SUMMARY AND CONCLUSION
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The significance of sustainable agricultural production is hidden in the use of quality of seed. It is the most crucial and vital input for enhancing productivity. Apart from this seeds play vital role in associating microorganisms, which prove hazardous for the seed itself, or the new plant created from it. Seeds of plant harbor a characteristic microflora different from that predominant in soil. The variety and number of microorganisms on the seeds depend upon the climate under which the seeds are produced, the condition of storage and the composition of seed. Seed microorganisms vary in their quantities and qualities and their growth along with seed depend on the mineral fraction, moisture, aeriation and temperature at the seed or soil infection. Fungi form a major group of pathogens that can be transmitted through seeds. Fungi are multicellular plants without roots, leaves or chlorophyll. Therefore they live on other material including grains.

In the present study, six different types oil seeds were viz; soybean, sunflower, safflower, groundnut, linseed and niger were stored in stored houses of Agriculture Produce Market Committee (APMC), Dharwad. APMC plays an important role in providing market places to the farmers to dispose of their produce. In Dharwad, all the above oil seeds are economically important and are grown in and around Dharwad. The sold seeds are stored in warehouses and stored rooms. Dharwad is in semi malnad region that is characterized by tropical monsoon, which indicates the seasonal rhythm of weather and all the weather elements are well marked with seasonal variation.
The samples collected once in two months were analyzed by standard blotter method and agar plate method. Totally 84 species belonging to 31 genera were isolated from the samples collected from 2001 - 2003. The composition of mycoflora of different group is as follows

<table>
<thead>
<tr>
<th>Group</th>
<th>Genera</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zygomycotina</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Ascomycotina</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Mitosporic fungi</td>
<td>23</td>
<td>61</td>
</tr>
</tbody>
</table>

There was variation in overall mean percent incidence of mycoflora in the methods used. But both the methods gave satisfactory results and proved standard for the isolation of internal and external mycoflora. The use of sodium hypochlorite was helpful for isolation of internal mycoflora. The isolated species also varied from seed to seed may be due to change in their nutritional constituents.

From Zygomycotina the species belonging to Rhizopus were dominant in all the seasons and the other genera are Absidia, Cunninghaemella, Mucor and Synocephalastrum. While among Ascomycotina species of Chaetomium were dominant in all the seeds. Emericella and Thielavia were other two genera of Ascomycotina.

Mitosporic fungi group was dominant in all the seeds and the genera obtained are, Acremonium, Alternaria, Aspergillus, Botrytis, Cercospora, Cladosporium, Curvularia, Drechslera, Fusarium, Memnoniella, Monilia, Nigrospora, Paecilomyces, Papulosa, Penicillium, Pestalotia, Rhizoctonia, Scopulariopsis, Spicaria, Torula, Trichoderma, Tritirachium and Volutina.
Totally 12 species of *Alternaria* were obtained and 9 species of *Aspergillus* were recorded in almost all the seeds by both blotter method and agar plate method. Seasonal variation showed that most of the fungal species were isolated throughout the year and particular species occurred in particular season. The plant pathogenic fungi and microorganisms produce toxic substances when cultivated on synthetic culture media. Hence the fungi associated with seeds are responsible for causing damage to the seeds by producing phytotoxic substances. The study on effect of culture filtrate of dominant fungi showed that culture filtrates of *Aspergillus flavus* and *Aspergillus niger* were toxic most of the seeds. Soybean and Sunflower seeds were most susceptible to all the culture filtrates. The least effect was observed on Linseed and Niger seeds. Attempts were made to control some of the seed mycoflora by using aqueous extract of some commonly available plants *Calotropis gigantia*, *Carica papaya*, *Nerium odorum*, *Vinca rosea*, and *Vitex negundo* against *Alternaria alternata*, *Aspergillus flavus* and *Aspergillus niger*. *Vinca rosea* showed maximum inhibition on all test fungi and was very much maximum to *Alternaria alternata*. Next to *Vinca rosea*, *Calotrophis gigantia* showed almost similar results but showed maximum inhibition on *Aspergillus flavus* and minimum inhibition on *Aspergillus niger*. *Carica papaya* showed minimum inhibition on all the test fungi used where as rest all were moderate.

The present investigation showed that the mycoflora is very rich and represented by various types of fungi on seeds. This is because of unscientific storage conditions adversely affect the preservation of oil seeds under storage conditions. In the present investigation various saprophytic as well pathogenic fungi were isolated, but there are many more fungi, which are
hidden underneath the ecological niches to be surveyed. Our dedicated approach is essential in studying them, classifying them, testing their pathogenicity and controlling them

So far the survey on seed mycoflora has been more or less neglected from the present study area. A very few reports of these fungi have been reported from this part of the country. In the present work extensive collections of the species of three groups viz; Zygomycotina, Ascomycotina and Mitosporic fungi were made. As such this is more or less pioneering work of this part of the state.