

broad. Conidiophores semi-macronematous, pale yellow, smooth, septate, branched, 6–12 μm long and 3–4.5 μm broad. Conidiogenous cells monoblastic, terminal, narrow. Conidia light olivaceous yellow to green, obclavate to pyriform, 1-celled, finely echinulate with longitudinal germ slit, 18–30 μm long, 16–24 μm broad.

The above described *Megalodothium* differs from *M. elaeis* (Deighton¹, M. B. Ellis²) in having conidia that are short, broad and echinulate and hence described as a new species *M. indica*.

On living leaves of *Maytenus emarginata* (Willd.) Ding Hou, leg. Rehana, Ibrahimpatnam, February 1978, MRL No. 1542.

Megalodothium indica sp. nov.

Sporodochia epiphylla, aereo-brunnea, erumpenti, 300–600 μm diam., 120–150 μm longa. Hyphae immersi, ramosae, septatae, laevibus, hyalina vel subhyalina usque 3 μm lati. Conidiophora semi-macronemata, subhyalina septata, laevia, ramosa, 6–12 μm longa et 3–4.5 μm broad. Cellulae conidiogenae integri, monoblasticae, terminaliter. Conidia solitaria, obclavata vel pyriformia, 0-septata, echinulata, pallide ochracea vel hyalina, 18–30 μm longa et 16–24 μm lata.

Typus lactus e foliis *Maytenus emarginata* (Willd.) Ding Hou, leg. Rehana, Ibrahimpatnam, Februarii, anni 1978, MRL Sub numero 1542.

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OCCURRENCE OF A NEW COLLAR ROT DISEASE OF NIGER (*GUIZOTIA ABYSSINICA* CASS.) IN INDIA

NIGER (*Guizotia abyssinica* Cass.) is one of the important oilseed crops normally grown in all types of soil. The seeds are mainly used for extraction of edible oil.

The authors observed that about 1% of the niger plants was wilted in June–July 1978 at

Botanical garden of Agricultural College, Dharwad. Close examination of the wilted plants showed that the collar portion of the plant was sunk and covered with white mycellial mat and a large number of sclerotial bodies around the collar portion. Heavily infected plants died within a week. Repeated isolation of the infected portion of the plant yielded the fungus *Corticium* sp.

The pathogenicity was proved by sowing 50 seeds which were artificially inoculated with 20 days old *Corticium* culture and the same quantity of the seeds were sown in sterilized soil as control. Out of 50 seeds, 40 germinated and remaining 10 seeds did not germinate. The fungus started infecting after the third day of seed germination and all the 40 seedlings were infected within a week causing post-emergence death. In the case of the control, 48 seeds germinated and there was no infection of the fungus.

The characteristic features of the fungus are mycelium superficial on the host, sclerotia chocolate brown in colour and shape is ellipsoidal or subrotundum. The size of sclerotial bodies varied from 0.5 to 1.5 mm. Based on these characters the fungus was identified as *Corticium rolfsii* Curzi. This is a new disease on niger in India.

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PHYLLOSHERE STUDY OF WHEAT VARIETIES GROWN IN U.P.

CLARK AND PAUL², Prasad and Edward⁴ have reported differences in phyllosphere microbial population depending upon plant species. However, no reports are available on the effect of crop varieties on phyllosphere microbial population. Wheat varieties are noted for considerable differences in their leaf characters. In view of this, the study of *Azotobacter* and the variation of the total bacterial population in the phyllosphere of wheat is taken up.

Composite leaf samples from the healthy plants of wheat varieties K-68, K-65, Kalyan Sona and Sonalika were collected at seedling, flowering and maturity stages from the research plot of Agronomy Department, Allahabad Agricultural Institute, during rabi season in 1976–77. *Azotobacter* and total bacteria in phyllosphere were enumerated on Base medium 77 (Allen and Allen¹) and Thornton's agar medium (Allen and Allen¹) respectively, according to the

TABLE I
Phyllosphere microbial population of wheat varieties at different growth stages

	Seedling		Flowering		Maturity	
	Azotobacter 10 ² /cm ² leaf surface	Total bacteria 10 ³ /cm ² leaf surface	Azotobacter 10 ² /cm ² leaf surface	Total bacteria 10 ³ /cm ² leaf surface	Azotobacter 10 ² /cm ² leaf surface	Total bacteria 10 ³ /cm ² leaf surface
1	2	3	4	5	6	7
Deshi: K-68	122	600	416	1003	304	460
K-65	178	628	398	968	276	340
Average	150	614	407	985.5	290	400
HY.V. Kalyan- sona	306	336	106	402	209	536
Sonalika	309	398	103	401	236	602
Average	307.5	367	104.5	401.5	223	569
F. test	sig	sig	sig	sig	sig	sig
C.D. at 5% L.S.	106	203	123	218	98	102

HYV = High Yielding Varieties. Sig = Significant.

method described by Prasad and Edward⁴, a modified method of Dickenson³.

Data given in Table I show significant differences in the phyllosphere population of *Azotobacter* and the total bacteria between the treatments at all growth stages tested. Wheat varieties K-68 and K-65 supposed to be deshi, recorded reduced population of *Azotobacter* and increased population of total bacteria, increased population of *Azotobacter* and total bacteria, and increased population of *Azotobacter* and reduced population of total bacteria over High Yielding dwarf varieties, viz., Kalyana Sona & Sonalika at seedling, flowering and maturity stages, respectively. In general, total bacterial and *Azotobacter* populations were low in high yielding dwarf varieties than in deshi varieties. This may be attributed to the waxyness of leaves in high yielding dwarf variety. Clark and Paul² also described various characters of leaves like hairy-ness, waxyness, etc., to affect the phyllosphere microbial population. On the basis of afore-mentioned findings, the need of detailed study of phyllosphere microbes associated with locally suited different wheat varieties are therefore suggested.

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PARINARIOXYLON SPLENDIDUM SP. NOV. FROM KALAGARH

THE fossil wood *Parinarioxylon splendidum* sp. nov. is described here from the Mio-Pliocene beds near Kalagarh at the foot hills of Himalayas. The extinct genus *Parinarium* is distributed in the tropical and subtropical regions of the Southern hemisphere (Record and Hess³).

Awasthi¹ has reported the presence of the fossil wood of *Parinarium* from the Tertiary of Cuddalore Series, South India. The fossil is reported for the first time from the Siwaliks.

Characteristic anatomical features of the present fossil are : Wood diffuse porous. Growth rings absent. Vessels small to mostly large, r.d. 98-374 μ m., t.d. 110-281 μ m, exclusively solitary (Fig. 1), 3-6 per sq. mm., vessel members with truncated or tailed