

Verticillium dahliae from stunted plants of summer savory¹

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Nine fungi including *Verticillium dahliae* were isolated from stunted summer savory (*Satureja hortensis*) plants from Tancook Island.

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Neuf champignons, dont *Verticillium dahliae*, ont été isolés de plants rabougris de sarriette des jardins (*Satureja hortensis*) cultivés à Tancook Island.

About 1 ha of summer savory, *Satureja hortensis* L., is grown commercially on Tancook Island, Lunenburg Co., Nova Scotia. It is usually grown on the same land for several years in plots ca 1000 m². Recently growers have complained that in the third year of monoculture, the plants are generally stunted, in most cases less than half the normal plant height of 30 to 45 cm, with few plant losses.

In August, 1977, stunted plants were collected from a plot in which this crop had been grown for the third successive year. Isolations were made from the crown and stem sections of 13 plants, surface sterilized in 2% Cl, and planted onto potato dextrose agar in Petri plates.

The fungi and their frequency from diseased plants were as follows:

Organism	Frequency (Y _o)
<i>Alternaria</i> sp.	31
<i>Cephalosporium</i> sp.	8
<i>Colletotrichum coccodes</i> (Wallr.) Hughes	8
<i>Gibberella cyanogena</i> (Desm.) Sacc. stat. conid., <i>Fusarium sulphureum</i> Schlecht. (DAOM 166631) ¹	46
<i>Mortierella ramanniana</i> (Moller) Linn. var. <i>ramanniana</i> (DAOM 166508)	8
<i>Pyrenochaeta</i> sp.	92
<i>Pythium oligandrum</i> Drechsler (DAOM 166163)	23
<i>Ulocladium atrum</i> Preuss (DAOM 166660)	8
<i>Verticillium dahliae</i> Klebahn (DAOM 166742)	62

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The fungus *F. sulphureum* is best known as the cause of a storage rot of potatoes (1). It occurs frequently in soil and has been spasmodically isolated from a wide range

of herbaceous plants, usually being a weak parasite or a saprophyte. *Pyrenochaeta* sp. was most frequently isolated but was always associated with *Fusarium* or *Verticillium* except in one plant where the association was with bacteria. *P. oligandrum* causes damping off, stem and root rot of a wide range of plants under a continuous cultural program (4). In North America it has been reported in the United States only, not in Canada. The reason for this is not known but it may be because its minimum and optimum temperature requirements are 8-9°C and 31°C, respectively. There is no previous report of it on summer savory.

V. dahliae commonly causes a disease after repeated croppings with susceptible plant species (3). Here the frequency of isolation indicated that *V. dahliae* was probably the primary cause of stunted plants of summer savory on Tancook Island. *F. sulphureum* was also frequently isolated but is commonly recognized as a weak parasite or saprophyte.

Fungi on summer savory have been mainly reported from the seed (2). For this reason specimens of the principle and some of the more uncommon fungi have been deposited in DAOM. As far as the author is aware *V. dahliae* has not previously been reported from this host. Subsequent tests are needed to verify the pathogenicity of this fungus on summer savory.

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