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A study of *Colletotrichum* sp. causing anthracnose of *Lycopersicum esculentum* (tomato) in Sri Lanka

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Colletotrichum is a widespread pathogen which causes anthracnose in many crops including fruits and vegetables. *Colletotrichum coccodes* has been recorded as the causative agent of tomato anthracnose in Sri Lanka. Apart from *C. coccodes*, *C. acutatum* and *C. gloeosporioides* are also recorded in other countries as causal agents of tomato anthracnose. In Sri Lanka information is available only about the presence of *C. coccodes* in tomato anthracnose. Therefore, this study was conducted to investigate the natural involvement of other species of *Colletotrichum* causing tomato anthracnose in Sri Lanka.

Causative fungi were isolated from characteristic anthracnose lesions on infected fruits using PDA as the culture medium. Growth rates of the isolates were measured. Further, conidial characters, appresoria characters and cultural characters were determined using seven day old single conidia derived cultures of the isolated fungi and slide cultures. Ten isolated cultures had grey color aerial mycelia with light brown conidial masses and the reverse side of the cultures was greenish brown or grey. The colony was puffy and raised, circular shaped with regular margins. It showed concentric rings on the reverse side. Cylindrical conidia with obtuse to slightly rounded ends were about 9 – 12 µm x 2.5 – 3 µm in size. This is significantly different from the sizes of conidia of *C. coccodes* recorded in other countries. Brown colored ovoid appresoria about 7.5 – 8 µm x 5 – 6 µm in size were produced and sometimes occurred as chains. Conidia were observed profusely only on slide cultures and the conidia concentration on solid and liquid cultures were very low. Isolates were totally resistant to the fungicide carbendazim (5%).The characters examined suggest that the organisms isolated from tomato anthracnose lesions include both C. coccodes and *C. acutatum*.

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