

## A LEAF SPOT DISEASE OF THEA SINENSIS L.

Some potted plants of *Thea sinensis* L. (*Camelliae sinensis* (L.) Kuntze), USDA accession no. 304404, kept under observations during December, 1967, in the quarantine greenhouse, became seriously affected by a leaf spot disease. The symptoms of the disease were characterized by the formation of oval or circular grey or buff spot lesions with a definite brown halo. Spots in close proximity coalesced and formed large brown blotches. Lesions started at the margin or at the tip of the leaf progressed inward and the entire leaf eventually dried out and abscised.

A fungus of the genus *Phyllosticta* was isolated consistently from the blighted leaves. *P. camelliae* Went and *P. cameliacecolla* Brun. have been reported from various Southern States on *Camelliae japonica* and *C. casanqua*. *P. erratica* has been reported on *C. sinensis*. No ascigerous form has been associated with these imperfect stages.

TABLE 1.—Colony growth of *Pleospora tetrasepta* in potato-dextrose agar plates, pH 6.5, at various temperatures. Average diameter of 3 colonies for each temperature after 6 days of incubation

Temperature ° C.	Diameter in mm.	Temperature ° C.	Diameter in mm.
8	7.2	24	52.00
12	20.80	28	46.20
16	34.60	32	12.80
20	44.40	36	00.00

The isolated *Phyllosticta*, when cultured in potato-dextrose-agar and kept in the laboratory at a temperature of 22° C., produced a *Pleospora* ascigerous stage. *Thea* plants inoculated with pycnidial and ascospore forms developed typical leaf blight symptoms.

Ascospore cultures in cornmeal agar, kept for 6 days at varying temperatures, grew from 8° C. to 32° C. However, no growth was obtained below 8° C. or above 36° C. Rapid growth was observed from 20° C. to 28° C., with a maximum diameter growth of 52.00 mm., at 24° C. (table 1).

Description of *Pleospora tetrasepta* Alv.-Garc.: Perithecia dark, variable in size, from 136–170 by 81–100  $\mu$ ; asci cylindric, shortly pedicillate; containing eight, four-septate ascospores; ascospores muriform, yellowish brown; oblong, distichiously arranged and measuring 28.9–30.6 by 11.2–14.3  $\mu$ , hyaline paraphysis present (fig. 1).

*Pleospora camelliae* has been reported in South Africa by Diappenar<sup>1</sup>

<sup>1</sup> Diappenar, P. J., Description of some new species of South African fungi and some species not previously recorded from South Africa, II. *South African J. of Sci.* 28: 284–89, 1931. Abstract in: *Rev. Appl. Mycol.* 11: 267, 1932.

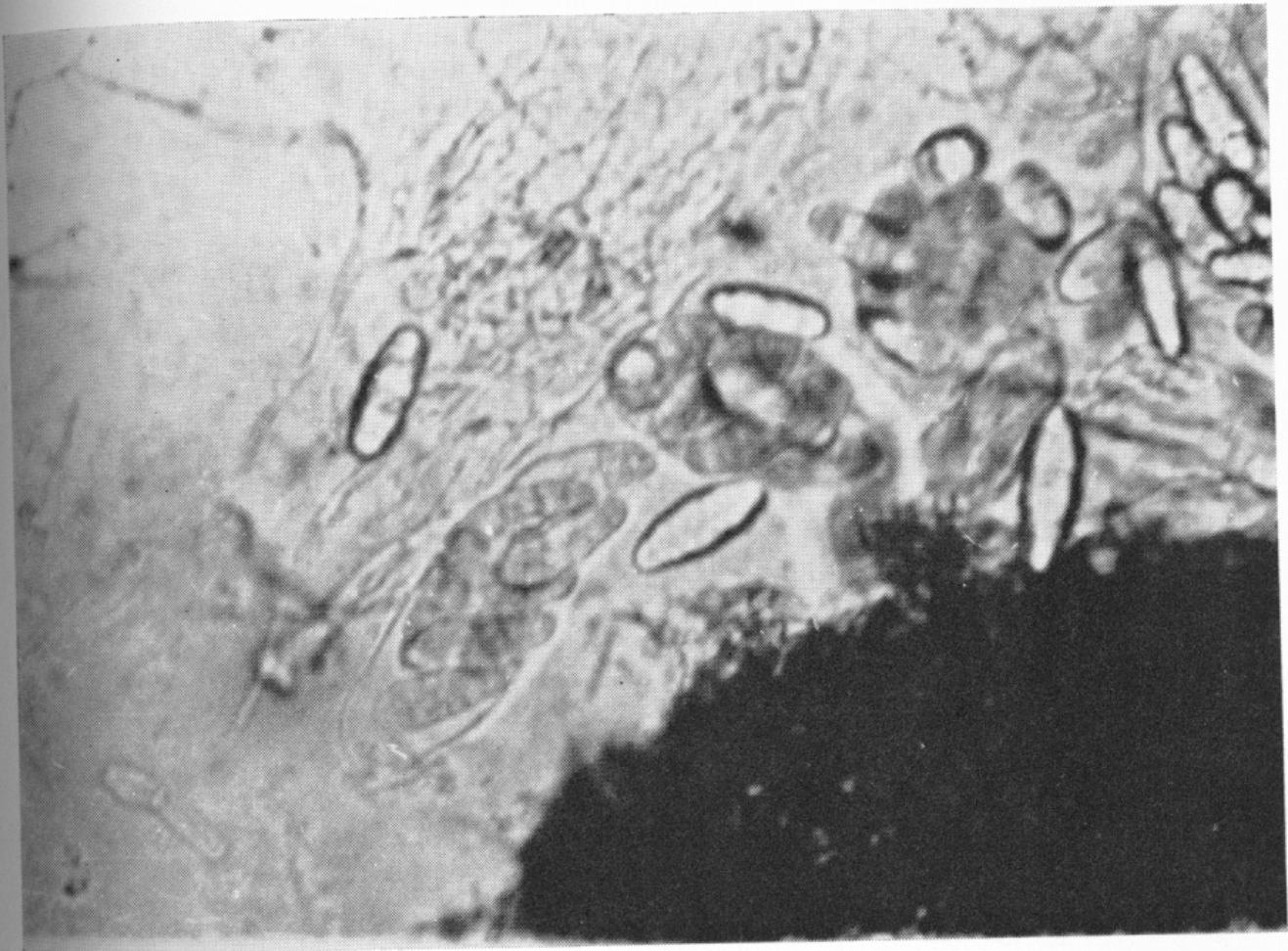


FIG. 1.—Section of a perithecium showing asci with typical 4-septate, muriform, yellowish ascospores.

attacking *Camelliae japonica* L., but the ascospores are definitely seven-septate. This perfect stage is believed to be associated with the imperfect form *Macrosporium camelliae* Cke. Mass.

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