

proved difficult due to high recovery levels of general soil fungi and some bacteria. Further, some fungi (e.g. *Trichoderma*) seemed to have antagonistic effects on *C. acutatum* f. sp. *pineae*. Farley's medium (5) formulated for studies of *C. coccodes* was also found to be unsuitable. Potato dextrose agar (PDA) was chosen as the basal agar medium as it supported better growth of *C. acutatum* f. sp. *pineae* than did Peptone Dextrose Rose bengal Agar, Farley's basal medium, Oatmeal Agar, Czapek (Dox) Agar or Corn Meal Agar.

Benomyl (as Benlate 50W) incorporated at 50 ppm suppressed many fungi, especially *Penicillium* spp., *Apergillus* spp., *Fusarium* spp. and *Trichoderma* spp. The combination of 100 ppm each of streptomycin sulfate, chloramphenicol and chlorotetracycline HC1, as used by Farley (5) and Ioannou et al (8) eliminated most bacteria. A wide range of traditional and newer experimental therapeutants were tested to eliminate or reduce competitive growth of an unsuppressed *Alternaria* sp., and some *Mucorales*. Quintozene (as PCNB 75W) was chosen as the best of these candidate materials. On this emended medium colonies of *C. acutatum* f. sp. *pineae* were much larger when quintozene was used at 7.5 ppm than at 75 ppm but 75 ppm is recommended when many mucoraceous contaminants occur. At this higher concentration the faster growing *Mucorales* tended to be less of a problem because *C. acutatum* f. sp. *pineae* was mildly antagonistic when the colonies of the two genera grew in close proximity.

The proposed selective medium contains benomyl (50 ppm), quintozene (7.5 or 75 ppm), streptomycin sulfate (100 ppm), chloramphenicol (100 ppm), and chlorotetracycline HC1 (100 ppm) prepared in aqueous solutions and added to the basal medium (PDA) when autoclaved and cooled to ca. 50°C. This selective medium has been very effective for plating out *C. acutatum* — infected plant debris from field soil, from infected debris in artificially infested soil and in detecting conidiospores from artificially infested soil using the dilution plate method.

This selective medium appears to aid the study of the survival and behaviour of the "terminal crook" pathogen in soil.

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TECHNICAL NOTES

Camptomeris Leaf Spot On The Tropical Forage Legume *Leucaena leucocephala*

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Use of *Leucaena leucocephala* (Lam.) de Wit as a high quality protein forage is presently being investigated in tropical Latin America (2), Australia, Hawaii and other countries (1). Although *Leucaena* has shown high resistance to pests and diseases in the past, this situation is unlikely to continue with increased cultivation.

In 1978, a fungal leaf spot disease was observed on *Leucaena* plants growing at several locations in Mexico (Dr J. Brewbaker, Univ. of Hawaii, pers. comm.) and Colombia. Chlorotic patches, occasionally with brownish centers, developed on the upper surface of diseased leaflets, while on the lower surface, the fungus sporulated profusely in crowded black pustules. Heavily infested leaflets turned yellow and there was severe defoliation.

Conidial fructifications or sporodochia, 100-180 µm in diameter, developed on the lower surface of leaflets. Conidiophores were unbranched, smooth, pale brown, and curved. Mature conidia were 2-3 septate, pale brown, finely verruculose, obclavate with rounded ends, and straight to slightly curved. The fungus was identified as *Camptomeris leucaenae* (Stev. & Dalbey) Syd. It has been reported previously on *Leucaena* from Jamaica, Puerto Rico, Santo Domingo and Venezuela (3, 4).

No detailed investigations of this disease have been made. Present attempts to culture the fungus on standard media and water agar with *Leucaena* leaflets failed. Field experiments screening 28 *Leucaena* accessions, including 8 species, for resistance to *Camptomeris* leaf spot are in progress in Colombia. Because of the severity of this disease and increasing interest in *Leucaena* in Australia, the possibility of spread of *Camptomeris* leaf spot from Latin America to Australia should be seriously considered.

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