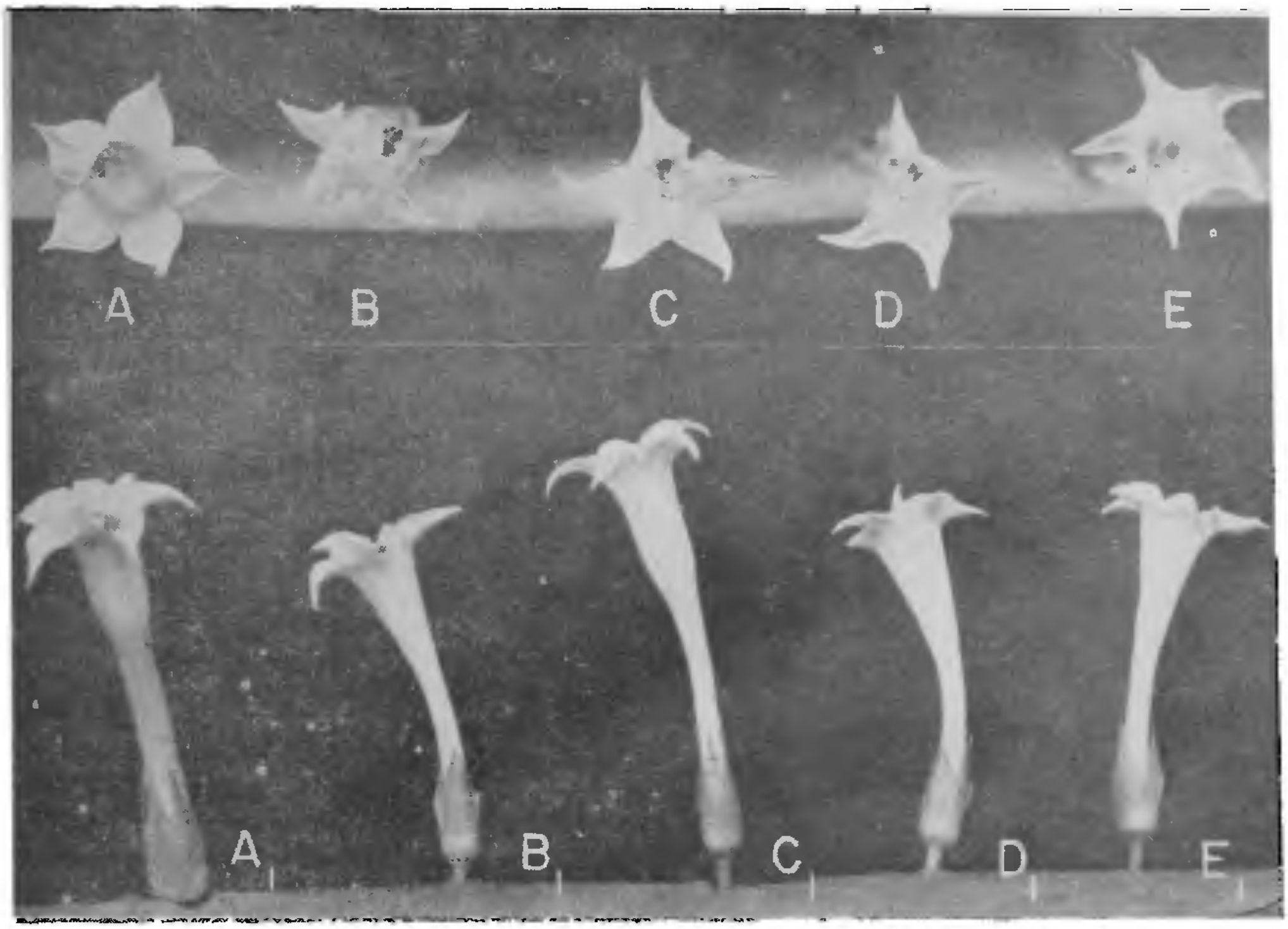

FIG. 1. (Top row) A—Face view of the corolla of diploid (parent). B—of 'vegetative' plant C—of 'generative' plant. D—of vegetative sector of chimeral plant. E—of generative sector of chimera' plant. (Bottom row) A_1 to E_1—side views of flowers corresponding to upper row (actual size).

the 't' value of 0·076 obtained for the flower length of the diploid (parent) and the pure 'generative' plant falls below the significant value, thereby purporting a similarity between them.

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PRELIMINARY STUDIES ON JAMUN LEAF MINER (*ANTISPILA ANNA* MEYR.) WITH TWO NEW PARASITE RECORDS

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DURING the period from June-August, 1979 jamun trees, *Syzygium jambolana* Lam. at Hyderabad were severely damaged by a leaf miner, *Antispila anna* Meyr (Heliozeldae : Lepidoptera) to the tune of 40·8%. Nayar[1] mentioned *A. anna* feed on leaves of jamun in Bengal and no further details of the pest are available.

The milky white larva mines in between the two epidermal layers of the leaf resulting in oval to linear blisters (Fig. 1), measuring about 3 cm in length and 1 cm in breadth; and turn reddish and drop off resulting in holes in each leaf. The full grown larva measures 3·85 mm in length. The head capsule is slightly reddish and measures 0·31 mm and 0·38 mm in length and breadth respectively. The prepupating larva hangs down by a sliken thread and attaches to leaves, stems or other surfaces, without showing any particular preference for pupation. The pupa is enclosed in a peculiar silken laterally compressed subrectangular greenish cocoon (Fig. 2) measuring about 4 mm in length and attached firmly to the leaves with a short stalk. The pupa measures 1·9 mm in length and pupal period lasts for 13 days. The adult is a dark brown moth, 3·0 mm in size, showing a characteristic white glistening patch across the forewing.

FIG. 1. Jamun leaf showing blisters caused by *A. anna*.

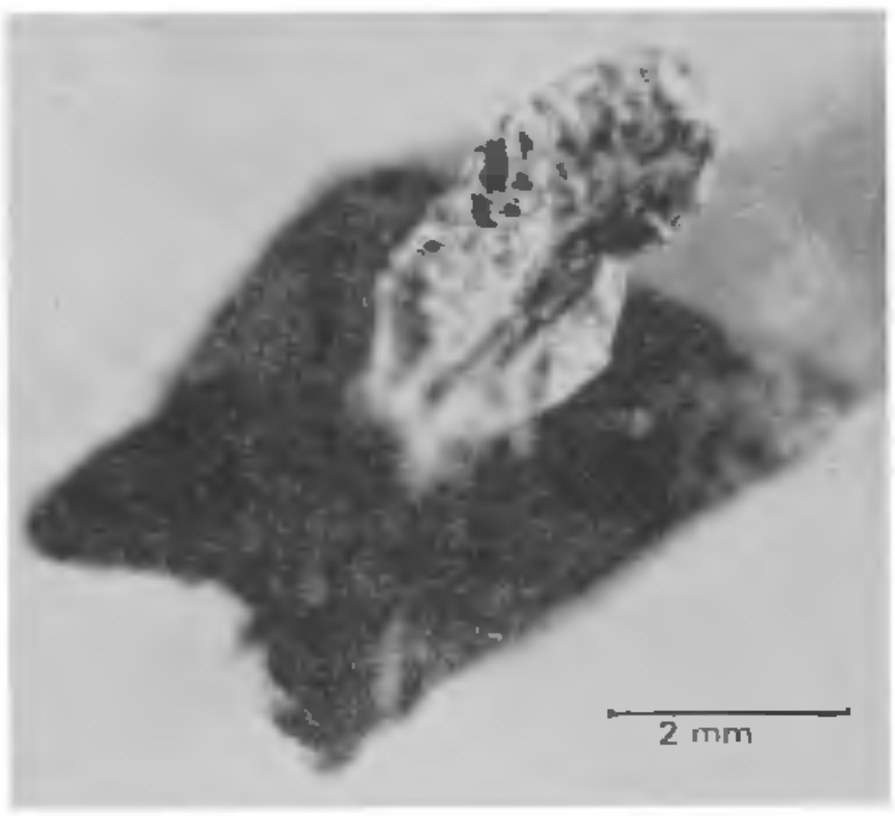

FIG. 2. Pupal cocoon of *A. anna*.

From the field collected pupae, two species of para sites, *Elasmus hyblaeae* ferriere (Elasmidae : Hymenoptera) and *Pediobius anomalus* (Gahan) (Eulophidae : Hymenoptera) were found parasitizing to a tune of 34%. Each parasitized cocoon showed only one round exit hole.

The leaf miner was identified by J. D. Bradley and the parasites were identified by B. R. Subba Rao and Z. Bouveck of British Museum, London, to whom acknowledgements are due.

August 4, 1980.

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STREPTOMYCES DAYALBAGHENSIS SP. NOVO

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DURING a preliminary screening of the soil samples collected from various localities of Agra region, for the isoation of antibiotic producing actinomycetes, a new sp. of *Streptomyces* (isolate No. *d*–21), which was designated as *S. dayalbaghensis*, was found to be strongly antagonistic to *Colletotrichum gloeosporioides* (Penz.) causing anthracnose in mango and leaf spots and anthracnose on citrus, papaya, sugarcane, etc., and *C. falcatum* (Went.) causing red rot in sugarcane (Figs. 1–2).

The materials and methods used were similar to those of the previous communication[11] and ISP procedures[12]. The actinomycete (*d*–21) is a chromogenic type, producing soluble pigment on natural media, is melanin positive, reduces nitrate, slowly hydrolyses starch and quickly liquefies gelatin, brings about the slow coagulation but rapid peptonisation of milk and shows no cellulytic activity. It utilizes rhamnose, raffinose, glucose, sucrose, maltose, galactose, lactose and glycerol as the carbon sources, whereas mannitol, starch and xylose were poorly utilized.

The vegetative mycelium is white and monopodially branched forming compact growth in agar media. Aerial mycelium is abundant, white (1–A–1)[7] to pinkish white (2–A–1) turning to rosy pinkish grey (1–A–2) in colour (Table I). Sporophores are long straight, in most cases with primitive spirals and occasionally open or closed hooks on most of the media. Sporophores are loose and no verticels are observed. Spores in chains (Fig. 3) are cylindrical to elongate, 1·4–2·9 × 1·4–3·4 μ, with smooth surface configuration as seen under electron microscope (Fig. 4).

Biological Activity

The activity of the isolate *d*–21 was further tested by streak method against other micro-organisms. The culture was inoculated by spore suspension as a broad streak about the edge of the petri plate on potato dextrose agar medium. After three days of incubation at 28° C (± 2° C) temperature the different