Results show that Aureofungin is inhibitory to spore germination of the pathogen at the minimal concentration used. The percentage germination of spores was 32 and the length of the germ tube was 53 µ at 1 ppm which further reduced with increase in concentration of the antibiotic. At 10 ppm and over germination percentage was nil.

The mycelial growth at 5 ppm of the antibiotic was 9 mm as compared to 64 mm in the control. The growth was completely checked at over 20 ppm.

The above findings confirm that Aureofungin has a potential utility against C. sacchari by virtue of its inhibitory effect on spore germination and growth of the pathogen even at the minimum concentration and the same can perhaps be useful in controlling the disease under field conditions.

Dept. of Botany, BALEN NANDI.
Burdwan University,
Burdwan, West Bengal,
December 22, 1976.


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**VEGETATIVE MULTIPLICATION BY LEAF CUTTINGS OF CROWNS IN PINEAPPLE (ANANAS COMOSUS L.)**

Shortage of planting material is often felt in the case of pineapple. Reports of successful propagation using stumps, crowns, etc., are available. However, these methods are far from satisfactory for practical applications. Hence efforts were made to use leaf cuttings (leaf with an axillary bud) from fruit crown of Ananas comosus L. Each leaf in the crown has a bud in its axil. Usually, crowns of fruits are discarded in India as they take more time for fruiting. Two experiments were laid, one in dry season (16th March 1976) and another in wet season (24th July 1976). Ten to sixteen longitudinal leaf cuttings were obtained from each crown. The crown was cut into 4 equal parts and then from each quarter piece, leaf cuttings were made (Fig. A). The first experiment in dry season was conducted in shade and open. Success upto 70% was obtained under shade in untreated leaf cuttings. Treatments with various fungicides like Bavistin, TBZ (thiobendazole), etc., did not increase the percentage success over untreated control. The second experiment in the monsoon season was done only in the open. The fungicides were applied just before planting by dipping the leaf cuttings for about five minutes in each fungicidal suspension. Success upto 100% was obtained with Dithane Z-78 (0.2%) compared to 62% in the case of untreated control. (Fig. B leaf cuttings, 3 months after planting and Fig. C leaf cuttings, 6 months after planting). This method can be used for solving the problem of shortage of plant material. Detailed results of the experiment will be reported elsewhere.

Figs. A-C. Fig. A. Crown from fruit of pineapple (1), crown cut longitudinally into two pieces (2), each half piece further cut to make four pieces (3) and each quarter piece was cut to make leaf cuttings so that each cutting has 2–3 leaves. Fig. B. Success with propagation from leaf cuttings, three months after planting. Note small plants emerging from each leaf cutting. Fig. C. Growth of plants emerged from leaf cuttings, six months after planting.
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Bangalore-6.
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H. C. DASS.
H. S. SOHI.
B. M. C. REDDY.
G. S. PRakash.

DEVELOPMENT OF MULTIPLE RESILIFIERS IN LOPHA (ACTINOSTREON) DILUVIANA (LINNÉ) FROM THE UPPER CRETACEOUS OF SOUTH INDIA

A single left valve of Lophia (Actinostreon) diluviana (Linne) showing multiple resilifiers was collected from brownish calcareous sandstone of Trichinopoly group occurring at Anaipadi (11° 06' 78° 56' 30' 11). Though this species is fairly abundant both in the Utatur and the Trichinopoly groups at many localities, the phenomenon of the development of multiple resilifiers is a rare one. Except this solitary individual all other specimens in our collection represent normal individuals with a single resilifier.

Ligamental areas of this variant is abnormal in being very broad and nearly as tall as the rest of the valve height. Though the umbonal area and much of the posterior portion of the ligamental area is damaged, the undamaged portion bears at least five resilifiers which must have been functioning till the animal was living. Splitting of the resilifier areas is extremely irregular. One of the areas (i.e., second from the anterior side) ends abruptly by joining midway with the adjacent area. All these areas have different widths.

A similarity between the specimen and a specimen of Lophia semiannuva (Boë) from the Cardena Formation (Maastrichtian) of Cardenas, San Luis Potosi State, Mexico, is that both these specimens have unusually thick shell walls and very tall ligamental area. The shell wall of the present South Indian specimen is nearly seven cm thick and has its ligamental area nearly six cm high.

Above commonness in characters of these abnormal individuals is very significant, as it further strengthens Lycett's view that such variants are developed as a result of monstrosity. This explanation of Lycett is acceptable as unusually heavy valves formed due to monstrosity would need a sufficiently strong ligamental area to operate effectively the opening and closing of the valves. Hence, such stra monstrous variants have very tall and broad ligamental areas with multiple resilifiers.

Fig. 1. LV of Lophia (Actinostreon) diluviana (Linne) showing multiple resilifiers, X 0.80 (Sp. No. MACS G 666).

M.A.C.S. Research Institute, G. W. CHIPLOKAR.
Law College Road, R. M. BADVE.
Poona 411 004, November 16, 1976.