RRSEARCH NOTE:

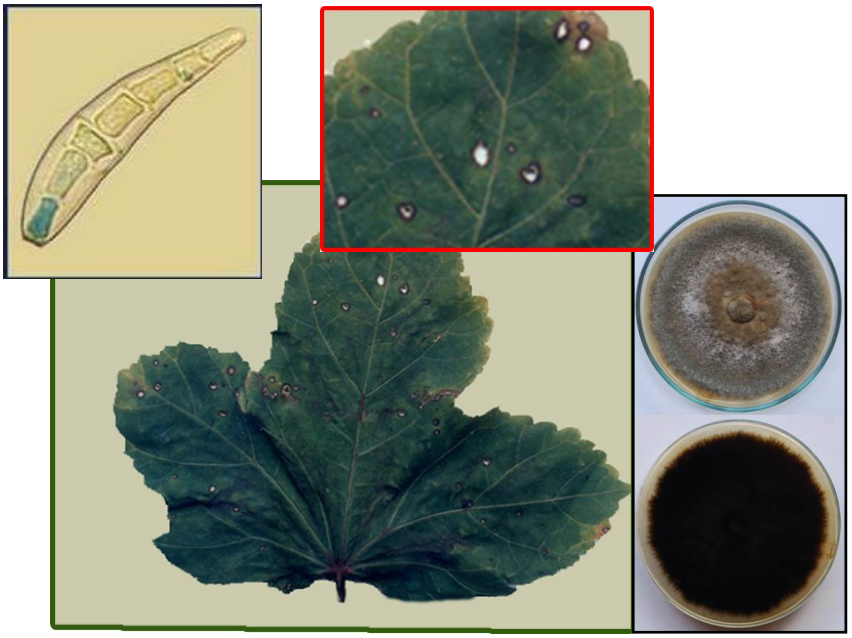
First report of target leaf spot of Okra by *Corynespora cassiicola* in Sri Lanka

T H P S Fernando*, W P K Silva* and N Nishantha*

* *Rubber Research Institute of Sri Lanka, Dartonfield, Agalawatta, Sri Lanka*

Corynespora cassiicola is a pathogen, endophyte and saprophyte. This fungus is pathogenic on more than 530 plant species representing more than 380 genera. Cotton, cowpea, cucumber, egg plant, sesame, soybean, tobacco, tomato, cocoa, papaya, winged bean, pea nut, sweet potato and manihot are among the economically important crops and the devastating leaf fall disease of rubber (*Hevea brasiliensis*) is notable (Fernando *et al.,* 2009). During this investigation, *C. cassiicola* was isolated from Okra, a nutritious and delicious annual vegetable crop grown in the tropics and sub-tropics. The symptoms on leaves were first appeared as very minute dark water soaked circular to irregular spots which later coalesced and formed large necrotic lesions. Fungal isolates from the advancing margins were consistently isolated on to potato dextrose agar (PDA – Difco) and identified as *Corynespora cassiicola* (Berk. & Curt.) Wei. (Ellis & Holiday, 1971). The colonies on potato dextrose agar (PDA) resulted characteristically olevaceous green colouration on top and dark grey on lower surface. The conidia were obclavate to cylindrical in shape and the conidial dimensions were (40 - 200) µm X (5 - 20) µm. The pathogenicity of the isolates on Okra plants was established by following Koch's postulates. Okra seedlings raised in green house conditions were sprayed with a conidial suspension (5 X 10^4 conidia/ml) and incubated under moist conditions for a period of 10 days. The symptoms produced were recorded and they were similar to the symptoms reported earlier. The fungus was re-isolated on to PDA from the inoculated leaves. The cultural characteristics of the isolated fungus were similar to the original isolate. Using an aqueous conidial suspension (5 X 10^4 conidia/ml), rubber leaves were artificially inoculated *in vitro* conditions and observed as pathogenic on rubber leaves. In Sri Lanka these vegetable crops are commonly cultivated in and around rubber plantations. Therefore, the existence of *C. cassiicola* infections on alternative hosts should be taken into account when developing control measures against Corynespora leaf fall disease on rubber. To our knowledge, this is the first published report of *C. cassiicola* infecting Okra plants in Sri Lanka.

***Key words*:** *Corynespora cassiicola, Hevea brasiliensis,* Okra, target leaf spot



References

Fernando, T H P S, Jayasinghe, C K, Wijesundera, R L C and Siriwardane, D (2009). Variability of *Hevea* isolates of *Corynespora cassiicola* from Sri Lanka. *Journal of Plant Diseases and Protection* **116** (3), 115-117.

Ellis, M B and Holliday, P (1971). *Corynespora cassiicola CMI Description of Pathogenic Fungi and Bacteria* 303.

Address for correspondence: Dr (Mrs) T H P S Fernando, Senior Research Officer, Plant Pathology & Microbiology Dept., Rubber Research Institute of Sri Lanka, Dartonfield, Agalawatta, Sri Lanka.
e-mail: thpsfernando@yahoo.com