

Fungi Associated with a Leaf Spot Disease of American Oil Palm (*Elaeis Oleifera*)

African oil palm (*Elaeis guineensis* Jacq.) is grown on commercial scale in India since 1971 and has a total area of 51,157 ha in 11 states. The related species *Elaeis oleifera* which has the desirable characters viz., dwarfness, better oil quality and disease resistance were introduced to India during the year 1991 and 21 such palms were planted at NRCOP(RS) Palode.

Incidence of a leaf spot disease was observed in these palms since 1995. Initially, small yellow to orange specks appeared on the young whorls of leaves. These specks later enlarged and became dark grey, surrounded by a yellow to orange halo. Occurrence of several spots resulted in the necrotic appearance of the leaf.

Leaflets showing typical symptoms of leaf spot were collected, washed in tap water and air-dried. Small bits of the necrotic region with adjacent healthy tissue were surface sterilized with 0.1% mercuric chloride for one min and washed with sterile-distilled water thrice. These tissues were later transferred to Potato Dextrose Agar (PDA) medium. In order to suppress the bacterial growth, 0.1% solution of streptomycin was added to the sterilized medium at the rate of 0.3 ml/100ml before plating. After

5 days of incubation on PDA at $28 \pm 2^\circ\text{C}$ fungal colonies were subcultured and identified.

The fungi associated were *Fusarium moniliforme*, *Macrophomina phaseolina* and *Cephalosporium strictum*, of which *Cephalosporium strictum* is a new record on the Genus *Elaeis* (Indian Type Culture Collection Nos. 3675.99). Association of *Fusarium moniliforme* and *Macrophomina phaseolina* with leaf spots and rotting of spear in *Elaeis guineensis* has been reported earlier (Kochu Babu, 1993). Thin cross section of the leaflet with lesions revealed plugging of fungal hyphae in the inter cellular region of mesophyll.

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REFERENCES

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M.Kochu Babu, G.Shirmila Jose
S.L.Prathapan

NRC for Oil Palm, Regional Station
Palode, Thiruvananthapuram