GERMINATION OF SPORES OF MARASMIELLUS EPOCHNOUS

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ABSTRACT

Basidiospores of Marasmiellus epochnous *from fructifications produced in cultures on dead grass stems proved viable when shed on to a nutrient agar surface. Cultures re-established from the germinated spores and built up on sterile dead herbaceous stems caused wilt of healthy Japanese mint* (Mentha arvensis *var.* piperascens) when *these stem pieces were used as inoculum.*

A collar rot of Japanese mint (*Mentha arvensis* var. *piperascens* Malinvaud) was described by Layton (1976), the cause being attributed to *Marasmiellus epochnous* (Berk. & Br.) Singer. As reported by Layton, fructifications were produced in axenic cultures built up on sterile grass stems, with massive production of basidiospores.

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As a continuation of the above work, portions of the pileus of fructifications produced as above (isolate PNG 8307) were suspended on

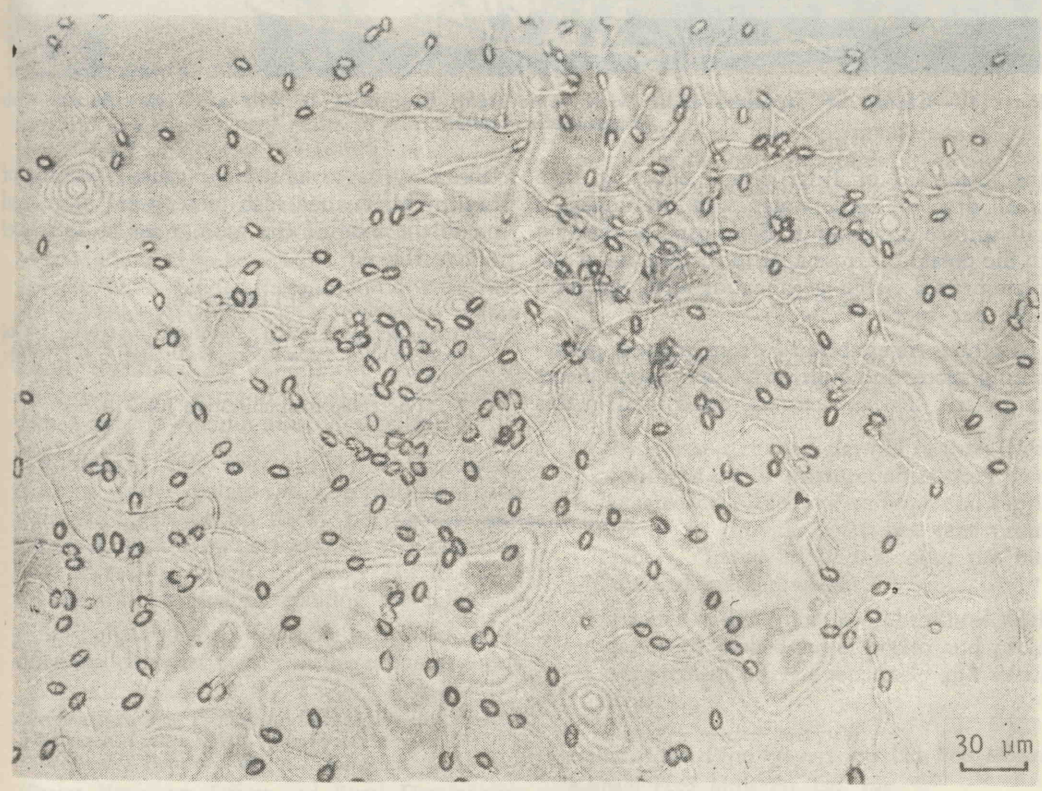

Plate I—Unstained basidiospores of *Marasmiellus epochnous* shed from a fructification on to nutrient agar, germinating with one germ tube per spore

Plate II—Clump of Japanese mint with some stems beginning to wilt after inoculation with *Marasmiellus epochnous*

the inside lid of Petri dishes, adhering in a small drop of sterile water, with the unwetted gill surface downwards. Basidiospores shed on to the potato dextrose agar in the bottom of the plate proved viable, germinating with one germ tube per spore (*Plate* I).

Cultures re-established from massed germinating spores and built up on sterile stem pieces of a herb (*Barleria cristata,* often used in this laboratory as a substrate), caused wilting of healthy mint when such pieces were inoculated on to the base of the mint stems at soil level (*Plate* II).

REFERENCE

LAYTON, W. A. (1976). *Marasmiellus* collar rot of Japanese mint. *Papua New Guin. agric. J.*, 27 (3): 59-65.

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