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CELLULOSE DECOMPOSING FUNGI OF PAKISTAN

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Those fungi and bacteria as are responsible for cellulose breakdown are called cellulolytic fungi and bacteria. In 1973 we published a report[20] including 35 species, belonging to Myxomycetes, Phycomycetes, Ascomycetes and Fungi Imperfecti. The purpose of the present review also includes an effort to compile the work, as far as possible, of other investigators, who have also reported a large number of cellulose destroying fungi from Pakistan, growing on different substrates, e.g. cotton, paper, dead leaves, seeds, etc. The list of cellulolytic fungi thus compiled consisted of sixty-one species reported from all over Pakistan. Efforts have been made to make this list as complete as possible, but, if any species has been overlooked, this may be included in subsequent publications. Since no proper control measures are taken in Pakistan and the lossess seem to be huge, it is comparatively necessary that some systematic work on biodeterioration should be conducted at least on cotton and its products. Pakistan is a cotton growing country, and therefore the development of preventive methods would be more desirable to reduce the already considerable losses.

List of Cellulolytic Fungi of Pakistan

S. No.	Fungus	Reference No.
1.	*Alternaria tenuis* Nees	38
2.	*Ascobolus* spp.	14
3.	*Aspergillus flavipes* (Bainier and Sart.) Thom & Church	2
4.	*Aspergillus fumigatus* Fresenius	38
5.	*Aspergillus nidulans* (Eidam) Wint.	6
6.	*Aspergillus niger* Vantiegham	34
7.	*Aspergillus niveus* Blochwitz.	11
8.	*Aspergillus rugulosus* Thom & Raper	29
9.	*Aspergillus ruber* Thom & Church	11
10.	*Aspergillus sulphureus* (Fresen.) Thom & Church	11
11.	*Aspergillus terreus* Thom.	5
12.	*Aspergillus ustus* (Bainier) Thom & Church	5
13.	*Botryodiplodia theobromae* Pat.	5
14.	*Botrytis* spp.	3
15.	*Chepalosporium* spp.	38
16.	*Cephalothecium roseum* Corda	23
17.	*Chaetomium atrobruneum* Ames	18
18.	*Chaetomium aureum* Chivers	34
19.	*Chaetomium funicolum* Cooke	19
20.	*Chaetomium globosum* Kunze	19
21.	*Chaetomium indicum* Corda	18
22.	*Chaetomium olivaceum* Cooks and Ellis	18
23.	*Chaetomium spirale* Cooke	18
24.	*Cladosporium herbarum* (Pers.) Link. ex. F.	34
25.	*Coniothyrium* spp.	6
26.	*Curvularia* spp.	38
27.	*Curvularia lunata* (Walker) Boed.	33
28.	*Fusarium avenaceum* (Fr.) Sacc.	3
29.	*Fusarium equiseti* (Corda) Sacc.	5
30.	*Fusarium oxysporum* Schlechtendal.	5
31.	*Fusarium semitectum* Berkeley & Ravenel	38
32.	*Fusarium solani* (Mart.) Sacc.	38
33.	*Fusicoccum* spp.	6
34.	*Helminthosporium hawaiiensis* Bugnicourt	38
35.	*Humicola* sp.	38
36.	*Humicola fuscoatra* Traaen	5
37.	*Memnoniella echinata* (Riv.) Galloway	19
38.	*Monilia sitophila* Pers. ex. F.	3
39.	*Myrothecium rosidum* Tode ex. F.	4
40.	*Myrothecium verrucaria* (Alb. & Schw.) Ditm. ex. F.	30
41.	*Penicillium atramentosum* Thom	23
42.	*Penicillium crustosum* Thom.	5
43.	*Penicillium expansum* (Link) ex. Grey.	29
44.	*Penicillium flavidorsum* Biourge	36
45.	*Penicillium frequentans* Westling.	23
46.	*Penicillium glaucum* (Link) Brefeld.	23
47.	*Penicillium janthinellum* Biourge	13
48.	*Penicillium oxalicum* Currie & Thom.	13
49.	*Penicillium pinophilum* Hedgcock	36
50.	*Penicillium purpurogenum* Stoll	13
51.	*Penicillium sulfureum* Sopp.	36
52.	*Phoma herbarum* Sacc.	7
53.	*Scopulariopsis brevicaulis* Bainier	5
54.	*Sordaria fimicola* Ces. & de Not	18
55.	*Spicaria* spp.	7
56.	*Stachybotrys atra* Corda	5

S. No.	Name of the Fungus	Reference No.
57.	*Stemphylium consortiale* (Thuemen) Groyes & Skolko	26
58.	*Thielavia* spp.	3
59.	*Torularia* spp.	3
60.	*Trichoderma koningii* Oudemans.	3
61.	*Trichoderma viride* Pers. ex. F.	29

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