Qualitative and Quantitative analysis of Phylloplane Mycoflora of Transgenic Bt-Cotton

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Plant surface i.e. leaves, buds, flower, branches, stem and roots are colonized by a variety of microorganisms such as fungi, bacteria, actinomycetes. Phylloplane is a natural habitat of a large number of various microorganisms on the surface of the leaf and provide nutrients to microorganisms. They play a significant role in either disease resistance or susceptibility. Some of them are capable of causing leaf spot and post- harvest diseases. The present study was designed to investigate fungal abundance on leaves of Bt cotton (JKCH8836). Serial dilution method (leaf washing) was employed for the analysis of phylloplane mycoflora. A total thirty eight of fungal species belonging to twenty three genera were isolated from Bt cotton leaves through PDA culture method. Most common fungal species isolated Bt cotton were: *Alternaria alternata, A.macrospora, A.tenuis, Ascochyta gossypii, Aspergillus flavipes, A.flavus, A.fumigatus, A.nidulans, A.niger, A.parasiticus, A.versicolor, A.terreus, Cercospora sp, Chaetomium globosum, Choanephora cucurbitarum, Cladosporium cladosporioides, Cl.herbarum, Colletotrichum gossypii, Curvularia lunata, Drechslera spicifera, Fusarium equiseti, F.moniliforme, F.oxysporum, F.solani, Memnoniella echinata, Mucor sp., Myrothecium roridum, Nigrospora oryzae, Neurospora crassa, Penicillium chrysogenum, P.citrinum, Phoma exigua, Rhizoctonia solani, Rhizopus stolonifer, Trichoderma harzianum, T.viride, Trichothecium roseum, Verticillium dahliae* and White sterile mycelium. The highest percentage of abundance of fungi was *Cladosporium cladosporioides* (13.25%) and lowest recorded for *Aspergillus flavipes* (0.45%).