facet (capitular facet) on the upper angle of the posterior face. The length of the centrum measures 3·7 cm.

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A NEW SPECIES OF *CLASTEROSPORIUM*

DURING the course of collecting hyphomycetous fungi in North-East India, the senior author collected a fungus on *Bambusa* sp. from Dergaon, Assam. The fungus was somewhat close to *Clasterosporium flagellatum* Syd. M. B. Ellis[1], but differred significantly in the morphology of the conidia as well as hyphopodia. In the present specimen the conidia are very narrow as compared to those of *C. flagellatum* and the hyphopodia are not deeply lobed. As the present fungus does not match well with any of the known species of the genus *Clasterosporium*[1,2], a new specific epithet as *Clasterosporium bambusae* is justified.

Clasterosporium bambusae Saikia and Sarbhoy spec. nov. (Fig. 1).

Coloniae effusae velutinae atrobrunneae vel atrae cm. plures sub-strati tegentes; mycelium superficiale ex hyphis brunneolis vel brunneis glabrotunicatis ramosis septatis 2·1–3·5 μ diam. constitutum; hyphophodia brunnea lateralia et terminalia, in forma variabilia, 7·0–9·8 × 4·2–5·6 μ; setae carentes; conidiophora singula vel caespitosa, a cellulis terminalibus vel intercalaribus hypharum, etiam e stromate aegre evoluto enata, macronemata, mononemata, recta vel curvata cylindrica eramosa 6–12 septata (intervallis intra septa 18–21 μ longis) glabrotunicata mediobrunnea vel pallide olivaceo-brunnea, 105–210 × 3·5–5·4 μ; cellulae conidiiferae integratae terminales monoblasticae cylindricae; conidia ex extremis inflatis ad apicem conidiophori cuiusque efformata, obclavata, in rostrum longum attenuate, recta vel subcurvata, brunneola vel brunnea, glabrotunicata 6–35–pseudoseptata, (90–) 150–270 (–435) μ longa, ad partem latissimam 6·0–7·5 μ ad apicem 3·0–4–5 μ ad basim truncatam plerumque 3 μ lata.

Hab. in *Bambusa* spp., Dergaon, Assam, coll. U. N. Saikia 20–7–77 (H.C.I.O. 32666).

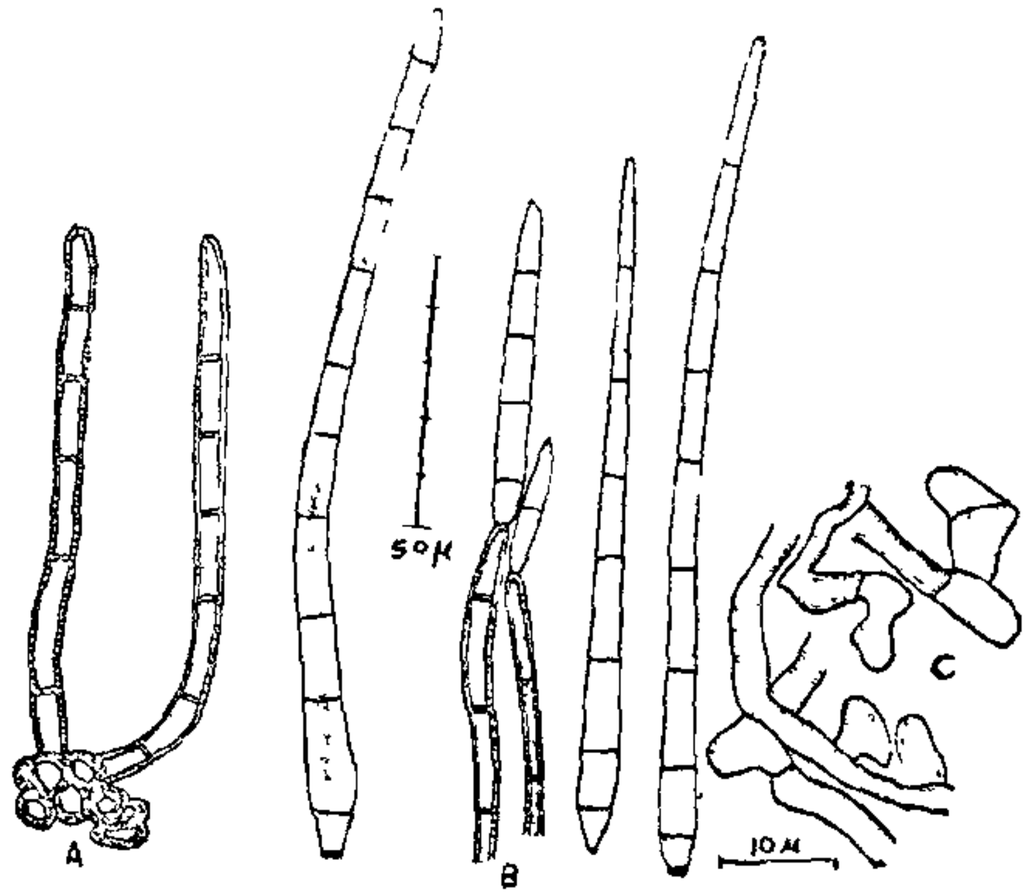

FIG. 1 Clasterosporium bambusae sp. nov.
A. Conidiophores B. Conidia C. Hyphopodia

Clasterosporium bambusae Saikia and Sarbhoy spec. nov. (Fig. 1).

Colonies effuse, velvety, brownish black to black covering several centimeters all along the substratum. Mycelium superficial, composed of pale brown to brown, smooth-walled, branched, septate hyphae 2·1–3·5 μm thick. Hyphopodia brown, lateral and terminal, variable in shape, 7·0–9·8 μm long × 4·2–5·6 μm wide. Setae absent. Conidiophores arising singly or in groups of 2–3 from the terminal or intercalary cells of the hyphae or from the poorly developed stromata, macronematous, mononematous straight or curved, cylindrical, unbranched, 6–12 septate with septa 18·0–21·0 μm apart, smooth-walled, 3·5–4·5 μm thick. Conidiogenous cells integrated, terminal monoblastic, cylindrical. Conidia formed singly as blown-out ends at the tip of each conidiophore, obclavate tapering into a long beak, straight or slightly curved, pale brown to brown, smooth-walled, 6–35 pseudoseptate, (90·0–) 150·0–270·0 (–435·0) μm long, 6·0–7·5 μm thick in the broadest part, 3·0–4·5 μm at the apex and mostly 3·0 μm wide at the truncate base.

On *Bambusa* sp. Dergaon, Assam, Coll. U. N. Saikia, 20–7–77 (H.C.I.O. 32666 type).

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CARROTS—AN EXCELLENT SUBSTRATE FOR GROWTH AND SPORULATION OF *ALTERNARIA HELIANTHI*

THE blight disease of sunflower caused by *Alternaria helianthi* (Hansf.) Tubaki and Nishihara has become one of the most destructive fungal diseases of sunflower in recent years[1]. During the course of investigations with 5 isolates of the pathogen collected from different places in India and obtained from the Commonwealth Mycological Institute, England, it was observed that the fungus was slow growing and its various isolates varied in their rate of growth and intensity of sporulation on different agar media. Periodical transfers of different isolates up to 18–20 months on potato dextrose agar or oat meal agar did not in any way reduce the original sporulation. Preservation of these isolates under mineral oil for 6–8 months after 18 months of periodical transferring also did not reduce their sporulating ability. However, subsequent subculturing of these oil preserved isolates on potato dextrose agar or oat meal agar gave either only mycelial growth or mycelial growth with scanty sporulation. A medium was, therefore, developed for revival of sporulation and obtaining luxuriant growth and rich sporulation of various isolates of the pathogen.

Fresh carrots after thorough washing were cut into discs 1 cm in thickness and placed (3–4 in number) on 2 clean glass slides in a Petriplate lined with 2 layers of moist blotters. The plates were then autoclaved at 15 lb pressure for 15 minutes. The carrot discs were inoculated with the fungus and incubated at 25° C for 5–7 days when they became completely covered with richly sporulating luxuriant growth of the fungus.

Carrot discs not only form an excellent substrate for mass multiplication of the inoculum required for glass-house and field inoculations, but also can be used for restoring sporulation of repeatedly subcultured isolates of *A. helianthi* which otherwise cannot be restored on potato dextrose agar or oat meal agar, their original substrates.

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REDUCE THE COST OF BACTERIAL FERTILIZERS BY DIRECTLY GROWING THEM ON BASE MATERIAL

FERTILIZING the crops with bacterial fertilizers has gained considerable importance in recent years owing to the high cost of raw materials of synthetic fertilizers. Rhizobia and azotobacters are being mass produced in synthetic media and then mixed with peat soil, lignite powder or any other base materials before supplying to farmers. The high cost of mannitol, the sole source of carbon used in the media and the non-availability of the peat soil all over the country despite being the best carrier material prompted us to search for an alternative source. One such material is the used coffee powder.

Coffee powder waste has the essential characteristics of a suitable carrier material containing more than 60% of organic matter no soluble salt content and high moisture retention capacity as compared with about 30 to 40% organic matter in the peat soil[1] and lignite powder[2] which are being used at present. Cellulose powder as such has been tried with limited success[3]. Release of toxic products during autoclaving of peat soil has been reported[1] and it inhibits the growth of organisms. Such problems will not arise in the case of coffee powder waste.

Microorganisms

Authentic cultures of *Rhizobium* sp. (cow pea group) and *Azotobacter chroococcum* from the culture collection of the department were used. They were grown and maintained on yeast extract mannitol agar and Waksman No. 77 agar slopes respectively.

Substrate

Used coffee powder was dried and powdered to pass through 100 mesh sieve and used as the substrate. In