21 1.04 1.51</td>
<td>1.52 3.88 1.54 1.81</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>1.81 2.84 0.17 1.61</td>
<td>2.70 2.86 0.10 1.88</td>
<td>1.74 1.02 1.85 1.65</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0445, Method- 0.0363, Sterilization- 0.0629, Mycoflora- 0.0363,
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table I (c): Incidence (%) of Seed mycoflora of Soybean by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
</tr>
<tr>
<td>1</td>
<td>Acrocomium sp. Cottane</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Alternaria brassicicola (Schw)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Alternaria burnsi Upal, Patel and Kamat</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Alternaria dennisii Ellis</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Alternaria dianthicola Neergaard</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Alternaria dianthi Stevens &amp; Hall</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Alternaria longipes Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Alternaria pluriseptata Jorstad</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Alternaria porri cif</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Alternaria infectoria Fuckel</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td>Alternaria tenueus Auct</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Alternaria tenuissima Wiltshire</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>Aspergillus candidus Link ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>16</td>
<td>Aspergillus flavus Link</td>
<td>0.00</td>
<td>7.21</td>
<td>10.63</td>
<td>5.94</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Aspergillus fumigatus Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td>Aspergillus niger Van Teigham</td>
<td>20.54</td>
<td>17.13</td>
<td>9.46</td>
<td>15.71</td>
<td>52.04</td>
</tr>
<tr>
<td>19</td>
<td>Aspergillus niger Van Teigham</td>
<td>20.54</td>
<td>17.13</td>
<td>9.46</td>
<td>15.71</td>
<td>52.04</td>
</tr>
<tr>
<td>20</td>
<td>Aspergillus niger Van Teigham</td>
<td>20.54</td>
<td>17.13</td>
<td>9.46</td>
<td>15.71</td>
<td>52.04</td>
</tr>
<tr>
<td></td>
<td>Applesila sidae Thom and Church</td>
<td></td>
<td>Applesila sidae Thom and Church</td>
<td></td>
<td>Applesila sidae Thom and Church</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td>---</td>
<td>--------------------------------</td>
<td>---</td>
<td>--------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>21</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>23</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>26</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>28</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>29</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>30</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>31</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>32</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>35</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>36</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>37</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>39</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>40</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>41</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>42</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>43</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>44</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>45</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

146
SEM for Comparison of Methods:
Season- 0.0157, Method- 0.0128, Sterilization- 0.0221, Mycoflora- 0.0128,
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td>Absidia butleri Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Absidia lichtheimii Lendner</td>
<td>3.79</td>
<td>2.71</td>
<td>2.17</td>
</tr>
<tr>
<td>3</td>
<td>Absidia spinosa Sakseha</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Cunninghamella elegens Lender</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Mucor javanicus Wehmer</td>
<td>2.33</td>
<td>1.33</td>
<td>2.58</td>
</tr>
<tr>
<td>6</td>
<td>Mucor praini Chodate et Nechitch</td>
<td>0.00</td>
<td>2.83</td>
<td>4.63</td>
</tr>
<tr>
<td>7</td>
<td>Mucor racemosus Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Mucor rouxinous Wehmeyer</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Rhizopus arrhizus Fischer</td>
<td>3.46</td>
<td>4.71</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Rhizopus nigricans Ehrenb</td>
<td>3.79</td>
<td>3.21</td>
<td>3.54</td>
</tr>
<tr>
<td>11</td>
<td>Rhizopus oryzae Went et Gerlings.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Syncphalastrum racemosum Schroeter</td>
<td>2.38</td>
<td>1.54</td>
<td>3.38</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>1.31</td>
<td>1.36</td>
<td>1.18</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season-0.1234, Method-0.1008, Sterilization-0.1745, Mycoflora-0.1008
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table II (b): Incidence (%) of Seed mycoflora of Sunflower by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>3.38</td>
<td>1.71</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochloides Paller</td>
<td>0.88</td>
<td>2.71</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp;Schmidt</td>
<td>1.04</td>
<td>0.88</td>
<td>1.21</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>0.00</td>
<td>3.54</td>
<td>5.46</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>1.54</td>
<td>0.88</td>
<td>3.04</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>2.54</td>
<td>2.04</td>
<td>1.54</td>
</tr>
<tr>
<td>11</td>
<td>Thielavia terricola Emmons</td>
<td>2.21</td>
<td>1.04</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>1.05</td>
<td>1.16</td>
<td>1.02</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0487, Method- 0.0397, Sterilization- 0.0688, Mycoflora- 0.0397
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table II (c): Incidence (%) of Seed mycoflora of Sunflower by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
</tr>
<tr>
<td>1</td>
<td>Acremonium vitis Cottane</td>
<td>4.38</td>
<td>7.21</td>
<td>2.96</td>
<td>4.83</td>
</tr>
<tr>
<td>3</td>
<td>Alternaria brassicicola (Schw)  Wiltshire</td>
<td>5.88</td>
<td>3.79</td>
<td>5.04</td>
<td>4.90</td>
</tr>
<tr>
<td>4</td>
<td>Alternaria burnsi Uppal, Patel and Kamat</td>
<td>2.54</td>
<td>0.88</td>
<td>0.00</td>
<td>1.14</td>
</tr>
<tr>
<td>5</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>3.38</td>
<td>5.88</td>
<td>2.54</td>
<td>3.93</td>
</tr>
<tr>
<td>6</td>
<td>Alternaria dennisii Ellis</td>
<td>0.00</td>
<td>5.04</td>
<td>3.38</td>
<td>2.81</td>
</tr>
<tr>
<td>7</td>
<td>Alternaria dianthicola Neergaard</td>
<td>2.54</td>
<td>5.88</td>
<td>4.21</td>
<td>4.21</td>
</tr>
<tr>
<td>8</td>
<td>Alternaria dianthus Stevens &amp; Hall</td>
<td>1.71</td>
<td>1.04</td>
<td>1.29</td>
<td>1.35</td>
</tr>
<tr>
<td>9</td>
<td>Alternaria longipes Mason</td>
<td>6.71</td>
<td>9.21</td>
<td>0.00</td>
<td>5.31</td>
</tr>
<tr>
<td>10</td>
<td>Alternaria plurisepata Jorstad</td>
<td>0.88</td>
<td>1.88</td>
<td>0.88</td>
<td>1.21</td>
</tr>
<tr>
<td>11</td>
<td>Alternaria porri cifer</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Alternaria State of Pleospora infectoria Fuckel</td>
<td>3.38</td>
<td>2.38</td>
<td>2.71</td>
<td>2.82</td>
</tr>
<tr>
<td>13</td>
<td>Alternaria tenuis Auct</td>
<td>6.29</td>
<td>5.04</td>
<td>0.00</td>
<td>3.78</td>
</tr>
<tr>
<td>14</td>
<td>Alternaria tenuissima Wiltshire</td>
<td>1.71</td>
<td>2.96</td>
<td>1.71</td>
<td>2.13</td>
</tr>
<tr>
<td>15</td>
<td>Aspergillus candidus Link ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Aspergillus fumigatus Fresenius</td>
<td>2.54</td>
<td>0.88</td>
<td>0.00</td>
<td>1.14</td>
</tr>
<tr>
<td>18</td>
<td>Aspergillus fimiculosis Smith</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>No.</td>
<td>Species</td>
<td>Values</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------</td>
<td>-------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td><em>Aspergillus glaucus</em> Link</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td><em>Aspergillus sydowi</em> Thom and Church</td>
<td>3.38 0.88 1.88 2.04 5.04 2.54 3.38 3.65 2.85 1.71 1.71 2.54 1.99 3.38 1.71 1.71 2.26 2.13 2.49</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td><em>Aspergillus terreus</em> Thom</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td><em>Aspergillus ustus</em> Thom and Church</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td><em>Botrytis cinerea</em> Persoon</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td><em>Cercospora kikuchii</em> Gardner</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td><em>Cercospora vaginatae</em> Kriger</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td><em>Cladosporium asterinae</em> Deighton</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td><em>Cladosporium cladosporioides</em> deVriese</td>
<td>1.71 3.38 0.00 1.69 5.04 5.88 5.04 5.32 3.51 0.88 0.88 0.71 0.82 2.54 1.71 2.54 2.26 1.54 2.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td><em>Cladosporium cucumerinum</em> Ellis &amp; Arth.</td>
<td>0.88 0.88 0.00 0.58 0.00 1.29 1.54 0.94 0.76 1.71 1.71 2.54 1.99 3.38 2.54 3.38 3.10 2.54 1.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td><em>Cladosporium herbarum</em> (Press) Link ex S. F. Gray</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td><em>Cladosporium oxysepum</em> Berkeley &amp; Curt.</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td><em>Curvularia lunata</em> Boedijn</td>
<td>2.96 3.38 2.50 2.92 1.71 0.88 0.88 1.15 2.06 0.00 1.04 1.54 1.43 0.88 1.71 2.21 1.60 1.51 1.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td><em>Curvularia pallescens</em> Boedijn</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td><em>Drechslera hawaiensis</em> Subram.</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td><em>Drechslera State of Cochliobolus bicolor</em> Paul &amp; Parbery</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td><em>Drechslera State of pyrenophora tritici- repentis</em> Drechsler</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td><em>Fusarium camptoceras</em> Wollenweber &amp; Reinking</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td><em>Fusarium dianthicus</em> Saccardo</td>
<td>1.71 1.71 0.00 1.14 2.71 2.54 0.00 1.75 1.44 0.88 1.29 2.54 1.57 0.00 3.38 3.38 2.25 1.91 1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td><em>Fusarium lactis</em> Pirot &amp; Riboni</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td><em>Fusarium moniliforme</em> Sheldon</td>
<td>3.54 2.54 0.00 2.03 0.00 0.00 0.00 0.00 1.01 2.96 2.54 0.88 2.13 0.00 0.00 0.00 0.00 1.06 1.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td><em>Fusarium semitectum</em> Berk &amp; Rav</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td><em>Furarium sporotrichoids</em> Sherbakoff</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td><em>Mennoniella echinata</em> Galloway</td>
<td>0.88 0.88 0.00 0.58 0.00 2.96 2.54 1.83 1.21 0.00 0.88 1.29 0.72 2.04 1.71 1.71 1.82 1.27 1.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Species</td>
<td>SEM</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------</td>
<td>-------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>44</td>
<td>Monilia sitophila Sacc</td>
<td>2.54</td>
<td>1.71</td>
<td>0.00</td>
<td>1.42</td>
</tr>
<tr>
<td>45</td>
<td>Nigrospora oryzae Petch</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>46</td>
<td>Nigrospora sphæérica Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>47</td>
<td>Paecilomyces fusisporus Saksena</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>48</td>
<td>Papulospora immersa Hotson</td>
<td>3.38</td>
<td>1.71</td>
<td>3.38</td>
<td>2.82</td>
</tr>
<tr>
<td>49</td>
<td>Penicillium coryophilum Dierckx</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>50</td>
<td>Penicillium herquei Bainier and Sartory</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>51</td>
<td>Penicillium islandicum Sopp</td>
<td>0.88</td>
<td>1.13</td>
<td>0.67</td>
<td>0.00</td>
</tr>
<tr>
<td>52</td>
<td>Penicillium purpureogenum Stoll</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>53</td>
<td>Penicillium variable Sopp</td>
<td>1.71</td>
<td>0.88</td>
<td>0.86</td>
<td>0.00</td>
</tr>
<tr>
<td>54</td>
<td>Pestalotia palmarum Cooke</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>55</td>
<td>Rhizoctonia sp.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>56</td>
<td>Scopulariopsis communis Bainier</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>57</td>
<td>Spicaria elegans Gilman &amp; Abbot</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>58</td>
<td>Torula herbarum f quaternella Sacc.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>59</td>
<td>Trichoderma viridae Persoon ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>60</td>
<td>Tritirachium album Limber</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>61</td>
<td>Volutina concentrica Penzig &amp; Saccardo</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td><strong>MEAN</strong></td>
<td><strong>1.86</strong></td>
<td><strong>1.85</strong></td>
<td><strong>1.17</strong></td>
<td><strong>1.63</strong></td>
</tr>
</tbody>
</table>

SEM for Comparison of Methods:
Season- 0.0488, Method- 0.0366, Sterilization- 0.0634, Mycoflora- 0.0366
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
### Table III (a): Incidence (%) of Seed mycoflora of Safflower by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized S-1</td>
<td>Unsterilized S-2</td>
<td>Mean S-3</td>
<td>Sterilized S-1</td>
<td>Unsterilized S-2</td>
<td>Mean S-3</td>
<td>Sterilized S-1</td>
<td>Unsterilized S-2</td>
<td>Mean S-3</td>
<td>Sterilized S-1</td>
</tr>
<tr>
<td>1</td>
<td><em>Absidia butleri</em> Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td><em>Absidia lichenii</em> Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td><em>Absidia spinosa</em> Saksea</td>
<td>1.71</td>
<td>1.71</td>
<td>1.14</td>
<td>3.79</td>
<td>3.38</td>
<td>2.39</td>
<td>1.76</td>
<td>2.54</td>
<td>3.88</td>
<td>2.54</td>
</tr>
<tr>
<td>4</td>
<td><em>Cunninghamella elegens</em> Lender</td>
<td>2.54</td>
<td>0.88</td>
<td>1.14</td>
<td>1.71</td>
<td>1.71</td>
<td>1.14</td>
<td>1.14</td>
<td>3.84</td>
<td>4.71</td>
<td>3.21</td>
</tr>
<tr>
<td>5</td>
<td><em>Mucor javanicus</em> Wehmer</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td><em>Mucor praini</em> Chodate et Nechitch</td>
<td>2.71</td>
<td>2.38</td>
<td>2.54</td>
<td>2.04</td>
<td>1.71</td>
<td>1.25</td>
<td>1.90</td>
<td>2.96</td>
<td>3.38</td>
<td>1.71</td>
</tr>
<tr>
<td>7</td>
<td><em>Mucor racemosus</em> Fresenius</td>
<td>2.13</td>
<td>1.71</td>
<td>1.28</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.64</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td><em>Mucor rouxinos</em> Wehmeyer</td>
<td>0.71</td>
<td>1.21</td>
<td>0.54</td>
<td>1.71</td>
<td>3.04</td>
<td>1.58</td>
<td>1.20</td>
<td>0.63</td>
<td>0.38</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td><em>Rhizopus arhizus</em> Fischer</td>
<td>2.54</td>
<td>2.71</td>
<td>2.54</td>
<td>2.38</td>
<td>1.71</td>
<td>3.38</td>
<td>2.49</td>
<td>2.54</td>
<td>3.54</td>
<td>2.54</td>
</tr>
<tr>
<td>10</td>
<td><em>Rhizopus nigricans</em> Ehrenb.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td><em>Syncephalastrum racemosum</em> Schroeter</td>
<td>3.38</td>
<td>5.04</td>
<td>1.71</td>
<td>3.21</td>
<td>3.54</td>
<td>0.00</td>
<td>2.25</td>
<td>2.81</td>
<td>2.71</td>
<td>3.38</td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td></td>
<td>1.73</td>
<td>1.58</td>
<td>0.89</td>
<td>1.40</td>
<td>1.99</td>
<td>1.94</td>
<td>1.12</td>
<td>1.68</td>
<td>1.54</td>
<td>1.35</td>
</tr>
</tbody>
</table>

**SEM for comparison of Means:**
Season- 0.0517, Method- 0.0422, Sterilization- 0.0732, Mycoflora- 0.0422
S-1= Rainy Season, S-2= Winter Season, S-3= Summer Season.
Table III (b): Incidence (%) of Seed mycoflora of Safflower by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th></th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
<th></th>
<th></th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Mean</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
</tr>
<tr>
<td>ASCOMYCOTINA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>1.04</td>
<td>0.88</td>
<td>1.54</td>
<td>1.15</td>
<td>0.71</td>
<td>1.38</td>
<td>0.88</td>
<td>0.99</td>
<td>1.07</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochlides Paller</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp; Schmidt</td>
<td>1.71</td>
<td>1.38</td>
<td>0.88</td>
<td>1.32</td>
<td>0.54</td>
<td>0.21</td>
<td>0.71</td>
<td>0.49</td>
<td>0.90</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>0.88</td>
<td>2.71</td>
<td>0.71</td>
<td>1.43</td>
<td>0.54</td>
<td>0.88</td>
<td>0.63</td>
<td>0.68</td>
<td>1.06</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>0.00</td>
<td>1.38</td>
<td>0.71</td>
<td>0.69</td>
<td>0.00</td>
<td>1.71</td>
<td>1.54</td>
<td>1.08</td>
<td>0.89</td>
</tr>
<tr>
<td>11</td>
<td>Thieliavila terricola Emmons</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>0.33</td>
<td>0.58</td>
<td>0.35</td>
<td>0.42</td>
<td>0.16</td>
<td>0.38</td>
<td>0.34</td>
<td>0.29</td>
<td>0.36</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0365, Method- 0.0298, Sterilization- 0.0517, Mycoflora- 0.0298
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table III (c): Incidence (%) of Seed mycoflora of Safflower by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td>Acrocnemium vitis Cottane</td>
<td>2.71</td>
<td>0.46</td>
<td>1.54</td>
</tr>
<tr>
<td>3</td>
<td>Alternaria brassicicola (Schw) Wiltshire</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Alternaria bursin Uppal, Patel and Kamat</td>
<td>1.71</td>
<td>0.71</td>
<td>0.88</td>
</tr>
<tr>
<td>5</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Alternaria dennisii Ellis</td>
<td>3.54</td>
<td>1.38</td>
<td>1.71</td>
</tr>
<tr>
<td>7</td>
<td>Alternaria dianthicola Neergaard</td>
<td>3.38</td>
<td>2.21</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Alternaria dianthi Stevens &amp; Hall</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Alternaria longipes Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Alternaria pluriseptata Jorstad</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Alternaria porri cif</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Alternaria State of Pleospora infectoria Fucell</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td>Alternaria tenuis Auct</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Alternaria tenuissima Wiltshire</td>
<td>2.04</td>
<td>3.88</td>
<td>1.54</td>
</tr>
<tr>
<td>15</td>
<td>Aspergillus candidus Link ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Aspergillus fumigatus Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td>Aspergillus fumiculosus Smith</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>19</td>
<td>Aspergillus glaucus Link</td>
<td>2.71</td>
<td>2.38</td>
<td>0.00</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>21</td>
<td>Aspergillus sydowii Thom and Church</td>
<td>2.54</td>
<td>2.04</td>
<td>1.71</td>
</tr>
<tr>
<td>22</td>
<td>Aspergillus terreus Thom</td>
<td>1.29</td>
<td>0.71</td>
<td>0.88</td>
</tr>
<tr>
<td>23</td>
<td>Aspergillus ustus Thom and Church</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>Botrytis cinerea Persoon</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>Cercospora kikuchii Gardner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>26</td>
<td>Cercospora spogium Krueger</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>Cladosporium asteriae Deighton</td>
<td>1.71</td>
<td>1.21</td>
<td>0.97</td>
</tr>
<tr>
<td>28</td>
<td>Cladosporium cladosporioides de Vries</td>
<td>0.88</td>
<td>1.54</td>
<td>0.81</td>
</tr>
<tr>
<td>29</td>
<td>Cladosporium cucumerinum Ellis &amp; Arth.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>30</td>
<td>Cladosporium herbarum (Press) Link ex S. F.Gray</td>
<td>2.38</td>
<td>3.04</td>
<td>1.54</td>
</tr>
<tr>
<td>31</td>
<td>Cladosporium oxysporum Berkeley &amp; Curt.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>32</td>
<td>Curvularia lunata Boedijn</td>
<td>1.71</td>
<td>2.71</td>
<td>2.21</td>
</tr>
<tr>
<td>33</td>
<td>Curvularia pallescens Boedijn</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>Drechslea kawaeiensis Subram.</td>
<td>1.54</td>
<td>2.21</td>
<td>1.25</td>
</tr>
<tr>
<td>35</td>
<td>Drechslea State of Cochliobolus bicolor Paul &amp; Parbery</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>36</td>
<td>Drechslea State of pyrenophora tritici- repentis Drechsler</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>37</td>
<td>Fusarium caespitosum Wollenweber &amp; Reinking</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>Fusarium diasthSaccardo</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>39</td>
<td>Fusarium lactis Pirott &amp; Riboni</td>
<td>0.88</td>
<td>2.04</td>
<td>0.97</td>
</tr>
<tr>
<td>40</td>
<td>Fusarium moniliforme Sheldon</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>41</td>
<td>Fusarium semitectum Berk &amp; Rav</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>42</td>
<td>Fusarium sporotrichoides Sherbakov</td>
<td>0.71</td>
<td>1.63</td>
<td>0.38</td>
</tr>
<tr>
<td>43</td>
<td>Memnoniella echinata Gallaway</td>
<td>0.71</td>
<td>2.21</td>
<td>0.97</td>
</tr>
<tr>
<td>44</td>
<td>Monilia sitophila Sacc</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------</td>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>45</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.71 1.71 0.88 1.43 1.04 1.38 0.46 0.96 1.19 0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.54 0.63 0.63 0.93 1.04 0.38 0.54 0.65 0.79 0.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>1.38 0.88 0.00 0.75 0.00 0.00 0.00 0.00 0.38 2.04 1.38 0.00 1.14 0.00 1.54 1.71 1.08 1.11 0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>2.13 2.54 3.21 2.63 3.21 2.21 1.71 2.38 2.50 3.04 3.54 2.04 2.88 1.54 2.38 1.71 1.88 2.38 2.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>1.54 0.88 1.04 1.15 0.88 1.04 0.71 0.88 1.01 2.29 2.04 2.71 2.35 3.38 2.54 2.38 2.76 2.56 1.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>2.38 1.71 0.00 1.36 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>2.04 1.88 1.04 1.04 1.00 1.94 0.97 1.00 1.60 2.43 1.60 1.74 1.60 1.94 1.00 1.60 2.43 1.60 1.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>3.04 1.71 1.38 2.04 0.00 0.00 0.00 0.00 1.02 2.04 1.04 0.71 1.26 0.88 0.67 0.00 0.51 0.89 0.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>1.23 1.05 0.68 0.99 1.45 1.10 0.84 1.13 1.01 1.21 1.16 0.74 1.04 1.17 1.19 0.88 1.08 1.11 1.06</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SEM for Comparison of Methods:

Season- 0.0425, Method- 0.0347, Sterilization- 0.0601, Mycoflora- 0.0347

S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
### Table IV (a): Incidence (%) of Seed mycoflora of Groundnut by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td>Absidia butleri Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Absidia litchheimii Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Absidia spinosa Saksena</td>
<td>1.04</td>
<td>1.38</td>
<td>0.88</td>
</tr>
<tr>
<td>4</td>
<td>Cunninghamella elegens Lender</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Mucor javanicus Wehmer</td>
<td>0.71</td>
<td>1.04</td>
<td>0.54</td>
</tr>
<tr>
<td>6</td>
<td>Mucor praini Chodate et Nechitch</td>
<td>0.00</td>
<td>1.21</td>
<td>0.79</td>
</tr>
<tr>
<td>7</td>
<td>Mucor racemosus Fresenius</td>
<td>1.29</td>
<td>0.71</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Mucor rouxinos Wehmyer</td>
<td>1.21</td>
<td>0.54</td>
<td>0.71</td>
</tr>
<tr>
<td>9</td>
<td>Rhizopus arrhizus Fischer</td>
<td>2.21</td>
<td>1.54</td>
<td>1.71</td>
</tr>
<tr>
<td>10</td>
<td>Rhizopus nigricans Ehrenb</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Rhizopus oryzae Went et Gerlings</td>
<td>1.54 0.88</td>
<td>0.88</td>
<td>1.10</td>
</tr>
<tr>
<td>12</td>
<td>Syncephalastrum racemosum Schroeter</td>
<td>0.00 0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>0.67 0.61</td>
<td>0.46</td>
<td>0.58</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0768, Method- 0.0627, Sterilization- 0.1086, Mycoflora- 0.0627
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table IV (b): Incidence (%) of Seed mycoflora of Groundnut by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
</tr>
<tr>
<td>ASCOMYCOTINA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>3.21</td>
<td>3.54</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochloides Paller</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp;Schmidt</td>
<td>3.38</td>
<td>2.21</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>3.21</td>
<td>2.54</td>
</tr>
<tr>
<td>11</td>
<td>Thielavia terricola Emmons</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>0.89</td>
<td>0.75</td>
</tr>
</tbody>
</table>

SEM for comparison of Means: Season- 0.0353, Method- 0.0288, Sterilization- 0.0500, Mycoflora- 0.0288
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
### Table IV (c): Incidence (%) of Seed mycflora of Groundnut by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
</tr>
<tr>
<td>1</td>
<td>Acremonium vitis (Cottane)</td>
<td>3.04</td>
<td>3.54</td>
<td>2.21</td>
<td>2.93</td>
<td>5.21</td>
<td>0.00</td>
<td>3.38</td>
<td>2.86</td>
<td>2.90</td>
<td>4.38</td>
</tr>
<tr>
<td>2</td>
<td>Alternaria alternata (Keissler)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Alternaria brassicicola (Schw) Wiltshire</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Alternaria brunii Uppal, Patel and Kamat</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Alternaria denstii Ellis</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Alternaria dianthica (Neergaard)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Alternaria dianthi Stevens &amp; Hall</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Alternaria longipes Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td>Alternaria plurisepata Jorstad</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Alternaria porri Gilf</td>
<td>2.54</td>
<td>0.88</td>
<td>2.36</td>
<td>1.93</td>
<td>0.00</td>
<td>1.71</td>
<td>0.63</td>
<td>0.78</td>
<td>1.35</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Alternaria State of Pleospora infectoria</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td>Alternaria tenia (Auct)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Alternaria tenissima Wiltshire</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>Aspergillus candidus Link ex Fries</td>
<td>2.04</td>
<td>0.88</td>
<td>1.29</td>
<td>1.40</td>
<td>1.38</td>
<td>1.04</td>
<td>0.81</td>
<td>1.10</td>
<td>3.04</td>
<td>1.04</td>
</tr>
<tr>
<td>17</td>
<td>Aspergillus fumigatus Fresenius</td>
<td>3.04</td>
<td>2.33</td>
<td>2.54</td>
<td>2.64</td>
<td>0.00</td>
<td>3.21</td>
<td>2.21</td>
<td>1.81</td>
<td>2.22</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td>Aspergillus fumiculosus Smith</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Species</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>19</td>
<td>Aspergillus glaucus Link</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Aspergillus sydowi Thom and Church</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>Aspergillus terreus Thom</td>
<td>3.21</td>
<td>1.71</td>
<td>1.29</td>
<td>2.07</td>
<td>3.88</td>
<td>0.00</td>
<td>1.88</td>
<td>1.92</td>
<td>1.99</td>
<td>1.29</td>
</tr>
<tr>
<td>23</td>
<td>Aspergillus ustus Thom and Church</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>Botrytis cinerea Persoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Cercospora kikuchii Gardner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Cercospora saginae Kriiger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Cladosporium asterinae Deighton</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Cladosporium cladosporioides deVries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Cladosporium cucumerinum Ellis &amp; Arth.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Cladosporium herbarum (Press) Link ex S. F.Gray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Cladosporium oxysporum Berkeley &amp; Curt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Curvularia lunata Boedijn</td>
<td>1.71</td>
<td>1.54</td>
<td>2.13</td>
<td>1.79</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.90</td>
<td>1.21</td>
</tr>
<tr>
<td>33</td>
<td>Curvularia pallescens Boedijn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Drechslera havenii Subram.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Drechslera State of Cochliobolus bicolor Paul &amp; Parbery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Drechslera State of pyrenophora tritici- repentis Drechsler</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Fusarium camptoceras Wollenweber &amp; Reinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Fusarium diantiiSaccardo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Fusarium lactis Pirott &amp; Riboni</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Fusarium moniliforme Sheldon</td>
<td>0.00</td>
<td>1.71</td>
<td>1.04</td>
<td>0.97</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.46</td>
<td>1.21</td>
</tr>
<tr>
<td>41</td>
<td>Fusarium semitectum Berk&amp; Rav</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Fujarium sporotrichoides Sherbakoff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Mennioniella echinata Galloway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Season 0.0184</td>
<td>Method 0.0150</td>
<td>Sterilization 0.0260</td>
<td>Mycoflora 0.0150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>----------------------</td>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monilia sitophila Sacc</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nigrospora oryzae Petch</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nigrospora spheerica Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paecilomyces fusisporus Saksema</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Papulospora immersa Hotson</td>
<td>3.21</td>
<td>1.71</td>
<td>2.71</td>
<td>3.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillium coryophilum Dierckx</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillium herquei Bainier and Sartory</td>
<td>1.54</td>
<td>2.21</td>
<td>1.88</td>
<td>1.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillium islandicum Sopp</td>
<td>3.54</td>
<td>3.04</td>
<td>1.04</td>
<td>2.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillium purpurogenum Stoll</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penicillium variable Sopp</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pestalotia palmarum Cooke</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhiisoctonia sp.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopulariopsis communis Bainier</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spicaria elegans Gilman &amp; Abbot</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Torula herbarum f quaternella Sacc.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trichoderma viridae Persoon ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tritirachium album Limber</td>
<td>1.38</td>
<td>0.88</td>
<td>0.88</td>
<td>1.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volutina concentrica Penzig &amp; Saccardo</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>1.33</strong></td>
<td><strong>1.08</strong></td>
<td><strong>1.13</strong></td>
<td><strong>1.12</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SEM for Comparison of Methods:
Season- 0.0184, Method- 0.0150, Sterilization- 0.0260, Mycoflora- 0.0150
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table V (a): Incidence (%) of Seed mycoflora of Linseed by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1 S-2 S-3 Mean</td>
<td>S-1 S-2 S-3 Mean</td>
<td>S-1 S-2 S-3 Mean</td>
<td>S-1 S-2 S-3 Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Absidia butleri Lendner</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>2</td>
<td>Absidia lichtheimii Lendner</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>3</td>
<td>Absidia spinosa Sakseña</td>
<td>0.71 0.54 0.00 0.42</td>
<td>1.21 1.54 0.00 0.92</td>
<td>0.67 0.00 0.88 1.38</td>
<td>0.75 0.00 0.00 0.00</td>
<td>0.00 0.38</td>
</tr>
<tr>
<td>4</td>
<td>Cunninghamella elegens Lender</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>5</td>
<td>Mucor javanicus Wehmer</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>6</td>
<td>Mucor praini Chodate et Nechitch</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>7</td>
<td>Mucor racemosus Fresenius</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>8</td>
<td>Mucor rouxinosus Wehmeyer</td>
<td>0.54 1.21 0.00 0.58</td>
<td>1.71 2.54 1.54 1.93</td>
<td>1.26 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>9</td>
<td>Rhizopus arrhizus Fischer</td>
<td>3.54 1.13 1.04 1.90</td>
<td>7.21 7.96 3.38 6.18</td>
<td>4.04 0.00 2.21 2.54</td>
<td>1.58 0.00 4.88 5.38 5.88</td>
<td>5.38 3.48</td>
</tr>
<tr>
<td>10</td>
<td>Rhizopus nigricans Ehrenb</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>11</td>
<td>Rhizopus oryzae Went et Gerlings.</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>12</td>
<td>Syncephalastrum racemosum Schroeter</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>0.40 0.24 0.09 0.24</td>
<td>0.84 1.00 0.41 0.75</td>
<td>0.50 0.00 0.26 0.33</td>
<td>0.19 0.41 0.45 0.49 0.45</td>
<td>0.32 0.41</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0282, Method- 0.0230, Sterilization- 0.0399, Mycoflora- 0.0230
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
### Table V (b): Incidence (%) of Seed mycoflora of Linseed by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S-1 S-2 S-3 Mean</td>
<td>S-1 S-2 S-3 Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sterilized Unsterilized</td>
<td>Sterilized Unsterilized</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabodense Tilak &amp; Reddy</td>
<td>0.88 0.71 1.38 0.99</td>
<td>3.54 4.71 2.54 3.60</td>
<td>2.29 0.21 1.04 0.71 0.65</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochloides Paller</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>2.04 0.88 1.21 1.38</td>
<td>3.88 2.71 2.71 3.10</td>
<td>2.24 0.00 0.00 0.00 0.00</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp; Schmidt</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>1.04 0.00 2.21 1.08</td>
<td>1.71 2.88 3.04 2.54</td>
<td>1.81 0.00 0.00 0.00 2.71</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>0.88 1.86 1.04 1.26</td>
<td>3.38 3.04 1.71 2.71</td>
<td>1.99 0.00 0.34 1.04 0.53</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Thielavia terricola Emmons</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00 0.00 0.00 0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>0.44 0.31 0.53 0.43</td>
<td>1.14 1.21 0.91 1.09</td>
<td>0.76 0.02 0.14 0.16 0.11</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0359, Method- 0.0293, Sterilization- 0.0508, Mycoflora- 0.0293
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
### Table V (c): Incidence (%) of Seed mycoflora of Linseed by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td><em>Acremonium vitis Cottane</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td><em>Alternaria alternata Keissler</em></td>
<td>4.04</td>
<td>4.71</td>
<td>2.38</td>
</tr>
<tr>
<td>3</td>
<td>* Alternaria brassicicola (Schw)* Wiltshire</td>
<td>3.04</td>
<td>4.04</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td><em>Alternaria burnsii Uppal, Patel and Kamat</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td><em>Alternaria citri Ellis and Pierce</em></td>
<td>1.54</td>
<td>0.71</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td><em>Alternaria dennisii Ellis</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td><em>Alternaria dianthicola Neergaard</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td><em>Alternaria dianthi Stevens &amp; Hall</em></td>
<td>0.88</td>
<td>2.04</td>
<td>1.21</td>
</tr>
<tr>
<td>9</td>
<td><em>Alternaria longipes Mason</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>10</td>
<td><em>Alternaria pluriseptata Jarstad</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td><em>Alternaria porri cif</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td><em>Alternaria State of Pleospora infectoria Fückel</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td><em>Alternaria tenuis Auct</em></td>
<td>3.54</td>
<td>2.38</td>
<td>3.04</td>
</tr>
<tr>
<td>14</td>
<td><em>Alternaria tenuissima Wiltshire</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td><em>Aspergillus candidus Link ex Fries</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td><em>Aspergillus fumigatus Fresenius</em></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td><em>Aspergillus funiculosus Smith</em></td>
<td>3.04</td>
<td>1.54</td>
<td>2.04</td>
</tr>
<tr>
<td>19</td>
<td><em>Aspergillus glaucus Link</em></td>
<td>1.04</td>
<td>2.04</td>
<td>0.00</td>
</tr>
<tr>
<td>No.</td>
<td>Organism</td>
<td>Percentages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------</td>
<td>----------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td><em>Aspergillus sydowi</em> Thom and Church</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td><em>Aspergillus terreus</em> Thom</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td><em>Aspergillus ustus</em> Thom and Church</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Botrytis cinerea Persoon</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Cercospora kikuchii Gardner</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Cercospora vaginatae Krüger</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Cladosporium asterinae Deighton</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Cladosporium cladosporioides deVries</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Cladosporium cucumerinum Ellis &amp; Arth.</td>
<td>1.38 2.21 0.88 1.56 3.54 4.71 0.00 2.75 2.15 0.00 3.04 1.13 1.39 4.88 5.29 0.00 3.39 2.39 2.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Cladosporium herbarum (Press) Link ex S. E.Gray</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Cladosporium oxyssporum Berkeley &amp; Curt.</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Curvularia lunata Boedijn</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Curvularia pallescens Boedijn</td>
<td>0.88 1.54 0.71 1.04 0.00 0.00 0.00 0.00 0.00 0.52 2.38 0.04 0.00 1.81 0.00 0.00 0.00 0.90 0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Drechslera kawaiensis Subram.</td>
<td>0.54 0.88 0.00 0.47 1.71 1.21 2.13 1.68 1.08 1.54 1.88 0.00 1.14 0.00 0.00 0.00 0.00 0.57 0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Drechslera State of Cochliobolus bicolor Paul &amp; Parbery</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Drechslera State of pyrenophora tritici- repentis Drechsler</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Fusarium camptoceras Wollenweber &amp; Reinking</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Fusarium dianthic Saccardo</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Fusarium lactis Pirot &amp; Riboni</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>Fusarium montisformae Sheldon</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>Fusarium semiectum Berk &amp; Rav</td>
<td>0.71 0.54 1.29 0.85 0.00 0.00 0.00 0.00 0.42 1.21 0.88 0.71 0.93 1.88 2.54 1.54 1.99 1.46 0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>Fusarium sporotrichoides Sherbakoff</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Memnoniella echinata Galloway</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Mollisia sitophila Sacc</td>
<td>1.04 0.54 0.88 0.82 1.71 0.00 1.04 0.92 0.87 1.38 0.54 1.29 1.07 2.71 2.38 0.00 1.69 1.38 1.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Nigrospora oryzae Petch</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SEM for Comparison of Methods:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Season- 0.0146, Method- 0.0119, Sterilization- 0.0206, Mycoflora- 0.0119</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>Nigrospora sphaerica Mason</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>Paecilomyces fuscspora Saksema</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>Pappilospora immersa Hotson</td>
<td>3.88 2.38 2.71 2.99 7.13 3.71 4.71 5.18 4.08 3.21 1.71 1.04 1.99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Penicillium coryophilum Dierckx</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>Penicillium herquei Bainier and Sartory</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.88 1.38 3.04 2.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>Penicillium islandicum Sopp</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Penicillium purpureogenum Stoll</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Penicillium variable Sopp</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td>Pestalotia palmarum Cooke</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td>Rhizoctonia sp.</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td>Scopulariopsis communis Bainier</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td>Spicaria elegans Gilman &amp; Abbot</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.54 0.88 1.04 1.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td>Torula herbarum f guaternella Sacc.</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Trichoderma viridae Persoon ex Fries</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 1.88 1.38 3.04 2.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Tritirachium album Limber</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td>Volutina concentrica Penzig &amp; Saccardo</td>
<td>0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>64</strong></td>
<td><strong>63</strong></td>
<td><strong>43</strong></td>
<td><strong>57</strong></td>
</tr>
</tbody>
</table>
### Table VI (a) : Incidence (%) of Seed mycoflora of Niger by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Sterilized</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>ZYGOMYCOTINA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Absidia butleri Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2</td>
<td>Absidia lichtheimii Lendner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Absidia spinosa Saksema</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Cunninghamella elegens Lender</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Mucor javanicus Wehmer</td>
<td>1.54</td>
<td>0.88</td>
<td>0.88</td>
</tr>
<tr>
<td>6</td>
<td>Mucor prasini Chodate et Nechitch</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Mucor racemosus Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Mucor rouxinosus Wehmeier</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Rhizopus arrhizus Fischer</td>
<td>2.21</td>
<td>1.71</td>
<td>1.29</td>
</tr>
<tr>
<td>10</td>
<td>Rhizopus nigricans Ehrenb</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Rhizopus oryzae Went et Gerlings.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>12</td>
<td>Syncephalastrum racemosum Schroeter</td>
<td>1.04</td>
<td>0.71</td>
<td>0.88</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td>0.40</td>
<td>0.27</td>
<td>0.25</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0269, Method- 0.0220, Sterilization- 0.0380, Mycoflora- 0.0220
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table VI (b): Incidence (%) of Seed mycoflora of Niger by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th></th>
<th></th>
<th>Agar Plate Method</th>
<th></th>
<th></th>
<th>Grand mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
<td>Mean</td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>ASCOMYCOTINA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Chaetomium apiculatum Lodha</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>2</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>3</td>
<td>Chaetomium cochloides Paller</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>4</td>
<td>Chaetomium funicola Cooke</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>5</td>
<td>Chaetomium globosum Kunze &amp;Schmidt</td>
<td>0.88 0.71</td>
<td>2.04 1.21</td>
<td>1.71 2.71</td>
<td>1.54 1.99</td>
<td>1.60 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>6</td>
<td>Chaetomium indicum Corda</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>7</td>
<td>Chaetomium spirale Zopf</td>
<td>1.04 0.88</td>
<td>1.21 1.04</td>
<td>2.38 1.71</td>
<td>1.36 1.62</td>
<td>1.20 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>8</td>
<td>Chaetomium succinum Ames</td>
<td>0.71 1.04</td>
<td>0.88 0.88</td>
<td>0.00 2.54</td>
<td>2.04 1.53</td>
<td>1.20 1.54</td>
<td>0.54 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>9</td>
<td>Chaetomium trilaterale Chivers</td>
<td>1.71 1.38</td>
<td>0.00 1.03</td>
<td>2.13 1.38</td>
<td>0.88 1.46</td>
<td>1.24 1.04</td>
<td>0.83 0.00</td>
<td>0.63 0.00</td>
</tr>
<tr>
<td>10</td>
<td>Emericella nidulans Vuill</td>
<td>2.04 1.71</td>
<td>0.00 1.25</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.63 2.13</td>
<td>1.54 0.88</td>
<td>1.51 2.04</td>
</tr>
<tr>
<td>11</td>
<td>Thielavia terricola Emmons</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>12</td>
<td>MEAN</td>
<td>0.58 0.52</td>
<td>0.38 0.49</td>
<td>0.56 0.76</td>
<td>0.41 0.58</td>
<td>0.53 0.43</td>
<td>0.27 0.08</td>
<td>0.26 0.45</td>
</tr>
</tbody>
</table>

SEM for comparison of Means:
Season- 0.0394, Method- 0.0321, Sterilization- 0.0557, Mycoflora- 0.0321
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Table VI (c): Incidence (%) of Seed mycoflora of Niger by Standard Blotter Method and Agar Plate Method

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Mycoflora</th>
<th>Standard Blotter Method</th>
<th>Agar Plate Method</th>
<th>Grand Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sterilized</td>
<td>Unsterilized</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S-1</td>
<td>S-2</td>
<td>S-3</td>
</tr>
<tr>
<td>1</td>
<td>Acremonium vitis Cottane</td>
<td>0.88</td>
<td>1.54</td>
<td>0.54</td>
</tr>
<tr>
<td>2</td>
<td>Alternaria alternata Keissler</td>
<td>3.88</td>
<td>2.58</td>
<td>4.38</td>
</tr>
<tr>
<td>3</td>
<td>Alternaria brassicicola (Schw)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>4</td>
<td>Alternaria burnsi Uppal, Patel and Kamat</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>5</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>6</td>
<td>Alternaria demisisi Ellis</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>7</td>
<td>Alternaria dianthicola Neergaard</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>8</td>
<td>Alternaria dianthi Stevens &amp; Hall</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>9</td>
<td>Alternaria lougipes Mason</td>
<td>1.88</td>
<td>1.29</td>
<td>1.71</td>
</tr>
<tr>
<td>10</td>
<td>Alternaria plurisepata Jostad</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>11</td>
<td>Alternaria porrif Stokell</td>
<td>0.00</td>
<td>1.21</td>
<td>0.71</td>
</tr>
<tr>
<td>12</td>
<td>Alternaria State of Pleospora infectoria Fockel</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>13</td>
<td>Alternaria tenuis Auct</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>14</td>
<td>Alternaria tenuissima Wiltshire</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>15</td>
<td>Aspergillus candidus Link ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>17</td>
<td>Aspergillus fumigatus Fresenius</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>18</td>
<td>Aspergillus fumiculosus Smith</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>Common Name</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>19</td>
<td>Aspergillus glauces Link</td>
<td>1.54</td>
<td>0.88</td>
<td>0.00</td>
</tr>
<tr>
<td>21</td>
<td>Aspergillus sydowi Thom and Church</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>22</td>
<td>Aspergillus terreus Thom</td>
<td>1.54</td>
<td>0.71</td>
<td>0.00</td>
</tr>
<tr>
<td>23</td>
<td>Aspergillus ustus Thom and Church</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>24</td>
<td>Botrytis cuera Persoon</td>
<td>1.21</td>
<td>0.88</td>
<td>0.00</td>
</tr>
<tr>
<td>25</td>
<td>Cercospora kikuchii Gardner</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>26</td>
<td>Cercospora vagiuse Kriger</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>27</td>
<td>Cladosporium asteriniae Deighton</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>28</td>
<td>Cladosporium cladosporioides devries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>29</td>
<td>Cladosporium cucumerinum Ellis &amp; Arth.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>30</td>
<td>Cladosporium herbarum (Press) Link ex S. F. Gray</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>31</td>
<td>Cladosporium oxysporum Berkeley &amp;Curt.</td>
<td>0.71</td>
<td>0.88</td>
<td>0.88</td>
</tr>
<tr>
<td>32</td>
<td>Curvularia lunata Boedijn</td>
<td>1.38</td>
<td>2.04</td>
<td>1.71</td>
</tr>
<tr>
<td>33</td>
<td>Curvularia pallescens Boedijn</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>34</td>
<td>Drechslera hawaiiensis Subram.</td>
<td>2.38</td>
<td>2.54</td>
<td>1.88</td>
</tr>
<tr>
<td>35</td>
<td>Drechslera State of Cochliobolus bicolor Paul &amp;Parbery</td>
<td>1.71</td>
<td>0.71</td>
<td>1.04</td>
</tr>
<tr>
<td>36</td>
<td>Drechslera State of pyrenaphora tritici- repensis Drechsler</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>37</td>
<td>Fusarium camptoceras Wollenweber &amp; Reinking</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>38</td>
<td>Fusarium dianthiSaccaro</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>39</td>
<td>Fusarium lactis Pirott &amp; Riboni</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>40</td>
<td>Fusarium moniliforme Sheldon</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>41</td>
<td>Fusarium semitectum Berk&amp; Rav</td>
<td>0.88</td>
<td>1.04</td>
<td>0.71</td>
</tr>
<tr>
<td>42</td>
<td>Furaria sporoctrichoides Sherbakoiv</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>43</td>
<td>Memnoniella echinata Galloway</td>
<td>1.54</td>
<td>0.88</td>
<td>0.88</td>
</tr>
</tbody>
</table>

This table contains data on various fungal species, likely from a scientific study or publication.
<table>
<thead>
<tr>
<th>Species</th>
<th>Season 0.0164</th>
<th>Method 0.0134</th>
<th>Sterilization 0.0232</th>
<th>Mycoflora 0.0134</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montia sitophila Sacc</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Nigrospora oryzae Petch</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Nigrospora sphaerica Mason</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Paecilomyces fuscisporus Saksema</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Papulospora immersa Hotson</td>
<td>3.21</td>
<td>1.71</td>
<td>2.21</td>
<td>7.88</td>
</tr>
<tr>
<td>Penicillium corylophilum Dierckx</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Penicillium herquei Bainier and Sartory</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Penicillium islandicum Sopp</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Penicillium purpurogenum Stoll</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Penicillium variable Sopp</td>
<td>0.88</td>
<td>0.88</td>
<td>0.93</td>
<td>0.00</td>
</tr>
<tr>
<td>Pestalotia palmarum Cooke</td>
<td>1.21</td>
<td>1.04</td>
<td>0.71</td>
<td>0.82</td>
</tr>
<tr>
<td>Rhizoctonia sp.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Scopulariopsis communis Bainier</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Spicaria elegans Gilman &amp; Abbot</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Torula herbarum f guatemella Sacc.</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Trichoderma viridae Persoon ex Fries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Trichiramphium album Limber</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Volutina concentrica Penzig &amp; Saccardo</td>
<td>0.00</td>
<td>0.88</td>
<td>0.71</td>
<td>0.76</td>
</tr>
<tr>
<td>Mean</td>
<td>0.58</td>
<td>0.53</td>
<td>0.47</td>
<td>0.53</td>
</tr>
</tbody>
</table>

SEM for Comparison of Methods:
Season- 0.0164, Method- 0.0134, Sterilization- 0.0232, Mycoflora- 0.0134
S-1=Rainy Season, S-2=Winter Season, S-3=Summer Season.
Fig No. Ia. Incidence (%) of seed mycoflora of Zygomycotina and Ascomycotina on Soybean

- Thielavia terricola
- Emericella nidulans
- Chaetomium trilaterale
- Chaetomium succinum
- Chaetomium spirale
- Chaetomium indicum
- Chaetomium globosum
- Chaetomium funicola
- Chaetomium cochloides
- Chaetomium aurangabadense
- Chaetomium apiculatum
- Syncephalastrum racemosum
- Rhizopus oryzae
- Rhizopus nigricans
- Rhizopus arrhizus
- Mucor rouxinous
- Mucor racemosus
- Mucor praini
- Mucor javanicus
- Cunninghamella elegens
- Absidia spinosa
- Absidia butleri
- Absidia butleri
### Incidence (%) of Seed Mycoflora of Mitosporic Fungi on Soybean

<table>
<thead>
<tr>
<th>Fungus Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volutina concentrica</td>
</tr>
<tr>
<td>Trochoderma viride</td>
</tr>
<tr>
<td>Torula herbarum f quaternella</td>
</tr>
<tr>
<td>Sporaria elegans</td>
</tr>
<tr>
<td>Sporulatopsis communia</td>
</tr>
<tr>
<td>Rhizoctonia sp.</td>
</tr>
<tr>
<td>Pestalotia palmarum</td>
</tr>
<tr>
<td>Penicillium variabile</td>
</tr>
<tr>
<td>Penicillium purpureogenum</td>
</tr>
<tr>
<td>Penicillium islandicum</td>
</tr>
<tr>
<td>Penicillium herbacei</td>
</tr>
<tr>
<td>Penicillium coniocephalum</td>
</tr>
<tr>
<td>Paecilomyces immitis</td>
</tr>
<tr>
<td>Paecilomyces fusiformis</td>
</tr>
<tr>
<td>Nigrospora sphaerica</td>
</tr>
<tr>
<td>Nigrospora oryzae</td>
</tr>
<tr>
<td>Monilia ophiob</td>
</tr>
<tr>
<td>Monanoria echinata</td>
</tr>
<tr>
<td>Furarium sporeothoides</td>
</tr>
<tr>
<td>Fusarium semitectum</td>
</tr>
<tr>
<td>Fusariah montaniana</td>
</tr>
<tr>
<td>Fusarium laevis</td>
</tr>
<tr>
<td>Fusarium danhi</td>
</tr>
<tr>
<td>Fusarium capsiciarum</td>
</tr>
<tr>
<td>Drechslera State of pyrospora tritici</td>
</tr>
<tr>
<td>Drechslera hawaiiensis</td>
</tr>
<tr>
<td>Curvularia pallescens</td>
</tr>
<tr>
<td>Curvularia haematodes</td>
</tr>
<tr>
<td>Cladosporium osporum</td>
</tr>
<tr>
<td>Cladosporium herbarum</td>
</tr>
<tr>
<td>Cladosporium cladosporoides</td>
</tr>
<tr>
<td>Cladosporium asterinearina</td>
</tr>
<tr>
<td>Cercospora laciniata</td>
</tr>
<tr>
<td>Cercospora pisi</td>
</tr>
<tr>
<td>Botrytis onera</td>
</tr>
<tr>
<td>Aspergillus urtica</td>
</tr>
<tr>
<td>Aspergillus terrus</td>
</tr>
<tr>
<td>Aspergillus soadi</td>
</tr>
<tr>
<td>Aspergillus niger</td>
</tr>
<tr>
<td>Aspergillus flavus</td>
</tr>
<tr>
<td>Aspergillus fumigatus</td>
</tr>
<tr>
<td>Aspergillus flavus</td>
</tr>
<tr>
<td>Aspergillus candidus</td>
</tr>
<tr>
<td>Alternaria tenuissima</td>
</tr>
<tr>
<td>Alternaria tenuis</td>
</tr>
<tr>
<td>Alternaria infectoria</td>
</tr>
<tr>
<td>Alternaria poecilis</td>
</tr>
<tr>
<td>Alternaria plurisporeata</td>
</tr>
<tr>
<td>Alternaria longipes</td>
</tr>
<tr>
<td>Alternaria danhi</td>
</tr>
<tr>
<td>Alternaria dashihoella</td>
</tr>
<tr>
<td>Alternaria denosi</td>
</tr>
<tr>
<td>Alternaria citii</td>
</tr>
<tr>
<td>Alternaria bursii</td>
</tr>
<tr>
<td>Alternaria basiospora</td>
</tr>
<tr>
<td>Alternaria alternata</td>
</tr>
<tr>
<td>Acremonium vitis</td>
</tr>
</tbody>
</table>
Fig. No. Ila. Incidence (%) of seed mycoflora of Zygomycotina and Ascomycotina on Sunflower.

Mycoflora

ASCOMYCOTINA

ZYGOMYCOTINA

Incidence (％) 7 6 5 4 3 2 1 0

Thielavia
Emericella
Chaetomium
trilaterale
Chaetomium
succinum
Chaetomium
spirale
Chaetomium
indicum
Chaetomium
globosum
Chaetomium
funicola
Chaetomium
cochloides
Chaetomium
aurangabadense
Chaetomium
articum
Syncephalastrum
racemosum
Rhizopus oryzae
Rhizopus
nigricans
Rhizopus
arhizus
Mucor rouxinous
Mucor
racemosus
Mucor
praini
Mucor
javanicus
Cunninghamella
elegens
Absidia spinosa
Absidia
lichtheimii
Absidia butleri

175
Fig No. 11b. Incidence (%) of seed mycoflora of Mitosporic fungi on Sunflower

Volutina concentrica
Trichoderma viride
Trichoderma viride
Torula herbarum/guatemelae
Sphacelia elegans
Sporopogonoides communis
Phaeosphaeria sp.
Pestalotia palmata
Penicillium variable
Penicillium pupureogriseum
Penicillium islandicum
Penicillium terquei
Penicillium coproporum
Papulospora inerma
Pseudocercospora fuscopurpurea
Nigrospora sphecaica
Nigrospora oryzae
Monilia sitophila
Menoaella solaniata
Fusarium sporotrichoides
Fusarium seminivorum
Fusarium moniliforme
Fusarium lardic
Fusarium dianthicola
Fusarium carpeae
Fusarium carpeae
Drechslera State of Sordaria frigida
Drechslera State of Cochliobolus carbonum
Drechslera hawaiiensis
Curvularia pallescens
Cercospora kikuchii
Cercospora yeomianae
Cercospora kikuchii
Botrytis cinerea
Aspergillus ustus
Aspergillus terreus
Aspergillus sydowi
Aspergillus niger
Aspergillus glaucus
Aspergillus fumigatus
Aspergillus fumigatus
Aspergillus flavus
Aspergillus candidus
Alternara renatissima
Alternara tenuis
Alternara helicoida
Alternara portii
Alternara placentarum
Alternara loeselii
Alternara dianthicola
Alternara diastatica
Alternara cerdani
Alternara citri
Alternara biselli
Alternara tepiccola
Alternara altemata
Acremonium virescens

Incidence (%)
Fig No. IIIa. Incidence (%) of seed mycoflora of Zygomycotina and Ascomycotina on Safflower
Fig No. Illb. Incidence (%). of seed mycoflora of Mitosporic fungi on Safflower.

- Volutina concentrica
- Tritirachium album
- Trichoderma viridae
- Tordia herbarum f guatemelae
- Specia elegans
- Sopuloglouapis communis
- Phycocystis sp.
- Pestalotia palmorum
- Pestalotia variable
- Pestalotia purpurigenum
- Pestalotia islandicum
- Pestalotia hergaiti
- Pestalotia congrilinthum
- Pseudospora immensa
- Pseudospora turbiditidis
- Nigrospora sphaerica
- Nigrospora oruzae
- Nigrospora capnae
- Nigrospora echinata
- Fusarium solani
- Fusarium moniliforme
- Fusarium graminearum
- Fusarium triticum
- Fusarium tritici
- Drechslera State of pyrenophora tritici
- Drechslera State of Cochliobolus bicolor
- Curvularia pallescens
- Curvularia lanata
- Cladosporium oxysporum
- Cladosporium herbarum
- Cladosporium cucumerinum
- Cladosporium cladosporioides
- Cladosporium asterinae
- Cladosporium vaginatum
- Cladosporium cucuchiae
- Botrytis cinerea
- Aspergillus ustus
- Aspergillus tereus
- Aspergillus niger
- Aspergillus flavus
- Aspergillus fumigatus
- Aspergillus flavus
- Aspergillus candidus
- Alternaria tenuissima
- Alternaria tenuis
- Alternaria mellea
- Alternaria alternata
- Alternaria poesi
- Alternaria physalospora
- Alternaria longipes
- Alternaria dianthi
- Alternaria dianthicola
- Alternaria demissi
- Alternaria citri
- Alternaria bonisi
- Alternaria brassicicola
- Alternaria alternata
- Aspergillus citizen

Mycoflora

Incidence (%) 25 20 15 10 5 0
Fig No. IVa. Incidence (%) of seed mycoflora of Zygomyctina and Ascomycotina on Groundnut.
Fig No. IVb. Incidence (%) of seed mycoflora of Mitosporic fungi on Groundnut
Fig No. Va. Incidence (%) of seed mycoflora of Zygomycotina and Ascomycotina on Linseed.
Fig No. Vb. Incidence (%) of seed mycoflora of Mitosporic fungi on Linseed
Fig No. VIa. Incidence (%) of seed mycoflora of Zygomycotina and Ascomycotina on Niger
Fig No. VIb. Incidence (%) of seed mycoflora of Mitosporic fungi on Niger
Comparison of seed Mycoflora by Standard Blotter Method and Agar Plate Method with respect to Season.

It is evident that quite a good number of mycoflora were isolated frequently with different seeds. The mycoflora varied in each group compared with to their frequently of incidence in different periods and the methods complied.

In Soybean, seventeen genera were isolated by Standard Blotter Method. In sterilized seeds the mean of all the species occurring in Zygomycotina with respect to season recorded is, in S-1 (Rainy Season) season 3.13%, S-2 (Winter Season) season 4.29% and S-3 (Summer Season) season 2.47%, where as in unsterilized seeds the mean percent incidence of all the species recorded in S-1 season 4.51%, S-2 season is 4.93% and S-3 season 4.66%. Some of the species like Absidia lichtheimii, Cunninghamella elegans, Rhizopus nigricans, Rhizopus oryzae and Syncphalastrum racemosum occurred throughout the year (Table No. Ia, Fig. No. VII).

In Ascomycotina, compared to the season the mean percent incidence of all the species in S-1 season 1.81%, S-2 season 2.84% and S-3 season 0.17% was observed in sterilized seeds, while in unsterilized seeds by Blotter method are S-1 season 2.70%, S-2 season 2.86% and S-3 0.10%. The predominant species recorded in this method are Chaetomium aurangabadense, Chaetomium globosum and Chaetomium indicum. The overall incidence of all the species by this method is 1.74% (Table No. Ib, Fig. No. VII).

Among Mitosporic fungi, in sterilized seeds the mean percent incidence of all the species recorded in different seasons; S-1 season 2.63%, S-2 season is 2.65% and S-3 season 1.61% while the percent incidence in
unsterilized seeds in different season recorded is S-1 season 4.67%, S-2 season 4.96% and S-3 season is 1.55%. The overall mean percent incidence of all the species by this method is 22.94%. *Alternaria alternata* (13.26%), *Aspergillus flavus* (6.01%), *Aspergillus niger* (27.10%), *Cercospora kikuchii* (26.39%), *Cladosporium asterinae* (9.14%) and *Penicillium variable* (5.89%) were predominant in this method (Table No. Ic, Fig. No. VII).

By Agar Plate Method, in Soybean total of fourteen different genera were isolated. The mean percent incidence of all the species recorded in different seasons by Zygomycotina varied from season to season. In S-1 season 1.63%, S-2 season 3.44% and S-3 season 2.46%, while in unsterilized seeds it recorded S-1 season 1.70%, S-2 season 3.48% and S-3 season 4.26%. The overall mean percent incidence of all the species by this method is 2.83% some of the dominant species recorded are *Rhizopus nigricans* (8.74%), *Rhizopus oryzae* (6.02%) and *Syncephalastrum racemosum* (6.11%) (Table No. Ia, Fig. No. VII). From Ascomycotina in sterilized seeds mean incidence recorded in each season is S-1 season 1.02%, S-2 season 1.85% and S-3 season 1.65% similarly in unsterilized seeds in S-1 season 0.97%, S-2 season 1.82% and S-3 season 1.83% was recorded. The overall mean percent incidence of all the species recorded is 1.52%. *Chaetomium indicum* (3.63%) and *Chaetomium apiculatum* (4.67%) (Table No. Ib, Fig. No. VII). Among Mitosporic fungi in sterilized seeds the overall percent incidence of all species isolated in different seasons is S-1 season 1.24%, S-2 season 1.95% and S-3 season 1.39%, where as in unsterilized seeds it recorded S-1 season 2.20%, S-2 season 3.18% and S-3 season 2.12%. The overall mean of percent incidence of all the species by this method is 3.11%, some of all dominant species recorded, *Alternaria alternata* (11.86%), *Aspergillus niger* (31.11%), *Aspergillus sydowi* (11.35%) and *Aspergillus terreus* (7.36%)(Table No. Ic, Fig. No. VII).
In Sunflower, eighteen genera were isolated by standard blotter method as well as agar plate method. The mean percent incidence of all the species recorded in Zygomycotina in different seasons is S-1 (Rainy Season) 1.31%, S-2 (Winter Season) season 1.36% and S-3 (Summer Season) season 1.18%. In unsterilized seeds with respect to seasons the percent incidence of the species recorded in Zygomycotina is S-1 season 3.31%, S-2 season 4.41% and S-3 season 2.82% where as over all mean incidence is 2.40%. The dominant species recorded in this method in all the seasons are *Rhizopus nigricans*, *Mucor javanicus*, *Syncephalastrum racemosum* and *Rhizopus arrhizus* (Table No. IIa, Fig. No. VIII). In Ascomycotina, the mean percent of all the species with respect to season recorded in sterilized seeds by standard blotter method is S-1 season 1.05%, S-2 season 1.16% and S-3 season 1.02% while in unsterilized seeds S-2 season 1.60, S-2 season 1.62% and S-3 season 1.15%. The overall mean percent incidence to with respect to season is 1.27%. The dominant species isolated by both the methods are *Chaetomium indicum* (3.67%), *Chaetomium aurangabadense* (2.42%), *Emericells nidulans* (2.22%) (Table No. IIb, Fig. No. VIII). In Mitosporic fungi the mean percent incidence of all the species to recorded in sterilized by blotter method in different seasons, S-1 season is 1.86%, S-2 season 1.85% and S-3 season 1.17%, while as in unsterilized seeds S-1 season is 1.96%, S-2 season 2.19% and S-3 season 1.61%. The over all mean percent incidence of Mitosporic fungi in standard blotter method is 1.63% (Table No. IIc, Fig. No. VIII).

In Agar plate method also seeds exhibited association of various species in different seasons. In Zygomycotina the percent incidence of all species in different seasons recorded over sterilized seeds is S-1 season is 0.80%, S-2 season 1.24% and S-3 season 0.81% and in unsterilized seeds S-1 season is 2.60%, S-2 season 3.13% and S-3 season 2.99% and over all mean by
this method is 5.43%. The dominant species recorded in this method are *Mucor praini*, *Absidia lichtheimii* and *Rhizopus arrhizus*, *Mucor javanicus* was recorded throughout the year by both the methods (Table No. IIa, Fig. No. VIII). The members of Ascomycotina group occurred with varied percent incidence in all the seasons the mean percent incidence in sterilized seeds is S-1 season 0.44%, S-2 season 0.67% and S-3 season 0.61%. While in unsterilized seeds the mean percent incidence of all the species recorded in all the seasons is S-1 season 0.68%, S-2 season 0.64% and S-3 season 0.16% and over all mean percent incidence recorded in this method is 0.53%. The dominant species belongs to this group are *Chaetomium indicum*, *Emericella nidulans* and *Chaetomium aurangabadensae* (Table No. IIb, Fig. No. VIII). Mitosporic fungi included diversified percent incidence of species in all the seasons in both sterilized and unsterilized seeds by agar plate method. The mean percent incidence recorded in sterilized seeds with respect to season is S-1 season 1.43%, S-2 season 1.93% and S-3 season 1.52%, while in unsterilized seeds S-1 season is 1.96%, S-2 season 2.35% and S-3 season is 2.17%. The over all percent incidence recorded by Mitosporic fungi in this method is 2.04%. *Acremonium vitis*, *Alternaria alternata*, *Alternaria dianthi*, *Alternaria pluriseptata*, *Aspergillus flavus*, *Aspergillus niger* and *Aspergillus sydowii* were recorded throughout the year (Table No. IIc, Fig. No. VIII).

Safflower seeds associated totally eighteen genera by standard blotter method. This mean percent incidence of Zygomycotina in sterilized seeds recorded in all seasons is S-1 (Rainy Season) season 1.73%, S-2 (Winter Season) season 1.58% and S-3 (Summer Season) season 0.83%, where as in unsterilized seeds S-1 season 1.99%, S-2 season 1.94% and S-3 season 1.12%. The over all percent incidence of all the species of Zygomycotina by blotter method is 1.54%. The dominant species recorded are *Rhizopus oryzae*, *Absidia*
spinosa and Syncephalastrum racemosum (Table No. IIIa, Fig. No. IX). In case of Ascomycotina, the over all percent incidences of all species recorded with respect to seasons in both sterilized and unsterilized seeds is S-1 season 0.33%, S-2 season 0.58% and S-3 season 0.35% and S-1 season 0.16%, S-2 season 0.38% and S-3 season 0.34% respectively. The over all mean percent incidences of all the species recorded by blotter method is 0.36% (Table No. IIIb, Fig. No. IX). In the Mitosporic fungi the percent incidence of all the species recorded in different seasons in both sterilized and unsterilized seeds is S-1 season 1.23%, S-2 season 1.05% and S-3 season 0.68% and S-1 season 1.45%, S-2 season 1.10% and S-3 season 1.84% respectively The over all mean percent incidences of all the species recorded by blotter method is 1.01% (Table No. IIIc, Fig. No. IX).

In case of agar plate method, both sterilized and unsterilized seeds isolated twenty-two genera. The mean percent incidence of all the species recorded with respect to seasons in Zygomycotina during both sterilized and unsterilized seeds is S-1 season 1.35%, S-2 season 1.96% and S-3 season 1.40% and S-1 season 1.63%, S-2 season 1.35% and S-3 season 1.85% respectively. The overall mean percent incidence by Zygomycotina is 1.71 percent. Rhizopus oryzae occurred throughout the year in both the methods and other dominant species that were recorded are Absidia spinosa, Mucor praini and Syncephalastrum racemosum (Table No. IIIa, Fig. No. IX).

In Ascomycotina, the mean percent incidence of all the species recorded in both sterilized and unsterilized seeds in all seasons is S-1 season 0.02%, S-2 season 0.17% and S-3 season 0.05% and S-1 season 0.10%, S-2 season 0.19% and S-3 season 0.08% respectively. The overall mean percent incidence of all the species recorded in Ascomycotina is 0.10% and the grand
mean is 0.23%. Chaetomium aurangabadense was recorded throughout the year by blotter method. Chaetomium indicum and Emericella nidulans were predominant over other species (Table No. IIIb, Fig. No. IX). There was comparatively lot of variation in mean percent incidence of all the species recorded in Mitosporic fungi with respect to season in agar plate method. In both sterilized and unsterilized seeds the percent incidence of all species with respect to season is S-1 season 1.21%, S-2 season 1.16% and S-3 season 0.74% in sterilized seeds, while in unsterilized seeds is S-1 season 1.17%, S-2 season 1.19% and S-3 season 0.88%. The overall mean percent incidence of all the species noted in this method is 1.11% and grand mean recorded by both the methods is 1.06%, Alternaria alternata, Aspergillus flavus, Aspergillus niger, Aspergillus terreus and Papulospora immersa were recorded throughout the year (Table No. IIIc, Fig. No. IX).

In Groundnut seeds about twelve genera were isolated by blotter method in both sterilized and unsterilized seeds. The mean percent incidence of all the species recorded in Zygomycotina with respect to seasons is S-1 (Rainy Season) season 0.67%, S-2 (Winter Season) season 0.61% and S-3 (Summer Season) season 0.43%, and in unsterilized seeds is S-1 season 0.77%, S-2 season 0.81% and S-3 season 0.90%. The overall of mean percent incidence of Zygomycotina species 0.70% (Table No. IVa, Fig. No. X). In Ascomycotina, the mean percent incidence all the species recorded in all the seasons in sterilized and unsterilized seeds are S-1 season 0.89%, S-2 season 0.75% and S-3 season 0.40%, while in unsterilized seeds are S-1 season 0.91%, S-2 season 0.61% and S-3 season 0.45%. The overall mean of mycoflora associated with seeds of groundnut by blotter method is 0.67% (Table No. IVb, Fig. No. X). In case of Mitosporic fungi, the mean percent incidence of all the species...
recorded in different seasons on sterilized seeds are S-1 season 1.33%, S-2 season 1.08% and S-3 season 1.03%, while on unsterilized seeds are S-1 season 1.56%, S-2 season 1.45% and S-3 season 1.09%. The over all percent incidences of all the species recorded by Mitosporic fungi in standard blotter method is 1.11% (Table No. IVc, Fig. No. X).

By agar plate method, in Groundnut seeds totally eleven genera were isolated. In Zygomycotina, the mean percent incidence of all the species recorded in all the seasons in sterilized seeds is S-1 season 0.73%, S-2 season 0.52% and S-3 season 0.50%, while in unsterilized seeds are S-1 season 0.60%, S-2 season 0.98% and S-3 season 0.87%. The over all mean percent incidence of all members of Zygomycotina group is 0.70% and the grand mean is 0.70%, species like *Mucor javanicus* and *Rhizopus arrhizus* occurred throughout the year (Table No. IVa, Fig. No. X). In case of Ascomycotina, the percent incidences of all the species recorded in sterilized seeds in all seasons are S-1 season 0.62%, S-2 season 0.50% and S-3 season 0.42%, while in unsterilized are S-1 season 0.42%, S-2 season 0.45% and S-3 season 0.25%, the over all mean percent incidence is 0.44% and grand mean percent incidence is 0.56. *Emericella nidulans* occurred throughout the year in both the methods, while *Chaetomium aurangabadense* was recorded throughout the year in blotter method only (Table No. IVb, Fig. No. X).

The mean percent incidence of all the species of Mitosporic fungi recorded in all the seasons in sterilized seeds are S-1 season 1.36%, S-2 season 1.11% and S-3 season 0.79% and in unsterilized seeds are S-1 season 1.37%, S-2 season 1.08% and S-3 season 0.82%. The overall mean percent incidence of seed mycoflora of Mitosporic fungi recorded is 1.23% and grand mean recorded was 1.17% (Table No. IVc, Fig. No. X).
In Linseeds, twenty-two genera were isolated by standard blotter. In sterilized seeds the mean percent incidence of all the species recorded in all the seasons by Zygomycotina is S-1 (Rainy season) season 0.40%, S-2 (Winter season) 0.24% and S-3 (Summer season) season 0.09%. Whereas in unsterilized seeds mean percent incidence recorded in all the seasons are S-1 season 0.84%, S-2 season 1% and S-3 season 0.41%. The overall mean percent incidence is 0.50% (Table No. Va, Fig. No. XI). In Ascomycotina the mean percent incidence, in sterilized seeds of all the seasons are S-1 season 0.44%, S-2 season 0.31% and S-3 season 0.53% and in unsterilized seeds S-1 season 1.14%, S-2 season 1.21% and S-3 season 0.91%. The overall mean incidence of Ascomycotina group by this method is 0.76% (Table No. Vb, Fig. No. XI). The mean incidence of Mitosporic fungi group in sterilized seeds of all species in all seasons is S-1 season 0.64%, S-2 season 0.63% and S-3 season 0.43% while in unsterilized seeds is S-1 season 1.09%, S-2 season 0.97% and S-3 season 0.61%. The overall mean of this group by blotter method is 0.55% (Table No. Vc, Fig. No. XI).

In agar plate method, totally twenty-four species were isolated on this seed. The mean incidence of all the species of Zygomycotina recorded in all the season in sterilized is S-1 season 0%, S-2 season 0.26% and S-3 season 0.33% while in unsterilized seeds is S-1 season 0.41%, S-2 season 0.45% and S-3 0.49% (Table No. Va, Fig. No. XI). In Ascomycotina, the mean incidence of all the species in sterilized seeds in all the seasons is S-1 season 0.02%, S-2 season 0.14% and S-3 season 0.16% while in unsterilized seeds S-1 season 0.25%, S-2 season 0% and S-3 season 0.23%. The overall mean of this group is 0.13% and the grand mean is 0.45% (Table No. Vb, Fig. No. XI). In Mitosporic fungi the mean incidence of all the species in all the seasons is S-1 season 0.64%, S-2 season 0.62% and S-3 season 0.37% was observed in sterilized
seeds whereas in unsterilized seeds S-1 season is 1.19%, S-2 season is 1.22% and S-3 season is 0.96%. The overall mean and the grand mean of this group is 1.19% and 0.79% respectively (Table No. Vc, Fig. No. XI). The dominant species recorded on this seed are *Alternaria alternata*, *Alternaria tenuis*, *Aspergillus flavus*, *Aspergillus niger*, *Papulospora immersa* and *Rhizopus arrhizus*.

In Niger seeds totally 29 species were recorded by Standard blotter method. In Zygomycotina group overall mean incidence of sterilized seeds in all seasons is S-1 season (Rainy season) is 0.40%, S-2 season (Winter season) is 0.27% and S-3 season (Summer season) is 0.25%, whereas in unsterilized seeds S-1 season is 0.23%, S-2 season is 0.58% and S-3 season 0.41%. The overall mean incidence of this group is 0.36 percent (Table No. VIa, Fig. No. XII). The mean incidence of all the species Ascomycotina group in all the season is, S-1 season is 0.58%, S-2 season 0.52% and S-3 season is 0.38% in sterilized seeds. Whereas in unsterilized seeds in S-1 season is 0.56%, S-2 season 0.76% and S-3 season is 0.41%. The overall mean of this group is 0.53% (Table No. VIb, Fig. No. XII). In Mitosporic fungi the mean incidence of all the species in all the seasons is S-1 season is 0.58%, S-2 season 0.53% and S-3 season is 0.47% were observed in sterilized seeds, whereas unsterilized seeds S-1 season is 1.32%, S-2 season 1.38% and S-3 season is 0.91%. The overall mean percent of this group is 0.55% (Table No. Vlc, Fig. No. XII). In Agar Plate Method the Zygomycotina group showed nil in sterilized seeds, whereas in unsterilized seeds the mean incidence of all the season is S-1 season is 0.40%, S-2 season 0.49% and S-3 season is 0.37%. The overall mean and grand mean of this group is 0.21% and 0.28% respectively (Table No. VIa, Fig. No. XII). The mean incidence of all the species of Ascomycotina in all the seasons is S-1 season is 0.43%, S-2 season 0.27% and S-3 season is 0.08% was recorded in sterilized seeds, whereas in unsterilized seeds in all the seasons is
S-1 season is 0.45%, S-2 season 0.60% and S-3 season is 0.51%. The overall mean is 0.39% and the grand mean of this group is 0.46% (Table No. VIb, Fig. No. XII). In Mitosporic fungi mean incidence of all the species in all the seasons is S-1 season is 0.54%, S-2 season 0.70% and S-3 season is 0.45% was observed in sterilized seeds, whereas in unsterilized seeds S-1 season is 0.77%, S-2 season 1.40% and S-3 season is 1.34%. The overall mean and grand mean of this group is 1.19% and 0.87% respectively (Table No. VIc, Fig. No. XII). The dominant species were recorded on this seeds are *Alternaria alternata*, *Aspergillus flavus*, *A. niger* and *Papulospora immersa*. 
Fig No. VII: Distribution of different groups of seed mycoflora of Soybean in relation to seasons and methods
Fig No. VIII: Distribution of different groups of seed mycoflora of Sunflower in relation to seasons and methods.
Fig No. IX: Distribution of different groups of seed mycoflora of Safflower in relation to seasons and methods
Fig No. X: Distribution of different groups of seed mycoflora of Groundnut in relation to seasons and methods.
Fig No. XI: Distribution of different groups of seed mycoflora of Linseed in relation to seasons and methods.
Fig No. XII: Distribution of different groups of seed mycoflora of Niger in relation to seasons and methods
Effect of cultural filtrate of different fungi on seed germination and seedling vigour of different oil seeds.

The culture filtrates of *Alternaria alternata*, *Aspergillus flavus*, *Aspergillus niger*, *Cladosporium herbarum*, *Drechslera hawaiensis*, *Fusarium moniliforme* and *Rhizopus oryzae* grown on Richards broth medium were screened for their effect on seed germination and seedling vigour on the oil seeds used for investigation. The results show that the culture filtrates of all the test fungi adversely affected seed germination though the effect varied with the oilseeds and fungi. The data was statistically analyzed using four functional CRBD methods. The effect of different fungi on seed germination and seedling vigour of different oilseeds recorded on 8th day. It has been observed that all the culture filtrates significantly (CD=0.05) effected the seed germination.

In soybean the culture filtrate of *Rhizopus oryzae* was very much effective on the germination of seeds (2.20%) compared to control. This was followed by, *Aspergillus niger*, *Aspergillus flavus*, *Drechslera hawaiensis*, *Cladosporium herbarum*. The least effect was observed by culture filtrate of *Fusarium moniliforme* (5.90%). Reduction in plumule and radicle length in comparison to control was also attributed to culture filtrate of the fungi (Table VII). Maximum reduction in plumule length was recorded with culture filtrate of *Rhizopus oryzae* (16.37mm) similarly the reduction in radicle length was observed with the culture filtrate of the same fungi (22.68mm) followed by *Drechslera hawaiensis* (17.69mm) of plumule length and also radicle length (25.17mm). Minimum reduction in plumule length and radicle length was recorded with culture filtrate of *Fusarium moniliforme* (Table No. VII, Plate No. XV).
The effect of culture filtrate of different fungi on seed germination and seedling vigour on sunflower seeds showed that the maximum inhibition in seed germination was recorded with the culture filtrate of *Aspergillus niger* (2.50%) followed by *Alternaria alternata* (2.60%) compared to control (8.60%). The maximum inhibition in germination was recorded with the culture filtrate of *Drechslera hawaiiensis* (5.80%). There was great variation in seedling vigour of sunflower seeds. The culture filtrate of *Alternaria alternata* showed minimum reduction in plumule length (15.90mm) while *Aspergillus niger* showed minimum recorded of radicle length (22.42mm). Seedling vigour was least affected by culture filtrate of *Rhizopus oryzae* and *Aspergillus niger* (Table No. VIII, Plate No. XVI). Similarly in Safflower it is seen that *Alternaria alternata* recorded minimum inhibition of seed germination (2.30%) compared to control (9.20%). Almost all the culture filtrates of different fungi have shown adverse effect on germination of Safflower. There is also remarkable reduction in plumule length and radicle length in comparison to control. The culture filtrate of *Alternaria alternata* also caused maximum reduction in plumule length (17.90mm) while radicle length was reduced by *Fusarium moniliforme* (22.64mm) (Table No. IX).

The effect of culture filtrate of different fungi on seed germination and seedling vigour of Groundnut seeds showed that the minimum inhibition of seed germination was recorded by culture filtrate of *Aspergillus flavus* (2.30%) followed by *Aspergillus niger* (2.60%) compared to control (8.80%) where as maximum inhibition in germination was recorded with the culture filtrate of *Alternaria alternata* (6.11%). The reduction in plumule length was also recorded minimum by *Aspergillus flavus* (11.11mm) while radicle length by *Aspergillus niger* (12.56mm). The maximum reduction in both plumule and radicle length was recorded by *Fusarium moniliforme* (Table No. X).
In Linseed most of the fungi have shown the very close effect in germination of seeds among them *Aspergillus niger* (3.30%) has the minimum effect in germination of seeds while *Rhizopus oryzae* (5.50%) has maximum effect in seed germination. The effect of culture filtrate in seedling vigour is also more or less close to one another fungi. Maximum reduction in plumule length was observed with culture filtrate of *Aspergillus niger* (17.61mm) compared to control (189.96mm) where as minimum reduction was recorded in *Rhizopus oryzae* (37.02mm) (Table No. XI). In Niger the maximum inhibition in germination is recorded with the culture filtrates of *Aspergillus niger* (4.10%) and *Drechslera hawaiiensis* (4.10%) compared to control (9.10%) while minimum reduction in germination was recorded with *Alternaria alternata* (2.60%). Minimum reduction in plumule length (21.99mm) as well as radicle length (24.66mm) was observed with the culture filtrate of *Alternaria alternata* was compared to control (192.84mm) while maximum reduction in plumule length (44.70mm) as well as radicle length (50.70mm) was recorded with the culture filtrate of *Cladosporium herbarum* (Table No. XII).
Table VII. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Soybean

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean (4.425)</td>
<td>Plumule Length (mm)</td>
</tr>
<tr>
<td>1</td>
<td>Alternaria alternata</td>
<td>4.900</td>
<td>28.911</td>
</tr>
<tr>
<td>2</td>
<td>Aspergillus flavus</td>
<td>2.700</td>
<td>28.492</td>
</tr>
<tr>
<td>3</td>
<td>Aspergillus niger</td>
<td>2.600</td>
<td>28.283</td>
</tr>
<tr>
<td>4</td>
<td>Cladosporium herbarum</td>
<td>4.500</td>
<td>23.030</td>
</tr>
<tr>
<td>5</td>
<td>Dreschelera hawaiitensis</td>
<td>3.900</td>
<td>17.690</td>
</tr>
<tr>
<td>6</td>
<td>Fusarium moniliforme</td>
<td>5.900</td>
<td>46.974</td>
</tr>
<tr>
<td>7</td>
<td>Rhizopus oryzae</td>
<td>2.200</td>
<td>16.367</td>
</tr>
<tr>
<td>8</td>
<td>Control</td>
<td>8.700</td>
<td>123.497</td>
</tr>
</tbody>
</table>

|                                | CV (36.07%) | SEM (0.495) | CD (0.05) | 1.398 | 9.921 | 14.757 |
|                                |             | SEM (0.495) | CD (0.01) | 1.857 | 13.179 | 19.602 |
Table VIII. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Sunflower

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plumule Length (mm)</td>
</tr>
<tr>
<td>1</td>
<td><em>Alternaria alternata</em></td>
<td>2.600</td>
<td>15.900</td>
</tr>
<tr>
<td>2</td>
<td><em>Aspergillus flavus</em></td>
<td>4.600</td>
<td>25.062</td>
</tr>
<tr>
<td>3</td>
<td><em>Aspergillus niger</em></td>
<td>2.500</td>
<td>19.343</td>
</tr>
<tr>
<td>4</td>
<td><em>Cladosporium herbarum</em></td>
<td>3.900</td>
<td>23.068</td>
</tr>
<tr>
<td>5</td>
<td><em>Dreschelera hawaiiensis</em></td>
<td>5.800</td>
<td>27.801</td>
</tr>
<tr>
<td>6</td>
<td><em>Fusarium moniliforme</em></td>
<td>4.200</td>
<td>18.541</td>
</tr>
<tr>
<td>7</td>
<td><em>Rhizopus oryzae</em></td>
<td>4.100</td>
<td>37.320</td>
</tr>
<tr>
<td>8</td>
<td><em>Control</em></td>
<td>8.600</td>
<td>174.253</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>4.538</td>
<td>42.661</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>36.98%</td>
<td>35.84%</td>
</tr>
<tr>
<td></td>
<td>SEM</td>
<td>0.544</td>
<td>4.638</td>
</tr>
<tr>
<td></td>
<td>CD (0.05)</td>
<td>1.537</td>
<td>13.103</td>
</tr>
<tr>
<td></td>
<td>CD (0.01)</td>
<td>2.041</td>
<td>17.405</td>
</tr>
</tbody>
</table>
Table IX. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Safflower

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plamule Length (mm)</td>
</tr>
<tr>
<td>1</td>
<td><em>Alternaria alternata</em></td>
<td>2.300</td>
<td>17.900</td>
</tr>
<tr>
<td>2</td>
<td><em>Aspergillus flavus</em></td>
<td>3.400</td>
<td>20.159</td>
</tr>
<tr>
<td>3</td>
<td><em>Aspergillus niger</em></td>
<td>3.600</td>
<td>20.098</td>
</tr>
<tr>
<td>4</td>
<td><em>Cladosporium herbarum</em></td>
<td>3.300</td>
<td>19.670</td>
</tr>
<tr>
<td>5</td>
<td><em>Dreschelera hawaiiensis</em></td>
<td>4.700</td>
<td>22.849</td>
</tr>
<tr>
<td>6</td>
<td><em>Fusarium moniliforme</em></td>
<td>4.400</td>
<td>19.767</td>
</tr>
<tr>
<td>7</td>
<td><em>Rhizopus oryzae</em></td>
<td>4.300</td>
<td>22.415</td>
</tr>
<tr>
<td>8</td>
<td>Control</td>
<td>9.200</td>
<td>186.148</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>4.400</td>
<td>41.126</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>38.55%</td>
<td>30.37%</td>
</tr>
<tr>
<td></td>
<td>SEM</td>
<td>0.536</td>
<td>3.869</td>
</tr>
<tr>
<td></td>
<td>CD (0.05)</td>
<td>1.513</td>
<td>10.930</td>
</tr>
<tr>
<td></td>
<td>CD (0.01)</td>
<td>2.010</td>
<td>14.518</td>
</tr>
</tbody>
</table>
Table X. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Groundnut

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plumule Length (mm)</td>
</tr>
<tr>
<td>1</td>
<td><em>Alternaria alternata</em></td>
<td>6.110</td>
<td>27.116</td>
</tr>
<tr>
<td>2</td>
<td><em>Aspergillus flavus</em></td>
<td>2.300</td>
<td>11.117</td>
</tr>
<tr>
<td>3</td>
<td><em>Aspergillus niger</em></td>
<td>2.600</td>
<td>10.153</td>
</tr>
<tr>
<td>4</td>
<td><em>Cladosporium herbarum</em></td>
<td>5.500</td>
<td>22.049</td>
</tr>
<tr>
<td>5</td>
<td><em>Dreschelera hawaiensis</em></td>
<td>4.200</td>
<td>27.133</td>
</tr>
<tr>
<td>6</td>
<td><em>Fusarium moniliforme</em></td>
<td>4.400</td>
<td>30.908</td>
</tr>
<tr>
<td>7</td>
<td><em>Rhizopus oryzae</em></td>
<td>3.200</td>
<td>21.017</td>
</tr>
<tr>
<td>8</td>
<td>Control</td>
<td>8.800</td>
<td>195.473</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>4.638</td>
<td>43.121</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>27.73%</td>
<td>32.56%</td>
</tr>
<tr>
<td></td>
<td>SEM</td>
<td>0.389</td>
<td>4.370</td>
</tr>
<tr>
<td></td>
<td>CD (0.05)</td>
<td>1.100</td>
<td>12.346</td>
</tr>
<tr>
<td></td>
<td>CD (0.01)</td>
<td>1.461</td>
<td>16.399</td>
</tr>
</tbody>
</table>
Table XI. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Linseed

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
<th>Plumule Length (mm)</th>
<th>Radicle length (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td><em>Alternaria alternata</em></td>
<td>3.800</td>
<td>4.763</td>
<td>46.946</td>
<td>54.647</td>
</tr>
<tr>
<td>2</td>
<td><em>Aspergillus flavus</em></td>
<td>3.900</td>
<td>35.28%</td>
<td>23.36%</td>
<td>26.66%</td>
</tr>
<tr>
<td>3</td>
<td><em>Aspergillus niger</em></td>
<td>3.300</td>
<td>0.53</td>
<td>3.494</td>
<td>4.524</td>
</tr>
<tr>
<td>4</td>
<td><em>Cladosporium herbarum</em></td>
<td>3.800</td>
<td>1.520</td>
<td>9.869</td>
<td>12.780</td>
</tr>
<tr>
<td>5</td>
<td><em>Dreschlera hawaiiensis</em></td>
<td>3.500</td>
<td>2.019</td>
<td>13.109</td>
<td>16.976</td>
</tr>
<tr>
<td>6</td>
<td><em>Fusarium moniliforme</em></td>
<td>5.300</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td><em>Rhizopus oryzae</em></td>
<td>5.500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Control</td>
<td>9.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean  
CV    
SEM   
CD (0.05) 
CD (0.01)
Table XII. Effect of Culture filtrates of seed mycoflora on seed germination and seedling vigour of Niger

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Mycoflora</th>
<th>Germination of Seed</th>
<th>Seedling Vigour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plumule Length (mm)</td>
</tr>
<tr>
<td>1</td>
<td><em>Alternaria alternata</em></td>
<td>2.600</td>
<td>21.998</td>
</tr>
<tr>
<td>2</td>
<td><em>Aspergillus flavus</em></td>
<td>3.700</td>
<td>24.873</td>
</tr>
<tr>
<td>3</td>
<td><em>Aspergillus niger</em></td>
<td>4.100</td>
<td>19.325</td>
</tr>
<tr>
<td>4</td>
<td><em>Cladosporium herbarum</em></td>
<td>4.000</td>
<td>44.709</td>
</tr>
<tr>
<td>5</td>
<td><em>Dreschelera hawaiiensis</em></td>
<td>4.100</td>
<td>43.753</td>
</tr>
<tr>
<td>6</td>
<td><em>Fusarium moniliforme</em></td>
<td>3.500</td>
<td>36.503</td>
</tr>
<tr>
<td>7</td>
<td><em>Rhizopus oryzae</em></td>
<td>3.600</td>
<td>23.587</td>
</tr>
<tr>
<td>8</td>
<td>Control</td>
<td>9.100</td>
<td>192.847</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>4.338</td>
<td>50.949</td>
</tr>
<tr>
<td></td>
<td>CV</td>
<td>33.07%</td>
<td>31.43%</td>
</tr>
<tr>
<td></td>
<td>SEM</td>
<td>0.464</td>
<td>4.962</td>
</tr>
<tr>
<td></td>
<td>CD (0.05)</td>
<td>1.311</td>
<td>14.016</td>
</tr>
<tr>
<td></td>
<td>CD (0.01)</td>
<td>1.741</td>
<td>18.618</td>
</tr>
</tbody>
</table>
Explanation to the Plate – XV

Figs. A – F

Effect of Culture filtrate of different seed mycoflora on seed germination and seedling vigour of Soybean

A. Control.
B. *Alternaria alternata*.
C. *Aspergillus flavus*.
D. *Aspergillus niger*.
E. *Cladosporium herbarum*
F. *Drechslera hawaiiensis*
G. *Fusarium moniliforme*
H. *Rhizopus oryzae*
Explanation to the Plate – XVI

Figs. A – F

Effect of Culture filtrate of different seed mycoflora on seed germination and seedling vigour of Sunflower

A. Control.
B. *Alternaria alternata*.
C. *Aspergillus flavus*.
D. *Aspergillus niger*.
E. *Cladosporium herbarum*
F. *Drechslera hawaiiensis*
G. *Fusarium moniliforme*
H. *Rhizopus oryzae*
Table XIII. Seed Mycoflora isolated on different stored oil seeds

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Mycoflora</th>
<th>Si</th>
<th>S2</th>
<th>S3</th>
<th>S4</th>
<th>S5</th>
<th>S6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Absidia butleri Lendner</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Absidia lichtheimii Lendner</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Absidia spinosa Saksena</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Cunninghamella elegens Lender</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Mucor javanicus Wehmer</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>6</td>
<td>Mucor praini Chodate et Nechitch</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Mucor racemosus Fresenius</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Mucor rouxinosus Wehmeyer</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>Rhizopus arrhizus Fischer</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>10</td>
<td>Rhizopus nigricans Ehrenb</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>Rhizopus oryzae Went et Gerlings.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>Syncephalastrum racemosum Schroeter</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>13</td>
<td>Chaetomium apiculatum Lodha</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>Chaetomium aurangabadense Tilak &amp; Reddy</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>15</td>
<td>Chaetomium cochloides Paller</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>Chaetomium funicola Cooke</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>17</td>
<td>Chaetomium globosum Kunze &amp; Schmidt</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>18</td>
<td>Chaetomium indicum Corda</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>19</td>
<td>Chaetomium spirale Zopf</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Chaetomium succinum Ames</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>21</td>
<td>Chaetomium trilaterale Chivers</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>22</td>
<td>Emericella nidulans Vuill</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>23</td>
<td>Thielavia terricola Emmons</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>24</td>
<td>Acremonium vitis Cottane</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>25</td>
<td>Alternaria alternata Keissler</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>26</td>
<td>Alternaria brassicola (Schw) Wiltshire</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>27</td>
<td>Alternaria burnsi Uppal, Patel and Kamat</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>28</td>
<td>Alternaria citri Ellis and Pierce</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>No.</td>
<td>Species</td>
<td>Notes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td><em>Alternaria dennisii</em> Ellis</td>
<td>- + + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td><em>Alternaria dianthi</em> Stevens &amp; Hall</td>
<td>- + - - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td><em>Alternaria dianthicola</em> Neergaard</td>
<td>- + + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td><em>Alternaria longipes</em> Mason</td>
<td>- + - - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td><em>Alternaria pluriseptata</em> Jorstad</td>
<td>- + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td><em>Alternaria porri</em> clif</td>
<td>- - + - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td><em>Alternaria State of Pleospora infectoria</em> Fuckel</td>
<td>- + - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td><em>Alternaria tenuis</em> Auct</td>
<td>- + - - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td><em>Alternaria tenuissima</em> Wiltshire</td>
<td>- + + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38</td>
<td><em>Aspergillus candidus</em> Link ex Fries</td>
<td>- - + + - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td><em>Aspergillus flavus</em> Link</td>
<td>+ + + + + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40</td>
<td><em>Aspergillus fumigatus</em> Fresenius</td>
<td>- + - + - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41</td>
<td><em>Aspergillus fumiculosis</em> Smith</td>
<td>- - - + -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td><em>Aspergillus glaucus</em> Link</td>
<td>- - + + - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td><em>Aspergillus niger</em> Van Teigham</td>
<td>+ + + + + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td><em>Aspergillus sydowi</em> Thom and Church</td>
<td>+ + + + -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45</td>
<td><em>Aspergillus terreus</em> Thom</td>
<td>+ - + + - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td><em>Aspergillus ustus</em> Thom and Church</td>
<td>+ - - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td><em>Botrytis cinerea</em> Persoon</td>
<td>- - - - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td><em>Cercospora kikuchii</em> Gardner</td>
<td>+ - - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td><em>Cercospora vaginae</em> Kriiger</td>
<td>+ - - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td><em>Cladosporium asterinae</em> Deighton</td>
<td>+ + + - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td><em>Cladosporium cladosporioides</em> deVries</td>
<td>- + + - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td><em>Cladosporium cucumerinum</em> Ellis &amp; Arth.</td>
<td>- + + + -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>53</td>
<td><em>Cladosporium herbarum</em> (Press) Link ex S. F.Gray</td>
<td>+ - + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>54</td>
<td><em>Cladosporium oxysporum</em> Berkeley &amp; Curt.</td>
<td>+ - - - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>55</td>
<td><em>Curvularia lunata</em> Boedijn</td>
<td>- + + + - +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56</td>
<td><em>Curvularia pallescens</em> Boedijn</td>
<td>- - - - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57</td>
<td><em>Drechslera hawaiiensis</em> Subram.</td>
<td>- - + - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>58</td>
<td><em>Drechslera State of Cochliobolus bicolor</em> Paul &amp; Parbery</td>
<td>- - - - + +</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td><em>Drechslera State of pyrenophora tritici- repentis</em> Drechsler</td>
<td>+ - - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td><em>Fusarium camptoceras</em> Wollenweber &amp; Reinking</td>
<td>+ - - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61</td>
<td><em>Fusarium dianthi</em> Saccardo</td>
<td>+ + - - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62</td>
<td><em>Fusarium lactis</em> Pirott &amp; Riboni</td>
<td>+ - + - - -</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>63</td>
<td>Fusarium moniliforme Sheldon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>Fusarium semitectum Berk &amp; Rav</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Furarium sporotrichoids Sherbakoff</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>Memnoniella echinata Galloway</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>Monilia sitophila Sacc</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>Nigrospora oryzae Petch</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>69</td>
<td>Nigrospora sphaerica Mason</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td>Paecilomyces fuscisporus Sakshena</td>
<td></td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>71</td>
<td>Papulospora immersa Hotson</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>Penicillium corylophilum Dierckx</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>73</td>
<td>Penicillium herquei Bainier and Sartory</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>74</td>
<td>Penicillium islandicum Sopp</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>Penicillium purpureogenum Stoll</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>Penicillium variable Sopp</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>77</td>
<td>Pestalotia palmarum Cooke</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>78</td>
<td>Rhizoctonia sp.</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>79</td>
<td>Scopulariopsis communis Bainier</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td>Spicaria elegans Gilman &amp; Abbot</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>81</td>
<td>Torula herbarum var quaternella Link ex Gray</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>82</td>
<td>Trichoderma viridae Persoon ex Fries</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Tritirachium album Limber</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>84</td>
<td>Volutina concentrica Penzig &amp; Saccardo</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

S1 - Soybean seed.
S2 - Sunflower seed.
S3 - Safflower seed.
S4 - Groundnut seed.
S5 - Linseed seed.
S6 - Niger seed.

+ = Presence
- = Absent
PLANT EXTRACT:

The effect of different plant extracts on *Alternaria alternata*, *Aspergillus flavus* and *Aspergillus niger* was studied. The crude extract of all the plants significantly (CD=0.05) showed inhibition zone of all the test fungi compared to control.

Among the five aqueous leaf extract, the extracts from *Calotrophis gigantia* and *Vinca rosea* showed maximum inhibition zone on all the three seed mycoflora. *Calotrophis gigantia* showed maximum inhibition against *Aspergillus flavus* (10.31mm) followed by *Alternaria alternata* (8.72mm) and minimum against *Aspergillus niger* (6.37mm). *Vinca rosea* achieved maximum inhibition zone against *Alternaria alternata* (10.08mm) followed by *Aspergillus flavus* (8.40mm) and minimum against *Aspergillus flavus* (7.35mm). *Nerium odorum* inhibited *Alternaria alternata* (6.63mm) and *Aspergillus niger* (6.13mm) to a little extent compared to control. *Carica papaya* showed maximum inhibition on the growth of *Alternaria alternata* compared to control where as *Vitex negundo* showed maximum inhibition zone against *Aspergillus flavus* (6.16mm) compared to control.
Table No. XIV. Effect of different plant extract on the growth of seed mycoflora

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Plant Extract</th>
<th>Alternaria alternata</th>
<th>Aspergillus flavus</th>
<th>Aspergillus niger</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Calotrophis gigantia</em></td>
<td>8.727</td>
<td>10.313</td>
<td>6.373</td>
</tr>
<tr>
<td>2</td>
<td><em>Carica papaya</em></td>
<td>6.067</td>
<td>5.340</td>
<td>3.607</td>
</tr>
<tr>
<td>3</td>
<td><em>Nerium odorum</em></td>
<td>6.633</td>
<td>4.400</td>
<td>6.133</td>
</tr>
<tr>
<td>4</td>
<td><em>Vinca rosea</em></td>
<td>10.087</td>
<td>7.353</td>
<td>8.407</td>
</tr>
<tr>
<td>5</td>
<td><em>Vitex negundo</em></td>
<td>4.483</td>
<td>6.167</td>
<td>4.247</td>
</tr>
<tr>
<td>6</td>
<td>Control</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

|           | Mean              | 5.999                | 5.596             | 4.794            |
|           | CV                | 3.77%                | 3.39%             | 3.18%            |
|           | SEM               | 0.129                | 0.088             | 0.091            |
|           | CD (0.05)         | 0.407                | 0.276             | 0.287            |
Explanation to the Plate – XVII

Figs. A – F

Effect of different plant extracts on growth of *Alternaria alternata*

A. Control.

B. *Calotropis gigantia* R.Br.

C. *Carica papaya* Linn.

D. *Nerium odorum* Soland

E. *Vinca rosea* Linn

F. *Vitex negundo* Linn
Explanation to the Plate – XVIII

Figs. A – F

Effect of different plant extracts on growth of *Aspergillus flavus*

A. Control.

B. *Calaotropis gigantia* R.Br.

C. *Carica papaya* Linn.

D. *Nerium odorum* Soland

E. *Vinca rosea* Linn

F. *Vitex negundo* Linn
Explanation to the Plate – XIX

Figs. A – F

Effect of different plant extracts on growth of *Aspergillus niger*

A. Control.

B. *Calaotropis gigantia* R.Br.

C. *Carica papaya* Linn.

D. *Nerium odorum* Soland

E. *Vinca rosea* Linn

F. *Vitex negundo* Linn