

## A NEW RECORD OF EDIBLE *RUSSULA* FROM INDIA

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*Russula delica* Fr. an edible fungus was collected for the first time in India, from a market at Midnapore, West Bengal during July 1980. This communication deals with the characteristic features of this fungus and its protein value.

### *Russula delica* Fr.

Habit clitocyboid; *Sporophores* (figure 1) usually centrally stipitate, white but dull white at the centre; *Pileus* 40-75 mm wide, consistency firm, nonhygrophanous, at first convex later expanded and depressed at the centre, margin incurved but upraised at maturity, striated at the margin only, white, prominent scales on the surface of the cap, no change in colour on cutting; *Gills* decurrent, many, close, distinctly formed, separable, short and long gills intermixed usually 3-5 mm broad, white, 12-15 mm long; *Stipe*

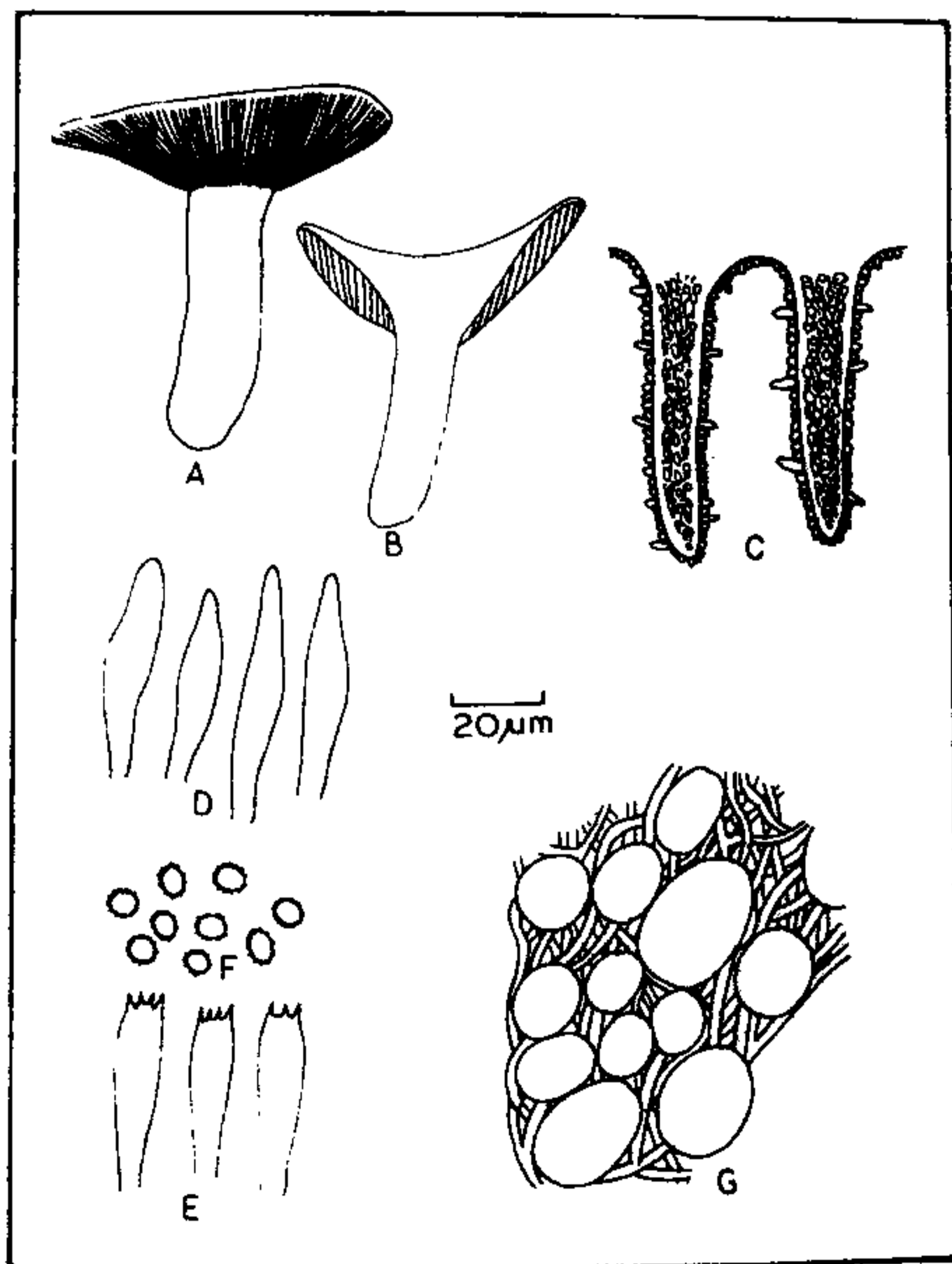
central, solid, soft, smooth, cylindrical 30-40 mm long, 10-15 mm thick, both annulus and volva absent, flesh white throughout; *Structure* hymenophoral trama irregular, usually with spherocysts surrounded by filamentous units, *Spherocysts* 15-28  $\mu$ m in diameter, hyphae 3.5-4.5  $\mu$ m wide, clamp connexions absent; cheilocystidia present, lens to spindle shaped, numerous, 25-30  $\mu$ m  $\times$  6-7  $\mu$ m, Basidia clavate, 21-24  $\mu$ m  $\times$  6-7  $\mu$ m, usually tetrasterigmatic, 4-spored, basidiospores spherical, verrucose, 5-7  $\mu$ m  $\times$  3.5-5  $\mu$ m, spore print white. The fungus belongs to *Russulaceae*<sup>1</sup>.

The total nitrogen of the dried fruit body was determined by micro-kjeldahl method<sup>2</sup>. The crude protein was finally calculated by multiplying the N-value by 6.25. Fruit body of *Russula delica* contains about 17% protein on dry weight basis.

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1. Singer, R. J. *Cramer. Vaduz*, (3rd Rev. ed.), 1975, vi, p. 912.
2. Bernard, L. O. *Hawk's physiological chemistry*, McGraw Hill, New York, 1965, p. 1472.



Figures 1A-G. *Russula delica* Fr. A. Mature fruit body; B. Longitudinal section of the same; C. Section through gills; D. Cystidia; E. Basidia; F. Basidiospores; G. Hymenophoral trama.

## TWO UNRECORDED FUNGI ON SEEDS OF SESAMUM (*SESAMUM INDICUM* LINN.)

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DURING the investigations on seed mycoflora of *Sesamum indicum* authors came across some interesting fungi of which *Drechslera neergaardi* and *Phoma nebulosa* have not been reported<sup>1</sup>. *Drechslera neergaardi* Danquash, *Trans. Brit. Mycol. Soc.*, 64, 545, in 1975.

Colonies effuse, pale to mid-brown, hyphae branched, septate, 7.5-9.4  $\mu$ m in width; conidiophores mononematous, macronematous, solitary or in groups of 3-4, straight or flexuous, often geniculate towards the apex, sometimes swollen at the base, pale-mid brown, 10 (63.75-168.75  $\mu$ m) long, 6-8  $\mu$  thick bearing conidia acrogenously; conidia straight broadly ellipsoidal, mid to dark-golden brown, smooth 2-3 (mostly 3) pseudoseptate (figure 1), 30.6  $\times$  22.5 (28.0-41.25  $\times$  18.75-28.0)  $\mu$ m cell at each end small hilum inconspicuous.

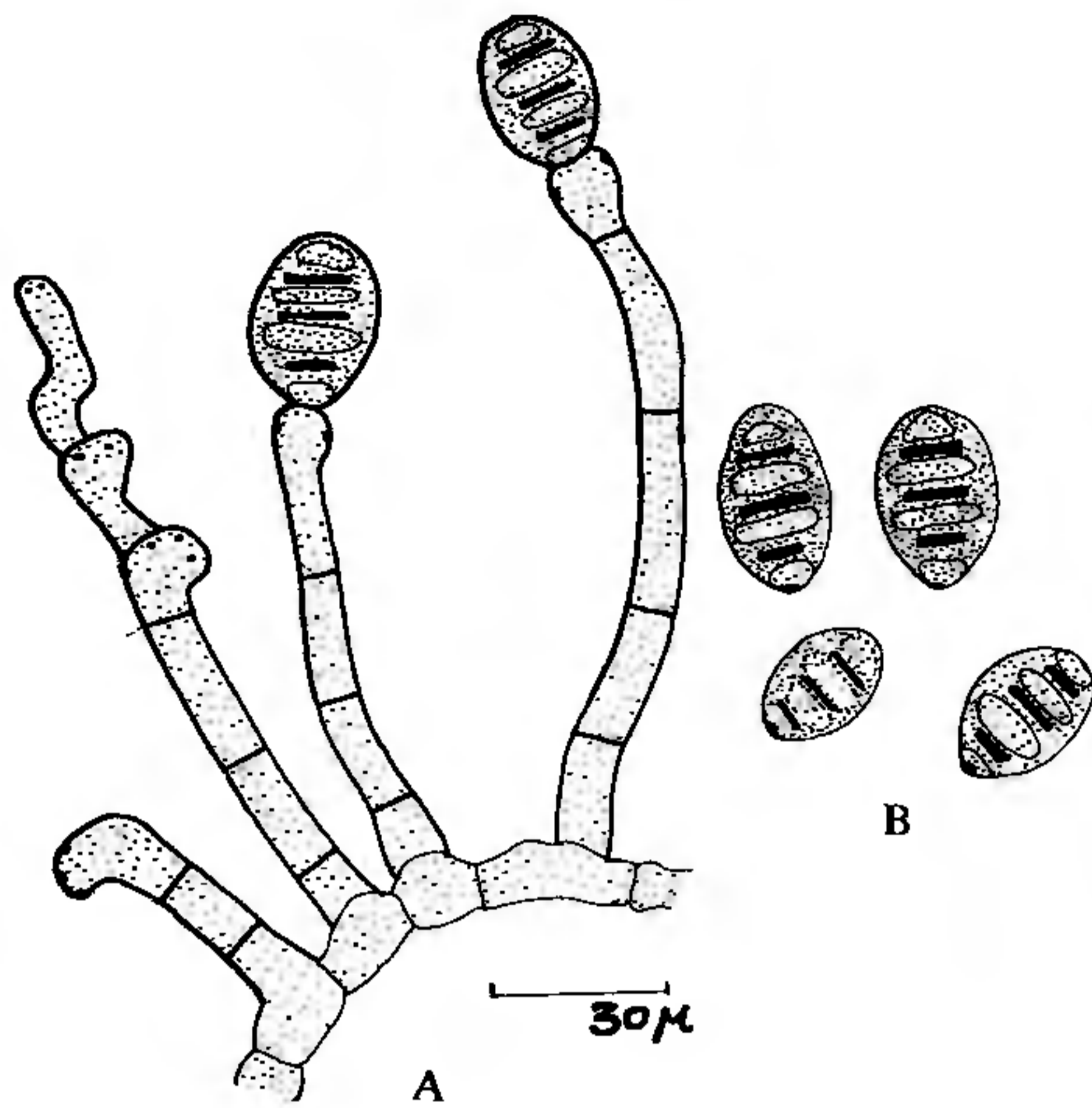


Figure 1. *Drechslera neergaardii*.

Isolated from seeds of *Sesamum indicum* Linn. *Phoma nebulosa* (Pers. ex. S. M. Gray) Berk, *Outt. Br. Fungi*, 314 (1960).

Colonies spreading, diffuse with little aerial mycelium, dark-brown, hyphae branched, septate, 4–9 μm in width. Pycnidia erumpent, globose to spherical with a distinct beak, dark-brown, pseudoparanchymatous wall. Spherical 397.5 × 345.0 (225–645 × 150–600) in size, globose 450 (300–645) μm in diameter (figure 2). Conidiophores simple, single celled; conidia hyaline, cylindrical, 7.5 × 3.75 (? 7.5–11.25 × 3.0–4.0) μm.

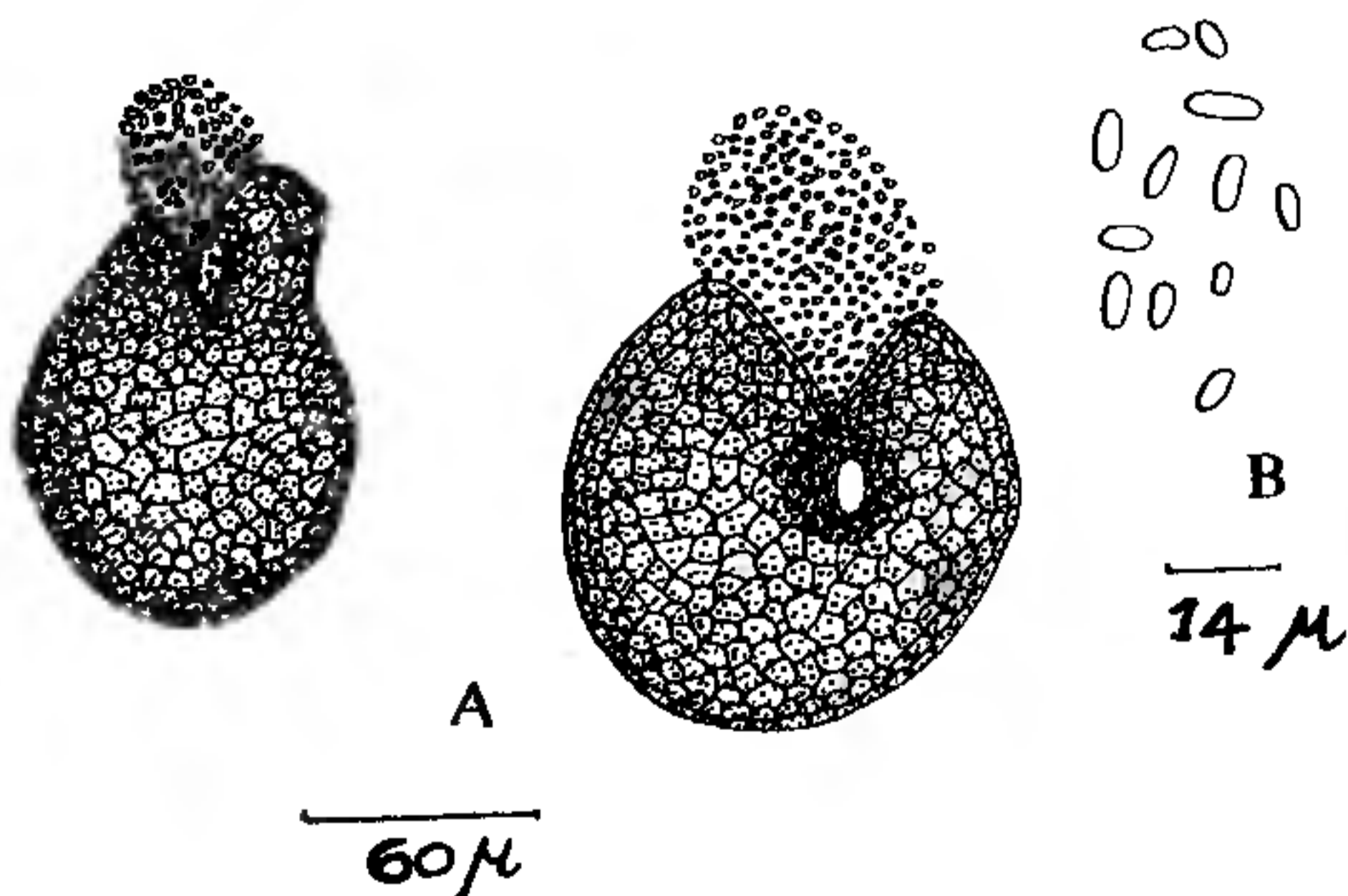


Figure 2. *Phoma nebulosa*.

Isolated from stored seeds of *Sesamum indicum* Linn.

Thanks due to Dr. L. L. Narayana for kind encouragement. One of us (ASR) is grateful to ICMR for the award of a fellowship.

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1. Bilgrami, K. S. Jamaluddin and Rizwi, *Fungi of India*, Part I and II, Today and Tomorrow Pub., New Delhi, 1979.

**A NEW LEAF BLIGHT DISEASE OF GROUNDNUT CAUSED BY *ALTERNARIA TENUISSIMA* (KUNZE EX PERS) WILTS**

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DURING the Rabi/Summer, (1981–82, February–May) a new leaf blight disease on bunch varieties like JL-24 and GAUG-1 was observed in the experimental fields of National Research Centre for Groundnut, Junagadh. The disease appeared during March 1981 and February 1982, when the crop was 30–35 and 20–25 days old respectively. The intensity of disease varied from 15 to 35%. The development of the disease was observed as blighting of apical portions of leaflets with light to dark brown colour (figure 1). The blighted area increased from tip towards middle of leaflets measuring 2–18 mm in length and 3–15 mm in width which ultimately resulted in inward folding of blighted tip portions.

The pathogen was isolated from the diseased leaves and maintained in pure culture on PDA. The colony on PDA was dull white at initial stages and later turned to greenish black in the centre and margin was buff in colour. Morphological studies of the fungus in



Figure 1. Ground nut leaf infected with *Alternaria tenuissima*.