the causal virus was the tobacco leaf curl virus[1] (*Nicotiana* virus Smith or *Ruga tabaci* Holmes). Incidentally this is the first record of tobacco leaf curl virus infecting spinach.

The authors are grateful to Dr. V. V. Chenulu, Professor and former Head of the Division of Mycology and Plant Pathology, I.A.R.I., New Delhi, for providing facilities.

September 29, 1980.

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MONASCUS RUBER VAN TIEGHEM— A NEW RECORD FROM INDIA

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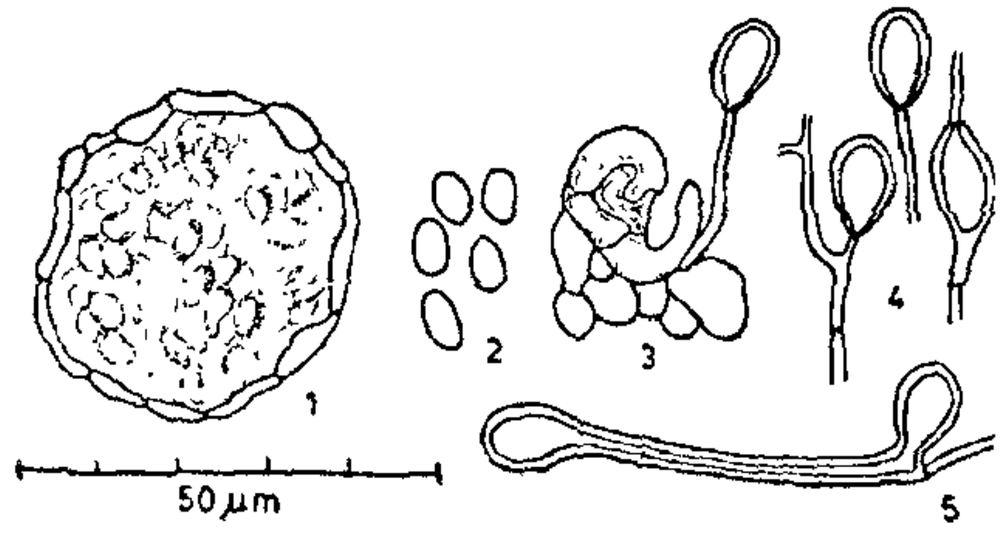
DURING the study of seed mycoflora, a fungus, belonging to Ascomycetes, was isolated from the discoloured, surface sterilized sunflower seeds. Its identity was established as *Monascus ruber* van Tieghem. Scrutiny of the available literature revealed it to be a new record from India. *Monascus ruber* van Teighem, *Bull. Soc. Bot.* France, 1884, **31**, 226, colonies red, submerged on Czapek-Dox agar. Ascocarps, globose, usually immersed in the basal medium 37·4 51·0 μm. Ascocarp wall one-celled thick. Asci highly evanescent but appeared subglobose inside the ascocarp in early stages of development. Ascospores, hyaline, elliptical and thin walled 6·8—5·1 μm. Conidia double walled, hyaline when young, becoming pale yellow to brown at maturity, globose to pyriform, 11·9–15·3 μm 8·5–13·6 μm produced at the apex of short, unbranched conidiophores, sometimes present in small chains. Intercalary conidia are rarely seen.



FIGS. 1–5. *Monascus ruber* var Tieghem on Czapek-Dox agar. Fig. 1. A young cleistothecium. Fig. 2. Ascopores. Fig. 3. Conidia associated with developing ascocarp. Fig. 4. Conidia, and Fig. 5. abnormal conidium.

A viable culture of the fungus has been deposited in Commonwealth Mycological Institute, Kew, England (Herbarium No. IMI 247436).

Only one species of *Monascus*, *M. purpureus* Went has been reported from the rhizosphere of *Cajanus cajan* from Varanasi (India)[1].

The authors are grateful to the Director, CMI, Kew, England, for identifying the fungus and to Prof. J. N. Rai, Lucknow University, for providing the laboratory facilities. One of the authors (ASN) is thankful to State Council of Science and Technology for financial assistance.

October 11, 1980.

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FOLIAR HISTOLOGY OF ANDROGENETIC HAPLOID 'VEGETATIVE' AND 'GENERATIVE' PLANTS OF TOBACCO

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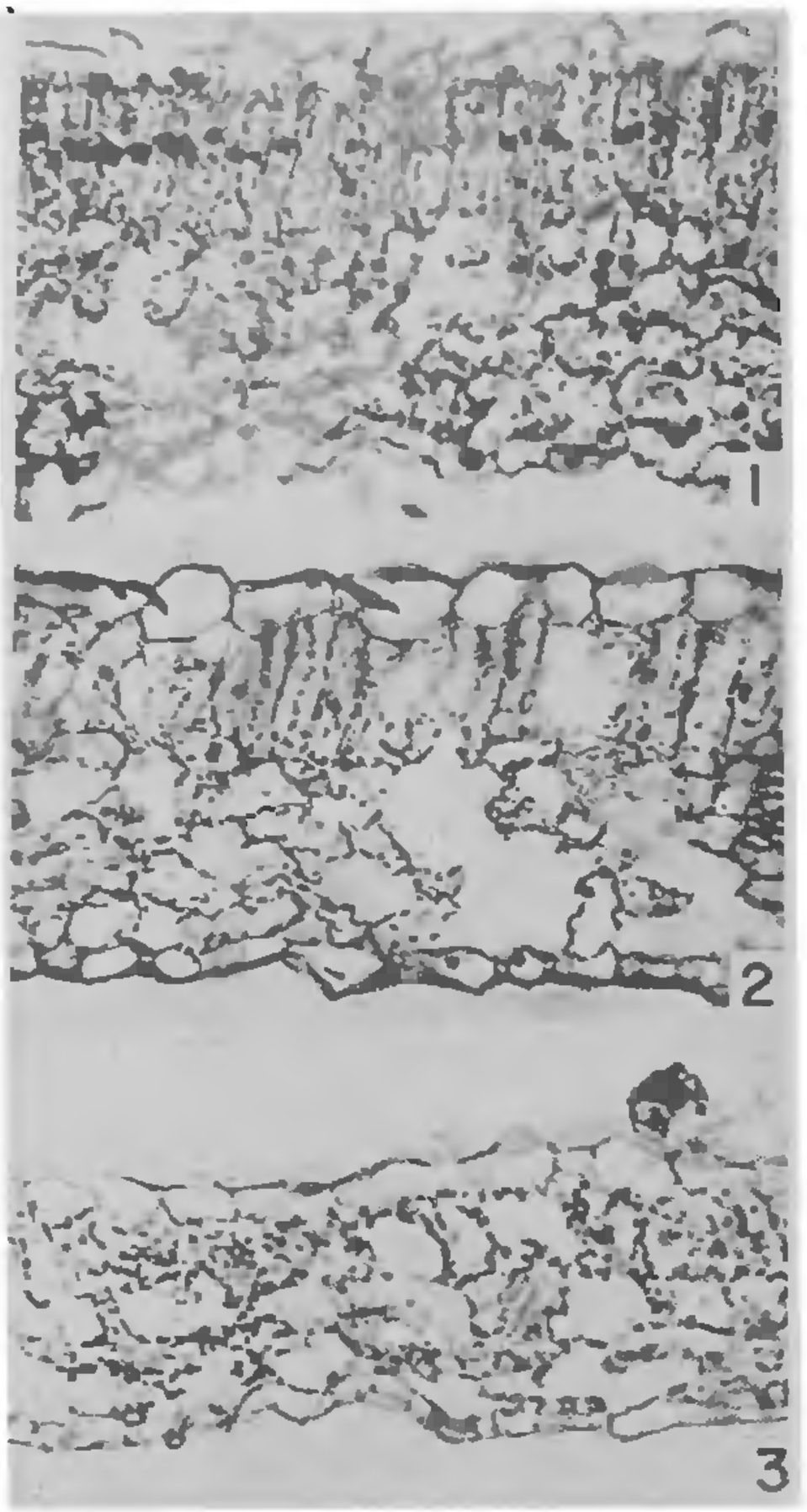
WE have reported in previous letters[1,2] on anther cultures of *Nicotiana tabacum*, the occurrence of embryoids and plantlets derived exclusively from the vegetative cell, exclusively from the generative cell and also of those engendered by the participation of both the cells. Haploid plantlets of the above three origins have been designated respectively as the Vegetative plant, Generative plant and the Chimera[3]. These plants which have been grown to the flowering stage are found to exhibit marked differences in their exomorphic characters especially with regard to the angle of divergence of leaves, the texture of lamina and nature of the leaf margin. In a more recent communication[3], we have reported the differences in floral characters among the three categories of haploids. Our purpose in the present communication is to place on record the endomorphic differences in leaves of the Vegetative and Generative plants and to correlate them with the typical foliar histology seen in their diploid parental plants.

The histological distinctions between these types are largely of a quantitative nature but of consistent occurrence. The 2·0 : 2·5 ratio of palisade to spongy tissue of the diploid parent changes over to 1·5 : 2·25 and 1·0 : 2·0 respectively in the Vegetative and Generative plants (Figs. 1–3). The palisade tissue in the

* Deceased 2nd November 1980.



FIGS. 1–3. Transections of comparable laminal parts of the 10th leaf of: Fig. 1. Diploid parent, Fig. 2. Vegetative and Fig. 3. Generative plants (× 280).

parental plants is typically organized (Fig. 1) while in plants derived from the vegetative cell it is sub-differentiated with shorter cells (Fig. 2). Distinction of the two zones in leaves of the Generative plant (Fig. 3) is solely based on topographical characters; the constituent cells of the upper zone (palisade) are conspicuously shorter and their compactness of alignment is disturbed; air-spaces are also evident here and there between groups of palisade cells.

Correlations between foliar histology and physiological process will be discussed in a later publication.

October 24, 1980.

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SOME NEW CUCURBITACEOUS HOSTS OF *BOTRYODIPLODIA*

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IN A RECENT survey of diseases of fruits and vegetables at Gwalior, *Botryodiplodia* was collected from several members of family Cucurbitaceae including *Lagenaria vulgaris* Ser., *Cucurbita maxima* Duchesne., *Citrullus fistulosus* Stocks., *Luffa cylindrica* Roem., *Coccinia indica* W. & A., *Trichosanthes dioica* Roxb., and *Cucumis sativus* L.[1]. Out oft hese first two are the well-known hosts[2,3] for this fungus while the other five constitute new host records for the country.

Symptoms

The disease generally started from the tip of the fruit. and later covered the entire surface. Light brown water-soaked areas appeared in the beginning, and with the advancement of the disease, fruits shrivelled and became soft. The fruits were covered by mycelium producing pycnidia in abundance (Fig. 1). Infected fruits rotted completely within 3–5 days, however, the disease on *Luffa cylindrica* was slow to develop. The disease was most severe at 25–30° C.

The pathogen was isolated from diseased fruits and identified as *Botryodiplodia theobromae* Pat. Pathogenicity of the fungus was established on fresh, healthy fruits by injury.

The specimen has been deposited at C.M.I., England (I.M.I. No. 247198).

The authors are thankful to Prof. R. R. Das, Head, School of Studies in Botany, Jiwaji University, Gwalior,

FIG. 1. Showing symptoms of the diseases on 'A'—*Luffa cylindrica*; 'B'—*Cucumis sativus*; 'C'—*Lagenaria vulgaris*.