

they liberated young single-celled hyaline or mature dark bi-celled spores with longitudinal striations.

The pathogen grows rapidly and profusely on potato-dextrose agar medium. The mycelium is greyish-white and gradually turns olive grey and finally changes to dark olive grey. Its width varies from 2 to 6 μ . Pycnidia are gregarious in stromatic masses (Fig. 1), erum-

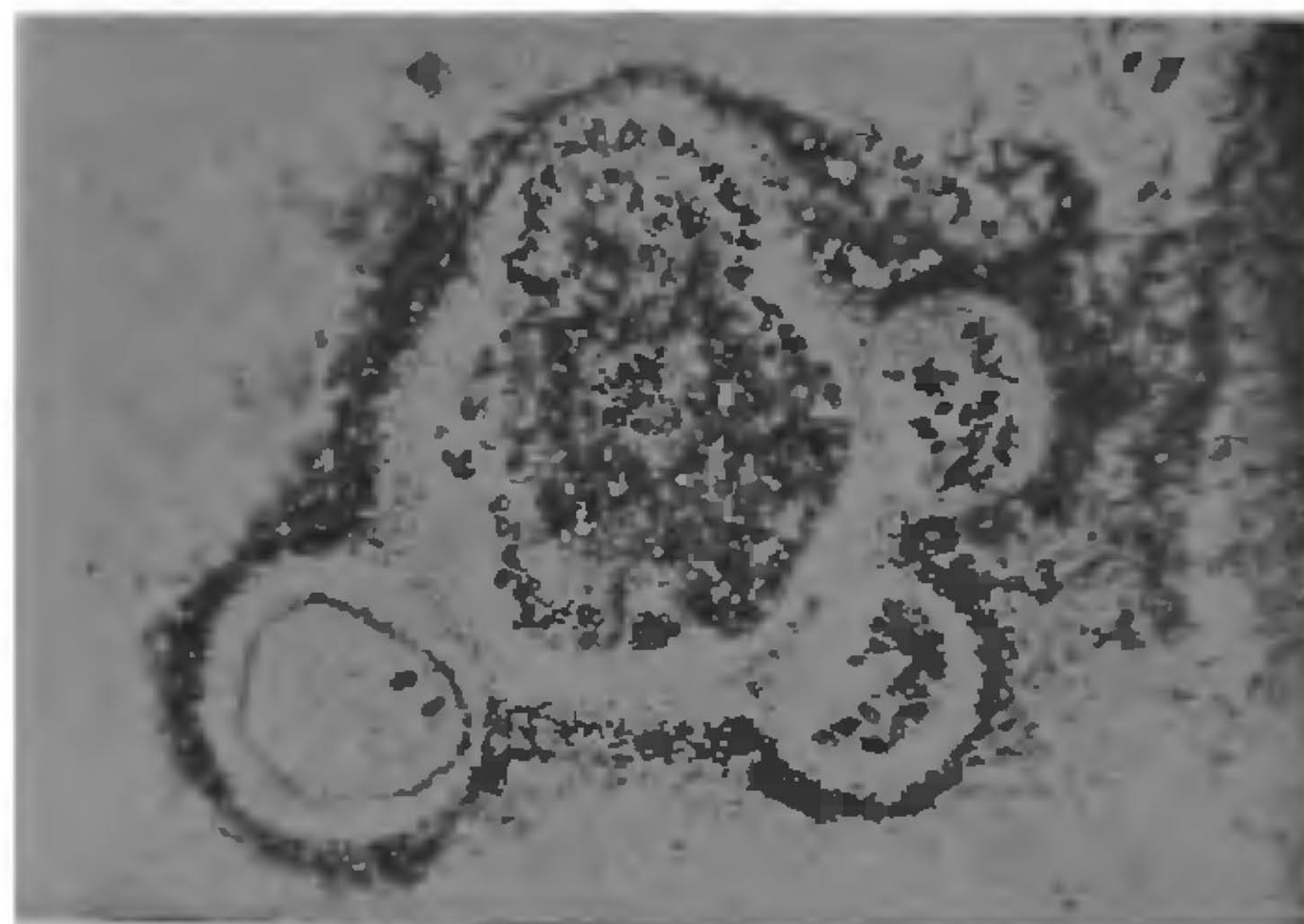


FIG. 1

pent, globoid, with minute ostiole, greyish to black in colour, measuring $214 \times 183 \mu$ to 688 to 612μ (average 464 to 367μ). Pycniospores ellipsoidal, with epispore 1.5 to 2.0μ , measuring 20 to 25μ long and 11 to 13μ broad.

Asthana and Hawker's liquid medium 'A' was used for cultural studies. The effect of different hydrogen-ion concentrations and temperatures on growth and sporulation of the organism are recorded in Table I. The pH for the study of the effect of temperature was adjusted to 5.5.

TABLE I

pH	Dry weight in mg.	Sporulation	Temperature °C.	Dry weight in mg.	Sporulation
1.5	00.0	..	6	00.0	..
2.5	26.5	Nil	10	00.0	..
3.5	35.7	Poor	20	57.6	Good
4.5	39.7	Fair	25	60.0	Excellent
5.0	44.2	Good	31	50.0	Good
5.5	53.1	Excellent	36	39.9	Nil
6.0	51.4	"	38	22.7	"
6.5	51.1	"	40	00.0	..
7.0	45.6	Good	..	..	..
8.0	39.3	Fair	..	..	..
9.0	39.0	Poor	..	..	..
10.0	34.3	"	..	..	..
11.0	27.8	"	..	..	..

The optimum growth and sporulation of the organism were observed between 5.5 to 6.5 pH.

BOTRYODIPLODIA ROT OF PINEAPPLE (*ANANAS COMOSUS* MERR.)

A STORAGE and transit disease of pineapple was observed in the local market. Isolations from the diseased fruits invariably yielded *Botryodiplodia ananassae* (Sacc.) Pet.³ Some cultural and pathological investigations were carried out and the results have been summarised in the present note. This is the first record of this disease from India.

In earlier stages of infection, the diseased fruits showed water-soaked appearance of the tissue at the cut end of the stalk and later they assumed dark brown colour. The fungus usually penetrated the vascular core of the fruit and spread into the surrounding pulp tissues and this was followed by a rot of the infected portion. The fructifications (pycnidia) of the fungus appeared near the stalk as minute dots under the rind of the fruit. At maturity

The growth and sporulation were best at 25° C. There was no growth at 6° C, 10° C. and 40° C. but the fungus could survive even after an exposure to these temperatures for fifteen days. The thermal death point was 59° C.

The fruits were artificially inoculated from the stalk end and they were covered with moist cotton pads. Granger and Horne's method,² as well as injury method were tried and controls were also maintained. It was observed that the injured fruits were readily infected. The symptoms were visible after 3 to 4 days of artificial inoculation. Chromatographic analyses of carbohydrates in healthy and diseased fruits after seven days of infection showed that sucrose and maltose (disaccharides) present in healthy tissues were not seen in diseased ones instead only glucose and fructose (monosaccharides) were present in the diseased tissues.

Cross-inoculations were carried out by Granger and Horne's method. Detached fruits of apple (*Malus sylvestris* Mill), peach (*Prunus persica* Batsch), plum (*Prunus domestica* L.), 'nakh' (*Pyrus communis* L.), 'nashpati' (*Pyrus pyrifolia* Nakai var. *culta* Nakai) and banana (*Musa paradisiaca* L.) were found to be susceptible. It is thus clear that the organism is not a very specialized parasite. It was further observed that slight injury with the help of a sterilized needle was essential for successful infection. The infection took place by spraying the spores or by placing the inoculum at the injured region. The spread of the disease was very rapid on peaches (*Prunus persica* Batsch). No infection was, however, observed on fruits of lime (*Citrus aurantifolia* Swingle), mango (*Mangifera indica* L.) and guava (*Psidium guajava* L.).

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